

DIALOGUE
QUARTERLY

Volume-16 No. 3 January-March, 2015

Subscription Rates :

For Individuals (in India)

Single issue	Rs. 30.00
Annual	Rs. 100.00
For 3 years	Rs. 250.00

For Institutions:

Single Issue	Rs. 60.00 in India, Abroad US \$ 15
Annual	Rs. 200.00 in India, Abroad US \$ 50
For 3 years	Rs. 500.00 in India, Abroad US \$ 125

All cheques and Bank Drafts (Account Payee) are to be made in the name of "ASTHA BHARATI", Delhi.

Advertisement Rates :

Outside back-cover	Rs. 25, 000.00	Per issue
Inside Covers	Rs. 20, 000.00	„
Inner page coloured	Rs. 15, 000.00	„
Inner full page	Rs. 10, 000.00	„

Financial Assistance for publication received from Indian Council of Social Science Research.

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ASTHA BHARATI
DELHI

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Printed and Published by

Dr. Lata Singh, IAS (Retd.)
Secretary, Astha Bharati

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Mayur Vihar, Phase-I Extension,
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Printed at : Nagri Printers, Naveen Shahdara, Delhi-32

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Editorial Perspective

Lessons from Delhi Elections

The outcome of the recent Delhi Legislative Assembly election was totally unexpected. It is not that the BJP has suffered such defeat for the first time. During 1984 Parliamentary elections, its tally drastically fell from 84 to two, which was a 42 times fall. This time, it was a fall from 32 to 3; the fall factor being only 10.67. Of course, it is in a way, a crude comparison, as the same people use different yardsticks for the elections of the two legislative bodies. But, the landslide verdict against the party, this time, was after BJP's successive high performances, making such a defeat highly improbable and surprising. In reality, the party lost a winning game. The question is: why this about-turn? Was it due to an erratic electoral behaviour of the Delhi electorate, who returned all the seven members from the BJP to the Parliament, only 8-9 months ago? Is it going to impact the nation and its politics? And if so, in what way? Has the time not come for the people to ponder on this issue, especially for those, in whose centre of concern is the nation and the society? And again, if there was the shift in the vote share away from the Congress, then why the BJP was not their natural choice? Any way, the fluid response, shown by the Delhi electorate during the election, need to be understood properly, in the light of the undesired response in Pakistan and elsewhere.

During Manmohan Singh Government, economy and governance were in bad shape; people suffered due to ever-rising prices; there were abundant scams and corruption; the Government and the Party acted as two power centres, often on cross purposes; an extra-constitutional agency was often entrusted to draft bills. In such an environment of ebbing public confidence, Modi came with ray of hope; he was elected as Prime Ministerial candidate with the majority in the Parliament. People voted him with the expectation that he will bring probity in public life. Such expectation continued, and is still continuing. The party also won in many other State Assembly elections. The fluid elements of the Indian politics – playing politics of fusion and fission, the self-promoters, who have developed interests in instability,

hoping to be ‘king-makers’ – the casteists, the family-loyalists, sycophants around the power centres wielding enormous power without responsibility, and the pseudo-secularists were either eliminated or thrown to the margins. Narendra Modi has shown excellent performance in home and external affairs fronts during the last nine months. The public confidence in him has not ebbed. Then why this Waterloo?

The high pitch election campaign organized by the BJP against AAP raised the status of Kejriwal and his party in the eyes of the electorate and benefited the latter enormously. After all it was not without a reason, the people thought that BJP had to import a leader from outside the cadre, declare him the Chief Ministerial candidate, organize four rallies addressed by the Prime Minister of the country, and mobilize numerous VIPs in an election campaign of a small State like Delhi. Whereas the campaign from BJP was hectic and aggressive; Kejriwal, and his party, maintained their cool; they apologized for their past mistakes, generating sympathy. Thus, unimaginative, immature, inept handling of the election campaign, it seems, also played its role in the outcome. Some other factors were: the other parties, such as TMC, JD (U), sympathizing and appealing to vote for the AAP, mobilization of vote by the anti-BJP core constituencies, as for example, Imam Bukhari coming out with his *fatwa* at the last moment. Ebbing enthusiasm of the BJP core constituency was yet another factor. Was it not due to neglect of the Party’s core agenda, which enthused a large section of their cadre?

It seems that the social media did not participate as vigorously in this election as they did in the earlier ones. The enthusiasm of the core constituency of BJP had somehow cooled down. BJP, as a party, has the record of neglecting its core agenda. After coming to power they get self-hypnotized, tend to forget their core agenda, chase the mirage of appeasing the stabler anti-BJP forces; anti-BJP media starts setting the agenda for the them. In many cases, however, it is not possible for a Government to act in a hurry, especially when the burden of inherited problem is heavy; but at least, there is no difficulty in forming the committees for examining and suggesting ways and means.

Systems of Thought: The Desired Changes

The statements of a few members of the ruling BJP created controversy recently. They were simple unsophisticated persons; they lacked proper articulation; their prescriptions might not have been correct. But what about their apprehensions, their deep fears of increasing religious demographic unbalancing? Were the fears not based on solid facts? Does history not

confirm their fears? Whether time has not come to address their worries? Whether their concerns are not based on historical observations, even of the recent past? Whether persons criticizing them are not suffering from historical self-amnesia? Have our media and intellectuals not failed to take the discourse on these issues at higher level in citizen-centric framework at different fora? Should a country like India avoid discussing inconvenient facts; taboo discourse on them? When will this nation realize that certain problems need frank discussion, based on proper understanding, and not pushing it below the carpet? What, after all, have we gained by rhetoric and politicization of the vital issues concerning the society and the nation? Nothing, whether majority or minority concerns need be banned or avoided as fundamentalist or obscurantist, as long as its discourse is civilised.

There is no doubt that Narendra Modi Government has inherited numerous problems and he is speeding up towards solving them. Schemes under “Make in India” or “Swachchh Bharat,” and numerous other steps initiated by the Prime Minister are going to change the face of India enormously. However, the Government at the Centre, apart from bringing change in economy and the external face of India, should also initiate changes in the field of education and culture. Attempt to revitalize numerous institutions, the academies, the UGC, NCERT, Central Universities, etc. should be made simultaneously. A casual perusal of the school textbooks of the social sciences, shockingly reveals the fact that the books were produced for indoctrination, rather than for education. It is not difficult to find the involvement of ideologically oriented activists and activism oriented institutions in the preparation of the textbooks. The revision of the textbooks keeping in view the Depoliticization of education is urgently needed. Here, it needs mention that fault also lies with *National Curriculum Framework, 2005*. We cannot advice school students to read more and more newspapers while keeping them starved of basic text knowledge as it advises; attempting one-sided motivational change can never be an innocent phenomena, nor showing Jammu & Kashmir, North Bengal, Sikkim and the North-East separate from the rest of India in the maps given in the textbooks.

Efforts to change the current intellectual establishments, as well as the current intellectual environment are necessary. At present, to discuss Indic fundamentals has become, almost a taboo; the past is becoming irrecoverable; the current intellectual life of the country is losing vitality; it has become sterile. While obsession with the past has to be avoided in its intrinsic value as source of pride and inspiration for the future, need not be downplayed or compromised on partisan and political considerations. It is time that handling of social and national problems are done at a

sophisticated level. But it is not possible if the media and a section of academia and political elite take it to the sentimental level, create emotionally charged atmosphere making the issue undebatable and tabooed; the involved party/community, in such a case, acquires veto power.

During pre-independence days, our political leaders wrote considerably about the nation and the society. Among the intellectuals, we had Gandhi himself and the Gandhians, leftists, social democrats and Hindu nationalists. Narendra Dev, Dr. Rammanohar Lohia, Jai Prakash Narayan, Sampurnanand and Ashok Mehta, among the social democrats remained intellectually active till the mid-1960s. Of course, many among our politicians, had a fair degree of confusion also. Dharmpal has pointed out, though not in detail, about the level of confusion of few of them. After independence, mainly after the end of 1960s, the leftists captured the intellectual and highground platforms with the help of some Congress party men and some important bureaucrats sitting on important posts. Raj Thapar in her *All Those Years*, and some others have vividly described the phenomenon. Situation changed; leftists became dominant among the academia and media; they gradually controlled the university departments of social sciences and humanities, different academies and research institutes by manipulating the government patronage. The BJP and RSS also set-up nationalist/intellectual institutions scattered throughout the country. Organizational parochialism and poor quality of scholarship is the weakness of both the categories, although Marxists (in reality Stalinists and Leninists) only maintained the semblance of scholarship; dialoguelessness among the leftist and the nationalist intellectual fora is a reality. Leftist taboo even slight deviation from rigid ideological framework; declared persons like Ram Vilash Sharma, Nirmal Verma and Mohit Sen as outcastes without slightest hesitation when they deviated slightly from the rigid path. For the RSS, organizational affiliation outweighs scholarship. Un-affiliated nationalist scholars remain lonely. The situation, needless to say, needs drastic change for developing proper 'Systems of Thought.' Scholarship needs to be rescued from the politics of "labels" and allowed freedom of seeking knowledge, debate and scholastic liberty. A cursory look at the Padma awardees and the Rajya Sabha nominations may provide some insight of the reality about the importance given to 'Men of Vision' in this country. Labels still win. Intellectual and scholastic desertification will be the consequence, if we do not wake up in time.

– B.B. Kumar

Our Black Tuesday of December '14

D. N. Bezboruah*

December 23, 2014 will go down in history as the Black Tuesday, not only of the year but of several decades. On this day, the Songbijit faction of the National Democratic Front of Bodoland or the NDFB(S), as it is commonly referred to, mowed down over 80 innocent people (among them many women and children) with sophisticated weapons and set fire to the homes of many families. Mothers breast-feeding infants and fathers with children riding piggyback were mercilessly shot down along with their progeny. Most of the victims of the carnage were Adivasis living in the Bodo Territorial Areas District (BTAD) and in parts of adjoining Sonitpur district. The number of people who have had to flee to improvised relief camps has exceeded 200,000. It will be recalled that the Songbijit faction of the NDFB was responsible also for the killing of Bangladeshis in May 2014. The victims of the May 2014 carnage have been variously referred to as “minorities”— the term routinely used by the Assam government to refer to the illegal migrants from Bangladesh and Muslims. On January 12, 2015 Union Home Minister, Rajnath Singh referred to the victims of the May 2014 carnage as Indian Muslims. This may not be the accurate description because it would imply that all of them had acquired Indian citizenship.

The NDFB (S) is headed by one Songbijit Ingty Kathar who is not a Bodo but a Karbi who has lived in the Bodo inhabited areas for a long time. This fact of life is as ironical for the Bodo ethos as the very name National Democratic Front of Bodoland that has nothing democratic about it. Now the Bodos have to live down a terrible inhuman carnage perpetrated in their name by an outfit led by someone who is not even

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a Bodo. This is not to suggest that the Bodos have no grievances. Above all other issues is the one of their land allegedly being encroached on and usurped by Bangladeshi migrants and settlements of tea garden labour (Adivasis). For the longest duration, the ruling party in Assam has been the Congress and has allegedly helped illegal migration for electoral purposes. The sad part of the infamous activity is what it has done to the demography. About 10 of Assam's districts now have a Muslim majority. And no one in the Congress is losing any sleep over the fact that the votes that enable the party to win general elections repeatedly are mainly illegal votes. Even the pretence that the illegal migrants are all Indian nationals is based on the assumption that they have applied for and secured Indian citizenship. They have done nothing of the sort.

The other motivating factor for the Bodos is the strong urge to preserve their ethnic identity as one of the original inhabitants of the soil. Unlike the other smaller ethnic groups of Assam, they no longer learn Assamese. Even the Assamese script that was used for the Bodo language was given up in the mid-1970s in favour of the Devnagari script. Actually, the grant of a separate administrative territory for the Bodos with the intention of creating a separate State later on was a serious mistake, since even when their demand for a separate Bodoland was the strongest, the Bodos constituted only about nine per cent of the population of the Bodo-inhabited areas. But large-scale ethnic cleansing by the Bodos in these areas in 1996 (when the AGP was in power for its second stint), has altered the demographic profile of the area somewhat and their population is now, about 30 per cent. Some of the relief camps set up at that time are still operational, and there are instances of people having spent 12 years or more in such miserable relief camps.

There is some evidence to indicate that Songbijit, the Chairman of the NDFB(S), had not been directly responsible for the carnage of December 23, 2014. There are indications that he was in Myanmar at that time, and that G. Bidai, Commander-in-Chief of the NDFB(S), had ordered the carnage. It is learnt that he had discussed the possibility of talks with the State government about a week ahead of the carnage of December 2014. On January 11, 12 NDFB(S) men were captured with a huge cache of arms and ammunition in Chirang. This was in addition to the seven NDFB(S) militants arrested from Kokrajhar two days earlier. Operation All Out was beginning to yield results, but meanwhile, the crime and corruption scenario in the State seems to be at its all time low.

In normal circumstances, one would therefore have had no reservations about recommending a spell of President's rule to bring the State back on the rails. And that perhaps *is* the most sensible solution for a seemingly failed State. However, it will not do to forget who had first stoked militancy and unrest among the Bodos. One has only to go back to the first spell of AGP rule in Assam from 1985 to 1990 during which it was alleged that Bodo militancy was encouraged by the Central government to destabilise the AGP led government. And we have all seen how Bodo militant groups like the NDFB(S) have graduated from IEDs to sophisticated firearms like the AK-47s and AK-56s and have resorted to ethnic cleansing soon after the general elections of 1996 that brought back the AGP to power for a second term. And since President's rule is direct rule by the Centre bypassing the elected government, there could be lurking fears in the minds of some people that it might not solve the problem of domestic terrorism threatening to challenge our democratic structure. However, there is room for hope in the words of Union Home Minister, Rajnath Singh that there would be no question of talks with outfits like the NDFB(S) that kill innocent people and that there would only be firm time-bound action against such terrorist groups. We hail this stand of the Centre as well as Operation All Out and hope that it will not backfire like the army action in Nagaland soon after the creation of that State. We want firm steps that will bring to an end militant adventurism and all forms of terrorism masquerading as insurgency in this region. One must not overlook the fact that terrorism itself has been turned into an industry in a region that has had virtually no industrial development. Their demands for talks can stipulate the most outrageous terms for cadres of terrorist outfits to "return to the mainstream." It is an arrangement that places the law-abiding and peaceful section of our youths at a disadvantage *vis-à-vis* youths who took to arms for a short spell, indulged in extortion, abductions and killings and then decided to call a farewell to arms merely for the advantage this gave them when bargaining for the terms to return to peaceful ways. I call this opportunistic terrorism. This has given leaders of terrorist outfits like the Black Widow access to considerable personal assets. It is downright sinful to call such exercises "insurgency" because none of them are really for the benefit of the people.

It is unfortunate that an entire society or a nation has to take the blame for what a group of trigger-happy and misguided youths decide as the right course of action for the future of their ethnic group. The

carnage of December 23, 2014 has tarnished not only the name of the Bodos but of the people of Assam as a whole and of the nation. In the words of the well-known Assamese poet Nilmani Phukan, this carnage has put a question mark on whether we have the right to call ourselves human beings.

Why Tinker with the Sixth Schedule?

Patricia Mukhim*

The Sixth Schedule of the Indian Constitution is an instrument, that is aimed at providing autonomy to minority tribal groups in the North Eastern States, so that they can decide their own development models and also safeguard their customary practices and traditions, which gives them a unique identity. The progenitor of the Sixth Schedule, Rev. JJM Nichols Roy was a Khasi tribal and a church elder married to an American lady. When India became independent, the Khasi and Jaintia people, as well as several other tribal groups like the Garo, Karbi, Bodo, Dimasa amongst others were included in the larger State of Assam. Nichols Roy one of the few educated Khasis of the time, felt that the tribals would need special protection if they are to be governed by a State government that was largely non-tribal in its composition. He engaged in extensive debates within the Constituent Assembly Committee and was mocked and ridiculed by some of the elected representatives from Assam, who thought that the idea of a Sixth Schedule was by its very nature, divisive and would lead to eternal differences between the tribes and non-tribes. Indeed this has proved correct to an extent. Discordant notes emanating from the very framework of the Sixth Schedule continue to haunt the State from time to time.

JJM Nichols Roy who could be called a true nationalist had at the time frustrated the attempts of the Khasi-Jaintia traditional chieftains to draw attention to the Instrument of Accession and the Standstill

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Agreement signed by these chiefs with the Government of India in 1948 by which they wanted the same treatment as the crown princes of the different Indian States. But Nichols Roy, a far-sighted statesman understood that the Khasi States were not ruled by princes as understood by the British then and there was no such thing as a privy purse. The chieftains were elected by members of one clan only; hence there was no democracy in this election or selection since the large number of resident of the *raids* (conglomeration of villages) had no role in that election.

The Standstill Agreement is a confirmation that the agreements and administrative practices that existed between a princely State and the British would be continued in independent India. The Instrument of Accession was signed by the princely States including the Khasi chieftains by which they agreed to accede their Kingdoms/States to independent India, and to allow India control over specified subject matters. States which had internal autonomy under the British signed an Instrument of Accession which only ceded three subjects to the government of India—defence, external affairs and communications, each defined in accordance with List 1 to Schedule VII of the Government of India Act 1935. The Khasi States fell under this category. But at the time of drafting of the Constitution, JIM Nichols Roy realised that the Khasi States which were now under the State of Assam would not be able to invoke the Standstill Agreement and the Instrument of Accession which ceded only the abovementioned three subject matters to the Government of India. He, therefore, pushed for an alternative Instrument (Sixth Schedule) to ensure that the tribes enjoyed sufficient autonomy under the Government of Assam. The IOA and the Standstill Agreement should have stood annulled after the Sixth Schedule was granted under the Constitution of India.

Interestingly, both the IOA and the Standstill Agreement are being invoked today after Meghalaya has become a separate State and is into its forty-fourth year. The ills of governance are being attributed to the fact that the traditional institutions (TI's) have not been empowered. But the TIs are exercising arbitrary powers in the name of tradition. It is because of the use of such arbitrary powers that the common property resources such as water sources, community forests and even rivers are being auctioned off to private individuals. Today there is nothing that belongs to the community and is conserved as community resources except some sacred groves which are few and far between. Land in Meghalaya ostensibly belongs to the people but except for a

few of the *Raids* that still allocated land to the specific clans belonging to that particular *Raid* most tribals are landless while the powerful tribal elite particularly those who continue to head the traditional institutions own land by the acres and also help in converting community land (*Ri-Raid*) to private land holdings (*Ri-Kynti*).

And now we have a senior Congressman, John Kharshiing who spent time in America with the native Americans and has come back to tell the Government of Meghalaya that the Sixth Schedule should be amended to allow for an Upper House where the traditional chieftains would be selected vide a party-less system and debate issues of governance. The Lower House would include the Councillors who are democratically elected by the system of adult franchise. Scholars who have studied the Khasi traditional system of governance understand that it is undemocratic. Rule by a select clan and with no tenure means that we are upholding oligarchy and will allow a few people to remain in power until they die for there is no means of removing a chieftain from his seat.

While there is need for grassroots governance in the absence of the Panchayati Raj, the propensity to stick to tradition, even in the local village governance systems and to select a headman (*Rangbah Shnong*) by voice vote is not in sync with modern democratic principles. Besides in an era where the whole world speaks of gender equality, the traditional institutions cite 'tradition' as an alibi for not including women in decision making in these bodies. Vocabulary is a strong indicator of patriarchy. The Khasi, Jaintia and Garo tribes practise a matrilineal culture but the system is limited to familial and kinship ties. It does not venture into the arena of politics because the three tribes believe and continue to do, so that the woman's domain is limited to the domestic space. If she steps out of that space she is like a 'hen that crows' and it would mean the arrival of doomsday. Can we allow such gender prejudices to continue in this day and age?

Unfortunately, the State Chief Minister, Mukul Sangma seems ready to tinker with the Sixth Schedule. He has written to the Central Government to push through some amendments in the Schedule in the next parliament session. And this has been done without any public debate. The first amendment suggested by the CM is for expanding the number of seats in the District Councils to acquiesce with the demands of the militant groups ANVC and ANVC (B), who have signed a truce with the Government and who now want to enter the Councils in a big way. Now he also wants to push for this Upper House in the Councils and allow tradition to hijack the

principles of democratic practices and ethos. Can the Central Government allow such arbitrary clauses to be included in the Constitution of India which is the magna carta of a functioning democracy?

Grassroots governance is an imperative but the format for setting up such institutions should be based on modern democratic principles and should not invoke a tradition that is anachronistic and refuses to change with the times. The CM of Meghalaya cannot be allowed to have his way in what is seen as a destructive populist move.

Reality Checks are a Must to Avoid the Bitter and Dark Irony of Kafka's Castle

Pradip Phanjoubam*

Practically every university in India today has a full-fledged School of Journalism faculty, or variously named as Mass Communication Department, Media Study Department etc. The objective is self-evident from the names of these departments. Mass media is acknowledged universally important, and indeed, it has been termed as the fourth estate of democracy, therefore it must be developed to its optimum.

Without a free media, democracy can never be complete, and as Economics Nobel Laureate Amartya Sen in "Development as Freedom" puts it rather provocatively, a free media even prevents famines, or at least mitigates their impacts. In a comparison between two famine conditions which occurred at about the same time in India and China, not long after India attained independence and chose to be a democracy, he noted how the number of people who died in these famines differed radically between India, where a free media exposed every act of omission and commission of the government, and authoritarian China of that period where only the government's words held sway.

No doubt about it that a free media is important and no democracy can be complete without it. However, the question that arises in the

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midst of the new trend of introducing media studies in Indian universities is dubious at best. Has the trend strengthened journalism in any way? The answer most of those of us in the media business would give may surprise many, for it is in the negative. The reasons too are obvious. Few or no students who decide to join these university faculties have a career in journalism in mind. What most of these students are after, are the degrees that would come after these courses which would then qualify them to enter the academia or else land a cosy job in the government's media related departments, such as the DIPR in the case of Manipur.

As a matter of fact, in poor economies like Manipur, the movement of talent is in the reverse direction. Young journalists who are already in the field are entering these courses not to hone their skills, but for the degrees. This is quite understandable, considering the ever widening disparity in salaries and perks between jobs in the independent media and the government. Ironically, though not for the same reasons, many journalists in senior positions in rich metropolitan media, who can pay as much or even more than the government, are also moving away from journalism to join the public relations departments of the corporate houses. Their unstated logic seems to be, these big media houses too are turning into corporations, and senior journalists are more often than not given managerial positions and not treated as independent editors much to their disillusionment, so why not as well join as media managers in the truly corporate sector and earn bigger money. I have been in the profession long enough and know of many contemporaries who have taken this route.

To return to the discussion on journalism schools then, quite unfortunately, these media study departments in Indian universities are not serving the purpose they were conceived for in the first place. In most cases, the chief cause these new university faculties serve is laying the conditions to self-perpetuate in a Kafkaesque way. Why just journalism departments only, the same Kafkaesque alienated reality is true of the way most of the Indian academia perpetuate themselves, therefore their continuance as exalted professions. Let me elaborate more on this thought in the following paragraphs.

Ideally, there ought to be an organic relationship between the knowledge being pursued in the universities and the needs of life on the ground. In many ways this is still the case, especially so in many advanced institutes of higher learnings specialised in training professionals. For instance medical colleges train and produce doctors,

the IITs engineers, IIMs business managers... In this light, it is curious to think of what life skills or knowledge our universities impart to the millions of students who go to them each year in order to make them fit to meet the challenges of the real mean life outside? Are students being taught merely to deserve degrees which would make them qualified to be academics in turn, who would then go about seeking the same jobs to produce more academics and perpetuate the cycle endlessly? While obviously the academia is vitally important and must have a logic for continuance and self improvement, should not the trainings it imparts also make students fit for, and willing to, move out of the academia and add to the level of knowledge and skills available in the larger reality of life outside?

In Frantz Kafka's "The Castle" this alienation process is depicted with disturbing force. A land surveyor arrives outside The Castle responding to a summon by someone in The Castle but those inside The Castle, lost in their own self-acclaimed exalted occupations, are unable to trace the source or purpose of that summon. In the effort to locate the relevant file, certain staffs are set aside to negotiate the complex bureaucratic labyrinths inside. It would soon be discovered that at every section of The Castle where the file had to pass, new specific problems always surface, and to settle them more staffs had to be detailed. Soon, a whole gamut of engaging bureaucratic and non-bureaucratic activities develops around the issue of the arrival of the surveyor and the work order served to him. Occasionally, the surveyor was sent a message on the progress of the work inside, but slowly but surely these activities inside The Castle overtakes every other consideration, and the very project of determining the original purpose of the summon becomes a self-sustaining and self-justifying reality of its own, and even the surveyor waiting outside The Castle becomes progressively irrelevant. Ultimately, even the surveyor's existence come to be forgotten, but the activities inside The Castle, his arrival triggered off continues on, driven now by an independent engine of its own making and logic. The Castle thus becomes a self-perpetuating reality of its own, totally alienated from the world outside, but nonetheless deeming itself superior to the blue collared world beyond it. Reality thus becomes warped, and the onlooker is left unsure which represented it more, The Castle or the world outside.

Kafka's Castle is obviously a dark and unparalleled parody of the modern State and its bureaucracy. It is therefore a strong expression of the postmodern disillusionment with the modern age, its call for absolute

faith in science and scientific regimentation of the modern State, and the manner all this has succeeded in alienating the individual from the State itself, almost absolutely. The clarion call then, although not explicitly stated in the novel, is also for re-establishing the bond between the reality of the Castle and the reality outside. The Castle needs an umbilical cord to the reality outside to morally validate its existence, and it is only by a grotesque and fascistic twist of reasoning that the Castle can ever come to cite itself as the justification of its own existence.

It is unlikely that Kafka had the academia specifically in mind when he wrote the Castle. Nonetheless, any institution of importance, including the academia, can become absorbed in its own perception of self-importance and become Kafka's Castle in its own way. As a career journalist, and as someone who could also have opted to be in the academia at the time of choosing a career, and as someone who mid-career did have a foot in the academia, having been during the last two years a fellow of a premiere post-doctoral research institute, the Indian Institute of Advanced Study, IAS, Shimla, on a book writing project, Kafka's Castle was one of my biggest scares. During those two years when everybody had the tendency of prefixing my name with the honorific, Dr. or Prof. despite my earnest pleas that I held no Ph.D. degree to qualify to these titles, and when my week days were marked by endless hours of seminars and library, I had come to the conclusion that the only way any academic pursuit can earn itself a moral legitimacy is through committed researches into the predicaments of the reality outside the Castle and, therefore, making contributions to the body of knowledge about the understanding of this world outside. The Castle coming to believe itself as a self-contained reality is a supreme parody of its own conceited falsehood.

In a recent seminar on media and conflict resolution in the Rajiv Gandhi University, in Itanagar, Arunachal Pradesh, I again encountered this uneasy issue of intelligent and bright students of journalism from all over the Northeast pursuing a course in journalism, but professing no love for journalism as a profession. Missing are the passions traditionally associated with journalism, such as those of watching events of social import from close quarters as they unfold, the adrenaline of investigating into and covering conflict, the thrill at suddenly seeing elusive reasons behind vexed issues, the joy of visiting new places and meeting new people with new ideas...

Counterweighing all these are discussions in the rooms of "What is news?" the rule of the thumb of the five "W" that make an event

newsworthy, the history of journalism in particular communities... These are interesting information and knowledge, but mastering them is hardly any guarantee of success in actual newsrooms. There will however continue to emerge firebrand journalists, and in the same way that Kafka told his story, most of these will probably be made in the newsrooms and not the university classrooms. What an irony again if this prediction does hold good, and a clear dichotomy between those who study journalism as an academic subject and those who practice it as a profession becomes an everyday reality.

Though the Kafkaesque alienation is still not there in any absolute sense in Manipur's academia, there is no mistaking the trend of the emergence of self-justifying realities, the surest indications of which is the absence of any substantive body of research work that throw new insights into the world outside and are able to impress peers elsewhere in the country and the world.

One has heard and read of outstanding stories from universities which groomed spectacular success stories of individual entrepreneurs, inventors, intellectuals, scientist... All these universities never neglected the matter of keeping in touch with the needs of the world outside. The Google story and how this came out of a Ph.D. research paper of two college colleagues is just one. Facebook, Apple, Microsoft were all, in many ways not the achievement of single individuals, but the end product of university programmes, though in the end it was individual geniuses who scored the winning goals.

Manipur must rethink its higher education orientations too in anticipation and preparation for the future. Its education at every level must never lose sight of the world outside. In fact periodic reality check should be encouraged to ensure health in the sector. In the Manipur University for instance, it would be revealing to see how many alumni of the different departments have found professions befitting the knowledge they were pursuing as students.

Himalaya: A Source Book of Indian Aspirations to Truth & Beauty

Ramesh Chandra Shah*

I have to start with a personal note: the very first visual sensation and the image my memory can still recall and recapture in all its brilliance is that of the two snow-capped peaks called Trishul and Nandādevi forming part of the northern landscape of my hometown Almora. It was a daily ritual of my childhood to begin the day by bowing before the daily miracle – although a clear vision was not vouchsafed to me everyday – it was often covered by mists or haze.

It was much later that one came to know about the greatest ever tribute paid to ‘Himalaya’ by our greatest National poet Kalidas in his epic poem *Kumār Sambhav*:

Asytutaraśyām diśi devatatma, Himālayonama Nagādhirajah
Purvāparau toyanidhivagāhya, sthitah prathivyāmiva māndaṇḍah.

It was, as if the direct vision of the Holy Mountain itself had thus come to be fixed for ever and thus immortalised by the National poet of India in our collective consciousness through this primordial image and symbol. Jaishankar Prasad too, – the most eminent poet as well as playwright of Hindi – who also possessed a unique historic sense has also celebrated the Himalaya in an equally sonorous and vibrant verse:

Himadri tung shring se, Prabuddha Shuddha Bhārati
Swayamprabhā samujjalā, Swatantrata Pukarati.

“from the lofty peaks of the Himalaya, Vagdevi – the self-luminous goddess of speech gives the clarion call of Freedom – calling on all Indians to liberate the land from the rapacious hordes of infiltrators.”

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The poet again invokes the sacred mountain in an unforgettably poignant song in his great drama called 'Skandgupta':

Himālaya ke āngan mein use
Pratham Kiranon ka de upahār
Ushā né hans abhinandan kiyā
Aur pahanāya hīrak-hār
Jage hum lage jagāne Vishwa /Loka me failā phir ālok.

“The Goddess ‘Dawn’ bestowed her first smile and first rays upon this country adorning it with a diamond necklace. Awakening thus, we awakened the entire world. And lo and behold! There was light and splendour everywhere once again.”

Here in this song, the whole of this country is envisioned as the sun-bathed courtyard of Himalaya. And, why not? ... It is impossible to find any place in this country which has not been hallowed by the memory of some ancient and sacred associations. That precisely is 'History' for us: history which includes and is itself shaped by events in a mythical time and space. How can the Himalaya itself remain aloof or untouched by such associations? Kalidāsa opens his poem with a verse, which invokes the holy mountain as divine (*devatātmā*). 'Raghuvansh' – the other epic – which, according to M. Wintermitz, is the maturest work of Kalidas, sings the glory of an illustrious line of Kings; but 'Kumar Sambhava' is focussed on an altogether different and higher mythology, which is woven in and around Himalaya – which here is not only the abode of the Higher God and Goddess, but himself a prime Actor in the drama. The epic celebrates the birth of Kartickeya who alone can overcome and destroy Tarakasur – the terrorist Demon – who had become the scourge of the earth as well as the Heaven. Now, such a terrific evil can only be defeated by that rarest of rare miraculous birth – the begotten son of the death-conquering Great Time Himself, i.e., *Mrityunjay Mahākāl*, who presides over the periodic dissolution of the Universe itself. What a story, what a plot woven around Himalaya itself, which is absolutely different from what happened on Mt. Olympus! ... gods intervening in the affairs of men and women, – vying with each other in their preferences and prejudices! There is no Zeus impregnating Hebe to produce Hercules. It's the cosmic Dancer, – the uncaused cause of all that exists – to salvage Mankind from this terrible threat to the sustenance of the heavenly powers themselves. For, even gods depend for their sustenance on man. So the Divine – the ultimate and primeval Divinity, itself has to descend on earth to father such a world-saving warrior! But what about the Mother? What can even

Śivā do without an intimate union with his consort – the cosmic energy – the *Aparā Prakṛiti*? All the operative, actual creativity emanates from her. So, the Eternal Mother-force – *Mahā Shakti* too – has to descend upon earth to bring about such a miraculous event. The question that arises next is: Who on earth can father and mother this Mahashakti? Where on earth can she find the ideal parents if not in the ‘measuring rod’ of the earth itself – that is Himalaya!

Śivā, the inhabitant of the crematorium will have to change his abode. It’s not the other way round – the bride coming down to the bridegroom. The unnecessary and quite superfluous tragedy of the previous incarnation (Sati, the daughter of Dakṣa Prajapati sacrificing herself to avenge the humiliation of her Śivā at the hands of her father; and Śivā himself going mad with grief – scattering the members of her dead body all over the country) has to be transformed into Divine comedy. But it’s by-no-means an easy process: both Śivā and Parvati – the daughter of Himalaya and his consort Maina have to undergo the necessary ordeal – *tapasya*: Parvati, to win back her lord, and to elevate Him from the crematorium to the lofty Himalaya; and Śivā, to transcend and transmute all passion into the loftiest ascetic denial. Who can dare disturb his state of *Samadhi*, except the Primal god of love himself – viz. Kāṁdeo – ‘kāmastadagte’? He succeeds, but at the cost of his own life. However, Śivā grants him a bodiless existence and he is revived as ‘Ananga’, at the request of his consort Rati.

The God of love has done his job. Śivā, the Ascetic is now eager to embrace Parvati – i.e., the daughter of the Himalaya. “From today, O Parvati, I am your slave” – he exclaims: – “you have bought me by virtue of your tapasya – ‘Kṛitastapobhīh’” Śivā meekly consents to exchange his former habitat for the birthplace of his bride, Himalaya. Mt. Kailash henceforth is his permanent residence. Earlier, the poet – himself a devotee of Śivā had invoked both Him and his consort with a sublime simile: Parvati & Śivā are as closely, as inseparably united as the Word and the Meaning. ‘Vāgarthāviv Samprktau.’

“Vāgarthāviva Samprktau, Vāgartha pratipattaye
Jagatah pītaraou Vande, Pārvati Parmeshvarau”

I’ve chosen to dwell in some detail on this deification of Himalaya by Kalidasa, because it has set the norm for all subsequent poets and artists. Let us listen to the voice of Sumitranandan Pant, who is called the wordsworth of Hindi Poetry. This is how he invokes Himalaya: it’s so reminiscent of Kalidasa:

Māndaṇḍa Bhū ke Akhaṇḍ Hey!
Punya Dharā ke Swargārohana!

Artists too have found the Himalayas irresistible. Their artistic – spiritual aspirations have found an inexhaustible source of creative inspiration in it. Nicolas Roerich, the great Russian painter (Sr., as well as Junior Roerich) dedicated almost the whole of his life to drawing and painting the Himalayan peaks. His paintings are a living testimony to the proximity of art and spiritual experience. Himalaya is meditation incarnate for him. The sensitive viewer of his paintings is transported to the kind of ecstasy which is otherwise accessible only to serious practitioners of *Dhyanyoga*. I was lucky enough to have met another gifted painter – M. Bruster, who spent a whole lifetime in a cottage situated on a Northern hillock of Almora – my hometown. He was a childhood friend and class fellow of D.H. Lawrence, the great novelist. I have a very vivid recollection of having seen a copy of “Sons and Lovers” in his personal library. It was dedicated to Bruster. The inscription on it was so characteristic of Lawrence:

‘To Bruster – the Artist; not to the Yogi.’

Even today – across the yawning gulf of sixty years, this reservation of Lawrence – this half-jesting, half-serious apprehension of the irreconcilability of the two vocations – creativity on one hand, and spirituality on the other – sends a shiver down my spine. Bruster himself was free from any such tension: I can still visualize the serenity of his great ‘presence’. But, for me, the dilemma is actual and still unresolved. Is it my own failure of nerve? Or the inherent polarity and irreconcilability of the two vocations?

Innumerable people – from times immemorial have experienced this irresistible pull of the Himalayas. Not only the two epics, but almost all the Puranas are replete with references to it, and to the sages who not only achieved self-realization there, but returned from that ‘no man’s land’ to inspire and ennoble ordinary mortals like us with glowing records of the wisdom they had achieved there. During my childhood I met many such holy men, who visited ordinary householders like us and were willing to share their experiences of Kailāsh – Mānsarover with us. We were thus initiated into an adventure, which, as we came to appreciate much later, was nothing less than an adventure of Consciousness.

During those days, Tibet seemed to our boyish minds an inseparable integral part of our own country. Come winter season, and our Almora bazaar was flooded with the interminable streams of people we called

lamas. They brought wool, wonderful medicines as well as spices with them – without which our cooking was inconceivably poor. Whoever had heard of the Chinese infiltrators then? It's common talk now that the Chinese betrayal cost us not only our intimate links with Tibet, but also Pandit Nehru's life. But why Tibet only? What about Kashmere – the last stronghold of Hindu creative genius? A clear-cut solution wholly within our reach was allowed to become a festering wound. Who is responsible for that?

One cannot conceive India without Himalaya. It is the perennial fountainhead of ancestral voices and spiritual wisdom for us. So many classics of Buddhist literature were preserved in translation there. It was a treasure that was made available to us through the heroic scholarly adventures of Rahul Sankrityayan and others. Where else could the scholars of Nalanda etc. find refuge from the Marauders of Bakhtiyar Khilji, except in Tibet? Invaluable manuscripts survived because of the Himalayan monasteries of Tibet.

Almost every sadhu who visited Almora en route in those days had been to Kailash-Mansarovar. A few years ago, in Hampi, I met the direct descendent of Vidyaranya Swami – the sage who had laid the foundations of Vijaynagar empire. He recounted his experience of the pilgrimage to Kailash. Swami Vivekananda, who visited Almora thrice had his life-long dream of establishing an Advaita Ashram in Himalaya fulfilled at last with the help of his British disciples Mr. & Mrs. Savier, Advaita Ashram in Mayavati became a great sanctuary for spiritual seekers. The oldest monthly journal of India called 'Prabuddha Bharat' was published from there. I myself started my career as a writer in the early sixties by contributing articles to that journal. He, who has had the privilege of spending some time in Mayavati Ashram and listening to the daily recitals of the biographical accounts of the Swamis who have presided over it, can understand how it has contributed immensely to the realization of Vivekananda's dreams, which includes the various publications undertaken by it over the years. Unfortunately, the younger generations have no idea of the most valuable work done by this ashram towards the resuscitation and reinterpretation of our spiritual classics.

Himalaya, thus has always been associated in our collective unconscious with the pursuit of the highest wisdom attainable by humanity. We have ample evidence of its role in shaping and articulating the destiny of our nation, and simultaneously of the entire human race. It is an unbroken tradition from the very beginning of Indian civilization – and, virtually of the entire human civilization right upto our own

times. Purohit Swamy, the closest spiritual ally of W.B. Yeats has written a book called 'The Holy Mountain' describing his spiritual adventures in the Himalayas, and there are several such first-hand accounts revealing the continuity and fruitfulness of such live contacts. These 19th and 20th century exemplars of the incontrovertible evidence of man's highest and deepest experiences of the Divine are no less potent and revealing than the achievements of Vedic and post-Vedic sages including the insights of Buddhist and Jaina sages. And most of these sages have acknowledged the part played by Himalaya in their lives. It naturally follows therefore, that the preservation as well as the vital continuity of such a unique and rich heritage is the primary concern not only of us Indians, but of the entire human brotherhood. A museum of Himalaya comprising all that has happened in and around this bedrock of man's spiritual and artistic aspirations and attainments is the need of the hour.

Such an undertaking will necessitate the close and concerted co-operation and collaboration of many nations and communities covering the entire region of Central Asia – so that what is known only to a very small segment of specialist scholars should become the concern and the property of mankind as a whole – because of the universal relevance of this heritage of wisdom. Such an undertaking – such a visionary enterprise calls for not only a multinational but also a multidisciplinary project involving not only artists, litterateurs and scholars, but also historians, archaeologists and anthropologists. There do exist a few specialist museums; but a close scrutiny of such endeavours makes us suspect a hidden agenda – something that smacks of what Huxley called 'theological imperialism.' One has to be wary of such ambiguous motivations. The Museum of Himalaya one envisions today will not be swayed by any sectarian or missionary ambitions. It has to be rooted in and guided solely by the Adventure of Consciousness which had been, and will always remain the universal concern and quest of mankind—transcending all temptations to religious or cultural hegemony.

Sustainable Development in the Indian Himalayan Region: Key Issues and Policy Recommendations

P.D. Rai*

The Himalayas, being the youngest and loftiest mountain range and the largest fresh water source outside the poles, holds a unique place among the world's mountain ecosystems. These mountain ranges not only provide ecosystem services that play a significant role in economic development, environmental protection and ecological sustainability, but are also inhabited by mountain people, harbour people's cultural and ethnic diversity, and provide spiritual and recreational resources. Although the Himalayas and the Himalayan States are rich in resources, Himalayan States and their people face particular economic, social and environmental challenges, which are unique to the region. Difficult terrain, poor connectivity, inadequate infrastructure, pressure on natural resources (due to rapid population growth and development priorities), climate-change induced disasters, unequal exchange of resources and underdeveloped markets are some of the deficits. These challenges highlight the importance of mountain-specific policies in planning and underscore the need for sustainable development. Balancing the conservation of fragile ecosystem components and meeting developmental priorities of the mountain people is the key.

The Brundtland Commission Report, *Our Common Future*, defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The term "sustainable mountain development" appeared first in the title of Chapter 13 of Agenda 21, the plan of action which was adopted at United Nations Conference on Environment and

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Development (UNCED) held in Rio de Janeiro in 1992. The Chapter, entitled “Managing Fragile Ecosystems: Sustainable Mountain Development,” included two “programme areas”: (i) generating and strengthening knowledge about the ecology and sustainable development of mountain ecosystems, and (ii) promoting integrated watershed development and alternative livelihood opportunities (United Nations University Press, 2004).

This article presents an assessment of key developmental issues in the Indian Himalayan Region and analyzes the policy directions and options and role of institutions. The article also presents policy options and recommendations for sustainable development in the Indian Himalayan Region. It provides an argument for cooperative federalism to be the key driver for building sustainable development in the Indian Himalayan Region. The need to empower the States to enable them to chart the course for sustainable development based on their development needs and priorities is fully argued.

The Indian Himalayan Region: An Overview

The Himalayas is one of the most fragile and complex ecosystems in the world. The mountain chain, extending over 3,500 km length across the countries of Afghanistan, Pakistan, China, India, Nepal, Bhutan, Bangladesh and Myanmar, cover an area of about 43 lakh km² (Nandy S.N., Dhyani P.P. and Samal P.K., 2006).

The Indian Himalayan Region (IHR) stretches from the Pir Panjal Range in Kashmir to the eastern part of Anjaw district in Arunachal Pradesh — the junction of India, Myanmar and China – covering 12 States: Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and parts of Assam and West Bengal. It covers approximately 16 per cent of the geographical area of India and is inhabited by about 50 million people, constituting about 4 per cent of the population.

Extending over 2,500 kilometres in length and 220-300 kilometres in width, the region nurtures a wide range of flora and fauna, representing one of the richest biodiversity sites in the world. It is home to over 675 edible plants, 1,743 species of medicinal value and 50 per cent of the total flowering plants in India (Singh J.S., 2006). Many animal species are exclusive to the region – including the Snow Leopard, the Himalayan Brown Bear, Red Panda, Himalayan Lynx, Kashmir Stag, Himalayan Musk Deer, Yak, Himalayan Ibex, Himalayan Thar, and the Himalayan Bearded Vulture (Nandy S.N., Dhyani P.P. and Samal P.K., 2006). The Eastern

Himalayas have been identified as one of the 34 global hotspots of biodiversity.

The IHR ecosystem plays a vital role in ensuring water, energy, food, and livelihood security. The region accounts for about one-third of India's forest cover, which not only acts as a "sink" for carbon dioxide, but also provides multitude of goods and services, such as timber, firewood, fodder and manure for farming, supporting livelihoods of people in the region. As reported in the draft document of National Mission for Sustaining the Himalayan Ecosystem (June 2010), estimates of annual carbon sequestration by the forests of western and north-eastern Himalayas are computed to 6.49 Mt, valued at US Dollars 843 million. The region is also known as the "water tower of earth," encompassing over 9,000 glaciers, which are the source for major river systems such as Indus, Ganga, Brahmaputra, Yamuna and Sutlej. These river systems provide freshwater for irrigation and drinking to over 1.4 billion people, both within the hills and downstream. The region harbours immense potential for carbon-free hydropower, which, if properly and sensitively harnessed, can be vital for the nation's energy security.

Furthermore, the geographical characteristics of the Himalayas have defined the climate of the subcontinent. The Himalayas prevent the cold and dry arctic winds from entering into the subcontinent, thus ensuring that the region stays warmer compared to other regions located at the same latitudes. The mountain system checks the moisture-bearing monsoon winds from travelling further north, thereby facilitating timely precipitation in the form of rain and snow in the subcontinent. In the absence of the Himalayas, India would have been a dry desert with severe winters under the influence of cold air-masses coming from Central Asia.

By regulating the wind and monsoon circulation, the Himalayas play an important role in sustaining agriculture and supporting food production. Additionally, the rivers and their tributaries carry enormous quantities of alluvium soil while descending from the Himalayas. This is ultimately deposited over the Northern Plains, making it one of the most fertile lands in the world. The Northern Plains, which produce a wide variety of agricultural crops and are recognized as the "Food Bowl of India," are indeed a gift of the Himalayas. However, the tampering of the Northern Plains through creation of bandhs has led to deposition of silt, impacting soil fertility.

The Himalayan States, which share borders with Pakistan, Nepal, China, Bhutan, Myanmar and Bangladesh, bear great geopolitical importance, in terms of national security and trade related concerns

and issues. Since ancient times, the Himalayas and the Himalayan States have been acting as sentries at the forefront of the border areas, providing a natural barrier separating the Indian subcontinent from the rest of Asia. In the eastern and western-most parts, we still do not have well demarcated boundaries with China (Tibet) and the boundary/border disputes are yet to be resolved.

The trans-Himalayan region was a key centre for trade and commerce as a part of the ancient Silk Road beginning from the period of the early Han Dynasty (206 BC – 8AD). The route connected Central Asia with South Asia, and created a bridge for political, economic and cultural exchange between India, China, Afghanistan, Nepal, and Bhutan. Today, however, there are only three open trading border posts between China and India; Nathu La (Sikkim), Shipkila (Himachal Pradesh) and Lipulekh (Uttarakhand). Right approach and confidence building measures can provide a great impetus to economic growth by improving trans-Himalayan connectivity and opening up all the passes to trade.

The Himalayas are revered as the abode of Gods and considered sacred across many religions. The Himalayas are referred to as Giriraj or the ‘King of Mountains.’ Since ancient times, the Himalayas have been a source of peace, tranquillity and enlightenment for countless sages. Many religious shrines dot the Himalayan landscape – Badrinath, Kedarnath, Gangotri, Yamunotri, Vaishnodevi and Amarnath (Hinduism); Dharamshala, Tawang and Rumtek Monasteries (Buddhism); Nanak Sahib, Hemkund Sahib and Ponta Sahib (Sikhism); Hazratbal Shrine and Charare-e-Sharif (Islam); and The Catholic Cathedral (Kohima), Baptist Church Of Mizoram (Christianity). These religious institutions hold great importance in the lives of the people, including those living downstream.

Physiographically, the IHR is grouped into (a) Western Himalaya (Jammu and Kashmir and Himachal Pradesh); (b) Central Himalaya (Uttarakhand); and (c) Eastern Himalaya (Darjeeling and the North-Eastern States). Latitude, altitude and continentality are key influencers of climate across the Himalayan region. The Eastern Himalayas, which are at a relatively lower altitude, closer to the equator and the sea (Bay of Bengal), exhibit tropical influence; whereas the Western and Central Himalayas, which are located at a relatively higher altitude, exhibit temperate influence. The combined influence of proximity to the Bay of Bengal and unique directions of monsoon originating from the Bay of Bengal and Arabian Sea ensures that the Eastern Himalayas receive more rainfall than Western and Central Himalayas. While on one hand, the Eastern Himalayas contain some of the wettest spots on earth, on

the other hand, the Western Himalayas contain vast expanse of cold desert. Climatic variations are observed not only in different parts of the Himalaya, but even on different slopes within the same range.

The geographic diversity within the Himalayas has enriched the ethnic diversity, contributing toward richness in dialects, culture and traditional knowledge in the region. More than 170 of the total 701 scheduled tribes of India inhabit the region. There is a marked difference in the ethnic characteristics of tribal communities in the Central and the Western Himalaya from that of the Eastern Himalayas. While tribal communities in the Eastern Himalayas, particularly in the North-Eastern region exhibit 'Mongoloid' characteristics, 'Khasa' ethnic characteristics are prevalent among tribal communities in the Western and the Central Himalaya region (Planning Commission, 2010a).

The tribal communities in the region, with their traditions of conservation and natural resource management, have contributed immensely in maintaining the ecological diversity of the Himalayas. Eco-cultural landscapes, such as Demazong (in Sikkim) and Apatani (in Arunachal Pradesh), have a highly evolved structure of resource management which is ecologically and economically efficient (MoEF, 2009). The Khasis, Garos, and Jaintias have a tradition of environmental conservation based on religious belief. The Nishi Tribe in East Kameng District of Arunachal Pradesh has established protocols for conservation of forests around lakes and hilltops, while the Nagas in Mokokchung District in Nagaland have historically divided their forests into blocks, out of which some are designated for conservation.

The picturesque landscapes, mighty snow-clad peaks, rich biodiversity, pleasant climate, cultural and religious diversity, and colourful festivals of ethnic communities attract tourists from all across the globe, and provide inspiration to artists, nature lovers, spiritual travellers and adventurers alike.

Key Issues and the Need for Sustainable Development

The mountain region, peoples and mountain societies can be characterised by certain specificities that distinguish them from other ecosystems and regions in the country. These are in terms of accessibility, marginality, diversity, biological niches and human adaptation mechanisms (Jodha N.S., 1992).

Being the youngest and loftiest mountain range, the Himalayan region is fragile and highly prone to the hydro-geological hazards and natural disasters. Geologically, the Himalayan region is one of the most

active regions of the world, with three major fault systems (HFT-Himalayan Frontal Thrust, MBT-Main Boundary Thrust, and MCT-Main Central Thrust) running parallel to the Himalayan trend (Planning Commission, 2006). The high seismicity in the region is attributed to the collision tectonics between the Indian plate and the Eurasian plate in the north and seduction tectonics along the Indo-Myanmar range in the east (Kayal, 1998). Furthermore, many glacial lakes have formed or expanded during the rapid melt process of glaciers, particularly in the eastern and the central Himalayas, leading to catastrophic floods—glacial lake outbursts (GLOFs). Additionally, the region also faces risks due to landslides and avalanches.

As per the International Centre for Integrated Mountain Development (ICIMOD), the region was hit by 532 natural disasters during 1990-2012, second only to 670 in the Chinese part of the mountain range. A mixture of climate-change induced and anthropogenic factors has worsened the situation and made the occurrences of such hazards highly unpredictable and intense. The region has suffered a series of disasters in recent years – earthquake in Sikkim in 2011, destructive floods in Uttarakhand in 2013, annual floods in Assam, and more recently, floods in Jammu and Kashmir in September 2014 – leading to thousands of fatalities and loss of biodiversity and infrastructure.

Climate change is one of the biggest environmental threats facing the world, and the Himalayan region is especially susceptible to the impacts associated with climate change – the rate of increase in temperature in the Himalayan region was 0.76°C per decade during the period 1991-2007, compared to the global average of 0.14°C since 2000 (IUCN, I). Climate change impacts many sectors, including agriculture, biodiversity, water security, biodiversity of forests and other natural ecosystems, human health and livelihood security.

Climate change has led to changes in temperature and precipitation, increased climatic variability and altered monsoon patterns – such changes have impacted food production and agricultural yield via changes in the agricultural zones and shifts in the growing seasons. For example, rise in temperature has decreased yield in mid-altitude apple growing areas of Himachal Pradesh, with cultivation shifting to higher altitudes. A study by IISc (Ravindranath N.H., 2011) on the impact of climate change on the agricultural yield, based on model simulations using INFOCROP for rice in 64 districts in the North Eastern States showed a decrease in yield for 43 districts, with the North Sikkim District experiencing the maximum decrease in agricultural yield. The changes

in crop productivity pose a serious risk to mountain farming, which is essentially family farming and a major source of livelihood and contributor to food security for mountain communities.

The increase in temperature due to climate change will reduce the amount of snowfall in the Himalayan region, thereby potentially reducing water flow in our rivers. Today, we have enough evidence to believe that these water towers are running out of ice as glaciers continue to recede. Data on glacial ice reveal that the Himalayan glaciers are retreating at an average rate of 18-20 m yr⁻¹ (Mazari 2006). Such changes could result in shortage of drinking water, reduction in agricultural production and reduced catchment capabilities, impacting people living in the hills and those living on lowlands.

Another key reason for the rise in temperatures in the Himalayan region is the presence of Short-Lived Climate Pollutants (SLCPs), such as Black Carbon, in the middle troposphere. Black Carbon is a component of soot arising from human-induced pollution from burning of fossil fuels (industry and transportation) and domestic or agricultural wood burning. The burning of fossil fuels and plant materials result in the formation of an “Asian Brown Cloud” over the Indus Valley and northern Indian Ocean each year. The black soot results in the dimming of the brightness of the snow, reducing reflectivity and leading to the increase in absorption of solar heat, thereby contributing to faster melting of glaciers and rise in sea levels.

Depletion of glaciers and the resulting reduced water flow in the Himalayan rivers also acquires strategic importance as many countries in South Asia share these resources. There are already problems between India and Bangladesh over the sharing of the waters of the Ganga, Teesta, and other rivers. Another case in point is the construction of dams on the Brahmaputra by China, which could result in reduction in water flows in downstream areas in India. Also, due to high seismic activity in the region, an earthquake could possibly damage the dam and result in flooding of the entire region. There is a need for greater transboundary cooperation and coordinated action between the countries in the region to check depletion of glaciers and evolve a water sharing formula based on prevailing International Conventions.

All States have State-specific requirements to meet their pro-people developmental aspirations and targets, of which poverty alleviation and the creation of infrastructure command high priority. However, the States in the Himalayan region are at a disadvantageous situation compared to other States, owing to difficult terrain, severe weather conditions,

large forest cover, dispersed habitations, underdeveloped markets, long international borders, poor connectivity and inadequate infrastructure.

The cost of delivery of public goods and services in these States is higher compared to other States due to cost escalation in terms of time and institutional costs due to legal requirements and federal restrictions, higher costs of transporting materials and supplies through difficult terrain and higher technological and material requirements (e.g. variant technology for developing infrastructure such as roads, bridges, need to maintain wildlife corridors) (Planning Commission, 2013).

The Himalayan States, which have a large forest cover, often find it difficult to get environmental clearances due to identical procedures for environmental clearances for all States. This impacts infrastructural projects and constrain their ability to undertake developmental initiatives. A study on the development in hill States by Rita Pandey (2012) based on data from the Ministry of Environment and Forests (MoEF), reported that 25 per cent of cases took more than one year for stage-I approval, 7 per cent cases were dropped (retuned, rejected, closed, withdrawn) at this stage, while 68 per cent cases were given Stage-I approval in under one year.

Infrastructure and connectivity in the mountain areas is a major issue and a key priority area. Although mountain railways have been around since the days of the British Raj; since independence, limited progress has been made in the connectivity of railways to the mountainous regions. Even today, mountain railways exists upto Darjeeling, Shimla and Coonoor hills (Nilgiri Mountain Railway). The Chinese, on the other hand, have succeeded in bringing a high altitude mountain rail link from Beijing to Lhasa (Rai P.D., June 2014). Even today, not all hill States are connected by railways or air. Improved connectivity, via railways, roads and airports, is vital for improving the quality of life of citizens in the mountain regions. New thinking and policy on development of transportation in mountain areas is desperately required.

Furthermore, the land utilization policy in India till now has adopted a “one size fits all” approach, with no distinction between the requirements of a “mountain city” vis-a-vis a city in the plains. The unplanned growth of mountain cities, without taking into cognizance the unique needs of the region, has resulted in choking of natural drainage and water resources. This has been further exacerbated by unregulated tourism. Although the mountain States are known as “Water Towers,” however, the people in these areas face a shortage in water

supply. In addition, there are huge issues related to management of solid waste and lack of transportation facilities in the region.

The sustainability of the Indian Himalayan Region will depend on striking a balance between the fragile ecosystem components and the developmental priorities. The complex ecological and topographical features of hill States and the risks posed by earthquakes, landslides, avalanches and GLOFs suggests that social, environmental and safety concerns should become an integral part of the development projects being undertaken in the region.

Sustainable development in the mountains, therefore, has to have a different approach compared to the development in the plains, given the inherent fragility and vulnerability of the Himalayan ecosystems. The policies for the region should not only be acceptable to those who live in the hills/mountains (upper riparian), but also to people who live in the downstream areas (lower riparian). Sustainable Development Agenda for the Himalayas should strive to improve livelihoods, income and environment of the region and build on traditional knowledge and established systems. Identification of sustainable land use practices, adoption of environment-friendly technologies, biodiversity conservation, sustainable infrastructure development, capacity building of institutions and ecotourism are but a few priority activities for sustainable development in the region.

Policy Efforts and Role of Institutions for the Development of IHR

The need for special planning for the development of the mountain regions was first formally recognized in the 6th Five Year Plan. The Planning Commission of India initiated a “**Special Area Development Programme**” in the 6th Five Year Plan (1980-85) for the development of backward areas and the hill regions. This essentially covered the IHR as defined by the author.

The **National Commission on Development of Backward Areas (B. Shivaraman, 1981)** devoted one volume of its report to the development of backward hill regions of the country. This was followed by the constitution of **Task Force for the Study of Eco-development in the Himalayan Region (Dr. M.S. Swaminathan, 1982)**. The task force identified faulty use of principal resources of the region (i.e. soil, forests and water) as the primary factor for widespread degradation and laid emphasis on the need for co-ordinated research on action oriented basis, post harvest technology and transport planning (Planning Commission, 2010a).

A need to define “hill areas” to identify basic tasks with a developmental perspective for the hilly region of the country was felt, with a view to ensure uniform development opportunities in all categories of hill areas. This was done by the **Working Group on Hill Area Development Programmes for the 7th Five Year Plan (1985)**. The Working Group made recommendations for allocation of funds in two distinct categories of: (i) Himalayan hill areas, and (ii) sub-continental hill areas. It emphasized that the focus of the planning process should be on: (i) complementarity of the hills and plains within the regional and the national framework, and the (ii) integrated view of ecological, economic and sociological aspects of hill area development with the common man as the central figure. The report further emphasized that the whole strategy for development of hills should centre round the active participation of the people in fulfilment of basic needs (Planning Commission, 2010a).

As the issues of the hill region received greater attention from policymakers during the Sixth Plan, India partnered with seven other Asian countries of the Hindukush Himalaya region, to constitute a Regional Centre – **ICIMOD** –with its headquarters at Kathmandu, in Nepal, in 1983. This was followed by the establishment of **G.B. Pant Institute of Himalayan Environment and Development (GBPIHED)** in August 1988, to work toward environmental conservation and sustainable development of the IHR.

In 1992, GBPIHED prepared an **Action Plan** which suggested mechanisms for ecologically sound economic development of the Himalayan region and sector wise priority actions. However, due to the absence of any mechanism to share such approaches between the MoEF and the stakeholder mountain States, these apparently could not find appropriate place in the planning processes of either of the (then) ten mountain states (Tolia R.S., II).

Furthermore, in 1993, the government constituted an expert group on **National Policy on Integrated Development of Himalaya**, with a view to formulate a policy for the development of the Himalayas. Based on the recommendations of this group, six sector-specific sub-committees were reportedly set up under the Chief Secretaries of the States of the Himalayan region to formulate and implement schemes in the following areas: (i) Environment and Forests, (ii) Agriculture and Allied activities, (iii) Industry and industrial infrastructure, (iv) Social sectors including health and family welfare, (v) Transport, communication and tourism, and (vi) Energy including non-conventional energy and science and technology (Planning Commission, 2010a).

In 1997, a **High Level Commission on Transforming the North-Eastern Region** was appointed under the Chairmanship of S.P. Shukla for creating basic infrastructural facilities in the North-East. The major recommendations of the Committee included: (i) strengthening of sectors such as farm, horticulture and plantations, animal husbandry and fisheries, irrigation, forests, environment, transport and inland water transport, civil aviation, communication and broadcasting, hydrocarbon, power, industries including cottage industries and handicraft, urban development, trade and transit, tourism, and banking and finance, and (ii) additional resource mobilisation for the region, creation of north-eastern development council and strengthening political infrastructure (Planning Commission, 1997).

To accelerate socioeconomic and infrastructural development of the North-East region, a separate **Department of North East Region (DONER)** was established in 2001, which was later upgraded to a **dedicated Ministry of DONER in 2004**.

Measures for the conservation of mountains were specifically envisaged in India's **National Environment Policy (NEP) 2006**. The policy document calls for: (i) adoption of appropriate land use planning and watershed management practices for sustainable development of mountain ecosystem, (ii) adoption of "best practice" norms for infrastructure construction in mountain regions to avoid or minimize damage to sensitive ecosystems and despoiling of landscapes, (iii) promotion of cultivation of traditional varieties of crops and horticulture by promotion of organic farming, enabling farmers to realize a price premium, (iv) promotion of sustainable tourism through adoption of "best practice" norms of eco-friendly and responsible tourism, and (v) measures to regulate tourist inflows into mountain regions to ensure that these remain within the carrying capacity of the mountain ecology (NEP, 2006).

India also released its **National Action Plan on Climate Change (NAPCC)**. **National Mission for Sustaining the Himalayan Ecosystem (NMSHE)** is one of the eight plans under NAPCC and the only area-specific Mission. The mission seeks to support policy makers, including Himalayan States, in formulation and implementation of schemes for sustainable development in the region. The Mission document outlines the following aims: (i) understand, whether and extent to which, the Himalayan glaciers are under recession and how the problem could be addressed, (ii) establish an observational and monitoring network for the Himalayan environment including strengthening regional cooperation for data and information sharing with countries that share

the same ecology, and (iii) promote community based management of the ecosystem through incentives to community organizations and panchayats for the protection of forested lands (NMSHE Draft, June 2010).

The Ministry of Environment and Forests (MOEF) also released a report on “**Governance for Sustaining Himalayan Ecosystem (G-SHE): Guidelines & Best Practices**” in 2009. The report suggest operational guidelines along with case studies from various regions of IHR which should help restrict (and reduce) adverse effects on the sensitive ecosystem of the IHR.

The **Ministry of DONER’s Vision 2020 (2008)** provided a roadmap to all stakeholders such as line Ministries of Union Government, Planning Commission, North Eastern Council and State Governments for formulation of integrated plan for development of North Eastern Region. The roadmap enumerates the following objectives for comprehensive development of the North-East Region: (i) improve indices of development for the region to catch up with rest of the country; (ii) structural transformation of economies of North-Eastern States by effecting significant changes in development strategies to achieve higher growth rates of Gross State Domestic Product (GSDP) to equal to national averages; (iii) poverty eradication based on participatory planning and with private sector participation for growth; (iv) maximizing self-governance by building capacity of people, institutions and traditional/local institutions to enable participation in growth process; (v) harnessing available local resources for development; (vi) substantial strengthening of infrastructure; (vii) expand trade and commerce in the region; and (viii) effective governance for establishing peace and harmony (NEC, 2008).

In addition, all the 11 Himalayan States have been recognized as Special Category States, and receive special assistance from the government, in terms of budgetary support, special schemes, special grants by Finance Commission, Compensatory Afforestation and Fund Management Authority (CAMPA) funds and earmarking of 10 per cent the Plan outlay of the non-exempted Ministries (only for the North-Eastern States).

However, the **B.K. Chaturvedi Committee (November 2013)**, tasked by the Planning Commission to study development in hill States, observed that special compensation provided to Himalayan States, including the North-Eastern States, is insufficient to address the developmental challenges faced by these States. The Committee recommended that **an annual transfer amounting to at least 2 per cent**

of the Gross Budgetary Support to the Plan must be earmarked to the Indian Himalayan Region on account of their contribution of environmental services and in recognition of their specific disabilities (Planning Commission, 2013).

Many institutions are engaged in research and data collection for conservation and management of natural resources in the Indian Himalayan Region. These include Indian Council of Forestry Research & Education (ICFRE), Indian Council of Agricultural Research (ICAR), Forest Survey of India (FSI), Forest Research Institute (FRI), Institute of Bioresources & Sustainable Development (IBSD), and Wadia Institute of Himalayan Geology (WIHG), to name a few. Each of these institutes have different capacities, focus areas and geographic coverage. Although these institutes have wide ranging mandates and even though some of these institutes have performed stellar work, the Himalayas continue to remain one of the least understood, researched and documented areas in terms of scientific studies. Much of the research undertaken at these institutes has not been translated into effective action on the ground. Furthermore, absence of a formal mechanism for coordination and networking between the policy planners and research institutions as well as between the research institutions themselves has contributed to the issue.

The research output of these institutes has been constrained by lack of budgetary support and inadequate infrastructure and instrumentation facilities. For example, the Parliamentary Standing Committee on Science and Technology, Environment and Forests (2012) identified insufficient budgetary allocation as one of the factors responsible for the low research output of ICFRE. The inability of research institutions to attract dedicated researchers for sustainable mountain development is another concern. We have to assess the reasons for the same – both in terms of incentives provided to the researchers and issues related to organizational setup and policies.

Another area of concern is the lack of institutional capacity to deal with conservation linked sustainable development issues and for integration of traditional knowledge with formal knowledge systems. The Task Force on the Mountain Ecosystems for the 11th Five Year Plan (2006) emphasized the need to strengthen all the organizations working in the IHR for sustainable development of the region.

Despite the initiation of several programmes, the pace of development of the Indian Himalayan Region in comparison to rest of the country continues to remain slow. The single most important factor responsible for the slow pace of growth is the adoption of policies

which are sectoral in context and ignore the mountain specificities in planning. This is due to the fact that the people from the mountain regions are not adequately represented in the central administration framework.

We would like to highlight here that the Indian Mountain Initiative (now Integrated Mountain Initiative, IMI) has repeatedly pointed out that the Planning Commission does not even take the specificities of mountainous terrains into consideration when drafting their five-year plan. IMI was founded in 2010 as a response to the need for a platform for networking, sharing views and ideas to promote the sustainable development of the Indian Himalayan Region.

IMI has organized various events, such as Sustainable Mountain Development Summits, Meet of the Mountain States, Youth Summit and Workshops, on themes such as sustainable mountain development, climate change, disaster risk reduction, urbanization in the mountains and mountain farming, for advocacy in respect of issues which are critical to the mountains.

It was due to the efforts of IMI and the Members of Parliament from the hill region that the Planning Commission organised a working group on mountain and mountain issues for the Twelfth Plan. IMI also contributed recommendations to the B.K. Chaturvedi Committee under the Planning Commission, with regard to infrastructural deficiencies of mountain States, the 'Green Bonus', and process issues such as land use changes and relaxation norms.

Opportunities for Sustainable Development: Sikkim's Experience

The State of Sikkim is located in the area of the biodiversity hotspot of the Eastern Himalayan Region, endowed with a rich biodiversity of more than 4,500 species of flowering plants, more than 50 species of fish, 690 species of butterflies, 16 species of amphibians, 78 species of reptiles, 550 species of birds, and 154 species of mammals. It is also endowed with landscapes, forests, streams, rivers, glaciers, lakes, snow-capped mountains and cold deserts.

Sikkim has been recognized as the No.1 State in India on policy effectiveness as per the India Public Policy Report, and ranks among the leading States in HDI. The State Government, under the leadership of the Hon'ble Chief Minister Pawan Chamling, has initiated a number of policies to promote sustainable development, including promotion of eco-tourism, organic agriculture, horticulture and floriculture.

With a view to turn Sikkim into a model Green State, the Government of Sikkim declared 1995-96 as the Harit Kranti Year (Year of Green Revolution). Several legislations followed including the ban on felling of trees and grazing of animals in reserved forests, plantation areas and near water sources, the results of which are now amply visible. In Sikkim, one third of the area is kept aside as sacrosanct under sanctuaries and national park under the protected area network, which is the highest in the country in percentage terms, with the national average being less than 5 per cent. Furthermore, the Hon'ble Chief Minister of Sikkim institutionalised "Ten Minutes to Earth" campaign, under which saplings of trees and flowering species are planted within 10 minutes by every Sikkimese across the State on July 15.

To promote sustainable tourism, Sikkim has formulated an ecotourism policy, becoming the first State to do so. The policy aims to conserve the existing biodiversity, ecosystems and religious monuments and the cultures and traditions of Sikkim. It also endeavours to provide self employment opportunities for the economically disadvantaged people in ecotourism enterprises.

Sikkim modified central projects like the "Indira Awas Yojana" to develop village and ecotourism. Funds were made available to build extra space and sanitation facility for tourists (Kumar A., 2014). The Lonely Planet magazine also recognized that "the sustainable community-based tourism model that Sikkim has successfully developed in less-developed areas of the State."

Many village home stays have been set-up in different parts of the State, such as at Dzongu (North Sikkim), Pastanga (East Sikkim), Yuksam (West Sikkim) and Kewzing (South Sikkim). These not only provide a unique experience to tourists but also enable local communities to protect their cultural and natural heritage for future generations.

Sikkim was one of the pioneers in environment conservation when it passed the Sikkim Non-Biodegradable Garbage Act in 1998. Plastics and use of alkathene pipes were prohibited in town areas resulting in a notable positive impact on the environment.

In another first, in 2012, Lachen became the first village in India to ban bottled water and manage the trash left behind by tourists. Lachen is a stopover destination for tourists on their way to the Gurudongmar Lake (one of the highest lakes in the world) and trekkers on their way to Kangchenjunga base camp. The Lachen dzumsa, Lachen Tourism Development Committee (LTDC) and WWF's Khangchendzonga Landscape Programme supported the move by installing water filters at all shops and hotels, inspecting water sources for potability and

organising awareness drives among schoolchildren, shopkeepers and hoteliers to enforce the ban (Bera S., February 2014).

In 2003, the Sikkim government adopted a resolution for making Sikkim an organic State. Sikkim State Organic Board was constituted for drawing up policy matters and strategic plans and developing standards and regulations of organic farming. By 2006, the State initiated a ban on synthetic inputs and had completely revoked central fertilizer subsidies. The Sikkim Organic Mission was launched in 2010 to implement and monitor the State Organic Board's programme to convert 50,000 ha into certified organic farming land by 2015. The government bears the costs of certification and provides free inputs, equipment, training and extension services. In addition, maximum re-use of organic solid waste manures for solid waste management is encouraged, under the Swachh Bharat Abhiyan.

The Sikkim Organic Mission has achieved laurels at both national and international level. Sikkim State Marketing Cooperative Supply & Marketing Federation (SIMFED) achieved the second prize out of more than 150 Exhibitors from India and abroad in Bio-Fach International Organic Trade Fair 2011 at Bangalore. Furthermore, PM Narendra Modi acknowledged that Sikkim can lead the country in the movement of transforming the entire North Eastern Region of the country into an organic region.

Sikkim has also implemented hydropower projects, with a view to meet the energy demands in a sustainable manner and to generate revenues to improve the socio-economic condition of the people of Sikkim. At present, a total of 10 hydropower projects, with a total capacity of 2622 MW, have been awarded to different Independent Power Producers. The government has taken several initiatives to mitigate the environmental impacts associated with hydropower projects, for instance, to mitigate the impact of felling of trees, the State Government has proposed to plant 20 per cent more trees.

Sikkim has also been a constant advocate of the need to compensate the Himalayan States for the ecosystems services provided by these States to the rest of the country. It has raised the demand for allotment of "Green Bonus" to the Himalayan States at multiple forums, including the Planning Commission and Finance Commission. Furthermore, the Government of Sikkim constituted a Commission to study glacier melting, the work on which is currently ongoing.

Sikkim also showcases the possibility of opportunities associated with international trade: the Nathu-la Pass was opened to trade after forty-four years in 2006, thanks to a landmark agreement between former

Prime Minister Atal Bihari Vajpayee and his Chinese counterpart in 2004. If this border trade can be upgraded to full trade, Sikkim's economy will receive a huge boost (Rai P.D., June 2014).

Sikkim Government has also undertaken various initiatives for socio-economic development. In Sikkim, toilets were constructed in mission mode and all the villages made open defecation-free, making Sikkim the first Nirmal Rajya in the country. Sikkim Government provides complete health check-up for all citizens under a programme called CATCH (Comprehensive Annual and Total Check-up for a Healthy Sikkim). Sikkim was also the first to give 50 per cent reservation for women in Gram Panchayat. Despite numerous developmental challenges arising out of unique geography, geology and climate and associated mountain specific constraints, Sikkim today is one of fastest developing States in India with a focus on sustainable development. The State has shown what can be achieved with good governance, forward thinking and adopting a multi-stakeholder participative approach to governance. While most of the developmental programmes were government driven, over the years, these initiatives evolved into a people's movement and became a part of people's agenda and their way of life. Unsurprisingly, Shri Pawan Chamling was voted to power for a record Fifth term in the Assembly Elections held in April 2014. The result is a vote of confidence for good governance, and pro-poor and sustainable development policies undertaken by the Sikkim government under the leadership of Shri Pawan Chamling.

Policy Recommendations and the Way Forward Policy Options and Recommendations

The mountain-specificities call for a multi-sectoral and integral approach to address mountain issues and chart the course for sustainable development. Although the Himalayas are spread across 12 out of the 29 States, there is an absence of an institutional and legal mechanism for addressing the concerns of the region – in terms of bio-diversity, climate change, trade, water and geopolitics, to name a few. Policies for Sustainable Development of IHR should address the challenges of unequal exchange of resources, poverty, climate change and geography while ensuring the conservation of the fragile ecosystem components. These policies should be people-centric and collaborative, and strive to protect the bio-cultural diversity and social fabric of the mountain communities while providing economic opportunities. These should aim to improve the quality of life of the mountain communities, without

compromising the ability of future generations to achieve the same objectives.

We need a **comprehensive climate change adaptation and disaster risk reduction strategy** for the Himalayan Region. This should include strategies for protection and conservation of forests and biodiversity; food, water, livelihood, habitats and human health security; and technologies for early detection and warning. In addition, the high risk profile of the Himalayas warrant the need for a disaster risk reduction sensitive approach to conservation of heritage sites and structures in the region.

Another priority is to create an **enabling environment to encourage investment in the Himalayan States in a sustainable manner**. Lack of sufficient avenues for employment has contributed to poverty of people from the region. This also has considerable societal costs – in terms of migration and trafficking of women from the region. The migrant population, especially from the North-East, has been subject to violence, crime and discrimination (MP Bezbaruah Committee Report, 2014). Encouraging investments is vital to address the pressing societal concerns, as it would result in employment opportunities for people living in the hills. Furthermore, investments are necessary to unlock mountain regions' potential for a green economy and sustainable development. There should be a renewed focus on skill development and entrepreneurship through policy support, particularly in green sectors such as organic farming, ecotourism and processing and marketing of niche products (such as medicinal plants, handicrafts).

For attracting industries and investments, availability of sound infrastructure is a powerful incentive. A **“Himalayan Sustainable Infrastructure Planning Board”** can be established for formulation of a long-term plan for development of sustainable infrastructure which take into cognizance the mountain specificities, including the need to address ecological risks. The Planning Board could set-up institutions tasked with research on technology for development infrastructure in mountainous terrains, including mountain railways, creation of all-weather and green roads, and technologies for maintaining the infrastructure in the Himalayan Region. Furthermore, to understand the best practices for sustainable infrastructure development in the mountains, a platform for closer interaction with the infrastructure development agencies working in the mountains, particularly those in the European Alpine nations, must be established.

Infrastructure development in the region is also vital for advancing international trade. The Himalayan States in general and the North-

Eastern states in particular provide a gateway to India to extend and further strengthen the ties with the South East Asian countries. However, despite the geographical advantage, India has not been able to channelize the potential of the region, primarily due to lack of proper infrastructure – such as roads, railway lines and air links – to connect the region with the neighbouring countries. To unlock the potential of the region as a “trade bridge” to Southeast Asia and other neighbouring countries, infrastructural development and a holistic analysis of the critical issues of the region and its trade potential is pivotal. The emphasis of the present government on “Act East” is a positive sign.

We need to check the unplanned growth in the name of tourism in the Indian Himalayan Region, especially in the wake of the recent incidents of disasters. The **region should be developed as an ecotourism destination**, with a focus on nature tourism, pilgrimage and adventure tourism. Some of the policy actions which can be considered for sustainable tourism include: (i) conducting scientific assessment of important tourism and pilgrimage sites to understand ecosystem related risks – this can be used to regulate the number of tourists, (ii) creating an institutional mechanism to create awareness among all stake holders on their role in biodiversity conservation, (iii) promotion of homestead tourism, (iv) stipulating norms for eco-friendly construction, and (v) promoting eco-friendly transportation in fragile areas. Sikkim’s example is exemplary and can serve as a basis of sustainable tourism in other Himalayan States.

The combined effects of burgeoning population and tourism growth has increased pressures on mountain cities, resulting in unplanned growth and problems related to water scarcity, sewage treatment and transportation. The government draft concept note on Smart Cities enumerates the need to establish Smart Cities in the mountain areas. It is important that the **Smart Cities in mountains are planned keeping in mind the mountain specificities**, incorporating the aspects of environmental management and disaster management. The Report of the Taskforce on Hill Areas (Planning Commission, 2010) has recommended that no construction should be allowed in areas having slope above 30°, or in areas that fall in hazardous zones, and areas falling on spring, aquifer lines and first order streams. The development of the Smart Cities must also incorporate traditional knowledge and culture and should explore new solutions for transportation and waste management in the hills.

Healthy ecosystems are critical for livelihoods and food security. The **GDP-based model for development is not sufficient to realize**

sustainable development goals. Implementation of environmental economic accounting and valuation of ecosystem services will serve as tools for implementation of policies that promote sustainable development. We need to **evolve mechanisms to compensate the Himalayan States for providing valuable ecosystem** services to the nation and on account of the inherent development disabilities. Such mechanisms must strive to promote fair sharing of benefits from the development of mountain resources. A Developmental Disability Index has been constructed by the Planning Commission, which can be used as a basis for compensating the hill States for a part of the values that their ecosystems provide based on the rationale of opportunity cost in economics. As per the index, the Himalayan States have ranked among the States with the highest development disability, both in terms of geographical disadvantage and infrastructure-related disadvantages.

To advance the sustainable development agenda, we must design **policies which provide incentives to mountain communities to conserve natural resources and generate income in a sustainable manner.** Mechanisms such as REDD+ (reducing emissions from deforestation and forest degradation) and specialized payments may be considered for this. For example, the Swiss Government provides increased direct payments and interest free loans to mountain farmers to compensate them for the additional work involved in sustainably managing watersheds and landscapes, from which 68 per cent of Swiss mountain farmers received benefits to the tune of US\$ 150 million per year (Kohler, T., Wehrli, A. & Jurek, M., eds. 2014).

Another priority is to **strengthen the capacity and capability of institutions working for sustainable mountain development.** There is a need to institutionalize better coordination and interaction between the research institutions and the Himalayan States, to ensure a translation of science into policy formulation. The Twelfth Plan has recommended the reorientation of ICFRE on the lines of ICAR. The ICAR has developed a systematic mechanism of interaction with the Indian States for periodical interaction with them – all the States are divided into Region, with a group of States sharing the same agro-climatic conditions, and these Regional Committees meet bi-annually, and all research and development problems get addressed through these meetings, including listing their problems and priorities (Tolia R.S., II).

Furthermore, there is a need to facilitate exchange of the scientific information, expertise and information sharing between the many institutions working for mountain development. One possible way, as suggested by the Taskforce on Mountain Ecosystems (Planning

Commission, 2006), is the creation of a Consortium of Universities in the Himalayan Region. These institutions should initiate specialized courses on different themes related to issues in sustainable development in the Himalayan Region, such as sustainable agriculture, sustainable urbanization, sustainable tourism, vulnerability assessments and migration.

Another aspect which merits attention is the need to formalize the involvement of mountain communities into conservation and management of mountain resources by integrating local culture and traditional knowledge systems with formal knowledge systems. To actualize this, documentation of methods of community management and solutions should be carried out across the Himalayan States.

What can be done in the medium term going forward?

Three high impact decisions of the Modi led BJP Government will need to be taken cognizance of :

1. Creation of NITI Aayog in the place of Planning Commission of India which has been disbanded. The Cabinet note gives the reasons. One of the prime movers is a paradigm shift in policy formulation and its State level articulation.
2. Ushering in cooperative Federalism and Regionalism.
3. Climate Change Law as announced in Lima CoP 20.

All three have their own contexts overall, but need to be looked at how it can be leveraged for the sustainable development of the Himalayan States and Regions.

Transformation is the key agenda in terms of policy formats for the future as the lynchpin of the NITI Aayog. This can only happen if there is substantive change in both policy and content going forward in our planning process. We are yet to get the feel of this but there is a measure of anticipation coupled with optimism in this direction especially amongst States.

States on the other hand have to follow suit. We argue that all Mountain States should form ‘Sustainable Development Ministries’ (SDM), since all action leading to overall sustainable development will have to be taken at the local level. In fact, in Kitam-Manpur, the village adopted under the Sansad Adarsh Gram Yojna (SAGY), we are trying to follow this path which can be the basis of a model for sustainable development as a microcosm at the State level.

These SDM can also coordinate action with the NITI AAYOG and come up with firm specific action based over India centric plans. **For**

instance, these can coordinate on determining the sharing of resources between the States, based on the contribution of each State to India's Intended Nationally Determined Contributions (INDCs). This is a matter which is the centre piece of this articles' argument – that we need to be clear on the ecological services being provided by individual Mountain States to the country. For this, there has to be a way of transfer of resources, if we are to be able to get the incentive for sustainable development. Some of the mechanisms, such as factoring in the Development Disability of Hill States, special payments and REDD+, have been discussed above.

In addition, a key priority for achieving sustainable development of the IHR is collaboration and coordination between the Himalayan nations, as the ecosystem services provided by the Himalayas are shared and utilized by these nations. A platform for greater regional cooperation with Afghanistan, Pakistan, China, India, Nepal, Bhutan, Bangladesh and Myanmar is warranted for protection and sustainable utilization of these resources.

The ultimate objective of the sustainable development in the IHR should be the welfare of the people (both in upper and lower riparian) and development which ensures protection of the ecosystem. Only time will be the judge of the efficacy of our actions. But thought leadership is beginning to kick in, which can only be for the greater good of the people of the mountains.

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List of Abbreviations:

1. IHR: Indian Himalayan Region
2. MoEF: Ministry of Environment and Forests
3. DONER: Department of North East Region
4. IUCN: International Union for Conservation of Nature
5. NAPCC: National Action Plan on Climate Change
6. NEP: National Environment Policy
7. NMSHE: National Mission for Sustaining the Himalayan Ecosystem
8. UNCED: United Nations Conference on Environment and Development
9. ICFRE: Indian Council of Forestry Research & Education
10. ICAR: Indian Council of Agricultural Research
11. ICIMOD: International Centre for Integrated Mountain Development
12. GBPIHED: G.B. Pant Institute of Himalayan Environment and Development
13. IMI: Integrated Mountain Initiative (formerly Indian Mountain Initiative)
14. IISc: Indian Institute of Science, Bangalore
15. GLOF: Glacial Lake Outburst Flood
16. SLCPs: Short-lived climate pollutants
17. GDP: Gross Domestic Product
18. FSI: Forest Survey of India
19. FRI: Forest Research Institute
20. IBSD: Institute of Bioresources & Sustainable Development
21. WIHG: Wadia Institute of Himalayan Geology
22. CAMPA: Compensatory Afforestation and Fund Management Authority
23. REDD+: Reducing Emissions from Deforestation and Forest Degradation
24. SIMFED: Sikkim State Marketing Cooperative Supply & Marketing Federation
25. CATCH: Comprehensive Annual and Total Check-up for a Healthy Sikkim
26. SAGY: SansadAdarsh Gram Yojna
27. SDM: Sustainable Development Ministries
28. INDCs: India's Intended Nationally Determined Contributions

A New Relation with the Himalaya

Claude Arpi*

Slowly, very slowly, India is discovering that it has a border population residing in the Himalaya.¹ More than the rest of Himalayan belt, the North-East, particularly Arunachal Pradesh, has recently been in the news, but for the wrong reasons.² Though one can today see a new awareness of the importance of the border people,³ it is indeed a vital issue for the future of the nation.

During an interview,⁴ Kiren Rijiju, the Minister of State for Home Affairs, himself a native of West Kameng district in Arunachal, told us: “The yardstick is that the security of North-Eastern States must be taken as a priority and then catapult the whole region into a developmental stage, which will be at par with the rest of the country; especially at par with the western part of India. The Prime Minister (Narendra Modi) made a point: eastern India and North-East India must get priority. You can look at it from two angles: my being in the ministry of home affairs gives importance to the North-East and, then, being from Arunachal Pradesh, it shows the strategic importance of this State. Geopolitically, Arunachal figures very high in the agenda of our government.”

Rijiju admits that the people of Arunachal Pradesh have for long felt that Delhi was far away, “not only in terms of geographical distance, but also psychologically, and in terms of understanding (their problems),” says Rijiju who believes that the mere fact that an Arunachalee now sits in the Ministry of Home Affairs, should help to

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partially reduce the awareness gap, even if it can't be fully bridged as yet.

When we jokingly asked if the capital of India should be shifted to the North-East, the minister answered: "by appointing me, the North-East has definitely come closer to Delhi."⁵ Indeed, the issue is not Arunachal Pradesh or the North-East alone, the proximity (or rather the distance) from Delhi holds true for the entire Himalaya, whether it is Ladakh, Lahaul, Spiti, Kinnaur, Uttarakhand, Sikkim or Arunachal.

It is unfortunate that in October 1950, soon after China invaded Tibet,⁶ the relations between India, the Himalaya and Tibet came to a standstill. With the Tibetan uprising in Lhasa in March 1959 and the consequent flight of the Dalai Lama to India, these relations which, for centuries, were vital to the Himalayans were shattered; the Himalaya felt suddenly orphaned as its links with Tibet were cut and Delhi was not interested in its frontiers.

During the following years, the Chinese tightened their grip on the Tibetan plateau more and more; it ended in a real tragedy for the Himalayan economy, cultural links and India's security.

A Same Spiritual Quest

Indeed India's relations with these mountainous regions are vital for India's security and environment; for centuries, the Himalaya has been the bridge between India and the Tibetan plateau; first and foremost, both shared a common spiritual heritage, one could say a common aspiration.

Significant moves should be made to overcome what has happened during the past 50 years, to bridge the 'distance' and give the Himalayans an identity of their own. It has been suggested to have a separate Himalayan ministry, it could be a solution; others spoke of a great Himalayan University, a sort of Nalanda or Vikramashila of the northern borders of India. That would certainly help to bridge the gap. And why not, one day have a common cadre, like the defunct Indian Frontier Administrative Service?

Several centuries ago, the great viharas of Northern India attracted scholars and students from Korea, Japan, China, Indonesia, Persia, Greece, but also from the Himalaya and Tibet. Their influence spread far and wide and till the day these centres of knowledge were looted by Muslim invaders at the end of the 12th century.

But before that, during the 8th century, Trisong Detsen, the great Tibetan King invited Shantarakshita, the Abbot of Nalanda to introduce

the Dharma to the Land of Snows and requested him to ordain the first Tibetan monks. Since then, the Lamas of Tibet have faithfully followed the teachings of the Nalanda masters.

In an interview, the Dalai Lama told us⁷: “I always describe Tibetan Buddhism as pure Buddhism from the Nalanda tradition. ...Nalanda had great masters such as Nagarjuna or Arya Asanga. ...During the 8th century, the Tibetan Emperor invited Shantarakshita. He was a famous, well-known scholar and master of Nalanda. He went to Tibet and spent the rest of his life there. He introduced Buddhism in Tibet. I myself studied the Nalanda tradition of Buddhism; first I learned by heart and memorized what we call the Root Texts. All these Root Texts have been written by Nalanda masters. ...The Tibetan Buddhist tradition is the Nalanda tradition which combines the Sanskrit and the Pali traditions as well Buddhist Tantrayana. Masters like Nagarjuna, Aryadeva and Chandrakirti wrote tantric treatises in Sanskrit.”

After the Muslim invasions, the monasteries of Tibet became the last repositories of the ancient wisdom which had virtually been destroyed in India, its land of origin.

The Dalai Lama recounted the story of Dr. Raja Ramanna, the nuclear physicist, who expressed his surprise to find the concept of quantum physics and relativity in a text of Nagarjuna. The Dalai Lama said: “The West discovered these concepts at the end of the 19th century or beginning of the 20th century, when some Indian sages like Nagarjuna knew it nearly 2,000 years ago.” Nagarjuna’s concept of Madhyamaka (the Middle Way between extremes) was also very much part of the Nalanda curriculum.

These universities brought vitality and knowledge to the entire Himalaya. The time has perhaps come to give a new life to a similar knowledge center which, in the past, united large tracts of the Indian borders.

A Ministry for the Himalaya?

It is a pity that an interesting article by Dr. P.D. Rai, Member of Parliament (Lok Sabha) from Sikkim, did not create a greater splash in the supine Indian media, mainly interested in scoops. The Sikkim MP rightly noted⁸: “The recent news about the active consideration of Prime Minister Narendra Modi’s government to start a new ministry to oversee the Himalayas is most welcome. In all these years since independence, ignoring the Himalayas has been wholly unwarranted and shocking. To many of us who have been hammering away at this thought, it is the

most welcome of all news emanating from the newly formed government.” One can only agree with him.

Dr. Rai believes that the Modi Sarkar should go ahead in the path-breaking direction of creating a Himalayan ministry. The Sikkimese MP mentions the importance of railway lines: “mountain railways have been around since the days of the British Raj. They managed to take the railways to Darjeeling, Shimla and Coonoor hills (Nilgiri Mountain Railway). The British had made these technological feats. However, since independence, the technology stands where it was in 1947.”

Even if the current political dispensation is not speaking of having a special ministry for the Himalaya, the development of roads and railway lines seems to be taken up seriously by the Modi government. The idea of ‘developing’ the Himalaya and even to have a Himalayan University however remains at the level of a concept, floating around the corridors of power in Lyutens’ Delhi.

This new ‘Nalanda’, even if it does not spread its influence to the Tibetan plateau like its predecessor did many centuries ago, could help to revitalize the Himalaya knowledge-wise and bring about great academic progresses in the fields of environment, climate change, social sciences, migration, defence and strategic studies, sustainable tourism or economy.

If one looks at it closely, most of the Himalayan areas listed earlier, face the same issues and similar solutions could be found to solve the hardships/difficulties of the local populations.

We shall mention some of the interests/difficulties common to the entire Himalayan range.

Defence and Strategic studies

While India has been sleeping, the Chinese were not. In August 2014, a railway line reached Shigatse, Tibet’s second city and China has now decided to stretch the line towards Nyingtri Prefecture, north of the McMahon line.⁹ But there is not only the train, a 4-way road to South-Eastern Tibet is also under construction. On June 5, 2014, Xinhua reported: “As a main trunk connecting a dozen key highways in Tibet, Lhasa-Nyingtri Highway bears great significance in building a flexible traffic network covering China’s border provinces as well as upgrading China’s national defense capacity.^{10”}

It is interesting that the ‘defence capacity’ is mentioned; Xinhua is usually very silent on this subject; it is certainly a warning to the Indian Prime Minister Narendra Modi who announced his determination to built roads to the borders.

One has to see the visit of the Indian Prime Minister to Thimphu and Kathmandu in this perspective. The question remains: does the new government really realize that the Himalaya is truly one? Culturally, environmentally, sociologically and strategically, the great mountain barrier is one entity. This is particularly true as far as the security of the nation is concerned. The first step for the new government is to reinforce India's defence, while taking along local populations. To promote the unity of the Himalaya is certainly the best way to tackle aggressive neighbours.

Environment Minister Prakash Javadekar already announced that his ministry was working on a policy for fast-track green clearance for border roads and defence projects up to 100 kms from the Line of Actual Control (LAC).

When he took over in May 2014, Home Minister Rajnath Singh informed the Indo-Tibet Border Police (ITBP) that he wanted to visit all border posts to assess the ground situation,¹¹ he was told that a trip to Arunachal would be difficult as many posts are extremely remote; it would take a 10-day walk to reach the LAC. An ITBP officer told *The Times of India*¹²: "The home minister can be flown to Ladakh and Leh but several parts of Arunachal Pradesh would be inaccessible even aerially," adding that a normal long range patrol to the border in Arunachal Pradesh takes "as long as 21 days with the perils of negotiating dense jungles and treacherous terrain." Hopefully things may change soon.

*The Indian Express*¹³ reported that "close to 80 critical border roads have been stuck for many years due to environmental hurdles. These include crucial GS (General Staff) roads that link border outposts and camps to the main roadhead. In all, around 6,000 km of critical road stretches which were stuck can now be expedited." A quicker environmental clearance would also give an appreciable boost to India's newly-created Mountain Strike Corps at a time when several parts of the scheme are blocked. Examples could be multiplied, whether it is in the North-East, in Ladakh or in Lipulekh or Mana in Uttarakhand.

Let us not forget also that the Himalaya have always provided the nation its best soldiers. The Himalayan people are known to be stoutly nationalist; this at a time when the local 'minorities' on the other side of the Himalayas¹⁴ are becoming more and more restive, often violently opposing Beijing's rule. Indeed, the fact that the Himalayans have strong feelings for India, could be a game-changer in case of a conflict. India should not miss the opportunity.

A Himalayan University should have a strong department of strategic studies, which could one day help the government on the relations between the security needs of the Himalaya, while taking into account the aspirations of the local population.

Migration and Resettlement

The new government at the Centre announced that it will encourage civilian settlements in border areas; it is a good thing, but here too, it is a difficult undertaking.

When asked about Himalayan people, fearing China's intrusions, moving away from the borders, Kiren Rijiju told us in the earlier-mentioned interview: "If we manage to strengthen our forces along the border, I'm sure that it can take care of the local fear. But if we are unable to provide basic necessities to the people living in the border areas, then definitely people will run away. In this modern world, people need basic amenities for their livelihood; if these basic facilities such as education, health, road, communication services, drinking water supply are not made available, people will migrate." The Arunachal MP added: "These areas should be treated in a totally different way."

Dr. R.S. Tolia, a former Chief Secretary of Uttarakhand put the difficulties in perspective in an article: *Developing High Himalayan Habitats*. Dr. Tolia shows that to resettle population, it is easier said than done. It is also worth noting that the issue is the same, whether it is in Uttarakhand, in Ladakh or Arunachal.

Dr. Tolia wrote: "Come autumn and the change of season highlights how the High Himalayan Habitats differ starkly from the rest of the North Indian landscapes! Speaking of Uttarakhand the change of season means 'curtains down' for some 108 villages, all above 8,000 feet above the mean sea level. These 108 villages start the process of getting depopulated for at least the next 6 to 7 months, and remain what is officially termed by our census organisation 'snow-bound'. However, the main news covering these very regions, that one reads about in this 'Dev-Bhumi' relates to, if at all any news reaches down to the pages, readers read in the central and southern-most districts, the closure dates of Badrinath, Kedarnath, Gangotri and Yamunotri *dhams* in that order."

The former Chief Secretary who has great knowledge of this issue (being a native of Kumaon) speaks bitterly of the present situation: "The problems associated with this annual involuntary migration do not receive any notice, far less the mitigative steps expected to be taken to reduce their impact on the hapless families."

One of the first steps that the government will have to take is to change the mindset of the bureaucrats posted in the mountain districts. Again easier said than done!

Dr. Tolia mentioned the utter callousness on the part of local administrations. In Pittoragarh district of Uttarakhand, as well as the 'the adverse impact of the cessation of ancient Indo-Tibetan trade' as well as the "ever decreasing trend of population. From 1,561 persons in 1961, it soon slipped to 186 in 1971 and just 113 by 1981, a record more than 99 % reduction in a period of just two decades!"

The task is immense; and definitely more academic research is required on this issue. A far greater determination on the part of the government will be required to tackle the issue of emigration in the entire Himalayan belt, and the problem is the same in Demchok, Anjaw or Subansiri districts of Arunachal Pradesh or Uttarakhand. The recurrent intrusions of the Chinese People's Liberation Army make it worse in some areas.

Tourism and Environment

The State of Uttarakhand can again be taken as an example, though the situation is not different in Ladakh or Himachal. Like the other Himalayan States, Uttarakhand promotes tourism. It has positive and negative aspects.

A brochure published by the Department of Tourism of Uttarakhand says: "A journey to Uttarakhand won't just exceed expectations, but promises to raise the standards of expectations."

Then it goes on: "Experiencing Uttarakhand will leave one groping in the dark trying to confer the word 'beauty' with a new definition. Such is the profound beauty of the place, that it provoked Mahatma Gandhi to call this place the 'Switzerland of India'."¹⁵

Whether the quote of the Mahatma is correct or not is a different issue, but the pamphlet adds: "Uttarakhand is one corner of the earth that would make one conclude that Nature decided to park herself here and blossom into a profusion of bounty that is an overwhelming treat for all the senses. In a misty tranquility, Himalayan magnificence takes its own sweet time to seep into consciousness and newer depths of understanding are discovered in this basket of treasure."¹⁶ For how long?

A few years ago, the Government of Uttarakhand and the UNDP published a report entitled *Uttarakhand Tourism Development Master Plan 2007-22*.

The objective of the Master Plan was the creation of “an attractive, viable and sustainable tourism environment utilizing and enhancing the uniqueness of a destination’s natural, historic and cultural environment.”¹⁷

Indeed Uttarakhand, like Ladakh, Sikkim or Arunachal, is unique and contains a large variety of valuable resources: “a diverse range of products with facilities and activities to satisfy any traveller’s desire,” as the report put it.

But to satisfy the ‘traveller’s desire’ is surely the wrong approach.

Before all these unique resources are utilized for both domestic and international tourism, some immediate measures were suggested, amongst them :

- Improvement in accessibility by air, road and rail to Uttarakhand from other parts of India and abroad
- Improvement in connectivity within the State by air, road and rail where applicable
- Improvement in predictability in terms of both transportation time and what can be expected from the different tourism destinations and products
- Improvement in the education and training of public and private tourism industry workers and entrepreneurs of all sectors and rank at central, state and local community level

But nothing at all about the preservation of the pristine environment of the region ...and nothing about the Himalayans, the natives of the area who should be at the centre of the development.

Subsistence of the Himalayans

The problem of subsistence and the role of tourism is definitely a problem, but very little serious research has been conducted on this, especially on the gender issue, which is a crucial one.

An excellent article entitled,¹⁸ *Mountain Tourism: A Boon or a Bane? Impacts of Tourism on Himalayan Women*, published by Yankila Sherpa, President, Federation of Woman Entrepreneurs Association of Nepal deals with environment as well as the place of the women in the Himalayan economy. It is one of the rare in-depth studies.

Yankila Sherpa wrote: “The mountain people of the Himalayas are among the most socially, politically and economically deprived people in the world, and yet their stewardship of mountain natural resources is closely linked to sustainability of life in lowland areas. Among mountain population, women play a crucial, and in many respects dominant role

in natural resource management, agricultural production, tourism and the well-being and the very survival of mountain families. In mountain regions, as in the world over, women, as a class, are more undernourished, under-compensated for their labour, and under-represented in formal decision making bodies.”¹⁹

She admitted that in Nepal, trekking and mountaineering have helped uplift thousands of local people out of poverty.

Her conclusions were: “While tourism like any other industry can have potential negative and positive impacts on mountain women and communities, the negative impacts can be addressed by bringing together stakeholders through social mobilization.”

Social mobilization of stakeholders is certainly a remedy which could be applied over the entire Himalayan range. But it is not an easy proposition, as the market forces are most of the time dominant.

Environment Issues

In the final analysis, many issues gear around environment degradation and climate change which are perceived more acutely in the Himalaya than elsewhere. Let us not forget that environmentally too, the Himalaya is one. As Dr. Ray puts it: “The Indian Himalayas stands tall. These are the water towers. They feed the myriad of rivers that so far have been providing water security to millions of people downstream.”²⁰

Whether it is the issue of deforestation, excessive number of hydropower projects, climate change and subsequent melting of glaciers, or careless development, the problems are the same from Ladakh to the Myanmar border.

Take again Uttarakhand. The consequences of a wild development with the objective to increase the economic resources of the State were very much predictable. The big blow came in June 2013.

The region suffered one of the most dreadful cloudbursts in decades, causing devastating floods and landslides. It was one of the worst natural disasters since Independence.

Though parts of Himachal Pradesh, Haryana, Delhi and Uttar Pradesh, as well as Western Nepal, and Western Tibet experienced heavy rainfalls, over 95% of the casualties occurred in Uttarakhand.

According to figures provided by the Uttarakhand government, more than 5,700 people were ‘presumed dead’, this included 934 local residents.

Reports mentioned that the destruction of bridges and roads left pilgrims and tourists trapped in the valleys leading to three of the four

Hindu (*Char Dham*) pilgrimage sites. The Indian Air Force, the Army, and paramilitary troops evacuated more than 1,10,000 people from the devastated areas.

Quoting experts, the environmental magazine *Down to Earth*²¹ analyzed the man-made disaster: “But it is man-made factors that have compounded the scale of the disaster. Unabated expansion of hydro-power projects and construction of roads to accommodate ever-increasing tourism, especially religious tourism, are also major causes for the unprecedented scale of devastation.”

It cites road construction as a major destabilizing factor for a mountain environment. Apart from tourism, dams construction played havoc: “The Ganga in the upper reaches has been an engineer’s playground. The Central Electricity Authority and the Uttarakhand power department have estimated the river’s hydroelectric potential at some 9,000 MW and have planned 70-odd projects on its tributaries. In building these projects the key tributaries would be modified—through diversion to tunnels or reservoirs—to such an extent that 80 per cent of the Bhagirathi and 65 per cent of the Alaknanda could be ‘affected’. As much as 90 per cent of the other smaller tributaries could be ‘affected’ the same way.”

Once again more studies should be conducted before this vital question: ‘is promotion of a State as a tourist destination compatible with sustainable development’, can be answered.

If not, more godsend disasters in Uttarakhand or elsewhere in the Himalaya will probably be necessary to make the planners understand that men can’t play around with nature with complete impunity.

Some Conclusions

The above mentioned issues show that the Himalaya should be considered as a single entity, facing similar economic, social, environmental or strategic problems from Ladakh to Arunachal. It also demonstrates the urgent need for in-depth studies on the borderland of India. A Himalayan University, not just restricted to environment but which could also take on research projects in historical, economic, social, strategic and other aspects of the Himalaya, is the need of the hour. A Central ministry for the Himalaya could be the next step.

Notes

¹ Is it not better to use the ‘singular’ tense for this massive geographical and ethnic entity?

2. For example for the death in Delhi of a young boy Nido Taniam, from Arunachal Pradesh.
3. Is it not appropriate to call the inhabitants of the Himalaya, the 'Himalayans'?
4. See our interview with Kiren Rijju in Rediff.com, <http://www.rediff.com/news/slide-show/slide-show-1-exclusive-kiren-rijju-we-must-strengthen-our-position-on-china-border/20140617.htm>
5. Prime Minister Narendra Modi took a small step in this direction: for the first since independence, the DGPs/IGPs annual conference was held outside Delhi (in Guwahati on November 29 and 30, 2014).
6. To 'liberate' the country, China still claims.
7. See the Dalai Lama's interview for Rediff.com at <http://news.rediff.com/slide-show/2010/jul/05/slide-show-1-dalai-lama-interview.htm>.
8. For article of Dr. P.D. Ray, see: http://www.business-standard.com/article/news-ians/a-ministry-for-the-himalayas-not-a-day-too-soon-comment-special-to-ians-114060300439_1.html
9. The Indo-Tibet border in the North-East.
10. See, <http://claudearpi.blogspot.in/2014/06/the-highway-to-indian-order.html>
11. He specifically mentioned the India-China border in Arunachal Pradesh.
12. See: <http://timesofindia.indiatimes.com/india/Home-minister-Rajnath-Singh-to-visit-India-China-border/articleshow/36063975.cms>
13. See Indian Express' article: <http://indianexpress.com/article/india/india-others/environment-ministry-to-ease-norms-on-defence-projects-along-china-border/>
14. Particularly the Tibetans and the Uyghurs
15. See: <http://kol.indusnettechnologies.com/gov/UTDB/pdf/Chapter1Introduction.pdf>
16. See: <http://www.himalayanhoneymoons.com/honeymoon-destinations/kumaon>
17. Ibid.
18. Though related to Nepal.
19. See: http://www.womenofthemountains.org/files/Microsoft%20Word%20-%202007-03-01-From-Yankila-Sherpa-FINAL-PAPER-Final_paper_sent_to_Baktybek.pdf
20. op. cit.
21. See: <http://www.downtoearth.org.in/content/man-made-reasons-uttarakhand-disaster>

Himalaya and the Himalayan Blunders

B.B. Kumar*

Himalaya has been the spiritual fountain head for India since antiquity. It had tremendous impact on our history, religion, culture and literature; it continues to do so even today. It was a protector, as well as a barrier for us. It protected us from the extreme cold by preventing the northern polar wind; it facilitated abundant rainfall in this country; it continues to be the source of our water and energy resources. It gave shelter to our savants, protected our intellectual wealth, when this country had to face bad days. Thousands of Sanskrit texts were translated in Tibetan and preserved. Himalaya, at the same time, became a barrier between Bharat and *Jambudvipa*, between political and cultural India this side and that side of the Himalaya. It became a barrier between India this side and India that side, and between a Kashi this side and a Kashi that side. Kashgar in Xinjiang; it needs mention, (Sanskrit – Khashgarh) was a great centre of Sanskrit and Vedic learning across the Himalaya; it was also known as Kashi. Obviously, the barrier was never insurmountable; it only became so when the country started losing its intellectual vitality; when its knowledge-sources, the Saraswati of India's *Prajna*, started drying up; when the country started living in self-forgetfulness. However, the 'protector's role of the Himalaya' was over-emphasized during the colonial period, and in colonial historiography. It was the history with high dose of myth-making; it projected Indians as the people cursed to suffer perpetual defeat by the hordes coming from outside, one after the other.

The State of Khotan in Xinjiang, according to Chinese and Tibetan sources, was founded by Kunala, the son of Asoka, and his ministers in the third century B.C. Moving further north-east, Kucha in Tarim

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basin on the southern slopes of Tien Shan Mountains, according to *Asokavadan*, – extant only in Chinese translation – was one of the parts of Asoka's vast empire, which he also proposed to give to Kunala. The relics, temples and stupas of Asoka have been found in China up to this day. Our links with the region goes back at least up to the seventeenth century B.C., according to Toynbee. Whereas the first Chinese envoy, Chang Kyan, visited the region only during 128 B.C. Obviously, India was this side, and India was also that side of the Himalaya. Thus, Himalaya was never a barrier for us. But, the fact needs emphasis that India has shrunk, and it has shrunk territorially not in 1947 alone; the process has been going on since the past two millennia at least.

The boundary of Laddakh, under the princely State of Kashmir under Maharaja Gulab Singh, was up to Shahidula, beyond the Kuen Lan Mountains, which was some 70 miles to the north of the Karakoram Range. It was when the 1842 peace treaty was signed between the representatives of Maharaja of Kashmir and those of Tibet. Another agreement, signed between the two in 1852, mentioned that the boundary between Ladakh and Tibet would remain the same as before. When the Chinese re-established their control over Xinjiang, they established their customs post, north of Shahidula, respecting the said boundary; they, thereby considered Kuen Lan as outside their boundary. As none was looking after the uninhabited border, the Chinese occupied Shahidula in 1890, and moved further westward two years later and erected their boundary marker at the Karakoram Pass. The story was repeated during post-independence period also. Government of independent India neglected the border; the Chinese occupied Aksai-Chin and constructed road in our territory. We lost huge Indian Territory in spite of timely warning by our Ambassador in Peking. Yet another story of our negligence is not less shocking. The village of Mansar, situated to the north of Manasarovar Lake, used to give land revenue to India; its population and other settlement statistics formed part of the Indian census. But we forgot about the same. The said village, it needs mention, was some 70 miles to the north of the present international border.

Himalaya, up to the beginning of the nineteenth century, used to be the most peaceful region of the world. There were only 75 Indians guarding the entire Indo-Tibetan border. The situation, however, changed after the British invasion of Tibet in 1903 under Colonel Younghusband's command. The expedition was withdrawn in a year; but it exposed the military weaknesses of Tibet. The exposure of its military weakness

proved costly; intra-territorial conflict inside Tibet was an added factor. Obviously, Tibet was a soft target for the Chinese, who took no time in attacking and grabbing the country. General Zhao Erfeng, Chinese warlord and Governor of Sinning, was appointed the new Army Commander for Tibet. Zhao, known in Tibet as Butcher Zhao, started advancing in Tibetan territory, as soon as Younghusband departed from the plateau, his brother, Zhao Erxun, was responsible for Sichuan. Aiming at integrating Tibet into Chinese empire, the two brothers began to divide Tibet into different administrative divisions. Amdo became the new administrative province of Qinghai; parts of it were integrated into South of Gansu and Northwest of Sichuan. Kham became Xikang. Zhao invaded Kham in 1905. He began meticulously “razing monasteries; killing monks and beheading Tibetan officials, who were immediately replaced by the Chinese officers in his effort to cinicize Kham.” As French explorer Jacques Bacot has described, “Zhao was a truly terrible man, extraordinarily energetic and hard, he could coldly do things, after reflection, which would surprise us even when we knew that he was a maniac of cruelty.” The number of monks and laymen butchered in Chating was 1210, and the same in Bating was 300. Changed Chinese attitude towards Tibet was also exhibited elsewhere. Dalai Lama, then in Peking, was ignorant about the developments in Tibet; contrary to what was expected, he was asked to *kowtow* to the Chinese Emperor and given a lower throne to sit like any other vassal, which he declined. Ultimately, even he was sacked.

Ghenghis Khan and his successors created one of the vastest empires in the world, stretching from Pacific Ocean to Eastern Europe. Genghis Khan’s grandson, Prince Goden dispatched an expedition to Tibet and invited Sakya Pandita Kunga Gyalsen (1182-1251) to his court. This initiated priest-patron (*Choe-Yon*) relationship between the two. It was purely a Central Asian phenomenon. When Kublei Khan, Goden’s grandson and successor, embraced Tibetan Buddhism, he adopted Dragon Choegyal Phagpa, Sakya Pandita’s nephew, as his spiritual mentor. Again he adopted Buddhism as the State religion of his empire and Phagpa as the empire’s highest spiritual authority. He offered him political authority over the entire Tibet in 1254. Here, it needs mention that this relationship did not exhibit any subordination; China did not have sovereignty over Tibet. Moreover, unlike the Chinese, the Tibetans had their own distinct system of administration, including Head of the State (Dalai Lama), who was both the spiritual and temporal head, a Cabinet (*Kashag*), a National Assembly (*Tsongdu*), bureaucracy, judicial

system and army. Tibetan Government levied taxes, minted money, issued postal stamps and ran its own postal services. Tibet remained a strong independent power throughout; they dominated Tarim basin for at least a century until the middle of the ninth century. Tibetan ruler, Trisong Detsen (r. 755-797), even conquered parts of China; he invaded its capital Chang'an (Xian of today) in 763; Tibet forced China to pay an annual tribute. The situation changed during early parts of twentieth century. Tibet became a helpless pawn in the great colonial game in which Britain, Russia and China were the players. The game started before the end of nineteenth century. China, before the game, never behaved like a sovereign power in Tibet. It rather helped Tibet when the country asked for help, as in the case of Nepali aggression on Tibet, and the Chinese army was promptly withdrawn after the task accomplished. The Chinese suzerainty claims over Tibet, it needs mention, ignores the fact that its neighbouring countries – Nepal, Bhutan, India and Mongolia – had their diplomatic missions in Tibet before the PLA occupation of that country. India's special interests in Tibet were recognized and the world community supported the Tibetan cause. The fact, that Chinese suzerainty claim over Tibet, was a fiction, was supported by several other facts also. Younghusband, during his expedition, even refused the offer of mediation by the Chinese *Amban* between him and the Tibetans, and instead decided to deal directly with the Tibetan Government. As Lord Curzon observed, "the two Chinese (i.e. Manchu) Ambans at Lhasa are there not as Viceroys, but as Ambassadors." The Yu Tai, the Chinese *Amban* in Lhasa during the expedition, in reality, behaved like helpless 'observer.' Mortimer Durand has rightly observed, "He was only a guest in Lhasa – not a master. ...". However, it is unfortunate that when the world was moving towards freedom, from colonial rule, China was writing a new chapter by the colonization of Tibet.

The Chinese occupation of Tibet during the first decade of twentieth century, though short-lived, forced 13th Dalai Lama to seek political asylum in India. But, unprecedented revolt and uprising in Tibet against the Chinese forced their ouster from Tibet. The country remained free for about forty years till recaptured by the PLA; the history repeated itself; the 14th Dalai Lama, like his predecessor, had also to seek asylum in India after half a century. This was in line of the observation that "Territory once won for civilization must not be given back to the barbarians; therefore, territory which was once Chinese must forever remain so, and if lost must be recovered at the first opportunity." (C.P.

Fitzgerald quoted by Francis Watson in his book, *The Frontiers of China*). As we know, China considered herself civilized and its neighbours barbarians. Dr. R.C. Majumdar also had a similar observation about Chinese imperial and aggressive policy.

The occupation of Tibet by China brought the latter on our door-steps. In the aftermath of the partition of the country and Chinese at our border, the entire northern and western Indian frontier became tense; Himalaya became a conflict zone. The Indian representative in Lhasa forewarned Delhi through his cable, “The Chinese have entered Tibet; the Himalayas ceased to exist.” Even ‘A wandering Naturalist’ tried to warn us quite early and pointed towards the writings on the walls (*Pioneer Mail*, July 24, 1914). It said: “We might well bear in mind that, at present everybody in Asia is engaged in a game of grab – even the chief victim (China), and if in the future anyone who has suffered from this policy is in a position to retaliate, he is likely to do so without discrimination. This being so, it would be wise to make our Indian frontier as secure as possible now, before the storm comes.” there should have been proper handling of the affair. Sardar Patel warned Nehru about the ill-intention of the Chinese, when India’s concerns over the PLA entry in Tibet were discourteously dismissed by the Chinese government. He wrote: “It looks as though it is not a friend speaking in that language but a potential enemy. ... We have to consider what new situation now faces us as a result of disappearance of Tibet as we know it and the expansion of China up to our gates.” Unlike Indian pseudo-Marxists – in reality, the Indian communists were Stalinists, or at best Leninists rather than Marxists – he knew the reality of Chinese imperialism. He wrote:

“Chinese irredentism and Communist imperialism are different from the imperialism of the Western powers. The former has a cloak of ideology which makes it ten times dangerous. In the guise of ideological expansion lie concealed racial, national and historical claims. ... While our Western and North-Western threats to security are still prominent as before, a new threat has developed from the North and the North-East. Thus, for the first time, after centuries, India’s defence has to simultaneously concentrate itself on two fronts. Our defence measures have so far been on the calculations of superiority over Pakistan.” Nehru, however, ignored the sage advice and words of caution of his colleagues due to having a romantic view of the India-Chinese relations and failed to understand the behaviour and mindset of the Chinese leaders. Unlike Nehru, cut-off from his tradition of Kautilya and Kanik,

Mao was not cut off from Sun Tzu and his teaching that “To fight and conquer in all your battles is not supreme excellence; supreme excellence consists of breaking the enemy’s resistance without fighting.” Mao tried to do exactly the same, when he talked to Nehru on survival and supremacy of China after a nuclear war.

Whatever happened in Tibet, and the failure of India in doing whatever it should have done is well-known. It exposed our moral lapse, short-sightedness and many other weaknesses. Whereas the Government of India was refusing to establish diplomatic relations with Israel on the plea that she invaded Egypt, although it was unable to occupy any territory, it was helping China – a country which colonized Tibet and occupied India’s own territory – in securing a seat in the Security Council of the UNO; the country’s defence minister was indulging in weakening its own security infrastructures; its own Ambassador in Peking was wrongly advising its Premier not to desist from making a reference of the McMahon line during talks with his Chinese counterpart, clearly exhibits a pathetic scenario. Not only that, we had pseudo-Gandhians advising dilution of the defence infrastructure and pseudo-Marxists openly siding with China in whatever it did. Again, the blunder and misplaced generosity of Atal Bihari Vajpayee, who accepted China’s Sovereignty in place of Suzerainty needs mention.

Apart from Tibet and Indo-Tibet border, where the situation continues to be grave, the internal scenario of our Himalayan neighbour, Nepal is also not assuring. The country has failed to draft a Constitution, in spite of years of trying; efforts are on to destabilize the country by promoting ethnic and caste-based fault-lines. It is the same process of ‘social distancing’ which has destabilized North-East India, especially Assam. The country, as in India, is proving itself incapable of meeting the challenges of ideology driven violent movements, because a large section of its intellectuals, bureaucrats and politicians, like that of India, mix up the problems and create confusion. Incidentally, many such persons are the products of our Central government funded institutions. Incidentally, it needs mention that Himalaya has witnessed numerous experiments in societal harmonization. As for example, the Limbus (Kirantis) of Nepal and Sikkim have Kashi and Lhasa *gotras*; which widened their self-image and non-parochial vision. Himalaya needs deepened dedicated scholarship putting patient labour and research aiming at promotion of our understanding. The tendency to generalize and explain things in rigid ideological frame-work, especially by our established eminent scholars, needs to be controlled.

The Dalai Lama: Person and the Institution

K.T.S. Sarao*

The term *Dalai Lama* is originally an honorific title of the grand lama of the Geluk (Yellow Hat) school of Tibetan Buddhism. It is made up of the Mongolian word *dalai* (i.e. *vast/ocean*) and the Tibetan word *bla ma* (i.e. *spiritual teacher*) meaning *Ocean-like Spiritual Teacher*. In the Mongolian context, the word *dalai* appears to have been used as the equivalent of the Sanskrit word *cakravartin* (i.e. *universal*). In that sense, the term *Dalai Lama* should mean *Universal Teacher* or *World-wide Teacher*. The Dalai Lamas are considered as the earthly manifestations (Tibetan: *tülku*) of Chenrezig (Avalokiteśvara, the Buddha of Compassion). Jetsun Jamphel Ngawang Lobsang Yeshe Tenzin Gyatso (*Holy Lord, Gentle Glory, Compassionate, Defender of the Faith, Ocean of Wisdom*) is the current and Fourteenth Dalai Lama. In this paper, an attempt is made to trace the origins of the institution of the Dalai Lama and the future concerns relating to this institution among the stake holders.

According to *The Tibetan Book of the Dead*, an intermediate period, called the *bardo*, exists between the time of one's death and the time of the next birth. Though the belief that one's past and future lives are connected existed among the Bönpas of Tibet in the pre-Buddhist period, the present tradition of formally recognizing the reincarnations of various holy persons first originated in the early fourteenth century, when the disciples of Karmapa Dusum Khyenpa recognized Karmapa Pagshi as his reincarnation in accordance with the former's prediction. Explaining the concept of reincarnation, the Fourteenth Dalai Lama says

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that “[t]here are two ways in which someone can take rebirth after death: rebirth under the sway of karma and destructive emotions and rebirth through the power of compassion and prayer. Superior Bodhisattvas, who have attained the path of seeing, are reborn due to the power of their compassion for sentient beings and based on their prayers to benefit others. They are able to choose their place and time of birth as well as their future parents. Such a rebirth, which is solely for the benefit of others, is rebirth through the force of compassion and prayer” (Dalai 2011a). The rebirth in which a being is able to choose in advance the time, place, and parents to do compassionate work is known as reincarnation.

Origin and History of the Institution of the Dalai Lama

The title *Dalai Lama Vajradhara* (or *Dalai Lama* in short) originated in the sixteenth century with Altan Khan, a ruler of the Tümed Mongols, who gave it to Sönam Gyatso (1543–1588), the powerful abbot of the biggest Geluk monastery. Later, two of Sönam Gyatso’s previous incarnations were also recognized posthumously as the first and second holders of the lineage, thus making Sönam Gyatso as the Third Dalai Lama. Those, and his successive incarnations are known as the Dalai Lamas. The Fourth Dalai Lama, Yönten Gyatso, was not an ethnic Tibetan. He was a Tümed Mongol and Altan Khan’s great-grandson. He was “an ineffectual and rather tragic figure” (van der Kuijp 2005: 18). When originally the title of *Dalai Lama* was granted to Sönam Gyatso, it was not really visualized as an event of far-reaching consequences. However, it became metamorphosed with the Fifth Dalai Lama, Ngawang Lobsang Gyatso, when the religious, political, and economic life of the Tibetan society became inextricably linked to it. He laid the foundations of the Gaden Phodrang Labrang (the Dalai Lama’s institution) and Gaden Phodrang Government in 1642 – “a unique form of governance based on the principles of *chosi-sungdril* or the harmonious blend of religion and politics.” Since then the Dalai Lamas have functioned as the temporal and religious heads of the Tibetan people. Through his “political savvy and organizational skills,” he managed to successfully “establish the theological inevitability and legitimacy of his office... (and) “Bodhisattvacratic” governance of Tibet” (van der Kuijp 2005: 15). As the First Dalai Lama, Gedun Drub, was linked to Tsongkhapa, the founder of the Geluk sect, the Dalai Lamas basically belong to this sect of Tibetan Buddhism, though, the Fourteenth Dalai Lama considers himself as the head of all the sects of Tibetan Buddhism.

Tsangyang Gyatso, the Sixth Dalai Lama wore his hair long, drank alcohol, and enjoyed the company of women. He was deposed in 1705 and probably died in 1706 as a wandering *yogi* (see van der Kuijp 2005: 19; Kollmar-Paulenz 2006: 109–122). After this, there was a near chaos resulting from a struggle between the Mongolian Dzungars and Qing (Manchu) Emperor Kangxi to control Tibet. Consequently, the Seventh Dalai Lama could only be installed 1721. The Eighth Dalai Lama, Gyampal Gyatso, died when he was in his thirties. None of the Dalai Lamas from the Ninth to the Twelfth lived beyond the age of twenty-one and it is highly likely that “some, if not all, were poisoned, either by loyal Tibetans for being Chinese-appointed impostors, or by the Chinese for not being properly manageable” (Norbu and Turnbull 1968: 311). However, things radically changed with the Thirteenth Dalai Lama, Thubten Gyatso, who lived in exile once each in Mongolia and India and earnestly “sought to introduce unprecedented political and social innovations” (van der Kuijp 2005: 19). However, all his efforts were derailed by the ultraconservative clergy whose underbelly has generally been ignored by Tibet aficionados. Not only that this clergy still appears to have continued to maintain its grip over the Fourteenth Dalai Lama but it is also sometimes alleged that the Dalai Lama has become an unfortunate pawn in the diplomatic chess that China and the West are playing against each other. Further, it is alleged that the present Dalai Lama “has tended to discourage the emergence of alternative leaders, unless officially approved by him” (Norbu 1997: 301). Thus, despite so much talk of democratization, the exile democracy appears to be characterized by the overriding power of the Dalai Lama. Whereas criticism of the Tibetan-exile government is often dismissed by its leaders as being of Chinese origin, criticism of the Dalai Lama is deemed completely illegitimate among the exiles.

With regard to the adoption of the concept of reincarnation by the Gelukpa school, it has been suggested that it primarily originated out of the cut-throat competition that existed between the Gelukpa and the Karmapa schools. Considering the benefits that the notion of reincarnation had brought to the Karmapa, the Gelukpa went ahead by adopting it in “an attempt to compete directly with the Karmapas... (to)... command higher prices than other types of monks for their religious services. Thus, by taking on a unique feature of the Karmapa, the Gelukpa were benefiting from the prestige and economic success of the Karmapa incarnates” (McCleary and van der Kuijp 2008: 22-23). Consequently, personal estates (*labrang*s) of important lamas,

particularly that of the Dalai Lama, became immensely wealthy. Each of these *labrangs* was controlled by a lineage of incarnate lamas and whenever a lama died his *labrang* came under the control of a regent till the newly found incarnation attained adulthood. Such a development created massive accumulation of estates and serfs under the control of grand lamas at whose head was the Dalai Lama himself. The benefits and privileges from these *labrangs* also accrued to the families of the newly found incarnated lamas. For instance, a Chinese Communist publication claims that the family of the Fourteenth Dalai Lama received twenty-seven estates consisting of huge land and serf holdings ("Lhasa's New Look," *Peking Review*, vol. 41, 1971: 12 quoted at Goldstein 1973: 449). Interestingly, in the year 1917 the monasteries held 42 per cent of the land, the government 37 percent, and the aristocracy 21 per cent (Carrasco 1950: 86). Till 1959, the entire Tibetan society was under the tight grip of the grand lamas who along with about 200 exclusive aristocratic families (totalling about 1200 persons including women and children) virtually owned Tibet (see Goldstein 1973: 450).

Methodology Employed in the Search of the Reincarnated Dalai Lama

After the system of recognizing the incarnation of the Dalai Lama came into existence, an elaborate procedure interwoven with supernatural phenomenon was developed for the purposes of finding and legitimizing the reincarnated being. Clues from the late Dalai Lama's embalmed body, records of his speeches and comments, unusual happenings such as strange cloud formations, and visions in the holy lake were carefully analyzed for guidance by high Lamas, oracles, the Regent, and high ranking government officials. Based upon this preliminary investigation search parties consisting of high lamas and government officials were despatched to the probable regions where the late Dalai Lama may have reincarnated himself. There, the search parties investigated stories of unusual or extraordinary births and variously tested the likely candidates. While this was being done, the children and their parents remained uninformed. Typical tests consisted of showing the candidates several items that included the personal possessions of the late Dalai Lama. Selection of the objects belonging to the late Dalai Lama was viewed as confirmation, since it showed that the reincarnated being remembered events of his previous life. On the basis of the reports sent by the search parties and after consulting important lamas and

government officials, the Regent made a report to the National Assembly. Thereafter, the National Assembly, on the basis of the guidance provided by the Regent, accepted one candidate as the Dalai Lama. An effort was made to include in the decision-making “all the politically relevant segments (aristocracy, monk officials, monastic elements). So long as the chosen candidate was alert and seemingly intelligent, it was of little consequence who he was” (Goldstein 1973: 447). Explaining the procedure, the Fourteenth Dalai Lama writes:

“Among these some of the most important involve the predecessor’s predictive letter and other instructions and indications that might occur; the reincarnation’s reliably recounting his previous life and speaking about it; identifying possessions belonging to the predecessor and recognizing people who had been close to him. Apart from these, additional methods include asking reliable spiritual masters for their divination as well as seeking the predictions of mundane oracles, who appear through mediums in trance, and observing the visions that manifest in sacred lakes of protectors like Lhamoi Lhatso. When there happens to be more than one prospective candidate for recognition as a Tülku, and it becomes difficult to decide, there is a practice of making the final decision by divination employing the dough-ball method!” (Dalai 2011a).

The official website of the Fourteenth Dalai Lama (www.dalailama.com) provides a detailed account of the search undertaken to find him. The embalmed body of the Thirteenth Dalai Lama during its period of sitting in state was found to have turned its face from south to northeast indicating that the next Dalai Lama had reincarnated in the northeast of Lhasa. Then the Regent looking into the waters of the sacred lake, Lhamoi Lhatso, had a vision whereby he saw the Tibetan letters *Ah*, *Ka*, and *Ma* floating over the lake. The letters were followed by the image of a three-storeyed monastery, with a turquoise and gold roof, from where a path ran to a hill. The vision was completed by the appearance of a small house with a strangely-shaped guttering. Following these clues, the search party went to Amdo’s Kumbum monastery and located a two-year old boy called Lhamo Thondup in Taktser village. The child recognized the leader of the party, Kewtsang Rinpoche of Sera monastery, by calling out “Sera lama, Sera lama.” A few days later, when the search party paid another visit with a number of possessions of the Thirteenth Dalai Lama, the infant identified them by saying, “It’s mine. It’s mine.”

Despite the fact that the Tibetan system attempted to deal with the potential problem of legitimacy quite efficaciously, due to the built-in

fault line of each Dalai Lama beginning his term from infancy, interim periods invariably created unusual situations. The age of majority for a Dalai Lama being eighteen years, each time a Dalai Lama died the Regent ran the affairs for at least eighteen years. Since the Regents who were a small number of privileged lamas were also incarnations themselves, the problem of continuity among them too made things rather complicated and often added to political and religious uncertainty. Thus, whenever a Regent died his incarnation also had to be found in the form of an infant. To ensure that there was always an adult Regent in seat, as many as six different incarnation lineages of Regents after 1757 came into existence (see Goldstein 1973: 448). Due to both natural calamities and sinister collusions, Regents ruled over Tibet approximately 94 percent of the time prior to the Thirteenth Dalai Lama (Goldstein 1973: 447).

Categories of Reincarnation and the Dalai Lama's Place in it

The Fourteenth Dalai Lama has pointed out that whereas lower bodhisattvas reincarnate only in one person, i.e., once at a time, an eminent Buddha or a bodhisattva can manifest several times simultaneously. Moreover, according to him, superior Bodhisattvas can even manifest an emanation before death (*ma-dhey tülku*). In support of this argument, it is pointed out that the First Dalai Lama, apart from being a manifestation of Avalokiteśvara, was also considered as a manifestation of Mañjuśrī. Further, at about the same time when the First Dalai Lama was alive, one Karmapa, and a senior Drigung Lama were also considered to be manifestations of Avalokiteśvara. The upshot of this, as declared by the Fourteenth Dalai Lama, is that the Dalai Lama can, if he so chooses, reincarnate himself simultaneously in several bodies (see Dalai 2011a; Brauen 2005: 11). However, Beijing completely disagrees saying that “[t]here can be only one emanation in each generation and it can't happen when the predecessor is still alive ... (and that) there has never been emanation before the passing away of the predecessor” (<http://en.tibetol.cn/01/01/201110/t1021001.htm>).

The Fourteenth Dalai Lama as a temporal leader might be a marginal figure, but as a spiritual master he has the stature of a once-in-a-century master. If he is able to return to Tibet someday, he has clearly stated that he wants to return to a non-political life as a monk, and make sure that the Tibetans can choose their own political leaders democratically. On his official website (www.dalailama.com), he points out that after

the adoption of Tibetan Constitution on 14 June 1991, when the system of electing Kalon Tripa (Prime Minister) and other kalons (ministers) through democratic elections was introduced, the system of the institution of Gaden Phodrang of the Dalai Lama as both the spiritual and temporal authority came to an end. This was formalized by him on 29 May 2011, when he signed into law the formal transfer of his temporal power to the democratically elected Kalon Tripa, thus, bringing “to end the dual system of governance established during the fifth Dalai Lama and retain the kind of unanimity and recognition gained by the first four Dalai Lamas in the spiritual domain” (Dalai 2011). A tülku lama in India told the author on condition of anonymity that he did not favour this action of the Dalai Lama at all, as it amounted to an abandonment of the Tibetan tradition. Majority of the Tibetan diaspora also does not favour this option. In any case, though the Dalai Lama has now decided to take only “spiritual responsibilities” and describes himself as “semi-retired,” he has not been able to retire fully from his political role as he is still seen as the symbol and representative of the Tibetans (Dalai 2011). Reassuring his followers, particularly those inside Tibet, he says that he is not abandoning his responsibility and would “continue to lead Tibet in spiritual affairs” (Dalai 2011). He says that his decision of giving up temporal power will benefit the Tibetan people in the long run in the following ways (Dalai 2011):

1. Abdication of the political authority will help in sustaining the “exile administration and make it more progressive and robust.”
2. The international community which is supportive of the Tibetan cause will commend “the Dalai Lama’s sincerity for the complete democratization of the Tibetan polity” enhancing their “prestige in the world.”
3. This “will fully expose the falsehood and lies of the Chinese government that there is no Tibet problem except the issue of the Dalai Lama’s personal rights.”
4. As his own education was “unbalanced and inappropriate” for a leadership role (see Dalai 1990: 25), handing over temporal responsibilities to professionally trained politicians would make better sense.

He believes that “As the degenerate age gets worse, and as more reincarnations of high Lamas are being recognized, some of them for political motives, increasing numbers have been recognized through inappropriate and questionable means, as a result of which huge damage has been done to the Dharma” (Dalai 2011a). He also cites the example of the Golden Urn method,² which, he says, was imposed by the Qing

Government on the unwilling Tibetans. According to him, “this procedure was dispensed with for the Ninth, Thirteenth and myself, the Fourteenth Dalai Lama. Even in the case of the Tenth Dalai Lama, the authentic reincarnation had already been found and in reality this procedure was not followed, but in order to humour the Manchus it was merely announced that this procedure had been observed. The Golden Urn system was actually used only in the cases of the Eleventh and Twelfth Dalai Lamas. However, the Twelfth Dalai Lama had already been recognized before the procedure was employed. Therefore, there has only been one occasion when a Dalai Lama was recognized by using this method... This system was imposed by the Manchus, but Tibetans had no faith in it because it lacked any spiritual quality” (Dalai 2011a).

However, Beijing emphasizes that the Golden Urn is the only legitimate method of choice. Its official position is that “[t]he Golden Urn system has validity in religion and is well accepted” (<http://en.tibetol.cn/01/01/201110/t1021001.htm>). But he retorts:

“When I was recognized as the Fourteenth incarnation of the Dalai Lama in 1939, the Priest-Patron relationship between Tibet and China had already come to an end. Therefore, there was no question of any need to confirm the reincarnation by employing the Golden Urn. It is well-known that the then Regent of Tibet and the Tibetan National Assembly had followed the procedure for recognizing the Dalai Lama’s reincarnation taking account of the predictions of high Lamas, oracles and the visions seen in Lhamoi Latso; the Chinese had no involvement in it whatever. Nevertheless, some concerned officials of the Guomintang later cunningly spread lies in the newspapers claiming that they had agreed to forego the use of the Golden Urn and that Wu Chung-tsin presided over my enthronement” (Dalai 2011a).

As is expected, *China Tibet Online*, the website of the People’s Republic of China in English language, has hundreds of negative articles on the Dalai Lama mostly written in eccentric English. Further, some quarters led by the Shugden practitioners³ have tried to show the Dalai Lama in bad light calling him “a Drama-Lama,” who was on the payroll of the CIA, “a product of the crushing feudalism of archaic, pre-modern Tibet, where an elite of Buddhist monks treated the masses as serfs and ruthlessly punished them if they stepped out of line,” follower of “archaic practices,” a “Saffron-robed Muslim,”⁴ “not the brightest bulb in the room,” “a very political monk shuffling around in Gucci shoes,” who “keeps on giggling needlessly,” whose “Middle Way approach is a failure,” who “doesn’t comprehend the nature of modern politics,”

and continues “enforcing a one-man rule in Dharamsala,” (see Western Shugden Society 2010, especially Chapter: 6). It goes without saying that most of these allegations and criticisms are a part of the anti-Dalai Lama propaganda. The Dalai Lama’s use of practices, generally not associated with textual Buddhism, including divination and belief in oracular prophesies, miracles, and dreams have also raised some eye brows. However, from the perspective of the Dalai Lama, being a Buddhist implies that one believes in protective deities, follows their rituals, and relies on them for important decisions in life.

Future Strategy

The Chinese government has passed a series of laws specifying that it has final authority over the “management of living Buddha reincarnation” and, as in the case of the Panchen Lama, would like to use the Golden Urn Method. However, the Dalai Lama’s strategy clearly is to ensure that the Tibetans are not relegated, like the Uighurs, to the fringes of history. Thus, he feels that “If it is decided that the reincarnation of the Dalai Lama should continue and there is a need for the Fifteenth Dalai Lama to be recognized, responsibility for doing so will primarily rest on the concerned officers of the Dalai Lama’s Gaden Phodrang Trust. They should consult the various heads of the Tibetan Buddhist traditions and the reliable oath-bound Dharma Protectors who are linked inseparably to the lineage of the Dalai Lamas. They should seek advice and direction from these concerned beings and carry out the procedures of search and recognition in accordance with past tradition. I shall leave clear written instructions about this. Bear in mind that, apart from the reincarnation recognized through such legitimate methods, no recognition or acceptance should be given to a candidate chosen for political ends by anyone, including those in the People’s Republic of China” (Dalai 2011a).

Once he dies and if his successor is young, he would obviously be inexperienced. Moreover, with someone as charismatic and popular as the Dalai Lama gone, the Tibetans will undoubtedly be faced with the prospect of not only losing outside attention but also a strong unifying symbol. In the absence of clear guidelines with regard to his reincarnation, “there is an obvious risk of vested political interests misusing the reincarnation system to fulfil their own political agenda.” Clearly, “not a few have questioned the *locus standi* of China’s communist government in assuming the role of the Manchu emperor... And for motives that are far too patent to be disguised” (Mehra 1996:

457). Keeping “these apprehensions in mind” and while he remains “physically and mentally fit,” he has expressed a wish to “draw up clear guidelines to recognise the next Dalai Lama, so that there is no room for doubt or deception” (Dalai 2011a). Elaborating further, he has pointed out that he would like the issue of his reincarnation sorted out during his lifetime itself because (Dalai 2011a):

1. In recent times there have been cases of the use of improper methods to recognize reincarnation.
2. Since “the Manchu era Chinese political authorities repeatedly engaged in various deceitful means using Buddhism, Buddhist masters and Tülkus as tools to fulfil their political ends.” He would like this deceit by Machiavellian Beijing to come to an end.
3. “The authoritarian rulers of the People’s Republic of China, who as communists reject religion, but still involve themselves in religious affairs,” calling him a “wolf in monk’s clothing” and a “deceitful splitist” have enforced “various inappropriate methods for recognizing reincarnations to eradicate our unique Tibetan cultural traditions.”
4. The rulers of the People’s Republic of China “say they are waiting for my death and will recognize a Fifteenth Dalai Lama of their choice. It is clear from their recent rules and regulations and subsequent declarations that they have a detailed strategy to deceive Tibetans, followers of the Tibetan Buddhist tradition and the world community.”

Taking the above into consideration, the Dalai Lama says that he has “a responsibility to ... counter such detrimental schemes” (Dalai 2011a). His promise of clear succession guidelines when he is around 90 years old is no doubt designed to avoid a situation similar to that of the Panchen Lama in 1995. However, it is certain that Beijing will follow its own agenda and he is fully conscious of the fact that the present Panchen Lama may also play an important role in the selection of the Fifteenth Dalai Lama. “And a Beijing-sponsored and tutored protégé, may not... abide by the best interests of his own people at home or in the vast Tibetan diaspora without” (Mehra 1996: 456).

The Fifteenth Dalai Lama as a Woman or of non-Tibetan Ethnicity

Interestingly, though all the Dalai Lamas were born among the practitioners of Tibetan-style Buddhism, not all of them were born inside

the present-day Tibet Autonomous Region (TAR). For instance, the Fourth Dalai Lama was born in Mongolia and the Sixth Dalai Lama, Tsangyang Gyatso, was born in India's Arunachal Pradesh at Tawang. Even the Fourteenth Dalai Lama's birthplace falls outside the TAR. Thus, theoretically speaking, the Dalai Lama could be reborn anywhere. The Dalai Lama has also pointed out even a "Female Dalai Lama (is) possible because in Tibet tradition, among the high women, reincarnation is there (and)... there is no religious connotation that religious leader must be male. If circumstances are such that female reincarnation is more effective to people, then, logically it should be female." However, considering that Tibetan clergy is overwhelmingly androcentric with a fair sprinkling of misogynistic elements, possibility of the recognition of fully ordained nuns in Tibetan Buddhism is difficult to visualize in the near future. Thus, it is hard to imagine that the Fifteenth Dalai Lama could be a female or other than an ethnic Tibetan. Of course, in theory there is nothing that comes in the way of the future Dalai Lama even being born in the West (see Brauen 2005: 12). Similarly, though the possible reincarnation of the Dalai Lama in Mongolia is highly unlikely but if at all it happens, it would certainly offer a serious challenge to the Mongol-Chinese relationship. However, a tülku lama told the author on condition of anonymity that the fifteenth Dalai Lama shall "definitely be a male born among the Tibetan diaspora." Rest, according to him, is "all politics and appeasement of vested interests."

Possibility of two or more Dalai Lamas

There is a very real possibility, as it happened not too long ago in the case of the Panchen Lama, there could be two or more Dalai Lamas. Apart from the Tibetan exile community, it is almost certain that Beijing will pick up its own Dalai Lama. In fact, the two sides appear to be headed towards that kind of eventuality. Besides increasing tensions among the Tibetan exiles, China, and the country where the reincarnation is found, such an outcome will undermine Tibetan tradition and seriously weaken the Fifteenth Dalai Lama's power. As the Dalai Lama and his supporters are in the process of preparing their own strategy and so is Beijing, Dalai Lama may decide to reincarnate in two different persons: one to look after spiritual matters and the other temporal. Then in that case, there could be as many as three Dalai Lamas. However, a member of the Tibetan Government in Exile told the author that after the Fourteenth Dalai Lama leaves his body, the Tibetan Government in

Exile shall be able to handle the political aspect of the Tibetan cause competently and the Fifteenth Dalai Lama shall look after religious matters only.

Possibility of a Senior Monk as an ad-hoc Fifteenth Dalai Lama

The Dalai Lama says that as to whether a senior lama should be chosen as an ad-hoc Fifteenth Dalai Lama before his death or immediately after his death “is up to the Tibetan people... (as to)... how to carry on the succession... I could appoint some senior or well-known lama, theoretically speaking. Another possibility: After my death some senior lama could be appointed” (see Brauen 2005: 12-13). Alternatively, as suggested by Robert Thurman, the Dalai Lama might declare that a younger lama is the reincarnation of his own long-dead Regent. Then the Dalai Lama could die and reincarnate as a new baby, which would be identified after the usual study of portents and signs. “Maybe the one he names as the reincarnation of the regent would transfer the Dalai Lama title back to him when his next reincarnation comes of age,” says Thurman (*The New York Times*, January 31, 2009). Or as the Dalai Lama has hinted more than once, he could reincarnate in one of the existing lamas even before he passes away.

Why will the Fifteenth Dalai Lama not reincarnate in TAR or elsewhere in the PRC?

Beijing has left little doubt that it intends to be in control in the choice of the next Dalai Lama. This concern has led the current Dalai Lama to contemplate ways that may break away from the traditional method in which each dead Dalai Lama is reincarnated in the body of a male child. China insists that religious law requires that the Dalai Lama’s reincarnation be born in a Tibetan area within the PRC. However, the Dalai Lama says: “If I die as a refugee and the Tibetan situation remains like this, then logically, my reincarnation will appear in a free country, because the very purpose of reincarnation is to carry on the work which began in my previous life,” (www.yowangdu.com/tibetan-buddhism/dalai-lama-interview.html).

To off-set most of the above-stated apprehensions, the Dalai Lama feels that “[R]eincarnation is a phenomenon which should take place either through the voluntary choice of the concerned person or at least on the strength of his or her karma, merit and prayers. Therefore, the

person who reincarnates has sole legitimate authority over where and how he or she takes rebirth and how that reincarnation is to be recognized. It is a reality that no one else can force the person concerned, or manipulate him or her. It is particularly inappropriate for Chinese communists, who explicitly reject even the idea of past and future lives, let alone the concept of reincarnate Tülkus, to meddle in the system of reincarnation and especially the reincarnations of the Dalai Lamas and Panchen Lamas. Such brazen meddling contradicts their own political ideology and reveals their double standards. Should this situation continue in the future, it will be impossible for Tibetans and those who follow the Tibetan Buddhist tradition to acknowledge or accept it. When I am about ninety I will consult the high Lamas of the Tibetan Buddhist traditions, the Tibetan public, and other concerned people who follow Tibetan Buddhism, and re-evaluate whether the institution of the Dalai Lama should continue or not. On that basis we will take a decision” (Dalai 2011a).

Now within China an opinion appears to be building up, especially among the younger leaders, which believes that the view that Tibet issue should be dragged on until after the death of the Fourteenth Dalai Lama is basically unwise because “it is in China’s long-term strategic interest to resolve the issue in dialogue with the current exiled leader, and that it must do so while the historic opportunity still exists” (see Rabgey and Sharlo 2004: 28-29). Chinese government has occasionally hinted at considering the Dalai Lama as part of the solution rather than part of the problem. The Dalai Lama himself also knows that the odds of a solution through negotiations are far better during his lifetime. It cannot be denied that “the Dalai Lama is the only person who would persuade Tibetans to accept an agreement with the Chinese government that would recognize Tibet to be part of the PRC” (“Address of Mr Kelsang Gyaltzen,” *Tibetan Bulletin*, vol. 7, no. 5, 2003: 18). This is significant in the light of the fact, says Geshe Ngawang Samten, the Vice-Chancellor of Tibetan Central University of Sarnath, that younger members of the Tibetans diaspora continue to maintain their commitment towards the Tibetan cause despite having been scattered into different parts of the world. However, it now appears that the disintegration of China which Tibetan exile leaders had hoped for is highly unlikely. On the contrary, China has become an ever-greater regional power. Under such circumstances, there is a glimmer of hope that the PRC may behave towards the Dalai Lama, as behoves a Great Power that China is now, with magnanimity and do a deal with him while he is still around.

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www.dalailama.com

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Notes

- ¹ The Dough-ball Divination Method (zen tak) is practised when an important decision, such as the choice of a grand reincarnated lama, is to be made. All probable answers to the enquiry, such as the names of likely candidates are written on slips of paper. These are then encased in equal sized balls of dough. These balls are then placed in a bowl, which is sealed and put in front of the sacred objects and images requesting their inspiration in the decision-making. For three days prayers are recited day and night and on the fourth day, the cover of the bowl is removed in the presence of all. A prominent lama rolls the dough-balls round in the bowl till one of them falls out which is accepted as containing the answer.
- ² The Qing court promulgated the 29-Article Ordinance in 1793 for "Effectively Governing Tibet." As per article 1 of this Ordinance certain reincarnated grand lamas were to be chosen by drawing lots from two gold urns: one for the Dalai Lama and the Panchen Erdeni (now kept in Lhasa's Jokhang Monastery) and the other for the Hutogtu Living Buddha in Mongolia (now kept in Beijing's Yonghegong Lamasery).
- ³ Dorje Shugden (also called Gyalchen or Dolgyal) is viewed as a Dharma Protector ('Guardian Angel') in Tibetan Buddhism. However, his worship has been explicitly banned by the Dalai Lama. The Shugden practitioners openly accuse the Dalai Lama of using the State mechanism to maintain his monopoly over Tibetan religion at the cost of plurality which he otherwise often preaches. Robert Thurman calls the Shugden practitioners as 'the Taliban of Tibetan Buddhism' working at the behest of the Chinese (see Western Shugden Society 2010: Chapter: 3; Tony Clifton, 'Cult Mystery,' *Newsweek*, 28 April 1997).
- ⁴ According to the Western Shugden Society, his birth village Taktser is a Muslim village and he himself a Muslim by birth. Qinghai's Muslim leader Ma Bufang (later Taiwan's ambassador to Saudi Arabia from 1957-61) charging 400,000 silver coins for releasing him from his Muslim community is further cited as an example of this (Western Shugden Society 2010: Chapter: 1).

Hydroelectric Power Generation and its Impact on Cultural Ecology in the Himalayas: A Study of Hydropower Projects on River Teesta in Sikkim

Maitreyee Choudhury*

Introduction

The State of Sikkim, which is now past its early youth in terms of years spent as a constituent State of India, needs no introduction. It existed as a well-founded monarchy for more than three hundred years, prior to its merger with Indian union, and was widely known for its unique natural endowments and cultural milieu. The exalted position of the State at the foot of the much revered Khangchendzonga in the Himalayas has attracted explorers, adventurers, anthropologists, botanists, geologists, geographers, and the ilk from far and wide for decades, if not centuries, and they have put on record the unique natural and cultural diversity of the State in their memoirs, journals and other published works. The natural splendour of the State is no doubt a great asset, but far more significant are those resources, the value of which were never measured before in terms of their utility and functionability. To be precise, the natural resources such as, water and flora are abundant in the State, and it was not until recently that their utilization invited a flurry of modern developmental concerns.

Having said that, it cannot be denied that this small Himalayan State located in close vicinity of China, Nepal and Bhutan, has lived under intermittent geopolitical threat, and much socio-economic stress. To overcome its vulnerability in terms of ecological and cultural

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imbalances, the State authorities and the communities living within are in constant search for resources that can make them self-sufficient and ward off extra-territorial influences.

In a bid to be at par with the rest of India, and to compete with the neighbouring Himalayan States in terms of infrastructure development the State is on a modernization spree. Additional moral support came from the declaration of the Prime Minister of India to supply “Power to all by 2012.” Since the Government of India is promoting hydropower as environmentally friendly ‘non-polluting’ and ‘benign’ source of energy, cash-strapped Sikkim has taken up the cudgel to exploit the water power potential in the state to the fullest. The State Power Department, in consultation with the Central Electricity Authority (CEA), has intensified its estimate of the power potential hidden in every rill, stream, waterfall and river. The State engaged reputed power developers to make detailed plans in utilizing all the known sources of hydroelectric power in the State and join the big league of surplus power States in India.

This is a hard truth that the river Teesta and its many tributaries and innumerable sub-tributaries, in spite of abundant flow of water, have little use for irrigation and navigation due to inhospitable terrain and steep gradient. But this very deficiency for irrigation and navigation qualifies the river for the generation of power. Almost all the feeders of Teesta are naturally suited for ‘run of the river’ hydroelectric projects due to their high velocity, and Teesta itself has potential for mega projects, if dams are constructed across it at the lower reaches. This is a prospect that cannot be overlooked by any State striving hard for development, modernization and cash flow. Irrespective of initial hiccups, the State of Sikkim mobilized support from various quarters to go ahead with its plan to utilize its water resources for generating hydroenergy.

Cultural Ecology of Sikkim: An Adaptive Strategy

Cultural ecology of people in a particular place takes shape over a long time through complex processes. However, the primary architects of culture are the people, rather than the place or environment in which they live. The reciprocal relationships between a set of people in a particular habitat give rise to their signature cultural ecology. How people use and inhabit an area depends largely on the possibilities or choices offered by the physical environment. The choices are partly guided by the cultural heritage. In other words, local traits of culture and economy are the products of culturally based decisions made within the limits of particular physical environment (Jordan & Rowantree, 1990, p. 18).

Some cultural ecologists within geography, particularly those who have studied traditional rural people, believe that “culture is the human method of meeting physical environmental challenges – that culture is an adaptive system” (op cit.). According to them, cultural adaptation is the essential concept for geographical research, and culture serves to facilitate long-term, successful, non-genetic human adaptation to environmental change. In their view, under changed circumstances, human beings can develop adaptive strategy which is based in culturally transmitted behaviour.

If the above hypothesis is true, then it can be assumed that the ‘cultural ecology of Teesta’ or Sikkim is not supposed to be permanent, and it is ever evolving. As and when people feel they need to make improvements in their lives for a comfortable living or to reach higher goals, they bring modifications in the existing cultural ecology. If in the face of natural calamity they can survive and adapt to changed circumstances, it is quite possible that they can also devise adaptive strategies to master the physical obstacles and overcome the cultural barriers for better living.

Ever since Sikkim got the official stamp of a constituent State of India, the State has been exposed to the rest of the country, if not the world, and the Sikkimese people who had little experience of cultures other than their own, have been, all of a sudden, engulfed by the kaleidoscopic sub-continental culture. The communities living in Sikkim could not afford to stay aloof, particularly when the comparison between traditional and modern – to the extent of comparing day-to-day hardships of a traditional man and material comforts enjoyed by his modern counterpart – became too glaring. The reclusive or jovial, reticent or exuberant, whatever the character may be, the Sikkimese people became easy prey to overblown glitz of modern development. Any Sikkimese worth his/her salt cannot deny the fact that electricity is a boon of modernity: power supply is as important to him/her as PDS or daily ration for his/her sustenance. The realization that Sikkim can produce enough hydroelectricity to give energy to a host of neighbouring States has made the State overconfident and proud. The cultural ecology of Sikkim no longer revolves only around tradition: it is an ecology that follows an adaptive strategy.

River Teesta in Sikkim

The river Teesta is one of the main Himalayan rivers contributing to the Brahmaputra basin in the North-Eastern sector of India. The upper catchment of Teesta lies in the State of Sikkim, the boundary of which is

actually demarcated by the ridges surrounding the upper Teesta basin. The river originates in the glaciers of Sikkim at an altitude of 8,500 m above mean sea level and is formed out of the union of two main feeders, namely the Lachen Chu and Lachung Chu in North Sikkim. On its course towards south, Teesta receives many more streams, noted among them are Talung Chu, Dik Chu, Rongni Chu, Rangpo Chu and the Rangit, all of which are impressive, not only for the volume of water they carry, but also for their contribution to local socio-cultural build up. The confluence of the rivers Rangit and Teesta marks the southern boundary of Sikkim after which Teesta enters the State of West Bengal. After flowing further 40 km downstream through the hilly terrain of Darjeeling district in West Bengal, the river enters the plains at Sevoke and fans out to the width of 4-5 km. The Teesta is often described as the lifeline of Sikkim, since all the major habitable areas in the State came up along the river and its tributaries. Teesta and its network of tributaries and sub-tributaries have not only shaped the physical landscape of Sikkim, they have contributed to the development of a distinctive culture that distinguishes the State from the rest of the country.

The New Culture of Hydroelectric Power Generation in Sikkim

The Himalayan water towers are known to be storehouses of immense power, and North East India is treated as the country's future power house. The Brahmaputra basin, of which Teesta is a part, has been stated to have more than 150 sites for large hydropower projects. The project sites identified in the region by the Central Electricity Authority, Government of India, can generate more than 50,000 MW of hydroelectricity. In the Teesta basin of Sikkim, at least 31 sites have been identified for power development, out of which six projects are on the Teesta itself. The six-stage cascade projects within a stretch of 175 km of Teesta in Sikkim have been estimated to produce 3635 MW of hydropower. The 510 MW Teesta Hydroelectricity Project Stage V at Baluwatar in East Sikkim has already been constructed and commissioned. The Stages I to IV are identified upstream in North Sikkim, while Stage VI is to be located further downstream in East and South Sikkim. Further south, two more projects are under construction on Teesta in West Bengal (Teesta Low Dam III and IV).

A large number of projects are planned and proposed on the tributaries of the Teesta. The total estimated power potential of all the project sites in Sikkim is 5144 MW. Out of India's total hydropower

potential of 84,044 MW, 4286 MW or 2.88 per cent at 60 per cent load factor is located in the state. Out of this 13.86 per cent (594 MW) is under operation, 44.77 per cent (1919 MW) is under construction and 41.37 per cent (1773 MW) is yet to be developed. At present only five projects have been completed, out of which three are small, one is medium and one is large project. List of operational hydroelectric projects in Sikkim with capacity is given below:

Table 1: List of Operational Hydroelectric Projects in Sikkim

Sl. No.	Name of the Project	Installed capacity (MW)
1.	Lower Lagyap	12
2.	Upper Rongni Chu	8
3.	Moyang Chu	4
4.	Rangit – II	60
5.	Teesta – V	510
Total		594

Source: Central Electricity Authority, 2008, www.cea.nic.in

Apart from the Central Electricity Authority's initiative to identify prospective project sites in the State, several other hydropower schemes have been identified in Sikkim by private developers engaged by State government. Such projects are at various stages of survey and investigation. The Preliminary Feasibility Reports (PFR) and Detailed Project Reports (DPR) for most of the proposed projects have been prepared, while some are awaiting scoping clearance and environmental clearance by the concerned ministries.

The completed, ongoing and proposed power projects in Sikkim on Teesta and its tributaries are as follows:

- | | |
|-------------------------------|-----------------------------|
| 1. Teesta Stage I (280 MW) | 2. Teesta Stage II (330 MW) |
| 3. Teesta Stage III (1200 MW) | 4. Teesta Stage IV (500 MW) |
| 5. Teesta Stage V (510 MW) | 6. Teesta Stage VI (500 MW) |
| 7. Lachen (210MW) | 8. Thangchi Lachung (99 MW) |
| 9. Chukung Chu (50 MW) | 10. Bimkyong (99 MW) |
| 11. Bop (99 MW) | 12. Panan (300 MW) |
| 13. Ringpi (70 MW) | 14. Rukel (33 MW) |
| 15. Rangyong (141 MW) | 16. Rongni Chu (96 MW) |
| 17. Sada-Mangder (71 MW) | 18. Chuzachen (99 MW) |
| 19. Bhasmey (52 MW) | 20. Rolep (36 MW) |
| 21. Ralong (40 MW) | 22. Rangit II (66 MW) |
| 23. Rangit III (60 MW) | 24. Rangit IV (120 MW) |
| 25. Dikchu (96 MW) | 26. Jorethang Loop (96 MW) |

27. Ting Ting (99 MW) 28. Ratey Chu-Bakcha Chu (40 MW)
 29. Tashiding (97 MW) 30. Lethang (96 MW)
 31. Suntaley Tar (40 MW)

Out of these 31 proposed hydropower projects in Sikkim, 13 projects have already been scrapped for various reasons. Even after much progress, some projects have been called off, primarily because of negative environmental impacts, people's sentiments and strong opposition. Concerns and apprehensions of environmental impacts in the aftermath of a major earthquake on 18 September 2011 prompted the State authorities to scrap a number of medium and large hydroelectric projects in North and West Sikkim. The major ones that have been scrapped are the Teesta Stage I, Thangchi Lachung, Bimkyong, Bop and Rangyong in North Sikkim, and Ting Ting and Lethang in West Sikkim. While those in North Sikkim have been abandoned due to environmental hazards, the projects in West Sikkim could not continue due to ethno-religious sentiments of the local communities. A list of proposed projects that have been scrapped in recent years is given below:

Table 2: List of Scrapped Projects in Sikkim

Sl. No.	Name of the scrapped Project	Proposed installed capacity (MW)
1.	Teesta Stage I	280
2.	Thangchi Lachung	99
3.	Chukung Chu	50
4.	Bimkyong	99
5.	Bop	99
6.	Ringpi	70
7.	Rukel	33
8.	Rangyong	141
9.	Sada-Mangder	71
10.	Rolep	36
11.	Ralong	40
12.	Ting Ting	99
13.	Lethang	96

Source: Power Department, Government of Sikkim, 2012, www.internationalrivers.org, July 2012.

Surprisingly, in spite of long-drawn protests for more than two years by a section of people, namely, the Lepcha activists belonging to an NGO called 'Affected Citizens of Teesta (ACT) belonging to the Lepcha reserve of Dzongu in North Sikkim, the Teesta Stage IV and Panan Projects have been accorded green signal to continue with project construction. In West Sikkim, though Ting Ting and Lethang hydroelectric projects on the Rathong Chu, a stream stated to be

extremely sacred and revered by the local Buddhist communities have been scrapped, the Tashiding project on the same river has been given clearance by the concerned authorities. The distinction made among the projects in the name of cultural sanctity is often found to be dubious, and causes much confusion.

The justification to construct too many hydroelectric plants in Sikkim includes various factors such as abundant supply of water in snow-and-rain-fed perennial streams, possibility of run-of-the-river power projects on swift-flowing mountain streams instead of constructing dams and reservoirs and thus causing little actual displacement of people, cheaper power for the state, employment opportunities for local people and financial gains through export of surplus power to the neighbouring power deficit States, namely, West Bengal, Bihar, Jharkhand and Orissa. But the disregard of cumulative environmental impacts of cascade projects and alleged apathy to sentiments of the people are some of the thorny issues that need to be addressed by the developers of the projects and State administrators. A proactive governmental entrepreneurship to exploit Sikkim's natural resources and insularity of the power developing agencies, whether public or private, have created 'dislike and fear psychosis' amongst the people.

Impacts of Hydropower Projects on Cultural Ecology in Sikkim

The cultural ecology of Sikkim is unique in many ways. Ecologically, the State is shaped by the mountains, glaciers, the Teesta river system, the unique assemblage of flora, fauna and by the vibrant human communities. The richness of biodiversity, environment-friendly traditional livelihoods, and spiritual association of the communities with nature have fashioned the cultural ecology of Teesta basin. The Lepcha-Bhutia-Limbu-Nepali communities living in Sikkim for ages have learnt to live in harmony, not only among them but also with the environment. The culture that has developed in the State by the merger of waves of migration from north (Tibet) and south (Nepal/India) is still very traditional at the core. The spiritual influences of Buddhism and Hinduism have never been superfluous, and so the people inherited a great sense of spirituality that has been instrumental in shaping the cultural ecology. The sudden imposition of development projects, chiefly the hydroelectric power projects that are usually of disproportionately gigantic in size for small mountain communities, is bound to have significant impact, not only on the environment, but also on the psyche of the resident communities.

In Sikkim, much heat has been generated on the issue of hydroelectric projects, particularly in the Lepcha reserve of Dzongu in North Sikkim and in some religious pockets in West Sikkim, where the local communities were not consulted at the time of planning the projects and no prior approval of the people was sought before starting construction of the plant components. The Lepcha-Bhutia communities of Sikkim who are the representatives of traditional Sikkimese culture are deeply hurt with the procedures adopted to modernize their ancestral land and the way they are treated. The symbiotic relationship that all communities must share in any healthy ecological system is visibly disturbed by the imposition of projects that have chances to degrade the land physically and even the people morally and spiritually. To understand and analyse such a situation, two case studies, namely, the Panan hydroelectric project in Dzongu, North Sikkim and Tashiding hydroelectric project in West Sikkim will be discussed in the present paper. Here is an attempt to underscore the impacts of hydroelectric projects on environmental and cultural ecology in Sikkim.

Case Study 1: Panan Hydroelectric Project on Rangyong Chu, Namprikdang, Dzongu in North Sikkim

The Panan Hydroelectric Project of 300 MW capacity on Rangyong Chu, a tributary of Teesta, is located at Namprikdang in Mangan subdivision of North Sikkim. Initially the project was planned to generate 280 MW of hydropower, but after feasibility studies, the proposed installed capacity has been raised to 300 MW. The project will have a small dam which will be located near Lingza village, while the power house will be located near Panan village. The construction of 56m high dam will submerge about 14.5 ha which is mainly under forest. In addition, the project requires about 33.20 ha of private land for the construction of various components of the project. Land has already been collected from five revenue blocks, namely, Lingthem, Lingdem, Sakyong-Pentong, Lingza and Salim Pakel. The land acquisition drive for the project has affected 77 families and will inundate some dense and some open forests. Most of the plant species that will be destroyed due to submergence are stated to be common and widely distributed. It is claimed that the submergence area does not constitute critical habitat of any plant or animal species. However, the diversion dam will change the habitat conditions in the 2 km stretch immediately downstream the dam site. Some portion of the river may go dry during lean season because of diversion of river water. The project is much criticized due to its location in Dzongu, the traditional Lepcha reserve in Sikkim. A

section of local Lepcha community is yet to come to terms with the question as to how an officially notified reserve of an arguably primitive tribe could be chosen for a large-scale development project that may ruin their traditional way of life and natural ecosystem.

Case Study 2. Tashiding Hydroelectric Project on Rathong Chu in West Sikkim

The Tashiding Hydroelectric project of 97 MW capacity is located on the Rathong Chu, the main feeder of Rangit river in West Sikkim. The Rangit happens to be the main tributary of the Teesta river, and the Rathong Chu, a glacial stream is the chief feeder of the Rangit. The project is proposed to be a run-of-the-river scheme. The location of power house will be on the right bank of the river near Tashiding village, and a 138m long and 12m high barrage will be constructed across the river to provide live storage. For the construction of the project total 17.85 ha of land, (3.72 ha of forest land and 14.13 ha of private land) is likely to be acquired by the project developers for different project components, such as, submergence, barrage structure, muck dumping areas, workers' colonies, etc. In all total 10 hamlets will be affected due to land acquisition. The hamlets are: Lower Chungbung, Kagethang, Unglok, Ambotey Khet, Passingthang and Sanyasigaon on the right bank and Lower Lobing, Burok, Luitelgaon and Sedang on the left bank of the Rathong Chu. Total 30 families, all of whom are tribal, will be affected by the project, out of which two families will be displaced due to demolition of their homestead, and four families will be rendered landless since 100 per cent of their land will be acquired for the project. It is stated that all but three affected families are marginal farmers owning less than 1 ha of land each. Apparently, the affected families are not much distressed by the fact that they will lose home or land. They have been promised to get ample compensation which may actually make them richer. However, it is the comparatively wealthier and educated residents of the area who are against the construction of the project. A section of influential Buddhists, mainly the elitist Bhutias are vehemently opposing the project as they feel construction of the project will pollute and defile the sacred water of Rathong Chu which is extremely sacred to them. It may be recalled that in the late 1990s, the 30 MW Rathong Chu hydroelectric project created much uproar among the Buddhist monks and was subsequently scrapped by the newly elected Sikkim Democratic Front government. Again in 2012, the Ting Ting and Lethang projects have been scrapped, supposedly on the issue of ethno-religious sentiments. But till date, the power that be is unmoved on the face of similar demands.

The Areas of Concern

There may be many thorny issues in the context of harnessing Himalayan rivers, particularly in a State like Sikkim, and the main areas of concern may be summarized as follows:

Each and every hydroelectric project, large or small, will have impacts on the larger ecosystem supported by any river. The river is not made of water only; it sustains a variety of plants, aquatic life and human habitats. The human communities dependent on rivers rely on the natural river flows to support their livelihoods. Whether it is a dam or a barrage constructed across a river, it will disturb the harmonious linkages between riparian communities and their environment. The volume of water, timing of water discharge and the quality of water – all are critical for the sustenance of riverine habitats. Therefore, environmental flows, popularly termed as ‘e-flows’ have a great role to play in supporting the river-dependent communities. Environmental flow should be stipulated in a manner to support the live habitats equitably and sustainably. Equitable e-flows are required not just to maintain the habitats, but also for some other pursuits. For instance, there are certain localities where ceremonial bathing and cremation rites get affected due to erratic e-flows.

Water is not only ecologically, but also culturally important for some important events in human life. For example, in case of Rathong Chu, the purity of water is of great religious value because it is used for ceremonial filling of the sacred vase kept at the Tashiding monastery, and nothing else can replicate the value attached to the quality of Rathong Chu water for the purpose stated. The excavation work and muck dumping in the vicinity of the river, dumping of solid/liquid waste generated by the workers living in project sites and all sorts of anthropogenic activities are bound to pollute the river water. Therefore, it is of genuine concern to the particular religious communities, who value their spiritual life many times more than mundane materialistic needs.

In case of indigenous Lepchas of Sikkim, more precisely of Dzongu in North Sikkim, the concern is at a different level. The Gandhian form of protest by the members of the Affected Citizens of Teesta (ACT) has garnered support from many quarters and organizations. The protests staged by the Lepcha youth have challenged the dam-building wisdom in general and apathy of the people in power in particular. The main concern of the protesters is not the issue of submergence of their land by water; it is the cultural submergence that they fear most. The pressure groups opposing the construction of hydroelectric projects could not stop the Panan and Teesta IV projects in Dzongu, but their protests

could achieve partial success since the developers agreed to keep their workers' colonies outside Dzongu. The NHPC and private developers have in principle agreed to take all caution to check any kind of invasion by the outsiders in Dzongu.

It is also argued that the way the private developers and the State authorities are promoting hydropower projects in tribal areas is ethically unjust. The proponents of modernization, who stress more on raising the standard of living by making sudden structural changes in livelihoods than enhancing the quality of life in terms of physical and psychological wellbeing of local/indigenous communities, fail to impress the hitherto isolated mountain and forest dwellers who do not feel or realize the urgency to improve their lot by imported ideas and grafted imposed procedures. It is not unusual to find rural folks who cannot comprehend why some people from towns or cities impose strange methods and models of development on them. For example, a good many tribal groups in Sikkim have little idea as to why their lands have been chosen for the development of power projects when they did not ask for it. It is beyond their comprehension why resources tapped from their habitat should be utilized by others in faraway places. The notion of 'greater common good' is not easily understood by the self-contained tribal communities. While this may not be an ideal situation for a well-meaning nation or a State, it is desirable that the local people be taken into confidence prior to the onset of any developmental activity in their habitat.

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Himalayan Odyssey: Attempts for Federation of the Himalayan Kingdoms

A. C. Sinha*

If Tibet is taken away from the consideration, China should have no role to play in the affairs of the Himalayan region. But China claims that Tibet has been part of its imperial domain since long and thus the region bordering on Tibet, with whom Tibet had religious and cultural contacts, belong to the Chinese family of nationalities. Chinese imagine Tibet like the palm of the hand and adjoining regions in the Himalayas such as Arunachal, Bhutan, Sikkim, Nepal and Ladakh are referred to as its five fingers. The historians inform that it was the Mongol adventurer Kublai Khan (1216-1294), the grandson of the great Genghis (1162-1227), who brought Tibetan theocrat, Phag-pa, in his imperial fold as something like a dependent theocrat of Tibet, who was permitted to be autonomous in Tibet. Kublai did accept Buddhism along with Daoism and Confucian faiths as political strategy of administration. In this way, he had no hesitation in accepting the Tibetan theocrat, whose incarnations would be recognized as the Dalai Lama, the head of the Geylug-pa sect among the Tibetan Buddhists, as his preceptor. Thus, a system got evolved in which a type of Guru-shishya or teacher-disciple relation developed between the Tibetan preceptor and the Mongol Emperor, which the Chinese would term as patron-client relation between the two, in course of time. And thus they claim that Tibet had been historically part of the Chinese Empire ever since.

Genghis and his descendants did believe that the Heaven had ordained the entire world to them to rule over and thus they had every

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right to subjugate one and all. And those who opposed to the Mongol inroad, earned their wrath: they were not only defeated, but were massacred; enslaved; brutalized and annihilated. Those of them, who surrendered in time, were not only spared the torture and annihilation but they were also rewarded. Kublai's descendants lost power in China within less than hundred years of his death, but he gave birth to an illustrious dynasty of rulers: Yuan (Man, John: 2014: xiii). After them, it were the Ming and Manchus prior to coming of Comingtang (KMT) nationalist Sunyat Sen in 1911; succeeded by Chiang Kai Shek, and then by the Communist Party of China in 1949. The new regime was a totalitarian one with imperialist agenda in the name of the proletariat. It is claimed that Chairman Mao believed that the thickly populated coastal Hans must be shifted in thinly settled frontier regions of Manchuria, Mongolia, Turkistan, and Tibet for their prosperity and creation of national wealth. Thus, People's Republic of China (PRC) pursued a vigorous and active frontier policy of extending its rule to un-administered regions. Moreover, the claimed revolutionary regime had no pretention in happily implementing old imperial agenda with reference to the neighbouring countries. It were they, who talked about a strategy to involve small, weak and vulnerable Himalayan little States into a loose federation, which could be easily hoodwinked by them and work as a shield for their clandestine design of territorial extension on thinly veiled ideological and historical grounds. In course of time, about half a dozen such proposals for formation of Federation of the Himalayan Kingdoms was floated and by mid-1970's they died their natural death for a variety of reasons. An analysis of those wild ideas underscore the nature of complexity of the ambitions, policies, alignments, and operation of the human actors and social forces of the region at large.

The Early Speculation on the Himalayan Federation in Sikkim and Bhutan

“It is not clear how much the Dalai Lama knew about the anti-Chinese resistance that was being formed – or if even Nehru was aware of what the CIA in Kolkata, and their two royal Sikkimese lady friends were up to. In September, 1952, the US Consul General in Kolkata, Gary Soulton, went on a trek in Sikkim with Princess Kukula (Tashi Namgyal's daughter) to survey the terrain. On his return to India, he contacted India's then spy master, B. N. Malik. Contacts were made with two of the Dalai Lamas's brothers then living in exile. The elder of the two, Thubten

Norbu, already had contacts and the younger, Gyalo Thondup, had settled in Darjeeling” (Lintner, Birtil: 2012: p. 18). Though, George N. Patterson takes the credit to propose a grand idea of the Himalayan Federation in typical British colonial mode as a buffer between the Indian Union and People’s Republic of China (Patterson, G N: 1963: 290-291; 1970: 21), its reverberations were already echoed and noted in the right places much earlier. J.S. Lall, the Indian Dewan of Sikkim, reported on November 21, 1953 to his superiors in Delhi that Mr. K. R. Pradhan, one of the elected Executive Councillors in Sikkim referred to the talk of an alliance between Tibet, Bhutan, Sikkim and Nepal from the Crown Prince.

On the other hand, the Crown Prince openly claimed that there was no distinction between the Sikkimese (Bhutias) and Tibetans in any respect and, therefore, there was every reason for the amalgamation of Sikkim with Tibet. He asserted that his own uncle, Ragashar Dzasa, was then Commander-in-Chief of the Tibetan army. He also appreciated the activities of the Chinese Communists, who were taking so much interest and pain to reform a backward country like Tibet. The two rulers of the Eastern Himalayas, Tashi Namgyal of Sikkim and Jigme Wangchuk of Bhutan, were not in the picture in late 1940s and early 1950s. The Bhutan Agent, Raja Sonam Tobgyel Dorji, who was married to Sikkim Maharaja’s sister, was the public and external face of the Kingdom. He, one of the most experienced operators on the scene, who was in favour of Sikkim and Bhutan joining hands with Tibet against others. The Crown Prince administered Sikkim on behalf of His Highness. In early 1950’s the old Bhutan ruler and his external public face, Raja S. T. Dorji, the Bhutan Agent in India, expired, leaving the scene open to three relatively young men in their 20’s i.e. new Bhutan Ruler, Jigmi Wangchuk (married to Raja Dorji’s Daughter and Sikkim ruler’s niece), Jigmie Palden Dorji, Raja Dorji’s son and successor to the office of the Bhutan Agent and Palden Thondup, the Crown Prince of Sikkim, to handle the destiny of the two kingdoms.

Left to themselves, the cousins, Namgyals and Dorjis, desired to get out of ‘so-called Indian clutches’, but their biggest bugbear was the presence of Nepalese immigrants in the two Buddhist kingdoms in an appreciable number. Any democratic pretension in two kingdoms starts with the Nepalese and, as the only democratic polity around; it was India, which would naturally champion the cause of democracy through the immigrant Nepalese and would get benefit out of it. On the other hand, Nepal, especially King Mahendra and his henchmen such

as Tanka Prasad Acharya, Rishikesh Shah, Tulsi Giri and the like were enthusiastically canvassing for 'Federation of Himalayan Kingdoms' consisting of Sikkim, Bhutan and Nepal. Apparently this political contraption would have been led by the big brother of among them, King Mahendra of Nepal, and as he had allegedly strong support among the immigrant Nepalese in two other Kingdoms. It was an idea, which the other two Kingdoms would not dream of. So, the Nepalese proposal was doomed to its failure even before it was canvassed seriously. When the issue was posed by missionary turned journalist, George Patterson to Jigmie Dorji, the Prime Minister of Bhutan in 1964, he reacted: "I told you before that I would not touch it (the proposal for the federation) because we would be overrun by these Nepali bastards. India would not look at it, anyway, and we are doing too well with India to consider it... If you can get the Tibetan leaders to agree and accept this (proposal), he said slowly, then I am with you. With Bhutan, Sikkim, and Tibet, Nepal could not dominate such a group. But it has not got a chance. India and China will never touch it." (Patterson, G N: 1970: 30).

Normally, the common Bhutanese did not make much distinction between the Bhutanese royal family (Wangchuks) and their kinsfolk and close associates, Dorjis in 1950s. So much so that the third Wangchuk ruler, Jigme, got married to Raja S. T. Dorji's second daughter, Kesang, and Raja Dorji's second son, Ugyen Rimpoche (Rim), was subsequently married to King's step sister, Princess Choki. Jigmie Dorji, queen's elder brother, apart from being the Bhutan Agent in India and Administrator of Ha and southern Bhutan, was the Prime Minister. His youngest brother, flamboyant Lhendup Dorji, was soon appointed as the Secretary General, in newly created Planning Department and their elder sister, Tashi, was the Bhutanese representative in Colombo Plan and was to take over as the Commissioner of Tashigong, the most populous district in Eastern Bhutan. Apparently, as the Dorjis were western educated, they were the first choice for such postings, when Bhutan decided to do away with traditional structure of administration, but elements closer to the Wangchuks did not appreciate such developments and saw in them dilution of the traditional royal authority. At the top of it, the King was not keeping a sound health. The queen used to travel often to her ancestral estates at Kalimpong, Ha, Namseyling near Thimphu and elsewhere. In such a situation, it was not unnatural for the King to liaison with a Tibetan lady, Yangki, who taking advantage of her royal proximity, began making undue interference in the administrative matters, which accentuated the

factional rifts among the State functionaries. Nari Rustomji, an astute observer of the Bhutanese scene, termed it mildly as the conflict between the traditionalist and modernist factions among the royal functionaries (Rustomji, N K: 1987: 12-13).

The wheel of the events moved fast; while the King was away for treatment in Switzerland, his Prime Minister and brother-in-law, Jigme Palden Dorji, was shot dead on April 5, 1964 in the State Guest House at Phuntshiling, the Bhutanese border town in the south Bhutan. Jigme's youngest brother, Lhendup Dorji immediately took over his office of Prime Minister automatically and made his presence felt in a big way. The inquiry in the murder led to uncovering of a conspiracy in which some top army officers and King's Tibetan concubine's names figured prominently. The Dorjis began to apprehend that there were plots to eliminate them from the Bhutanese scene and in the panic, a number of arrests were made. And the new Prime Minister's inexperience in handling the sensitive affairs of the State at this critical hour were glaring. The King was fed with the details of all these developments. He was not only unhappy, but was also angry over the shoddy events in his Kingdom. The King decided to return and take over the administration in his hands. His flamboyant new Prime Minister tried to reach him without success and then he and his associates ran away from the country; first they took shelter in East Pakistan and then in Nepal, where their request for asylum was granted and the coterie got busy in issuing anti-Indian and anti-King Press Statements. They termed the Bhutan King as mentally unsound under heavy dose of medication and puppet in the hands of the Indian advisors. Soon, more resourceful and imaginative, Tashi Dorji, Lhendup's sister, joined the fugitives in Kathmandu and a series of damning statements were given to the Press (for illustration, Indian Express, New Delhi, December 11, 1964).

A. Patterson's Grand imperial Design of Himalayan Buffer Zone: A Confederation of the Himalayan States:

According to Journalist Sunanda Datta Ray, Political Officer Basil Gould had advised in 1942 to Palden Thondup Namgyal the Crown Prince of Sikkim, to think of a possible federation of the Buddhist Kingdoms in the Himalayas consisting of Sikkim, Bhutan and Tibet as a buffer between India and China. And Namgyal immediately got busy with the idea by inviting his two uncles, Raja S. T. Dorji, the Bhutan Agent, and Dzasa Rongsar, the Foreign Minister of Tibet. George Patterson, the former missionary turned journalist, wrote in 1963: "There seems to be little

doubt that following their 'magnanimous' withdrawal from India's NEFA after inflicting a humiliating defeat on the Indian Army, China is now preparing to deliver a coup de grace. This would be accompanied by moving into and occupying Bhutan. Not only her historical claim to this territory much more firmly based than NEFA, but occupation of Bhutan would isolate Assam from the rest of India. Bhutan, at its western extremity, even without its formerly annexed territories, now part of India, forms part of a narrow neck of territory, some thirty miles wide, with East Pakistan, through which runs the only rail and road link between oil rich and tea growing areas of Assam and India. Further, it would give China control over NEFA, access to all the rebellious tribes in the north-east and, without occupying any 'Indian' territory, bring her influence right down to East Pakistan. It would also bring her into direct touch with the militant state parties of the Communist Party of India, also in a position to create 'Yenan-type', revolutionary Communist Party able to take over control of India.

This is the vision which the Chinese leaders in Peking have held out to the people of the Himalayas and Asia. It is far more than a policy, but the implicit benefits of the policy seem imminently satisfactory to the individual nations. A Confederation of Himalayan States to include Nepal, Sikkim, Bhutan, NEFA, and Nagaland. A major road aid to Nepal; diplomatic recognition, sovereignty and aid for Bhutan, arms and independence for the Nagas; border agreements for Pakistan and Burma, military aid for Indonesia, Laos, and North Vietnam. And, more ambitious still, the greater vision lying tantalizingly just beyond, world recognition and power. For Peking is now putting forward its grand plan, a three-Continent Conference, to include Asia, Africa and Latin America, but to exclude the West and Russia (Patterson, G N: 1963: 290-291).

Soon, Patterson got involved with a Non-Governmental Organization as its Director, International Committee for the Study of Group Rights (ICSGR), or a Commission for Minorities, taking up the grievances of small nations oppressed by others and who had no representation at the United Nations. He found, in his own logic, that the Indian policy makers, British traditional bureaucrats on Tibet and American refugee organizations representatives were all too happy to support a brother of the Dalai Lama in Gyalu Thondup and a former Tibetan delegate, Shakapba, without looking too closely at their antecedents. He believed that the above powers followed a suicidal policy of accepting the two as representatives of the Tibetans' interests, who were intensely disliked by a majority of the Tibetans. He also presumed that India would require

Tibet as a friendly buffer State and the fighting Khampas as allies in their conflict against Chinese. Thus, he volunteered to take it on himself to attempt to save India and, by extension, the West from the consequences of their own peculiar folly (Patterson, N George: 1070). Incidentally, his book was banned in India, though its text contains a long and positive interview with the then Prime Minister Jawaharlal Nehru. He decided in his old missionary spirit to take up the Tibetan cause once again. And for that, he adopted a new cloak, with three objectives: (1) to make a film about Tibetan refugees in action ideally in Tibet, if not, in Nepal, (2) to explore the possibility of a feature film on Tibet with a possible appearance of the Dalai Lama in it and (3) to examine the possibility of a 'Confederation of Himalayan States' by discussing with leading officials in India, Tibet, Nepal, Bhutan and Sikkim. And for that, he chose Nepal to begin with and on way to it, he decided to begin his campaign in Delhi by meeting to plead with three leading anti-Nehru parliamentarians in opposition: M. R. Masani, J. B. Kripalani and Dr. Ram Manohar Lohia sometimes in 1963.

And as he put it, accidentally, he came across Jigmie Dorji, the Prime Minister of Bhutan, in Delhi. Apparently, Dorji was a known character to him to the extent that he immediately broached the subject of a Confederation of Himalayan States. Jigmie Dorji threw his hands in protest: "I told you before that I wouldn't touch it because we'd be overrun by these Nepalese bastards. India would not look at it, anyway, and we're doing too well from India to consider it". Continues Patterson in a conversational style and he went on to outline his grand scheme of Himalayan Federation consisting of Kashmir, Ladakh, Tibet, Nepal, Sikkim, Bhutan, NEFA and Nagaland, as a grand buffer zone between India and China. Jigmie Dorji reacted: "If you can get the Tibetan leaders to agree and accept this", he said slowly, "then I'm with you. Bhutan, Sikkim, and Tibet with Nepal couldn't dominate such a group. But it has no chance. India and China will never touch it. You're mad, Patterson, I always said it, now I know it for sure" (Patterson, G N, 1970). But Patterson continued on and spread out his detailed plan for the federation. The first step was that the Dalai Lama decides to return to Tibet on the condition that the Chinese withdraw their armed forces from Tibet; then India too decides to remove her forces from Sikkim and Bhutan; the Dalai Lama does not return a reactionary old feudal monastic set-up; rather to a new set-up and then the federation takes the shape under international guarantee. He did not disclose why Kashmir, Ladakh, Arunachal and Nagaland should be included within

the Federation and how will the grand scheme would operate? Was it just his wishful thinking or had he got some understanding with the Chinese and/or the Indian policy makers?

B1.Federation of Himalayan Kingdoms:

A Potential Anti-Communist American Mechanization:

From mid-1950s to 1969, Central Intelligence Agency (CIA) of the United States of America financially supported and trained Tibetan resistance fighters, especially the Khampas, along the porous southern borders of Tibet. It was the period of the cold war in the world politics in which the Western World saw rising of the Communist China as an evil and worldwide expansion of communist movement, which was to be stopped at all cost. And for that, apart from the strategic involvement of the western agencies, they used academic surveillance against their targets under their elaborate area study programme, in which even the visiting scholars to USA were drafted. P. P. Karan, an India born American domiciled geographer, wrote in 1963: “Along the slopes of the Himalayas, between Communist-occupied Tibet and democratic India, lie the three little-known Kingdoms of Bhutan, Sikkim, and Nepal. Completely land-locked and cut-off from the rest of the world by mighty mountains and malarial forests, these small Kingdoms remained a sealed book for a long time, territories whose rulers actively discouraged foreign visitors and alien ways...A major transformation is stirring in the remote highlands of these three Kingdoms as their rulers attempt to challenge the middle-age feudalism of the Himalayan lands into the world of the twentieth century. The challenge of Communist aggression in the Himalaya has caused deep concern to the United States of America as well as India and brought these small countries into ideologically induced tension between freedom and Communism.

He goes further and suggests that the region had become an arena between the two competing political systems: Communist totalitarian and democratic free market driven Democracy: The Himalayan kingdoms constitute a critical sector of the Free World’s ceaseless struggle against Communist challenge. To Communist China, the high plateau of Tibet is like the palm of the hand with Ladakh, Nepal, Sikkim, Bhutan and North East Frontier Agency as five fingers. China has the palm under its control; now it wants the strategic five fingers without which the palm is not very useful.

Apart from the above, there had been a strong concern for the ‘Strategic Area Study’ of the Himalayan region in the University of

California, Berkeley, under the rubric of 'Himalayan Border Countries Project' with special reference to 'Area research project' on India and China. Among others, Prof. Leo E. Rose, one of the editors of the Journal, *Asian Survey*, was one of the key operatives, who undertook numerous visits to region, conducted field and archival researches and published a series of titles ranging from Ladakh, to Nepal, Sikkim, Bhutan and Arunachal Pradesh (Rose, Leo E: 1956; 1971 ; Rose, L E: 1977: Rose, L E & M W Fisher: 1970 ; Rose, L E & M. W. Fisher: Undated). Leo Rose was the Director of the ambitious Himalayan Border Countries Project and with his half Chinese and half American Jew background; he was in and out of various Himalayan States and certainly in contact with power elite of these countries. The Director of the Project was charged with hiring many anthropologists to gather strategic information on life and practices of the communities in the region. However, there was a controversy on the alleged defence funding of the study in 1960s and the activities on the area research was forced to adopt a low profile.

B. II. Socialist Party of India and the Himalayan Federation :

The State of Nepal is so much exercised with its insularity that, whether it is the King or the commoners, they have developed a curious complex with reference to India. It was the father and son team of kings, Mahendra and Birendra, who set the tone for their national past-time of anti-democratic tirade. Suave diplomat and, at one time, foreign minister of his country, who successfully played Panchayati game against his former Nepali Congress colleagues, Rishikesh Shah, confessed the national guilt: "The dominant cultural ethos in Nepal, however, derives its origin and influence from India. Nepal has been subject to the major tradition of Hinduism as well as its subsidiary traditions with their emphasis on the mother godlings and clan deities. India's influence has been so dominant in all spheres of Nepali life that Nepali people, by way of reaction, feel impelled to appear different from Indians at every possible opportunity. This is seen almost as essential for the purpose of national identity in the context of the present day political reality in the world. Nepal's fear of absorption into the Indian mother culture has been heightened by the tendency of some of the Indian leaders to over-emphasize their concept of 'greater India' in politico-cultural terms. In their zeal to counterbalance the tendency, Nepal's intellectuals are inclined to misrepresent the impact and nature of Nepal's relationship

with China, which has been intermittent and never as close, as its relationship with India” (Shah, R: 1990: 2). One of the worst examples of such a so-called intellectual exercise is provided by Kaisher Bahadur KC, a former Rana functionary and a son-in-law of the then royal family, notorious for organizing Gorkha Dal attack on the first home minister of Nepal, B. P. Koirala in his official residence. The gentleman was subsequently drafted possibly at the instance of His Majesty, by the next Prime Minister to accompany him on his State visit to India. Kaisher Bahadur takes pain to parade his knowledge to canvass superiority of the Nepalese cultural heritage in his book, *Nepal After The Revolution, 1950*. Another courtier, Daman B. Tuladhar, son of the royal purse keeper, similarly brags inanity and exposes his boorishness through pages of his book (Tuladhar, D R : 1980)

Dr. Rammanohar Lohia, a leader of the Indian Congress Socialist Party (CSP), to which Bisheshwar Prasad Koirala belonged in 1930s and '40s, chided his former socialist colleague, and then the Prime Minister of Nepal on his statement suggesting Nepalese efforts to maintain equidistance between India and China: “Politicians of Nepal should not try to be clever...Prime Minister Koirala and other Nepalese leaders say that Nepal has been under the influence of China and India equally. It is not true. Many Nepalese went to jail in India’s struggle for freedom and many Indians suffered for Nepal in the same manner (in the armed insurrection against the Ranas in 1950, launched by the Nepali Congress). Why it did not happen in regard to China? It is obvious that in the matters of language, script, culture, religion, physical features, etc. Nepal is akin to India. Such statements will not deter the Chinese from their plans and whenever there is a chance, they will certainly try to thrust a Communist Government over Nepal...I appeal to the opposition leaders (of Nepal), Sri (S. P.) Upadhyaya and Dr. K. I. Singh not to use the Indo-China border question to gain some political advantage over Koirala Government. They must remember...the fact that under the Chinese they will have to go the way of Sri Koirala”(Lohia, R, 2002, 109).

The problem was that with a view to finding fault with Nehru’s stand on Tibet in their anti-communist ideology, the Indian socialists desired a move to save Tibet from China. It was a stand, to which there were no takers. In spite of all press reports in support of the cause of Tibetans, neither the Western countries took stand in favour of Tibet against China, nor did the Tibetans openly oppose the Chinese take over. They had no armed forces worth the name to oppose the People’s Liberation Army. Even the Regent of the Dalai Lama did not publicly

oppose the march of the People's army to Tibet. They had no wherewithal of the modern state, nor did they have an economy to stand against the Chinese even for a few days. Though it is a fact that the Tibetan regime of The Dalai Lama did expect Britain, U S A and India to take the Tibetan cause with the Chinese, but in the aftermath of the Second World War, the West decided not to take an unenviable side, i.e., Tibet against the Chinese. So Indian Socialists' noise to 'save the Himalayas move' was more of an anti-communist posturing.

C. Nepalese Design of the Federation of the Himalayan Kingdoms:

When India became independent, the British Residency in Kathmandu was transferred to her in December, 1947. The Prime Minister, Padma Shamsher, anticipated that their ties with India would be patterned on model of Nepal's ties with that of the British authorities in India. "But most of the Ranas considered (Jawaharlal) Nehru's India as an ally of dispossessed masses of Nepal and to safeguard their own personal interests, they considered themselves in the camp opposed to Independent India...(Very soon the Maharajadhiraj Tribhuwan would seek political asylum in India against the Rana autocrats, and with her assistance, would get back his ancestral prerogatives to rule over Nepal in the teeth of the Ranas' opposition. Moreover, there were many Ranas of various classes with considerable wealth and resources, who were rehabilitated in India by the British and they did not hesitate to play all types of sectional politics in 1950s). Three of the Ranas, who had been the Maharaja's Prime Ministers of Nepal, were in India. Yuddha (was) in Dehra Dun, Padma in Ranchi and Mohan in Bangalore. The Ranas were still very powerful in Nepal but their absolute control of all important offices of the State had gone. The change, however, had been generally peaceful and came from the King himself. The King Tribhuwan's eldest son, Mahendra was married to Maharaja Yuddha's grand-daughter and a second son, Prince Himalaya was married to a great-grand-daughter of Yuddha. The sisters of King Tribhuwan were married to (former Prime Minister) Chandra Shamsher's sons" (Sanwal, B D: 1993: 130-131). So one may imagine how difficult it was to separate interests of the Ranas from that of the Maharajadhirajs of Nepal in mid-20th century. Some of the Class C Ranas such as Shubarna Shamsher and Mahabir Shamsher with their considerable investments in India and elsewhere played populist politics to settle their score with the A Class Ranas. But bulk of them held important appointments in army and

the civil service in the new order in 1950s; they sympathised and supported All India Gorkha League in India and had their own outfit, Gorkha Parishad, to settle scores with the Nepali Congress, considered to be an agent of Indian National Congress by the Nepalese establishment.

Successive Kings (of Nepal) had surrounded themselves with advisors, who were inspired intriguers, dedicated sycophants and conscientious frauds. They ill-served their unsuspecting masters, who, alas, always missed the pulse of the time. In view of a journalist with long years of reporting on the Himalayan kingdoms: “Internally, corruption and nepotism had grown to a magnitude never known before in the history of Nepal, even under the worst of the Ranas. Corruption was open and everyone in the government was believed to be involved in some or other or another scandal, so that the reputation of every government servant, including the prime minister was nil. The people lost faith in the administration, for officials preferred staying in the comfort of Kathmandu to travelling with discomfort and difficulty in the interior, and nothing was done about conditions outside the (Kathmandu) Valley, and little enough inside it” (Patterson, G N: 1970; *ibid*, 45). Patterson noted that since King Mahendra (b. 1920; r. 1955-1972) had taken over direct rule in 1960, he had only superficially reorganized the government administration and put in his own supporters in key positions. But at the same time, he had established elite of “Palace appointees”, who had direct access to him, and through whom, he was able to keep an eye on the sprawling, disorganized formal machinery of government, still largely manned by corrupt, sycophantic and time-wasting officials of Rana regime.

King Mahendra was ambitious and was also keen to rule Nepal as an absolute sovereign Hindu King. He knew that Prime Minister Jawaharlal Nehru and the Indian people were backing parliamentary democracy in Nepal, which came in the way of his ambitious plan of absolute rule. And thus, he decided to court for an alternative support from countries hostile to India such as China and Pakistan. He openly canvassed his idea of the hereditary ruler’s right in a Hindu Kingdom. He emphasised that the Hindu ruler’s duties to the country were: ‘to maintain sovereignty of the country; to maintain national integrity; to improve relations with the other countries; and to initiate action oriented to public good’ (Sanwal, B D: 1993: 175). He also expressed determination not to allow any real hindrance in his sway. Unlike his late father, he was an absolute monarch in law and in fact. “King Tribhuwan had

preferred to keep crown as free as possible from day-to-day political and administrative duties. Although forced to take up these functions by the series of crises which plagued his reign, his primary objective always appeared to create conditions which would enable him to retire once again to his role of constitutional monarch. King Mahendra, it would appear, view(ed) a passive role as akin to dereliction of duty, and consider(ed) the crown to be the one institution capable of providing dynamic leadership required, if Nepal was to maintain its national integrity and rapid economic and political progress” (Rose, Leo E and M R Fisher: 1970: 41).

It will be instructive to understand psyche of King Mahendra with a view to appreciating his pivotal role in canvassing for Federation of Himalayan Kingdoms in 1960s. He did not have formal education. However, he had a strong will, abundant self-confidence and mind of a great capacity. In the opinion of his only elected Prime Minister, Koirala, “he was anti-India, and also by conviction...he was very much repelled by his father and whatever the latter did was anathema to him. It was a ‘father-hate’ reaction. Since his father was instrumental in tripartite agreement, Delhi agreement (between the King, Rana Prime Minister and the Nepali Congress) that is, he hated it like anything. Since his father was friendly to India, he hated India.” Moreover, he believed, “if I have to reign and not to rule (Nepal) directly, why should I stick like a leech to the throne. (In that eventuality), I will give up the throne” (Chatterji, B: 1980: 103). In fact, he appeared to be so desperate that at one stage, he organized a conspiracy against the King, his own father in connivance with his Rana father-in-law. Thus, his main concern was to forge a political structure that would guarantee his remaining the absolute source of power in the land. The very idea of a democratic polity with constitutional monarchy espoused by the most popular political party of Nepal, Nepali Congress, was something like anathema to him.

Like his Rana kinsmen, King Mahendra was pathologically hostile to democracy and its supporters and he did not hide his antipathy to them. Forced by the circumstances, he did order the first general election in May, 1959 in which Nepali Congress led by B. P. Koirala came to power and B. P. was appointed as the Prime Minister. It is a fact that the roots of democracy were still weak in Nepal, and without keeping that in mind, the newly elected Prime Minister began his ambitious programmes perhaps prematurely, which went much beyond the priorities of his sovereign. Furthermore, King Mahendra was yet to get used to

functioning as the Head of the State in a democratic system surrendering part of the lime light to his Prime Minister. He had lived in glare of national importance as the Head of the State and as the virtual administrative Head of Nepal; thus, he was uncomfortable with Koirala's stealing the limelight, as if the Prime Minister was cutting him to size politically. This imagined stipulation was totally unacceptable to King Mahendra and he decided to act fast without giving even a hint to his cabinet of ministers. Thus, he not only dismissed his duly elected Prime Minister without assigning any reason, but also imprisoned most of the ministers and members of the parliament; banned the political parties and took over the administration in his own hands. King's act was denounced far and wide, but the strongest opposition and denouncement came from Nepal's southern neighbour, India. King Mahendra took the Indian opposition to his action very seriously and with a view to counter balancing it, he mounted an alternative strategy to win over support for himself from any corner at any cost.

In their zeal to express their loyalty to the King and express their solidarity with his actions, the immature Nepalese press, especially four leading newspapers, unleashed puerile propaganda against India. They advanced even unsolicited advice to Sikkim and Bhutan to take note of Indian sinister designs on them and asked them to free themselves from Indian interference. They proposed "a federation of Nepal, Sikkim and Bhutan, with Nepal taking the lead, a suggestion which, if it had not emanated from the King controlled press, would have been stigmatized as a blatant Chinese take-over plan for the whole Himalayan area since this has been a communist suggestion for some time. They also published serialized anti-Indian articles, a campaign was started against the Indian newspaper reporters in Kathmandu, and even against an official of the Indian Embassy who was alleged to have paid a visit to a political worker's house" (Patterson, G N: 1963: 152).

The first thing he did was to carve out a distinctly loyal band of functionaries by inviting/enticing unscrupulous, ambitious, and resourceful elements from the All India Gorkha League (AIGL) from India, once their demand for a separate State of Gorkhas in Darjeeling was rejected in 1956. For example, one Prakash Thakur, a former AIGL delegate to Pandit Nehru in 1948, was appointed as the Chief of the Protocol, the Royal Government of Nepal in 1964; a brother of the former AIGL Member to West Bengal Legislative Assembly, known as Jesse was the Chief of the Nepal Chamber of Commerce, a privy councillor and a Director of the Royal Nepal Airways Corporation. One Chahvan "organized Gurkha League activities in Assam and Darjeeling".

Amir Lama, son of Santabir Lama of Sukhiapokri, Darjeeling, another activist of AIGL, who had supported King Mahendra's action in dismissing the democratic government in 1960, and for which he was 'expelled from India', was His Majesty's nominee in the National Panchayat and the President of the Buddhist Society of Nepal. And this was the worthy gentleman, who was sent to People's Republic of China as the Leader of the Nepalese Buddhist Society (Patterson, George N: 1970).

Another move King Mahendra undertook was to canvass not so tacit support for a Federation of the Himalayan Kingdoms, consisting of Nepal, Sikkim and Bhutan, in which, he was alleged to have full support from China. It was apparently an old Chinese game, which Nepal felt happy to play, as it suited its distant dream of Greater Nepal across the Himalayan ranges in its own image. The only thing, he forgot in his antipathy to Indian interests, was to take it for granted that the other two Kings would be equally adventurous to toy with the idea of the Federation, forgetting their internal support-base and historical experiences of dealing with Nepal and the Nepalese. And he did not stop at that; he sent his factotum, Dr Tulsi Giri, one of the arc turncoats of Nepalese politics, to gauge the political waters in other two Kingdoms in the east. It is not clear whether he tried to reach the Maharaja and the Maharaj Kumar of Sikkim, but Dr Giri did visit Gangtok and Rangpo in Sikkim and tried his best to meet the sundry Nepalese politicians, who felt demoralized because of the policy of ethnic parity system in Sikkim. And naturally, he failed to enter Bhutan and had to satisfy himself and his mentor by running into some former members of Bhutan State Congress living in exile in and around Siliguri.

End of the Himalayan Dream: The Federation Flounders

Two developments, which occurred almost simultaneously in the region, had a strong bearing on the clandestine moves and counter-moves for the Federation of the Himalayan Kingdoms. Firstly, People's Republic of China and United States of America decided to bury their bitter animosity and the latter decided to support the former as a permanent member of the Security Council of the United Nations Organization (UNO) in place of Taiwan in 1971. And in this development, Pakistan played the role of an interested match-maker. This facilitated a thaw in American support to the cause of the Tibetan dissenters operating in the Himalayan region. And secondly, the Indian Union intervened decisively in the ongoing civil war in East Pakistan leading to the creation of Bangladesh in

December 1972, which again demonstrated a resolve on the part of Indian Union to stand by its national priorities and its perceived interests.

The idea of Himalayan Federation remained largely in the print media and in fact, it was never taken seriously by anybody diplomatically. Firstly, the Chinese formulation of Tibetan palm with five fingers representing various and varying Himalayan States was never taken seriously and formally. At the most, it was considered to be the Chinese arrogance to claim a series of nations as its own on flimsy historical claims of doubtful credibility. It appears that neither did the Chinese themselves take their alleged claims seriously. Moreover, gone were the days of national claims on some or other historical invasion/incursion/expedition on neighbouring countries based on the discredited principle of conquest. Secondly, George Patterson's wild and vague ideas of linking Nagaland, Assam Hills, Bhutan, Sikkim, Nepal, Tibet and Ladakh with that of the Federation of the Himalayan Kingdoms was seen as unworkable substitute of old British Imperial fad of buffer States to keep their Indian empire in secure hands and some extra-territorial rights in Tibet. Neither did he ever try to spell out similarity among the diverse political and religious elements. Thirdly, there is no known evidence to suggest that either of the two Kings of Sikkim and Bhutan, Tashi Namgyal and Jigme Wangchuk, did take any interest in the idea of the Himalayan federation, as they had been more concerned with the ever increasing demographic size of the Nepalese in their Kingdoms. Fourthly, the first ominous nail in the coffin of the federation idea was that of the murder of the Prime Minister of Bhutan, Jigmie Dorji, in 1964 at Phuntshiling, which led to the Druk-Gyalpo (King of Bhutan) asserting his authority and consequent eclipse of the Dorjis in the power structure of Bhutan, and the residual group's subsequent exile to Nepal. In the process, Nepal got exposed to as the epicentre of activities associated with the scheme potentially under the aegis of the ambitious Hindu King in the world, i.e. Mahendra. As a rebound, Bhutan and its ruler went whole hog in the Indian company and concentrated on getting the Kingdom recognized as a member of the United Nations Organization (UNO), which it did in 1971 with Indian sponsorship. Fifthly, the strongest pillar of the idea of Himalayan Federation, King Mahendra and his Bhutanese counterpart, Jigme Wangchuk, expired in 1972 leaving the two Kingdoms in the hands of two untested Crown Prince: Birendra and Jigme Singhe. Lastly, Palden Thondup Namgyal, the Chogyal of Sikkim and the last stake holder in the game of the Himalayan Federation, ran in rough weather with his subjects in 1973 (Sinha, A C: 1975; 2008). Incidentally, though the anti-feudal agitation was led by a Lepcha

aristocrat, Kazi Lhendup Dorji, it were the Sikkimese Nepalis, who overwhelmed the Namgyal ruler leading to eclipse of 333 years old Kingdom with its merger with the Indian Union in 1975. Thus, about two decades old Himalayan Odyssey of a Federation of the Himalayan Kingdoms effectively came to an end in a way in 1975, but its aftermath persisted in a different form and scale. And that may be identified with that of the policy of Nepal as a Zone of Peace, pursued vigorously by its sovereign.

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Dardic Tradition in Baltistan, Ladakh and Central Asia

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The geo-cultural region of Baltistan and Ladakh comprising Gilgit, Chitral, Hunza, Skardu, Kargil and Leh with their adjoining areas had been the homeland of Darada (Dard) tribe, often mentioned in Indian literature. They were in constant interaction with Tibetan and Central Asian tribal clans with whom they were seemingly involved in exchange of trade commodities as intermediaries in the intercontinental trade on the Silk Route, particularly in the early historic age. Besides the routes connecting Central Asia and Chinese Turkistan through Baltistan, the Karakoram (ka-ra-ku-ram) pass, at the north-east corner of Karakoram range, had been the principal Central Asian caravan trade route. Fa-xian came to India through this pass in 399 AD. Mirza Haider Daughlat invaded Ladakh in 1532 AD coming through this pass. It connects Central Asia with Nubra valley. Today Nubra valley is connected with Leh by Khardung pass (Kha-rdzong la) with 18,380 ft. maximum height. Karakoram pass had been the easy route connecting Ladakh with Khotan, Yarkand and Kashgar.

In between Yarkand and Kashgar, at Darkot pass at about 13,100 ft. a large inscribed granite boulder was discovered by Aurel Stein with five rows of Tibetan inscription and figure of stupa. Similar engravings of three fold base of a stupa has been noticed by Stein on a boulder at Charrun in Mastuj and some elements with a carving on a boulder at Pakhtoridini. The Darkot pass engraving of stupa and Tibetan inscription has been dated to 8th or 9th century AD and Stein remarks "This chronological indication has its special archaeological interest with regard to the peculiar cruciform type of Stupas which Dr. Francke has

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noted before among Ladakh rock-carvings". Stein reproduced A.H. Francke's note vide his letter dated Sept. 15, 1921 as Appendix L in his *Innermost Asia*, Vol.3 giving details of the inscription and the drawings of the stupa. Francke thinks that rMe-or mentioned in the inscription is the Tibetan clan name of Lirmidor, the erector of a stupa but his personal name Lirmidor is of Dard origin. This 8th – 9th century Tibetan inscription and others found in Ladakh follow the traditional Indian style of using genitive case. This inscription testifies to the conquest of Gilgit by Tibetans in the 8th century AD.

The ancient tribal clans of the Daradas, generally mentioned as Dards or Monpas and Drokpas, distinct among the people in Ladakh who mostly adopted Tibetan form of Buddhism after the ninth century onwards remained powerful and politically very strong in the regions north of Kashmir, spread from the Hindukush mountains in the west to Tibetan borderlands in the east around the Kingdom of Na-ri during *circa* 700 to 900 AD. Ladakh came under direct possession of Nyima-Gon who was the great-grandson of Tibetan King Lang-dar-ma who was assassinated in 842 AD. At the time of his death, Nyima-Gon had divided his Kingdom amongst his three sons who ruled at Ladakh, Guge and Purang and thereafter Ladakh was ruled by the Kings of another dynasty who traced their origin from Tibet. The Tibetan inscriptions on boulders near Saspol bridge on the way to Alchi have been assigned to the period 760 to 840 AD on the basis of orthography and onomastics¹ and suggests the inroads of Tibetan armies during the eighth and ninth centuries AD, after which the Tibetan culture engulfed the region in the following centuries. Thus it is quite evident that the period till the end of the ninth century AD in Ladakh had negligible influence of Tibetan Buddhism, though Buddhism had already spread in the region, mainly due to its impacts from Kashmir and Gilgit-Chitral regions as confirmed from the huge rock-cut images of Maitreya at Mulbekh, Apati and Kartse Khar and sculptures at Drass² which can be placed during the period of *C.* 700 to 900 AD when the area was under the control of local tribal clans who had their fortresses made on hill-tops, presently known as Dard-castles.

Indo-Iranian (Dardic) and Mongoloid (Tibetan) elements have been traced in the racial features of the present day Ladakhi population which is mostly following Buddhism in Leh district and Islam in Kargil district. Islamic conversion was mainly initiated in the fifteenth century AD through the influence of the Sultans of Kashmir in Ladakh and Baltistan. The entire region was known as Dardistan or the land of the Dard or

Sanskrit Darada tribe, mentioned in geographical lists of the *Purānas* and *Mahābhārata* as neighbours of Darvas, Suras, Audumbaras, Kashmiras and Trigartas³ which has been called by the classical Greek writers⁴ Strabo and Megasthenes as Derdai, Daradrai of Ptolemy and Dardae of Pliny who collected gold from the piled up heaps of earth dug in the ground in winter by the ‘gold digging ants’, apparently identified⁵ as the large size rats still noticed making burrows in Zaskar and other regions along the Indus. That Daradas were producing and dealing in gold is further evidenced by the fact that till 1908 Kargil remained the centre of gold trade⁶. The scions of the ancient Daradas or Dards are supposed to be present day Indian Drokpas of Da-Hanu area and the Monpas in Ladakh besides the inhabitants of Skardu, Gilgit and Hunza and those living along the Karakorum highway across the LOC. The Drokpas identified as Dards are famous for their sharp and beautiful features and they love flowers and beads and decorate their hairdo and caps with them. They speak Balti language and practice their own socio-religions system besides Buddhism and celebrate the festival of flowers called *Men-tok Stan-mo* on an auspicious day selected by an On-po (astrologer), as part of the big harvest festival called *Srub-lha*⁷. Similarly the *Shon-rches* dance⁸, performed in circle, mostly in honour of Dorje Chenmo, is supposed to have its origin in the Gilgit area under the Monpas. Songs like *Shon-glu* and *Bal-glu* which originated in Baltistan became very common in the entire region of Baltistan and Ladakh which were sung along with the dances. During the medieval times Baltistan remained a territory under the Kingdom of Ladakh ruled by clan chiefs called Cho who had adopted Islam later and their descendents are still living in the villages in the region. The Monpas in Ladakh have mainly adopted the profession of singing and dancing and they are invited to perform their skill on festive occasions and rituals.

Thus we have three distinct phases of chronological development associated with the tribal clans of the Daradas – the earliest phase of prehistoric times when they were hunters and gatherers, the middle phase when they adopted somewhat settled life of pastorals and nomads and with the advent of the Kushans in the region, in an era of inter-continental trade developments, helped them in exchange of commodities and started adopting more civilized ways of living than before. It was around the first century BC to sixth century AD that they became famous as Daradas (Derdai, Daradrai or Dardae) and found place in classical and other literary works as an organized tribe and became a political

power till the ninth century AD, after which in the last and the third phase they merged in the new social order created due to the introduction of Tibetan Buddhism and Tibetan people settling in the region followed by Islam in the fifteenth century AD in the western part of the region including Kargil area and particularly in Gilgit, Chitral and Baltistan. Giuseppe Tucci⁹ on the basis of various names of Darada rulers and their attacks over the Kingdom of Kashmir as described in Rajatarangani, distinguishes them to be Hindus stating that perhaps Buddhism had not been altogether forgotten. I do not agree with him as I think that the names of Darada rulers such as Achalamangala in the reign of Ananta (1028-1063 AD), Jagaddala during the time of Uchchhala (1101-1111 AD) and Manidhara during the time of Sussala (1112-1120 AD) are Indian names which can be related to both Buddhism or Hinduism. Tucci's contention that mention of Darada ruler Achalamangala alongwith seven mlechchha princess suggests that some understanding between the Daradas and Muslims had already started in the region in eleventh century, seems to be convincing. In some of the references of Daradas in connection with the conquest of Lalitaditya Muktapida, Kalhana States that the King could not tolerate the strong alcohol of the Daradas¹⁰. Kalhana calls Lalliya Shahi ruler as sandwiched between the Darada and the Turushka Kings.¹¹

The prehistoric phase of the Daradas is represented mainly by the petroglyphs discovered in Ladakh as well as on the other side of the LOC along the Karakorum highway. So far as prehistoric remains in Ladakh are concerned, stone artifacts in the forms of Unifacial breccia chopper, three bifacial quartzite hand axes and a retouched worked block of breccia belonging to the lower Paleolithic assemblage have been found at Alchi on the left bank of the Indus by the Prehistory Branch of the Archaeological Survey of India¹². It was noticed by the author during explorations in Ladakh that the rock engravings, particularly those on boulders in river valleys, mostly embedded into the ground at varied depths, are the earliest remains of the cultural heritage of Ladakh as they depict scenes of prehistoric, early historical and later historical life of man and culture of the region. The earliest ones are represented by animal figures of ibex, cattle, yak, goat, deer, dog, wolf, horse and human figures including those in hunting with bow and arrow or with spear and in dancing positions in groups, horse riders, fighting scenes and symbols of sun, palm, swastika and others. They were sometimes copied in later periods also as are evident from overlappings and scratchings without patina and looking fresh on

granitic boulders. During the survey of a stretch of 25 km from Sanjak to Batalik in Balti speaking area, 2 km north-west of Sanjak at Tilichang a rock shelter was noticed with primitive engravings including several group dance scenes, men with triangular body, deer and ibexes and such scenes can also be seen on boulders 2 km ahead at Bema and further 2 km ahead at Rugdus and also elsewhere in Ladakh. Amongst prehistoric engravings noticed at Thalpan – Ziyarat and datable to 3rd – 2nd millennium BC¹³ which represent the folk tradition can be mentioned boulders with hunting scene, footprint and palm print including the representation of a cult deity with crescent shaped feet, squarish face and crown with radiating lines.

The petroglyphs of the early historic phase are dominated by the representation of ibex figures and their hunting scenes. Regarding engravings of ibex figures on boulders and rocks, it is well known that it represents the local tradition of the area connected with the ceremony of ibex hunting, known as *thuma saling*, a term perhaps of Balti language, as also observed by A.H. Dani according to whom ‘the story refers to a ritual conception of a male ibex, which, if drawn on this Rock, would lead to human pregnancy’¹⁴. This is in the context of Hunza rock which is also applicable to other places of the region. The male organ of ibexes are also drawn at a number of places.

It has been custom in Ladakh as observed by Francke during his tours¹⁵ that on the occasion of the birth of a child presents of ‘flour-ibex’ i.e. the figures of ibex made of flour and butter were offered as thanks giving and people also used to go to the pre-Buddhist places of worship, in particular, to pray to be blessed with children.

Fertility cult was very popular during the early historical period in India, especially during the Kushan period when terracotta figurines of Naigameśa and Naigameśī were modelled at a large-scale and offered in cult worship. They had the face of goat over human body. On the basis of the epic mythology and ancient texts like *Kalpasaṁhita*, *Nemināthacharita* and *Antagada-Ḍasāo*, it has been suggested that the deity was worshipped to attain progeny and to take care of the evil influences occurring in the form of sickness¹⁶.

The ibex figures found on boulders and rocks which are also related to such ritualistic offerings may suggest their dating along with other associated engravings to the period around the beginning of the Christian era when the nomads of the region entered into social order with the impact of Kushans, who besides bringing about Buddhist missionaries also encouraged trade and commerce along this region with the trading centres on the Silk Route.

Leh, the capital of Ladakh seems to have developed into a city as it was the meeting place of various traders and cultural missionaries trekking along divergent trade routes coming from south of the Himalayas connecting the main land of the country and also from Tibet via Kailas-Mansarovar and Nyoma on one side and extending towards north via Nubra valley to Khotan, Yarkand, Kyzil and Kashgar in the Chinese Turkistan where at Koutcha around Kyzil at the end of the seventh century AD there were 100 monasteries with about 5000 monks as informed by the Chinese pilgrims Huen-tsang and I-Tsing and towards the west via Khalatse, Batalik, Gilgit and Chitral to the area of Wakan under the Kushan empire. Such prehistoric and early historical engravings on boulders can be traced upto mountain passes of Ras-Koh towards south-west of Oxus across Indus basin in Baluchistan area¹⁷. A team of two archaeologists R.C. Agrawal and R.K. Verma from the Archaeological Survey of India had visited some sites in Kyrgyzstan in 1998 and noticed rock engravings of pre-historic type including those having ibex figures at Cholponata, not very far from Issyk-Kul Lake site and also found at Isyk-Ata, near the tourist resort by the side of the river of the same name, Buddha's figures carved on rocks in the similar fashion as they are found in the Nubra valley in Ladakh and can be attributed to about 9th-10th century AD.

The Kushan establishments of cities founded by Hushka, Jushka and Kanishka, as mentioned in the *Rājataranginī* of Kalhana which can be located between Baramulla and Srinagar, were also connected with the above mentioned route via Drass and Khalatse from where ancient remains, sculptures and inscriptions have been found. The so called Kanika chorten (stupa of Kanishka) at Sani monastery in Zaskar which has the hemispherical dome (anda) which is not the usual feature of chortens in Ladakh, also suggests through the tradition about Kushan evidence in the area, as also confirmed by the inscription of Vima Kadphises at Khalatse, which on one side towards south was connected with Kashmir and on the other with the route along the Indus through the difficult route along Zaskar, the river which joins Indus near Nimoo between Leh and Khalatse at a distance of about 34 km. from Leh.

Interestingly, two stone slabs containing the famous Buddhist creed '*Ye dharmā hetuprabhavā hetum teshām Tathāgatohyavadat, teshām cha yo nirodho hyevam vādī Mahāśramanah*' were found fixed on either side of the entrance of the main hall at Sani monastery in Zaskar which were perhaps originally fixed along with such other slabs on the façade of the monastery where still a line of such inscribed slabs are

visible. The writing suggests an early date of the monastery as also believed traditionally. Recently Tashi Dawa and also Bruneau Laurianne and her colleagues have located a few short Brahmi, Kharoshthi and Chinese inscriptions in Ladakh (Personal communication).

Francke, during his observations and study of skulls recovered from the Dard graves near Leh, has suggested that they belong to the early centuries of the Christian era between first to fifth centuries AD¹⁸. Apparently, the Dard nomads must have helped in the trade of the area which got impetus during the Kushan rule and much of the engravings on the boulders seemingly date back to the period and are located mainly on boulders near the camping grounds of ancient traders and their nomadic helpers.

Archaeologists from Germany and Pakistan under Karl Jettmar¹⁹ and A. H. Dani²⁰ have explored a large number of sites on and around the Karakorum highway and have located numerous inscriptions in Brahmi and Kharoshthi, datable to the early centuries of the Christian era and having names of Kushan emperors, kshatrapas, high officials and local rulers besides traders and monks along with human and animal figures and motifs engraved on boulders and rocks, many of which have a similarity with those found in Ladakh. Geo-culturally the area comes under the same region as also most of these sites are located on the banks of Indus from Alam bridge in the north to Kohistan area in the south having important sites at Chilas, Thalpan, Ziyarat, Hodar, Oshibat, Thor and Shatial. Towards north of Alam bridge where river Hunza meets the Indus such sites with rock engravings have been located on the banks of Hunza upto the place of the same name identifies as Honosara (or Hanesara) Vishaya (district) by N.P. Chakravarti²¹.

Towards the close of the second phase of Darada activities the rock cut sculptures of Mulbekh, Apati, Kartse Khar, Sani, Drass, Hunder and Yansa are representative art works of the age. To this era belongs the group of buildings depicted in engravings which do not have the *anda* of a stupa and have been identified at Chilas VII with cult buildings²².

The third phase has mostly engravings of Tibetan style of Chortens or stupas, Tibetan inscriptions and figures of Buddha and minor deities in the typical Tibetan inscriptions and figures of Buddha and minor deities in the typical Tibetan style which has little affiliation with the Darada tradition. However, the second phase which continued till the ninth century AD provides much information about the folk rituals and

tradition of the Daradas through the rock engravings found on thousands of boulders in the entire region. Various dance scenes, often in groups, cult-deities, ritualistic activities, symbols like footprints, palm-prints and other features of Dardic tradition and beliefs, Brahmi and Kharoshthi inscriptions mentioning local chieftains, traders, worshippers besides Kushan Kings and their figures, stupas and material representative connected with both folk and classical forms, require their detailed study in understanding the life and activities of people inhabiting the region and the those following their movements along the silk roads.

The West Iranian warrior with broad belt, fringed skirt and leggings, about to slaughter a goat or ibex represented on the Altar-rock at Thalpan Bridge²³ and datable to the first millennium BC has a parallel at Tilichang in Ladakh engraved in the purely folk art tradition²⁴. The folk deities also included Hārīti which is represented on a recess in the cliffs of Chilas II with Kharoshthi label inscription and the folk tradition is further supported by a cult pillar to its left having human attributes²⁵. The giant lady figure with legs apart and radiating lines at Chilas VI²⁶ belongs to the folk art of the early historic period. The tradition, typical to the region depicting (Fig. 1) a chief or a deity seated on a throne who is offered a bowl by some people at Chilas II²⁷ or the enlightened one (Fig. 2) allowing a tigress having no milk for her cubs to devour him. A message of deepest compassion expressed through the tree nymph lamenting with the relatives at Chilas I²⁸ speak about the folk lores developed from *Jātaka* stories popular among the Daradas and quite efficiently depicted in their artistic endeavour.

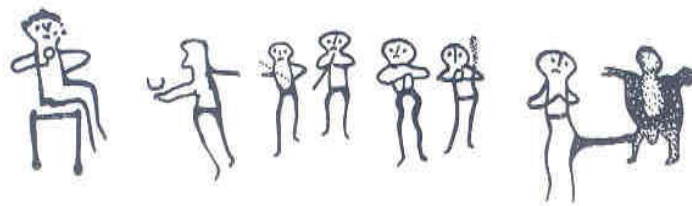


Fig. 1



Fig. 2

Endnotes

- ¹ Philip Denwood, 'Temple and Rock Inscriptions at Alchi' in David L. Snellgrove and Tadeuz Skorupski, *The Cultural Heritage of Ladakh*, Vol. 2, New Delhi, 1979, pp. 117-164.
- ² B.R. Mani, 'Rock Carvings and Engravings in Ladakh: New Discoveries', *Pragdhara*, Journal of the U.P. State Archaeology Department, No. 9, Lucknow, 1999, pp. 65 ff.
- ³ Ved Kumari (ed) *The Nilamata Purana*, Vol. I, Jammu, 1988, pp. 71-72.
- ⁴ John W. Mc Crindle, *Ancient India as Described in Classical Literature*, Reprinted, New Delhi, 1979, pp. 3, 51, 198.
- ⁵ B.R. Mani, *op. cit.*
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- ⁷ Sanyukta Koshal, *Ploughshares of Gods – Ladakh – land Agriculture and Folk Tradition*, Vol. I, New Delhi, 2001, pp.558-61.

8. Sushma 'SaraI', 'Laddakh Ke Lok Nritya' (in Hindi), Hamara Sahitya 2002 (Ladakh issue), J&K Academy of Art, Culture & Languages, Jammu, 2002, p. 97.
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19. Karl Jettmar, *Zwischen Gandhara Und Den Seidenstrassen, Felsbilder am Karakorum Highway. Entdeckungen deutsch-Pakistanischer Expeditionen 1979-1984*, Mainz am Rhein, 1985.
20. A.H. Dani, *Human Records on Karakorum Highway*, Islamabad; *Chilas the city of Nanga Parvat*, Islamabad, 1983; *The Sacred Rock of Hunza*, Islamabad, 1985, p.7.
21. N.P. Chakravarti, 'Hatun Rock Inscription of Patoladeva', *Epigraphia Indica*, Vol. XXX, 1953-54, pp. 227 and 230.
22. Herald Hauptmann (ed.), *The Indus Cradle and Crossroads of Civilization*, Islamabad, 1997, p. 46, Fig. 1.
23. Karl Jettmar and Volker Thewalt, *op.cit.*, pl. 5.
24. B.R. Mani, *op. cit.*, pl. 30
25. Karl Jettmar and Volker Thewalt, *op.cit.*, pl. 12.
26. *Ibid.* , pl. 22.
27. *Ibid.* , pl. 8.
28. *Ibid.*, fig. on p. 19.

Kashmir's Cultural Affinities with Himalayan Regions

S. S. Toshkhani*

Stretching from the Hindukush in the west to Myanmar in the east, the Himalayas are not a mere geo-physical phenomenon but the symbol of Indian civilizational ethos, the very soul and essence of India's spiritual and cultural traditions. The serene beauty of their eternal snows evokes a vision of the infinite and inspires a quest for the unknown. Their heights are the heights of the mind, their cosmic silence offering sublime moments of contemplation on the deeper and intrinsic meanings of life. It is in the caves and caverns of the Himalayas and on the serene shores of the rivers and lakes having their sources in the mountain range or on its lofty peaks high as the strivings and aspirations of man that sages and seers have meditated to discover the deep mysteries of life and death – eternal truths that illuminate the mind with the immensity of the cosmic vision of the oneness of man, nature and the divine in the infinity of time. In the lap of this vast and scintillating mountain range were born the “human and humane” value-systems that stress the sanctity of life and of nature and have moulded and shaped the Indian psyche since the earliest times. Perhaps that is why Kalidasa calls Himalayas the very embodiment of divinity, the measuring rod of the oceanic depths of India's consciousness.

Indeed, it is impossible to imagine India without this great mountain system which generates the creative rhythm and harmony that marks the life style of its people. That surely must be the reason why the great Shankaracharya chose to establish here the seats of the four Jagat Gurus in the places of pilgrimage as symbolic pillars of the directions supporting the spiritual unity of India. These bounding pillars are enclosed by the halo of what the ancient texts call Kashmir Mandala,

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completing the circle of a sacred geography towards which even today pilgrims from all directions walk. To experience the spiritual ecstasies awakened by the cultural ecologies of the enchanting vastness of the Himalayan landscape, there is perhaps no place better than Kashmir where forests and meadows, rivers and lakes appear to be symbols of the intimate relationship between immanent realities and transcendence.

Located between the Pir Panchal and Karakorum ranges, Kashmir has the distinction of being the largest valley of the Himalayas which has contributed in many ways to the pan-Indian cultural significance of the great mountain. With other Himalayan regions, it shares millennia of human activity. Is it not surprising, therefore, that the Himalayan character of the Valley's culture has been consistently ignored and a forced amnesia created about it, so as to de-contextualize it and deflect attention from actual facts of history? This is not to say that influences other than those that can be traced to the Himalayan civilizational and ecological ethos have not impacted the Kashmiri mind in any major way, but how far can encrustations and accretions be allowed to be seen as the real thing and the real thing hidden from sight?

The vast Himalayan amphitheatre has witnessed a great drama of movement and migration and mixing and comingling of people in the early dawns of pre-history, leading to long processes of acculturation through which diverse ethnic groups evolved into distinct communities with their own peculiarities and characteristics and yet having many elements of commonality. Different cultural patterns and ways of living of the Himalayan communities emerged over the centuries from the peculiarly fascinating eco and geo-systems of the region, which at the same time displayed interesting strains of uniformity. Occupying a central place in this fascinating world of Himalayan culture, Kashmir has contributed immensely towards developing its unique traditions. The value systems, beliefs, rituals as well as patterns traditions of art, architecture, folklore etc., shared by the people who inhabit this vast region reflect a deep colouring of elements whose origins can be traced to Kashmir. As is well known, Kashmir came to be universally recognized as a great centre of learning and culture that played a crucial role, quite incommensurate with its geographical size, in creating the cultural climate in which Indian consciousness achieved its full efflorescence.

Historical factors and geographical location were largely responsible for promoting cross-regional exchanges and social interactions between Kashmir and other places situated along the Himalayas, which in turn led to forging of highly significant linkages at different planes. For centuries this process went on, sometimes continuous and sometimes

interrupted, sometimes intense and sometimes feeble, with far-reaching ramifications for art and culture, besides trade and commerce, in areas within the Indian watershed as well as across the Himalayas. Historical accounts are replete with references to political relations between Kashmir and ancient Gandhara, Kabul valley, Taxila and Swat in the north-west and also the erstwhile “hill states” of Punjab like Kangra, Chamba and Kullu, now known as Himachal Pradesh, not to speak of the hilly districts to the south of the valley like Kashtwar, Bhadrawah, Poonch and Rajouri in the Middle Himalayas which are now a part of the Jammu and Kashmir State.

The fact is that the territories immediately adjoining the Kashmir valley and located across the Peer Panchal range have played very important, sometimes even crucial, role in its political and cultural history. These include Kashtwar, Bhaderwah, Poonch, Rajouri, Ballawar etc., references to which are replete in the chronicles of the Jammu and Kashmir State. Of these Kashtwar (Skt. Kashthavata, now pronounced as Kishtwar) has remained practically a backyard of the Kashmir valley, providing, as it has done, refuge on several occasions to its kings fleeing from political upheavals caused by attacks of fierce invaders from outside. But more importantly it provides the key to many unknown or forgotten facts of Kashmir’s cultural past. Kashtwari, the only recognized dialect of the Kashmiri language holds many a secret of its origin and development. Bhaderwah, known as “Little Kashmir” for closely resembling Kashmir in its landscape and climate, though politically tributary to Chamba, is also linked to it culturally with several common folk-religious beliefs and practices, Poonch has also remained very closely linked with the Vitasta valley so far as its political history is concerned. The same can be said more or less of Rajouri. Sadly, however, no serious attempt has been made to study the cultural framework that joins all these areas, neighboring each other, together in an intimate relationship.

Ancient chroniclers often refer to the close political and cultural links that existed between Kashmir and the erstwhile States of Kangra, Chamba and Kullu, which have all at one point of time in history or other been tributary to Kashmir, which at times has wielded even direct political authority over them, matrimonial relations often helping to reinforce the ties. While no direct historical records of Kashmir’s relations with what now comprises the Uttarakhand State are available, *bahis* maintained by the *Pandas* of Haridwar of their Kashmiri clients visiting them for obsequies of their dead kin, provide a very interesting material for study, including names of several important historical personages.

Some of the *bahis* have images of the river Vitasta drawn on their dog-eared and fragile pages, personified as a goddess and shown mounted on a fish in accordance with the Kashmiri tradition. The Nilamata Purana, which gives the story of the emergence of the Kashmir valley from the waters of the primordial Satisar lake, says that Kashyap Rishi who drained away the water of the lake, was at Kankhal near Haridwar on a pilgrimage at the time people approached him with an appeal to deliver them from the clutches of the demon Jalodbhava. This is an important pointer to the very early links and closeness of the contact between the people of the two regions connected by religious legends going back to hoary times.

As can be gathered from the Nilamata, Rajatarangini and other ancient texts, affinities between Kashmir and other Himalayan regions begin with ethnography itself. Prehistoric racial groups like the Aryans, Nagas, Pishachas, Yakshas, Gandharvas, Dardas, Khashas, Kiratas or people of the Tibeto-Burman stock etc., who occupied the tract of land comprising ancient Kashmir are the very people who spread along the entire Himalayan belt on the Indian side. While the historical identity of Nagas, who along with Pishachas are said to have been the original inhabitants of Kashmir, remain to be settled, ancient Sanskrit texts like the Mahabharata and the Puranas are replete with references to them, and so are the Buddhist Jatakas. These references indicate that they were the actual people and not mere mythical beings as some scholars make them out to be. They wielded tremendous influence not only in north-western India but almost in every part of the country, down to Andhra Pradesh in the south. However, it is not clear whether with all their influence they actually ruled over any of the regions associated with them, or were merely a racial group supposed to be hostile to the Aryans. Were they people without any alphabetic culture despite being civilizationally advanced, as no language or literature has been attributed to them? Or, were they just an Aryan tribe, often at odds with the dominant mainstream but at times having cordial relations with it? As for the Pishachas, Prakrit grammarians have referred to various varieties of the language called Paishachi Prakrit, broadly mentioning some of its peculiarities, yet no work in Paishachi Prakrit has so far been traced, the much referred to Brihat Katha of Gunadhya having been lost forever. The areas in which various Paishachi dialects are said to have been spoken seem to cover practically the whole of India, which appears to be highly improbable. Pishachas are also people associated with cannibalism and forcible marriage practices. Scholars like Morgiensterne and Grierson consider them to have been speakers of the Pashai

language of Kafiristan. The Pishachas have been shown in the Nilamata Purana as a highly violent and uncivilized tribe with the Nagas severely dreading the prospect of having to live in co-habitation with them when the sage Kashypa asked them to do so. However, we see these ethnic groups eventually mixing and comingling with each other with the passage of time to live in peace and harmony in prehistoric Kashmir. This is indicated by several religious festivals celebrated by ancient Kashmiris, some of them continuing well into the modern times.

Such processes of acculturation and absorption set into motion from the earliest times resulted in the formation of integrated societies with multi-layered cultural structures of which cultures of the individual integrating groups having their own distinctive characteristics formed different units. It may not be just possible for us today to identify any of these ethnic groups as definite entities, but the cultural footprints that they have left behind in the form of place names, festivals, rituals, modes of worship, music and dance, art forms, social mores, customs etc. can be traced without much difficulty. In Kashmiri language the very word 'nag' denotes springs and waterholes as the aborigine Nagas were regarded as their presiding deities. In Himachal Pradesh too there are several springs, as well as numerous worship places, which have serpent deities associated with them. In Uttarakhand also temples and place names regarded as sacred to them are legion. Same is the case with place names associated with the Yakshas, who are called *Jakhs* in the Uttarakhand region and worshipped as divinities.

The Yakshas, immortalized by Kalidasa in his *Meghadoot*, constitute another dominant ethnic community of prehistoric times who had to be propitiated by the people of ancient Kashmir to keep them at bay, the ritual of offering *gada-batta* or fish and rice to them, or *khichadi* on the *Khetsimavas* or Yaksha Amavasya day being a relic of such propitiatory traditions. Ananda Coomaraswamy regards Yakshas to be water or tree spirits as they are invariably associated with waterholes or trees. From their description in the Mahabharata and other ancient texts, the Kiratas, who had Mongolian features, do not seem to be an indigenous ethnic group. These prehistoric cohabitants of the Himalaya eco-habitats faded into historical oblivion only after weaving strands of their beliefs and ways of life into the fascinating fabric that can be broadly described as Himalayan culture.

Being an immense reservoir of concepts and ideas, knowledge and skills on which everyone was eager to draw upon, it was natural for Kashmir to have exerted a great influence on cultural as well as artistic plane on neighbouring areas, more particularly those located along the

Himalayan watershed. Thus, it is that we find influences of Kashmiri temple architecture and sculptural art marked by its trifoliate arches, three-tiered roofs and triangular pediments, to have crossed the geographic boundaries of the Valley and found their way into Himachal Pradesh and Ladakh. As is well known, the great Tibetan scholar *Lotsava Rin-chen bzang-po* (950 – 1005 AD) took 32 Kashmiri painters and craftsmen with him to Western Tibet to construct monasteries and paint murals at the behest of King Ye-shes-od of Guge. Influences of the 10th-11th century (AD) Kashmiri style of pictorial art can be witnessed not only in the monasteries of Mangnang, Tholing and Tsaparang in the trans-Himalayan belt but also in Alchi in Ladakh and Tabo (Spiti) in Himachal Pradesh on the Indian side. Noted art historian Pratapaditya Pal, regards the murals of Alchi as no less important than the frescoes of Ajanta in the history of Indian art. Kashmiri artistic traditions were also carried into other Himalayan regions in the shape of bronze images and scroll paintings. Perched on the Karakorum heights in the north-eastern Himalayas, Ladakh, now a part of the Jammu and Kashmir State, had always been in close contact with the Kashmir valley politically, but more prominently on the cultural plane because of the affinities inspired by the Buddhist links. Kashmir's tremendous role in dissemination of Mahayana Buddhism to Tibet, Central Asia, China and other countries of the trans-Himalayan region right from the time of Ashoka and Kanishka is well-known and well documented. Ladakh too occupying the same geographical locus could not but be a part of this vast communication network based on political, religious, cultural and commercial considerations, particularly from early medieval times to at least the 16th century AD during the medieval period.

A subsequent development took place in the 18th -19th centuries when fear of religious persecution and lure of greener pastures drove Kashmiri painters to places like Kangra, Chamba, Basohli and Guler. It was the artistic genius of master painters from Kashmir like Seu Raina, Nainsukh, Chajju Bhagat and others which gave birth to the classic Pahari School of miniature painting famous for its subtlety, artistic excellence and appeal. Even at the folk level the scroll paintings quite similar to the Kashmiri *Gora Trai* can be seen in several places in Himachal Pradesh.

Sharada, one of the most important ancient scripts of India, which evolved in Kashmir in the 7th - 8th century, remained a medium of written communication in an extensive area encompassing the north-western parts of the country for a long period. It also gave birth to several other scripts like Takari and Gurumukhi and, according to several scholars,

also the Bodhi alphabet used for writing Tibetan. According to *Chos-byun* of Bu-ston and also the Ladakh Annals, Tibetan scholar Thonmi Sambhot was sent by King Srong-bcan-sgam-po to Kashmir in the 7th century to learn grammar and devise a script for the Tibetan language and Thonmi returned with a 31 letter alphabet based on Nagari and Sharada characters. Whether the Tibetan alphabet was actually derived from it in Thonmi's time or later, the Sharada script can be regarded an important unifying element in Himalayan cultural history.

On the religious plane, Shiva and his consort Parvati, besides Buddha, have been the most beloved deities of the Himalayan people. In fact Shiva, with his abode on Kailasa, is an all-pervading presence in the region which is the source of some of the holiest of Indian rivers, including the Ganga which is believed to flow from his matted locks. In Kashmir, where the Ganga itself does not flow, there is a number of holy streams from Doodhganga to Kishenganga which carry its name. Every inch of the mountain range from west to east, from Kailas to Amarnath is sacred to Shiva, abounding in places of pilgrimage reflecting his glory, with numerous peaks and crags, caves and caverns, rocks and cliffs resounding with legends associated with him, the God of gods. The same is case with Parvati, who is the great mountain's own daughter. The Nilamata Purana, a sixth century Sanskrit text which gives Kashmir's own creation myth, describes the whole Kashmir valley as her very embodiment. Lake after lake, pond after pond, stream after stream, forest grove after forest grove, rock after rock, and peak after peak tells the poignant story of her love for the land. Parvati is said to have incarnated herself as Vitasta (modern Jhelum), the beloved river of the Kashmiris whose birthday they celebrated till not too distant a past by floating earthen lamps on its gentle waves. On the grassy slopes of the beautiful meadow of Yusmarg, she is said to have roamed as *yoshita* or a young girl, lending her name to the place (Yusmarg is wrongly supposed to have been named after Yusuf Shah Chak who ruled over Kashmir before Akbar and made it a part of the Mughal Empire in 1586). At the level of folk religion, many hill goddesses, like Sharika and Ragnya in Kashmir and Nanda Devi and numerous other local goddesses in other parts of the region, have been identified with Parvati. This predominance of faith in Shiva and his consort has led to proliferation of cults associated with Shaiva and Shakta, and also Buddhist, Tantrism (of the Mahayana, Mantrayana and Vajrayana variety) in the region. Tantra, in fact, has been the abiding religious system deeply entrenched in the consciousness of people from Kashmir to Kamarup, the devotional and ritualistic constant of the faith that derives its values from the high metaphysics of Kashmir Shaivism and holistic doctrines of the

Mahayana. The immense popularity of the Bhairava or Mother Goddess cults at the level of folk religious beliefs and practice in the region shows how strong these traditions have been and still are.

In fact, folk-religious elements of numerous kinds have become an integral part of life-patterns of the communities of the entire region, interacting with other forms of cultural expression from ritual practices to literature. Winning the favour of folk deities for power and prosperity, fertility and health through ritual behaviour forms the core of religious activity for ordinary masses who seek the intervention and involvement of gods in their day-to-day life. Associated with seasons and agricultural cycles, festivals and fairs of the region have features closely related to the identity of the social milieu in which they are performed, often full of music and dance that are used to intensify expression of ecstasy and devotion. As in Kashmir and Himachal Pradesh, so in Uttarakhand and other regions of the Indian Himalayas, folk religion forms a vital aspect of their mode of living. While the folk deities are approached for prosperity and happiness, they are expected to respond with compassion as well as magical power to fulfil the devotees' worldly desires. We have referred to the cults of Bhairavas and mother goddesses above as a common element related to various popular modes of worship. There is also a whole pantheon of demonology deeply entrenched in people's common beliefs, which is sought to be appeased through various mystical and magical practices.

Language is yet another field that opens up a whole horizon of affinities between Kashmir and other Himalayan regions. Endowed with the pulsating beauty and vitality of Sanskrit, from which they are evolved, languages and dialects spoken in the region have many etymological and structural features that they share. Though hardly any serious attempt to study the links that exist between various Himalayan languages has been made so far, linguists have drawn attention to the importance of studying Kashmiri for understanding the evolution of modern Indian languages from their origins in Old Indo-Aryan forms of speech. The dynamics of creating vocabularies that the Himalayan languages share as a legacy from Sanskrit is revealed not only by the word-stock that they draw upon but also by the structural matrix explaining their formative processes. For instance, *chh*-based auxiliary verb forms of Kashmiri, derived probably from the Sanskrit root *kshi*, are quite similar to the corresponding auxiliary verb forms in Kumaoni and other dialects spoken in Uttarakhand. These and other similarities, in lexicographical items as well as their "semantic spectra," to borrow a phrase from Dr. Lokesh Chandra, could make a very interesting study, even though Sanskrit is in near total eclipse in today's Kashmir

Architecture and artistic skills, with features having a wide impact on the life styles of large segments of population in these areas, could well form the subject of another rewarding study. Close resemblance between the traditional residential architecture of Kashmir with its carved wooden bay windows and eaves, columns and beams, doors and latticed window panes and the traditional houses in different parts of Himachal Pradesh is something that cannot be missed by any observing eye. Equally interesting are the elements that link the life-patterns of nomadic communities like the Gujjars and Bakarwals of Jammu and Kashmir and the Gaddis of Himachal Pradesh, besides several other small tribal and pastoral societies who have their own sub-cultures which they have managed to sustain even in most adverse political conditions.

The unique thing about the Himalayan regions, it will be interesting to note, is the role played by eco-systems in shaping human ideas and fostering cultural expressions. The rivers flowing through the entire belt have divided the mountain ranges into their catchment areas, providing the most essential life sustaining element water for human habitations to flourish. Scientists are rightfully describing these Himalayan ranges as “water towers of modern civilizations.” Along with water and snow, forests form an important feature of Himalayan identity, supporting a vast diversity in the biosphere. It is because of the forests that we have life patterns associated with cattle rearing, food-gathering, cottage industries, trade, medicinal herbs, farming; it is because of them that we have songs and music and dance and even spiritual contemplation and philosophy in these regions. The diversity is there, but the unity is also palpable, for there is something in the nature and attitude of the Himalayan people that comes straight from the ecology of their habitat.

The deeper, inner core of Kashmiri ethos belongs to paradigms that have evolved in the Himalayas, on the banks of the rivers flowing through its valleys and ravines since the dawn of civilization. The perennial flow of their waters “gave rise to the centrality of flow, movement and progress in thought,” to put it in the words of the noted scholar of Indian culture, Dr. Lokesh Chandra. To quote him again, “Banks of rivers with water flowing became the inspiration for the spontaneity of regulation from within, the basis of value systems of *samskara*.” For those, therefore who want to access this core, it will be a futile exercise to look for it in the paradigms that have evolved in the stasis of vast expanses of desert sand and try to impose it on its Himalayan soul. Kashmir’s indigenous cultural expressions have been inspired by pine and deodar scented breezes and the music of murmuring rivers winding their way through its length and breadth. Their true

meaning can be grasped only when viewed in a perspective provided by the ecologies of which it forms a natural part.

It will be rewarding for researchers, therefore, to give up burrowing holes through heaps of historical falsehoods in the belief that they are excavating facts about Kashmir and its culture and look for the cultural thread that binds Kashmiris in a bond of unity with the people of the other regions of the Himalayas. Such an inquiry shall have its own thrills and excitements for it shall open up for them breathtakingly interesting vistas of social customs, religious traditions, ritualistic behaviour, costumes, lifestyles, folklore, art and various other forms of creative expression besides the linguistic situation and other spheres of everyday life. Those who bring up Central Asia and its Sufis every time Kashmir's culture is mentioned should know that the Silk Route was more a route of the Sutras introduced, translated and interpreted mostly by scholars and monks from Kashmir, that Kashmiris were everywhere in Central Asia in the first millennia of the Common era, that Kumarajiva, son of a Kashmiri trader and Kuchean princess was the greatest scholar the region has ever produced taking as he did the Lotus Sutra to the farthest end of the Far East and that Kashghar was known as Kashi for being a centre of Sanskrit learning, which Khotan too had become till it fell to the Karkhanavids in the eleventh century. It were the Mahayana and Vajrayana monks from Kashmir who tamed the fierce tribes of the area by transmitting the holistic message of the Buddha and teaching them the Sutras. And not just Buddhism, Kashmiri scholars introduced the Sanskrit language and Sanskrit wisdom wherever they went in the trans-Himalayan belt and Kashmiri artists painted frescoes in places like Dun Huang, bringing the art of Ajanta to the region. There is evidence that travellers travelling along the Silk Route would carry bronze images of Avalokiteshwara, who like Ganesha was regarded as the deity of protection, with them beautifully carved in Kashmir

There are strong reasons, therefore, for us to recognize Kashmir not as an area living off the cultural largesse of Central Asia, but as a major representative of the grace and grandeur of Himalayan identity and culture. We must accept that many of the numerous forms in which this great culture has found expression and enriched human mind are in one way or other closely related to traditions that had their birth in the snows of Himalayan Kashmir. Any attempt to treat Kashmir as a cultural backyard of West Asia or Central Asia while not taking into account these linkages will only amount to subvert the true Himalayan nature of its consciousness. And this is what has been going on ever since Islam overwhelmed Kashmir in the 14th century.

Education System in Bhutan

Madhu Rajput*

Predominantly a Buddhist nation, religion dominated every aspect of life in Bhutan. It was during the third King Jigme Dorji Wangchuck's time that modernization of Bhutan started. The introduction and expansion of modern education was a prime concern in a land which was steeped in monastic education. However, the mountainous terrain made it a herculean task to establish the infrastructure. The population was scattered sparsely in remote and inaccessible areas. To make schools within reach required financial as well as technical aid. India, a natural ally of Bhutan came to fore to bridge this gap. Not only was the financial aid provided but also the trained manpower, in form of engineers, builders as well as teachers. Starting from scratch, the roads were built, schools were constructed and basic facilities provided. The Royal Government of Bhutan initiated a widespread awareness campaign to make the parents realise the importance of education. Compared to the 1960s, when parents had to be persuaded to send their children to school, it is heartening to see that the efforts have borne fruits. Nowadays, the admissions in higher education level have become merit based in the wake of tough competition among the students.

Though the progress in the field of education is apparently visible, there still remains a lot to be done, especially in higher and technical education.

Education System of Bhutan

With the development and modernisation in Bhutan, education has also seen expansion and growth. The Ministry of Education has articulated its vision in *Education Sector Strategy: Realising the Vision*

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2020: Policy and Strategy as “to maximise the happiness of all Bhutanese and to enable them to achieve their full and innate potential as human beings” (RGoB, 1999, p.47). The twin aims of education are to acquire knowledge and to build character. In Bhutan the focus is to achieve both through education.

At present education in Bhutan can be categorised in three streams – the monastic system, Dzongkha medium education and modern education. The monastic stream is the traditional oldest form of education which was aimed at preserving Bhutan’s religious traditions and culture. Dzongkha education is developed for the population which inhabits far flung areas and whose needs were not served by either the monastic or modern education. This also aims at preserving Bhutanese cultural traditions. The modern education which is based on European and post-colonial Indian model aims at producing globally competent Bhutanese who have access to scientific knowledge and are well-versed in English. They are being fully equipped to go for higher studies in international institutions. In short, an effort is being made to improve the quality and relevance of education.

Structure of Modern Education

Bhutan’s current formal education structure consists of seven years of primary schooling (classes Pre-Primary [admission age: six years] to VI), six years of secondary education comprising two years of lower secondary (classes VII-VIII), two years of middle secondary (classes IX-X), and two years of higher secondary (classes XI-XII) schooling. This is followed by three years of undergraduate programmes provided in the country’s tertiary institutes, with smaller numbers of students going abroad for professional and postgraduate studies. The recent establishment of the Royal University of Bhutan is expected to cater to Bhutan’s higher education needs and aspirations. (Thakur Singh Powdyel “From Innocence to Passion: Bhutan’s Tryst with Education”).¹

Higher education is in a very nascent stage in Bhutan. Sherubtse College in Kanglung established in 1966 is the oldest and the most reputed college where graduate degrees in Science and Arts are given. In 1983 it became affiliated to Delhi University, India. In June 2003 it has come under the purview of Royal University of Bhutan, Thimphu.² There are many affiliated colleges now run by the university but university itself does not have a campus, it works like a co-ordinating office. Despite efforts to increase higher education institutions in the

country most of the students have to go abroad for degrees, especially in the field of medicine, engineering and to get P.hD. degrees.

Evolution of Education in Bhutan

According to the former Minister of Education and Chairman, Commission of Women and Children, Thakur Singh Powdyel, education in Bhutan has come in terms of waves. The first is the Monastic Education Wave that started in 8th century. In the early 1960's was started the Modern Education Wave and today's professionals, bureaucrats, administrators, managers, diplomats, members of parliament, civil servants, all belong to the second wave. The third wave is the Non-Formal Education Wave, meant for people who missed their opportunity when they were young, i.e. housewives, the villagers and farmers who could not go to school. Thereafter was started the Continuing Education Wave for those who got into jobs even before they were able to complete their education, so to upgrade their qualification and knowledge. This was the fourth education wave.

The fifth wave, he feels will be the Digital Education Wave. The government launched a massive education reform programme in 2010 called Education for Gross National Happiness. Gross National Happiness being the developing goal of the country, the education system has to take ownership of the dream, so has began the programme called Educating for Gross National Happiness.³

Progress Achieved

In the Tenth Five Year Plan, the national goal is to achieve near 100 per cent enrolment in primary education. Primary education has seen enormous expansion with the net enrolment ratio reaching 88 per cent. It has been possible through the community primary schools and the provision of boarding facilities in rural and remote areas. The following factors which previously were a hindrance in expanding education in the remote mountainous kingdom are no longer an obstacle:

- (a) The number of schools were few and it would take sometimes hours to reach the institution. Now schools are provided within one hour of walking distance.
- (b) Special emphasis is being laid on women's education. Earlier, boys got preference for going to school as it involved travelling

long distances alone and girls were kept at home for security reasons.

- (c) Now boarding facilities are provided. Mid-day meals and free stationary, stipend for children for poor family, clothes and other necessities are also provided.
- (d) The changed attitude of parents who may not be educated themselves but are opting for education for their children is a major shift and boosting factor.

In Bhutan, both government and local communities are working hard to establish schools in the most remote areas. To overcome the poor enrolment the Government has made special efforts to bring schools closer to inhabited areas, so that there may be increase in the enrolment of girls. Community public schools were built on cost sharing basis, where the local communities contributed labour towards construction and maintenance of schools. In these schools, the classes are from pre primary to class sixth. The idea is to build schools within the three km range or one hour walk. As a result infrastructure has been laid out to expand hostel facilities and more roads to enhance mobility.⁴

Today the enrolment of girls in Primary sections is almost equal to that of boys. The scene is same at the middle level, but at higher education the percentage of dropouts is a cause for concern. However, the number of educated women is on the rise, and the women of Bhutan today realise the importance of education which promises to develop their talents as well as support their families.

The success of primary education has increased pressure on the secondary education level where more educational institutions have to be opened to accommodate the large number of students willing to be admitted.

The proportion of girls attending schools tends to be higher in urban areas than in rural areas. This may be correlated with higher cash incomes in urban areas which allow parents to provide girls the opportunity to attend schools. But in secondary education there seems to be a fall in the number of girls due to reasons which are not attributed directly to the education system, like socio-cultural factors such as early marriage, teenage pregnancy (which is in sizeable number in Bhutan), imperatives on domestic and subsistence labour and parents' assumption that girls need more social security.

Table 1: Enrolment of students at various levels in various Dzongkhags

Dzongkhag	School	Total Students	Girl Students	Boy Students
Mongar	Mongar Lower Secondary School	810	420	390
	Wangdue Chholing Primary School, Singor	50	26	24
Bumthang	Lower Secondary School	954	504	450
	Higher Secondary School	494	243	251
Punakha	Khuru Middle Secondary School, Khuruthang	1093	554	539
	Higher Secondary School	673	329	344
Thimphu	Lungtenzampo Middle Secondary School	1157	650	507
	Lower Secondary School	1400	701	699
Paro	Goepel Lower Secondary School	08	06	02
Chukha	Phuentsholing Lower Secondary School	2023	1143	880

Random Statistics from Schools in Bhutan Collected from 01 June-26 June 2010.⁵

Expansion of education in Bhutan was supported by international community such as World Bank, Asian Development Bank, UNICEF, Save the Children (US) and India. India has been the main benefactor. Although initially the government of Bhutan was reluctant to appoint Indian teachers, but due to shortage of staff, most of the schools in Bhutan are predominantly staffed by Indian teachers. But this trend is witnessing a change now, as was evident during my visit to Bhutan in 2011. I was told that in Arts subjects, now most of the teachers are Bhutanese, trained at the Paro College of Education and Samtse College, Samtse. In science stream Indian teachers remain in majority but an effort is being made to train as many Bhutanese as possible. The same can be said of the higher education, where along with Indians, many foreign nationals are employed. But, the figure of Bhutanese teachers is rising.

Bhutanese initially relied on Indian curricula (Thinley, 1999). An attempt to introduce a progressive-style primary curriculum in the late 1980s was only partially successful (Dorji, 1999). By the mid-to-late 1990s, local Bhutanese curricula had been developed and implemented

for all levels up to Class 10. Similarly, Class XII curricula had been evolved by the Bhutanese educators for 2005. The comprehensive system of examinations is now entirely controlled by the Bhutan Board of Examiners.⁶

The focus now is being laid on equipping the schools with modern technology. In the words of former Education Secretary, Aum Sangay Zam, "In the field of computers and modern technology we still have a lot to do. There are few pilot projects where in few schools the use of computers has been started. Definitely technology is one area on which we need to work. We have a big project funded by the Government of India which we are collaborating with NIIT. It's a five year project starting from 2010. By the end of it, we should have in all 5000 teachers trained in ICT using computer aided learning techniques. We should also have all our secondary schools equipped with a good computer lab."⁷

Royal University of Bhutan

The country's desire for a place in the intellectual arena came to fulfilment on June 2, 2003, when the Royal University of Bhutan was born, coinciding with the celebration of the 48th birth anniversary of His Majesty Druk Gyalpo Jigme Singye Wangchuck, the fourth hereditary monarch of Bhutan.

The founding of a national university is the culmination in the transition of an education system which had the most humble beginnings, evolving steadily over the years, and gaining a profile which is a success story by all counts.

Designed on a distributive model, comprising the existing colleges and institutes which are expected to grow into centres of excellence, the university is called upon to serve the following functions:

- Instituting of programmes of studies, and granting of degrees including postgraduate and doctorate.
- Creation of qualified manpower to serve the professional sector of the fast expanding economy.
- Monitoring course quality and teaching effectiveness in member institutions.
- Establishing criteria for and providing accreditation to member institutions.
- Coordination of exchange and sharing of resources among member institutions.
- Overview of development and delivery of relevant curricula.
- Guiding the direction, dimension and quality of higher education in the country.⁸

Although education in Bhutan has been mainly developed and nurtured by the government, but recently private investment has also started, with many high profile private institutions coming up in bigger cities like Thimphu and Paro. Teaching in Bhutan is still not the first career choice. The reasons may be having to work in rural or remote parts of Bhutan, which may even require walking for long distances. In comparison to the work, the salaries are not that high. Although, government is trying to improve the conditions and this is reflected in His Majesty's address at the 3rd convocation of the Royal University of Bhutan in February 17, 2009, "Our education system built and nurtured with your hard work and dedication has served us well. But, we must understand that the times have changed. We cannot face new challenges with the same tools. The private sector is adjusting itself to new challenges and opportunities; the bureaucracy is finding its place in a new system of governance; the entire country is adapting to new roles in our young democracy. Thus every person and institution must evolve to meet the aspirations of our people and the changing needs of our nation."⁹

Vocational and Non-Formal Education

During the Ninth Five Year Plan vocational education and training was improved and it was made available to every Bhutanese citizen. Six vocational training institutes which are directly under the administration of Ministry of Labour and Human Resources have been established in important areas such as carpentry, auto mobile engineering, electrical engineering and traditional arts and craft. Though this is dominated by males, the number of females has also started increasing.

The non-formal education programme was also given an impetus in the Ninth Five Year Plan. It offers a one year basic literacy and nine month post literacy course in Dzongkha aimed at providing functional literacy to those who have either missed or dropped out of formal education system. Some of the subjects are agriculture, health, sanitation, culture and tradition, forestry and environment and use of smokeless stoves. These centres are in rural areas and 70 per cent of the learners are women.

The Ministry of Education had also started a pilot continuing education programme in collaboration with a private school in Thimphu in 2006. At that time, there were 70 women and 78 men enrolled in classes IX and XI and while women made up a higher percentage of Class IX students enrolled (17 women out of 32 enrolled), the reverse situation was observed for Class XI (64 men out of 117 enrolled). As of

2008, the programme has expanded to two other private schools in Paro and Chhukha and the gender balance has changed with 311 women and 266 men enrolled in classes IX-XII. Infact, now there are more women enrolled in Class XII while there are more men enrolled in Class IX unlike in 2006.¹⁰

Tertiary Education

At the tertiary level, the Royal University of Bhutan has 11 colleges (including 01 private college) spread across the country with an enrolment of 9,257 students pursuing various degree programmes. Under the MoLHR there are 8 vocational Training Institutes with 1,102 students. Adult literacy programmes are offered to 9,628 learners in 885 Non-Formal education centres across the country. Additionally, 2,077 students are also pursuing their further studies through the continuing education programme in 21 centers.¹¹

Table- 2 Staff and Students in the Royal University of Bhutan Academic Year 2013¹²

Institutes	Total Student		Undergraduate RGoB Scholarships*			Academic Staff			Student staff ratio	
	Male	Female	Total	Male	Female	Total	Male	Female		Total
College of Natural Resources	315	101	416	...	...	...	22	6	28	15
College of Science and Technology	513	217	730	...	...	...	44	8	52	14
Institute of Language and Culture Studies	463	378	841	...	...	...	28	8	36	23
Jigme Namgyel Polytechnic	503	200	703	...	...	...	40	2	42	17
National Institute of Traditional Medicine	34	27	61	...	...	...	8	3	11	6
Paro College of Education	840	576	1416	...	...	...	48	17	65	22
Royal Institute of Health Sciences	200	185	385	...	...	...	13	18	31	12
Samtse	647	526	1173	...	...	...	38	14	52	23

College of Education										
Sherubtse College	714	622	1336	...	...	...	79	19	98	14
Gaeddu College of Business Studies	630	598	1228	...	...	...	63	17	80	15
Total	4859	3430	8289	...	...	...	383	112	495	17
Royal Thimphu College (pvt)	479	489	968	45	48	93	22	44	66	15
Grand Total	5338	3919	9257	45	48	93	405	156	561	17

(Source: RUB & RTC) *Included under total students

About 93 students are pursuing their higher education in Royal Thimphu College through RGoB Undergraduate scholarships fund.

Tertiary Students Abroad

Every year the RGoB provides scholarships for class XII graduates to study various professions abroad. These slots are limited and merit based. Several other funding agencies like the Government of India also provide undergraduate scholarships. Table- 3 below gives the number of students abroad with scholarships.

India receives the highest number of Bhutanese students for higher studies. Other SAARC countries are also considered an option. Many of the students go for research in countries such as Thailand, Canada and Australia. The interesting feature of it is that all those who go abroad for studies on scholarships have to compulsorily come back to Bhutan and serve in the government services.

Orientation towards Protection of Nature

The most specific aspect of Bhutanese education is the system of making every child responsible for one tree. Each student is made to plant a sapling in the school premises and nurture it. This is an effective way to make children aware that trees are their responsibility and they have to take care of them right from their childhood. People react to their family with compassion because they have lived with them and think

Table- 3¹³
Bhutanese Undergraduate Scholarship Students Abroad as of 2013

Year of passing out	India (RGoB, TCS, QECS)		Other Countries (RGoB)		Total	Total (full scholarships in India & Other countries)		APEMS (India and other countries)		Total (full scholarships and APEMS)		
	M	F	M	F		M	F	M	F			
2013	56	13	23	18	41	79	31	1	0	80	31	111
2014	74	27	23	10	33	97	37	1	2	98	39	137
2015	76	27	34	21	55	110	48	0	5	110	53	163
2016	102	30	24	16	40	126	46	1	6	127	52	179
2017	28	12	25	6	31	53	18	5	8	58	26	84
2018	2	3	6	7	13	8	10	7	3	10	13	28
2019	0	0	0	0	0	0	0	1	2	3	1	3
2020	0	0	17	6	23	17	6	1	6	7	12	30
Total	338	112	152	84	236	490	196	17	32	49	507	735

(Source: DAHE, MoE)

they are theirs. The same way if we make children think that trees belong to them, they will not forget it when they grow up. We cannot change a citizen at 18. Education since childhood is instrumental in it.

Conclusion

Being a mountainous country with scattered population, for Bhutan, it may not be easy to have schools at the remotest places where it takes days of walk to reach but the herculean effort being put by the Royal Government of Bhutan needs to be admired. The primary schools which have the basic infrastructure, dedicated teachers and staff are amazingly sufficient to ensure overall development of a child. An effort has been made to try to narrow the teacher-student ratio. Extended classrooms are to be established to provide education in areas far and remote. The poor will have education fully financed by the government which includes stipend, clothes and other essential resources.

Along with the efforts of the government, the noticeable feature is the overwhelming cooperation of the people. The importance of education has dawned on parents who now want the best for their children. Girls are being enrolled in big numbers, equal to that of boys and sometimes even more.

I had the privilege of visiting twelve out of twenty Dzongkhags and most of the primary schools there. It will not be an exaggeration to say that overall development and holistic approach is adopted for imparting education. As children sit facing each other in friendly environment with charts and handmade illustrations, the raw minds do not see learning as a painful exercise, but something to be enjoyed practically.

Lessons in sports and environment preservation are emphasized upon. The gardens are maintained by the children, so are the trees planted by them. They are the proud owners as the names written in front of the trees proudly proclaim.

Children are the future of the country. They should be left only in trained and dedicated hands and most of the teachers I met had the opinion that teaching kids is highly challenging but equally satisfying and they enjoy it. It may be difficult but is a fruitful exercise. Encouraging the children in the direction they enjoy will see them emerging as masters in chosen fields as they grow older.

The spirit is best reflected in the letter written by Lyonpo Thakur Singh Powdyel, the Education Minister, to the schools dated June 11, 2008, "Education is a process of gently turning the human mind to look

for and to love what is true and good and useful.” He further states, “the principal goal of our schools is to provide quality wholesome education and building knowledge that is useful and at the same time good, knowledge that makes the scholar both smart as well as graceful.”

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Environmental Pollutions and their Management Issues in the Indian Himalayan Region

Jagdish Chandra Kuniyal*

Introduction

The Himalaya is usually termed topographically fragile and ecologically delicate. This means that whole of the Himalaya is formed due to erosion, transportation and deposition of the sediment materials which once continued to deposit in the Tethys's sea and is now spreading from the northeastern to the northwestern part of the Indian Himalaya. The upper rigid land mass from India was then known as the Angaraland (present Tibet plateau), while the southern land rigid mass (present Deccan trap) was known as the Gondwanaland. The flowing antecedent rivers from the Tibet plateau and perennial rivers from the south eroded the land surface from either of the landmass, then transported this eroded material from their sources and ultimately deposited these sediments in the Tethys's sea. This process continued and in between tectonic movements within the earth started, as a result of the first upliftment the present Greater Himalaya was formed. In a time phase manner, this process continued and subsequently the Lesser and the Siwaliks came up and the past Tethys's sea could shrunk upto a river known as the River Sarswati which later submerged with the Siwalik ranges. The orogeny of the Himalaya, which in present form came up, is known as

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sedimentary rock. So whole of the present topography of the Himalaya is therefore having an inherent nature of brittleness, that's why it is called topographically fragile. This in other way indicates that any of the human or developmental activity such as human settlements, road construction, hydropower, etc. therefore requires very sensible and scientific approach to implement.

If the similar activities in a haphazard manner continue in terms of human settlements close to river beds, over-construction, and lots of vehicular congestion, etc., the region will invite a variety of disasters in larger magnitudes such as cloud bursts, flash floods, landslides, earthquakes, etc. Otherwise, nature itself will replenish and balance the same avoiding devastating disasters as happened in the Kosi tragedy, glacial lake outburst flood (GLOF) in Parachu lake, Kedarnath cloud burst and flash flood tragedy (June 16, 2013), Jammu and Kashmir flash flood (September 5, 2014) and others.

The important landmark of the Himalaya such as the tourist places and their satellite picnic spots have been facing acute environmental problems due to high congestion of floating population in a peak season, such as indiscriminate throwing of solid waste, ever increasing desert areas due to over-congestion within a limited geographical area, increasing aerosols and their impact on the surrounding glaciers. The important locations worth mentioning among those are Nainital, Ranikhet, Rup Kund, Valley of Flowers and Hemkund Sahib (Kuniyal *et al.* 2003), Gangotri, Kedarnath, Badrinath, Mussoorie in Uttarakhand, and Solan-Shimla, Kullu-Manali (Rohtang Pass 3978 m), Kangra-Dharamshala, Rewalsar, Chandratal, Manimahesh and others in Himachal Pradesh. Similarly, some of the important wetlands like Dal Lake in Srinagar, Lachen (3048 m), in North Sikkim, Rewalsar and Chandratal in Spiti of Himachal Pradesh are important ones to mention.

There are clear cut signs of damage caused due to dumping of plastic waste and other bio-degradable materials (Kuniyal, 2005). However, on the part of the concerned local district administration, social activists and others have been initiated efforts to collect the waste generated due to less environment friendly oriented visitors. Yet, these locations could not follow a proper and scientific disposal of waste. All the waste is collected from some of these locations and at the same time, dumped close to the river beds. So this approach needs to be refined with scientific inputs.

Mass Tourism – Pilgrimage, Recreational and Adventure Tourism

On account of over-construction close to alpine tourist destinations of the Indian Himalayan Region (IHR), over-congestion due to high visitors' influx, lots of pollution in the form of solid waste, air pollution, etc., tourists inflow either are regulated by the local district administration upon the intervention of the judiciary as in the case of the Rohtang Pass or controlled naturally by flash flood disasters as in the case of the Badrinath or Kedarnath shrines. While the mountaineering activities in the Everest have caused godowns of solid waste starting in 1953 by Sir Edmund Hillary, first climber of the Mt. Everest, who once considered that the inflow of the mountaineers would not be in such high numbers and the waste generation would not be in such a huge quantity, he openly admits that he left behind oxygen bottles, food packaging and even the tents. At that time environmental conservation from biotic pressure was an alien concept and the imagination of Mr. Sir Edmund Hillary proved futile when the influx continues to increase the solid waste generation in these mountains. He did not know that some day crowds would follow his footsteps and the litter of other expedition members would be strewn from the base camp on the South Col, and it would become an unsightly eyesore. The awakening to bring back self-generated waste came in very later stages of mountaineering process. Some sensible expedition members started to re-think over the issues and started different cleaning programmes (Kuniyal, 2002). Now the situation is such that the mountaineers are aware and they usually bring back their self-generated waste. But today it is not the situation in case of cent-per-cent mountaineers. This spirit needs to spread among all such mountaineers which in coming future would work as training of trainers (ToT). So that the process of recreation, pilgrimage and expeditions should keep on and the nature should be in sound health and the local economy attached to these activities should not be hampered.

Solid Waste Problem and its Management

Indiscriminate garbage dumping in the Himalaya will result in water pollution at the source of its origin, heavy metal contamination in soil as well as in underground water through seepage and percolation and breeding centres and micro-habitats for allergens. If one cubic metre of solid waste is dumped indiscriminately at a place, it becomes a breeding

centre for 7,50,000 million cockroaches, flies, mosquitoes, etc. which later work as a carrier of contagious diseases, allergy and others. Also, unattended dumping of waste will erode the scenic beauty of the Himalaya. The visitors fascinated by recreational and health regaining purposes in these parts of the Himalaya may divert to the other places having relatively more scenic beauty, more cleanliness, fresh air and clean water. On the other side, this will affect local employment opportunities attached to this activity and would promote out-migration of local youths to the plains in search of jobs. Not only this, the concerned state's gross domestic product (GDP) will have serious setbacks.

When the waste is thrown over the land especially in sub-alpine and alpine regions, the grass and herbs, the only cover working as blanket over topographically fragile land surface, get suppressed. It is thus that these delicate grass and medicinal herbs are getting suffocated due to unattended waste deposited over them. In this way, the delicate grass and already declining medicinal herbs diminish forever and the desertification process accelerates as in case of the today's cold deserts of the IHR. When the similar conditions of waste throwing occur in the glacier environment, the waste compositions such as plastic, polythene, rubber, tin, iron rods, etc. would absorb heat and would increase the surrounding local temperature. This would lead to faster melting of the glacier, the only freshwater source in the Himalaya.

In a nutshell, all the wastes need to be segregated at the source as well as collection points and based on their compositions like biodegradable and non-biodegradable categories, we need to follow 4 R's principles – refuse (use of jute bags in place of polythene bags), reduce (segregation into biodegradable and non-biodegradable waste compositions at its source), reuse (once used soft drink bottles for raising money plants), and recycling (manufacturing new products through down recycling). A detailed manual in this context, mainly the locations having a majority of biodegradable waste for detailed reference and practice at ground level, is developed by the Institute entitled, '*User Manual on Microbial Bio-composting Technique for Solid Waste Management.*'

Aerosol and Temperature Rise

The other form of pollution or invisible pollution to a common man is 'aerosol.' Aerosol increases the local temperature as it absorbs, and reflects solar radiation in the earth's surface as well as atmosphere. So

aerosol has a great role to play in affecting adversely the towns (Kuniyal *et al.* 2007; Kuniyal *et al.* 2009; Guleria *et al.* 2011; Guleria *et al.* 2012) as well as the Himalayan glaciers. IPCC (2007) had raised the similar issue of aerosol playing a great role in faster melting of the Himalayan glaciers. Aerosol is unitless, dimensionless and is therefore measured in terms of aerosol optical depth (AOD). The melting rate of the glaciers depends much on the level of values of AOD at affected place. Higher the level of AODs, the more would be its capacity to adversely affect by absorbing solar heat. Aerosol at their origin place are not static and are transported from one place to other, one region to other and one country to other and so on. Aerosols are laden with the airmasses and carried over from the Indo-Gangetic Plain to the top of the Mountains and Glaciers, or from desert regions as well as the Middle East oil wells to the north-western Himalayan region, or from coal mining regions of the south-eastern China region as well as the Bay of Bengal to the north-eastern Himalayan region. Overall, aerosol has no regional and geographical boundaries. For example, based on the work of different scholars in their respective organizations throughout the Indian Himalayan Region as well as the Indo-Gangetic Plain, average AOD at 500 nm was noticed to be 0.25 (2006 to 2011) at Mohal (Kullu), 0.026 at Manora Peak, Nainital (Dumka *et al.* 2008), 0.36 (2001 to 2010) at Dibrugarh, Assam (Gogoi *et al.* 2008), and 0.50 (2001 to 2010) at metro city Kanpur. Daily mean and maximum AOD values at the Parbati and Beas Kund glaciers were observed to be 0.17 and 0.19 (daily mean) and 0.25 and 0.20 (daily maximum) respectively. This means that the level of AOD within the Indian Himalayan region is full of variability and variations depending on the topography, altitude, anthropogenic activities, level of congestions, local meteorology, synoptic conditions, land or snow conditions, etc.

Black Carbon and Melting of the Glaciers

The black carbon (BC) or soot has been one of the types of aerosols which have the property of rapid heat absorption compared to other aerosols. Black carbon aerosols have mainly two important sources, first biomass burning (forest fires, fuelwood burning, crop residue burning such as straw burning, etc.), and second vehicular emissions (mainly half-burn diesel and others). If such black carbon is transported and spread over the snow and glaciers by means of air masses from one place to other, it deposits on the snowy surface of the glaciers and reduces the albedo. For example, BC concentration over the years (2010-2012) in Himachal Unit of the Institute has been under measurement

through Environmental Observatory (ISRO-EO) at Mohal-Kullu and foothills of the Parbati Glacier as well as the Beas Kund. On average, BC at Mohal in the Kullu valley was measured to be $4.76 \pm 1.99 \mu\text{g m}^{-3}$ in the month of January and the lowest $2.27 \pm 1.04 \mu\text{g m}^{-3}$ in September. These results show minimum values in monsoon and maximum in winter seasons in the Kullu valley.

While BC concentration was measured close to or foothills of the Parbati Glacier at Tosh nala (3285 m) as 833.61 ± 104.19 nanogram (ng) m^{-3} , at Shethan (3269 m) close to Hamta Glacier it was 622.89 ± 91.29 ng m^{-3} , and at Dhundhi (3068 m) close to Beas Kund it was 418.15 ± 35.33 ng m^{-3} . If black carbon aerosols are transported by air masses and these deposit over the glaciers, it absorbs solar irradiance rapidly thereby reducing albedo. So definitely, if its concentration in ambient air increases, chances of its deposits also increase on the snow thereby increasing local temperature and faster melting of the glaciers.

Solutions

Any form of pollution whether that is visible (i.e. solid waste, etc.) or invisible (ambient air pollution) needs to be managed at their source of origin to prevent these from multiplying with multiplier effects. If it is solid waste under visible pollution, it should be managed following 4'R principles (i.e., refuse, reduce, reuse and recycling) giving larger preference to bio-composting for biodegradable waste under recycling practice. While ambient air pollution including black carbon needs to be tackled with the control in forest fires, making popular Liquefied Petroleum Gas (LPG) in the rural villages as compared to a larger use of fuelwood, weed composting from crop residues rather than its burning, etc. These basic but important practices would go a long way in managing the environmental problems arising due to human interferences in the Himalayan ecosystem.

Vehicular emissions need to be controlled by way of regulating a number of vehicles at a place at a time. A pooling system of the visitors while travelling to a same destination is required in spite of using individual vehicle for individual visitor in the areas of topographically fragile and ecologically delicate environment such as the Rohtang Pass, Badrinath shrine, Valley of Flowers and Hemkund Sahib, Gangotri, Kedarnath, Pindari valley, etc. Similarly, introducing efficient engines, improving further the efficiency of existing engineering technology, preference for petrol operated vehicles for lesser emissions, and regular servicing and maintenance of the vehicles, etc. are required.

In addition, there is a need to bring under maximum coverage of locally available forest species the areas around the tourist spots, towns, and treks. In alpine and sub-alpine regions, the desertification can be controlled with the re-planting of natively growing species which further would enrich soil quality supporting the growth of medicinal herbs as well as bushes to stabilize the fragile areas of the Himalaya. These steps would help a lot in increasing grass cover in sub-alpine or alpine areas, regulate the local temperature and hence would minimize the retreat of the Himalayan glaciers.

Conclusion

For making any programme, plan and policy a success, scientific base and support in every developmental activity is required to establish a concept of sustainable development and eco-friendly environment in the IHR. In this regard, the Mountain Division, New Delhi and other Units (North-East Itanagar, Sikkim- Pangthang, Garhwal- Srinagar, Kumaun- Kosi-Katarmal, Almora and Himachal- Mohal-Kullu) of the GBPIHED in the Ministry of Environment, Forests and Climate Change (MoEF & CC), Government of India can hopefully play a vital role in promoting the relevant research to influence the policies in the concerned economic sectors of the IHR. However, it requires an effective coordination and involvement among the stakeholders such as Universities, research organizations, local government, non-governmental organizations, local communities, visitors, etc. which together can definitely minimize and regulate these environmental problems and at the same time may be able to opt best economic practices following sustainable developmental options in the IHR or beyond.

Acknowledgement

The author heartily thanks to the Director, G.B. Pant Institute of Himalayan Environment and Development, Kosi-Katarmal, Almora, Uttarakhand for providing facilities in Himachal Unit of the Institute which could make this study possible.

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Religious Demography of the Himalayan Region of India

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The Indian Himalayan region encompasses ten States: Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Sikkim, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram and Tripura. In addition, it includes the hill districts of Karbi Anglong and North Cachar Hills in Assam and Darjeeling in West Bengal. The continuity of the region is broken by the intervening countries of Nepal and Bhutan, which geographically form integral parts of a contiguous crown of hills running from the west to the east.

The whole of this region has been marked by significant changes in its religious demography. Some of these changes have taken place in the distant past; but, several States of the region have also seen sharp alterations in the religious profile of their populations in the course of the twentieth century. In many cases, the religious composition has been showing large changes from decade to decade. Therefore, the religious demographic data of the latest census of 2011 is going to be of particular interest for this region. Unfortunately, the data has not been yet released. Religious demographic data of census 2001 was released in September 2004. It was expected that the processing time would be shorter for the current census.

In this article, we record the religious demographic situation of different parts of the Indian Himalayan region up to 2001. This provides a picture of the current situation and a perspective for understanding the religious demographic data of census 2011, as and when it is released.

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Table 1:

Western Himalayan Region			
Region	Total Population	Muslims	Christians
Jammu & Kashmir	1,01,43,700	67,93,240	20,299
Kashmir Valley	54,76,970	53,21,600	3,757
Leh	1,17,232	16,156	338
Kargil	1,19,307	95,963	71
Jammu Region	44,30,191	13,59,521	16,133
Himachal Pradesh	60,77,900	1,19,512	7,687
Uttaranchal	84,89,349	10,12,141	27,116
Garhwal	49,23,966	6,51,966	16,336
Kumaon	35,65,383	3,60,175	10,780

Note: Census Data -2001.

Jammu and Kashmir

Jammu and Kashmir forms the westernmost part of the Indian Himalayan region. The State is divided into three distinct components: Kashmir Valley, Ladakh and Jammu; religious demography of these three components is also distinctly different.

Kashmir Valley

The Valley was Hindu up to the fourteenth century; it came under a Muslim ruler in 1338 and was annexed to the Mughal Empire by Akbar in 1586. The Valley consequently became predominantly Muslim. But there was a significant population of Hindu Kashmiri Pandits and Sikhs in the Valley until recently; they formed nearly six per cent of the population of the Valley up to 1971. After that, their proportion began to decline; in 1981, only five per cent of the population was non-Muslim. There was an exodus of Hindus from the Valley in the following violent secessionist movement from 1989. The situation was so disturbed that the census of 1991 could not be conducted in the State. When the census was finally held in 2001, the proportion of non-Muslims in the population of the Valley had come down to less than 3 per cent.

A detailed analysis of the Hindu population of the Valley in 2001 indicates that at that time there were hardly any Hindu families left there. The census counted a total of just 1 lakh Hindus in the Valley; among them there were only about 10 thousand women and 3 thousand children. Nearly eighty-six thousand of the 1 lakh Hindus in the valley were adult working males. Thus the only Hindus found in the valley

were those who were constrained to be there in connection with their employment and work. It shall be interesting to see if the 2011 census records any improvement in the presence of Hindu women and children in the valley. From the prevalent trends it seems unlikely.

Ladakh

Ladakh region of Jammu and Kashmir comprises two districts, Leh (Ladakh) and Kargil. Historically, Ladakh formed a much larger region including Baltistan and Aksai Chin. The region has had a close relationship with Tibet; during eighth to tenth century, Leh was the centre of an important Buddhist kingdom which included Kailash Manasarovar and parts of western Tibet.

The population of Ladakh became Buddhist at a very early stage, perhaps in the first century AD at the time of Kushanas. In Tibet, Buddhism arrived many centuries later.

The conversion of the Kashmir valley to Islam through the long Islamic rule led to the conversion of the people of the neighbouring Kargil region of Ladakh also; population of Kargil today is largely Shia Muslim. Leh came under Islamic influence much later, when Arurangzeb forced the building of the Sunni Leh mosque; the population of Leh remains largely Buddhist. While considering the religious demographic situation of the region, it is convenient to study Leh and Kargil districts separately.

Leh (Ladakh) District

Census 2001 counted a total of 1.17 lakh persons in Leh (Ladakh). Of these, about ninety-one thousand were Buddhist, sixteen thousand Muslim and somewhat less than ten thousand Hindu. There were also 503 Sikhs, 2 Jains and 383 Christians in the district. Buddhists thus formed seventy-seven per cent of the population, Muslims about fourteen per cent and Hindus about eight per cent. These relative proportions have not changed significantly over the last few decades.

The Hindus, as also Sikhs and Jains, in Leh do not seem to be fully settled there; of the total about ten thousand Hindus, Sikhs and Jains counted in the district, more than eight thousand were adult male workers. There were only 1.4 thousand women and 639 children in this population. There were obviously not many families of Hindu, Sikhs and Jains in Leh.

Kargil District

While Leh is predominantly Buddhist, Kargil is predominantly Muslim. census 2001 counted a population of 1.19 lakh in Kargil district. Of these, nearly ninety-six thousand, forming more than eighty per cent of the total, were Muslims. There were about eighteen thousand Buddhists forming about fifteen per cent of the population. Besides Muslims and Buddhists, there were about five thousand Hindus, and a few Sikhs, Jains and Christians. Among 5,370 Hindus, Sikhs and Jains in this district, there were only 254 women, indicating that there were not many settled families in this population.

Kargil district is divided into two tahsils, the northern Kargil and the southern Zaskar. Population of the latter was mostly Buddhist. Of twelve thousand persons counted in this tahsil in 2001, 11.5 thousand were Buddhists. Thus nearly two-thirds of the Buddhists in the district were in Zaskar. This makes Kargil tahsil even more predominantly Muslim than the district; their proportion in the tahsil was about eighty-nine per cent.

Thus, like in the Valley, there are almost no Hindus (or Sikhs and Jains) in the Ladakh region. The few Hindus that were counted there in 2001 are mostly adult male workers without their families with them. But there is a considerable presence of Buddhists in Leh and in Zaskar tahsil of Kargil.

Jammu

The Jammu region of Kashmir is the only one with a significant Hindu presence. In 2002, they, along with Sikhs, Jains and Buddhists, etc., formed about sixty-nine per cent of the population, while the Muslim share was thirty-one per cent. Interestingly, between 1981 and 2001, when the proportion of Muslims in the Valley increased by about 3 percentage points, their share increased by more than 1 percentage point in Jammu region also. In the earlier decades, from 1961 to 1981, the Muslim share in this region was consistently falling.

The rise of the Muslim proportion was particularly significant in Jammu and Kathua, the two districts with sparse Muslim presence. In these districts, the proportion of Muslims had declined sharply between 1961 and 1981; between 1981 and 2001, it showed a substantial rise.

The data of census 2011 shall therefore be of particular interest for this region. It shall be of great interest to see whether the trend of rising Muslim presence in these Hindu-dominant districts of the Jammu region continues and to what extent.

Himachal Pradesh

Jammu and Kashmir is adjoined by Himachal Pradesh on the east. The State is predominantly Hindu and has little Muslim or Christian presence. Muslim presence is significant only in two districts, Chamba adjoining Jammu and Sirmaur adjoining Dehradun of Uttaranchal. About half of the Muslims of the State are in these two districts; they form nearly six per cent of the population here. Their proportion was nearer three per cent in 1951. The ratio of Muslims in these two districts shall be of special interest to watch in the census of 2011.

Uttaranchal

To the east of Himachal Pradesh lies the State of Uttaranchal. Uttaranchal remains predominantly Hindu, but has a significant presence of Muslims. The latter formed twelve per cent of the population in 2001; their proportion was only ten per cent in 1991. This rise of 2 percentage points in the presence of Muslims in the State in the very first decade of its formation was noteworthy; it shall be of interest to see whether this level of Muslim growth has continued during the subsequent decade also.

The comparative figures for 1991 and 2001 showed much buoyancy in the Christian numbers in several districts, particularly Uttar Kashi and Tehri Garhwal. The data clearly indicated enhanced proselytising in the newly formed State. It shall be interesting to see how these efforts are reflected in the census of 2011.

Table -2

Eastern Himalayan Region

Region	Total Population	Muslims	Christians
Sikkim	5,40,851	7,693	20,299
Darjeeling	16,09,172	85,378	99,232
Arunachal Pradesh	10,97,968	20,675	2,05,548
Nagaland	19,90,036	35,005	17,90,349
Manipur	21,66,788	1,90,939	7,37,578
Mizoram	8,88,573	10,099	7,72,809
Tripura	31,99,203	2,54,442	1,02,489
Karbi Anglong (Assam)	8,13,311	18,091	1,17,738
North Kachar (Assam)	1,88,079	4,662	50,183
Meghalaya	23,18,822	99,169	16,28,986

Note: Census Data -2001.

Sikkim

To the east of Uttaranchal falls the long belt of Nepal and beyond that is the tiny State of Sikkim. Sikkim had almost no Muslim or Christian presence till 1951. Christian presence began to grow after 1971; their proportion tripled between 1971 and 1981, and it doubled again between 1991 and 2001. In 2001, Christians had acquired a share of nearly seven per cent in the population of the State. The results of census 2011 are of great interest to know whether similar buoyancy in the Christian numbers has continued during the last decade.

Incidentally, unlike in the northeastern States to the east of Sikkim, a majority of the Christians in Sikkim were from non-Scheduled Tribe communities. The Census counted thirty-six thousand Christians in the State; of these, only 5.5 thousand were from the Scheduled Tribes. Of these, 4.2 thousand were Lepchas and 1.2 thousand were from the larger tribal group of Bhutias.

Detailed data of census 2011 would also be of interest to know how Christianity has spread through different tribal and non-tribal communities of the State.

Darjeeling

From Sikkim, the Indian Himalayan belt continues through the Darjeeling district of West Bengal. The district has shown significant increase in both Muslim and Christian presence, especially since 1981. In 2001, the two communities had a share of above five and six per cent of the population, respectively; their share in 1961 was nearer three per cent. The data for census 2011 would be of interest to see what further increase the two communities have recorded in their shares in the population of Darjeeling.

Arunachal Pradesh

To the east of Darjeeling is Bhutan. Beyond that lies Arunachal Pradesh, the largest State of the northeast. In terms of area, Arunachal Pradesh is also the largest State of the Indian Himalayan Region, excepting Jammu and Kashmir. This is also the State which is undergoing the fastest change in its religious composition in the last couple of decades. The State had hardly any Muslims and Christians up to 1971. Muslim presence has since increased to about two per cent in 2001. The share of Christians in the population has increased much more sharply to

18.7 per cent in 2001; it was 10.3 per cent in 1991, 4.3 per cent in 1981 and less than one per cent in 1971.

The change in the Christian proportion of several of the districts and communities of Arunachal Pradesh has been much larger than what the above aggregate figures suggest. Tirap district had already become fifty per cent Christian in 2001 and Christians had acquired a share of thirty per cent in Papum Pare, of twenty-five per cent in East Kameng and nearly twenty per cent in West Siang. In all these districts, their share was negligibly small in 1971 and fairly small in 1981. The pace of change in these parts of the State has been very sharp indeed.

Among the larger tribal communities of Arunachal Pradesh, many have seen large scale conversion to Christianity. Thus seventy-three per cent of the Wanchos, fifty-three per cent of the Daflas, forty-three per cent of the Noctes, about the same percentage of Tangsas, thirty-six per cent of the Nissis and the same proportion of Nishangs had been converted to Christianity already in 2001; all this conversion happened in the course of just about 2 decades. It is alleged that this is the result of force and intimidation used by the Naga insurgents supplementing the missionary activities.

The data of census 2011 shall be of the greatest interest for this State. There have been persistent reports that intense, and often aggressive, conversion activity has gone on in several districts during the last decade. The census figures shall give a clear indication of the truthfulness or otherwise of such reports.

It must be underlined that while some of the other States of the northeast got converted to Christianity in the early decades following Independence, when there was probably not much public awareness of the issue, the conversion of the tribal communities of Arunachal Pradesh has been happening in the recent decades, in full public knowledge and awareness since the 1970s.

Nagaland

Nagaland is the next State in the Indian Himalayan region. In the census of 2001, nearly ninety per cent of the population of the State was counted as Christian. The census of 1941 counted almost no Christians in the State and the proportion was less than thirteen per cent in 1931. The State experienced a sudden and widespread conversion of its population between 1941 and 1951; the first census following Independence recorded the share of Christians in the population at forty-six per cent. Conversion activity further picked up after 1971,

leading to almost the whole scheduled tribe population of the State becoming Christian. Census of 2001 counted a total tribal population of 17.7 lakh, of which 17.5 lakh was already Christian. There is thus not much to look forward to on this issue for this State in the census of 2011.

Manipur

The next State in the Indian Himalayan region is Manipur. In the census of 2001, thirty-seven per cent of the population of the state was counted as Christian; the proportion was only two per cent in 1931, five per cent in 1941 and twelve per cent in 1951. Since then, their proportion has steadily risen from decade to decade to reach the level of thirty-seven per cent in 2001.

Though the proportion of Christians in the total population of Manipur seems relatively low, yet nearly the whole of the tribal population of the districts has been already converted to Christianity. Scheduled Tribes formed only thirty-four per cent of the total population of Manipur in 2001; they are restricted mainly to the hill regions of the State, while the more densely populated valley is inhabited largely by non-tribal populations. According to the count of 2001, there were 7.4 lakh persons from the Scheduled Tribes in the State, of these 7.2 lakh were counted as Christian. Given this situation, the census of 2011 may not show any major change in the religious demography of the State.

Mizoram

Mizoram was almost completely converted already at the time of the first census following Independence. The census of 1951 counted 90.5 per cent of the population to be Christian; their proportion was zero per cent in the 1941 census and 47.5 per cent in 1931. The lower proportion of 1941 was probably because of the changed instructions and counting procedures. In any case, a large part of the conversion did take place in the decade leading to Independence.

In 2001, the proportion of Christians in the population of Mizoram was eighty-seven per cent. Of the rest, about eight per cent were Buddhist. Of the tribal population of the State, nearly ninety per cent was Christian; the rest was almost all Buddhist. Buddhists have considerable presence in Lawgtlai, Lunglei and Mamit districts of the State. There is not much scope for further change in the religious composition of Mizoram, because almost all of the non-Buddhist tribal

population has already been converted to Christianity. Hence, there is not much to look forward to in the census of 2011 as far as this State is concerned. Christian conversion in Mizoram, as in Nagaland and Manipur, has already reached near saturation level.

Tripura

Tripura is the next contiguous State of the Himalayan Region. According to the census of 2001, there were about eight per cent Muslims and 3.2 per cent Christians in the State. The proportion of Muslims there had declined from about twenty per cent in 1961. The Christian proportion had nearly doubled between 1991 and 2001.

Though the proportion of Christians in the total population was low; they already formed ten per cent of the tribal population of the State in 2001, and thus had acquired a critical mass among the Scheduled Tribes. In view of this, the figures of Christian share in the population of Tripura in 2011 are going to be of much interest. These would let us see how much farther the conversion activity has reached among the Scheduled Tribes of Tripura.

North Cachar and Karbi Anglong of Assam

These two hill districts form part of the Indian Himalayan region. In 2001, Christians formed nearly twenty-seven per cent of the population of North Cachar Hills District and 14.5 per cent of Karbi Anglong, also known as the Mikir Hills District. Christian presence in the tribal population of these districts was much higher. As many as twenty-one per cent of the tribal population of Karbi Anglong and thirty-seven per cent of North Cachar Hills had been converted to Christianity by 2001. The growth of Christianity in both these district, and especially in Karbi Anglong, has been quite fast during the last couple of decades. Detailed data of census 2011 shall be of great interest to know how much farther Christianity has travelled into the tribal communities of these districts.

Meghalaya

Meghalaya forms the last piece of the Himalayan crown. The progress of Christianity in Meghalaya has been slower than in Nagaland, Manipur and Mizoram. In 1951, the proportion of Christians in this State was twenty-five per cent, which was much higher than about sixteen

per cent counted in 1931 and almost zero per cent recorded in 1941. But the change between 1941 and 1951 was not as drastic as in some of the other States of this region. Since 1951, the share of Christians in the State has been rising consistently; it had reached seventy per cent in 2001.

The ratio of Christians in the tribal population of the State was higher at around eighty per cent. But that still left about 4 lakh non-Christian tribal people in the State. Of these 4 lakh, about 2 lakh were Khasis, of whom only about eighty per cent had been converted till then, and about sixty thousand Garos, among whom the level of conversion had reached up to ninety per cent. Besides these, there were some relatively smaller tribes, particularly Hajongs, Rabas and Kochs, who had remained almost entirely Hindu till 2001. These non-Christian tribal communities were located in specific geographical regions of the State.

The figures of census 2011 are of special interest for Meghalaya. The data shall indicate how far the non-converted communities have been able to resist the expansion of Christianity. The past experience in this regard has not been very good. The proportion of Christians in the State rose from forty-seven to fifty-three per cent between 1971 and 1981; it rose further to sixty-five per cent in 1991 and to more than seventy per cent in 2001.

Nepal and Bhutan

Indian census does not give data about Nepal and Bhutan. Since these regions are so near and important to India, Census should certainly attempt to make an estimate of the demography, especially religious demography, of these and some of the other neighbouring countries. In the absence of the Indian data, we have to rely on the external sources, the most detailed of which are the compilations of the changing religious demography made by Christian sources, like the World Christian Encyclopaedia. According to these sources, the religious demography of Nepal has been changing rapidly in the recent past. The country was almost entirely Hindu at the beginning of the twentieth century. In 2010, there are more than three per cent Christians and four per cent Muslims in Nepal. Much of this change in the religious demography of Nepal has happened in recent decades. As we know, religious demography of the Indian districts adjoining Nepal on the south has also been changing very rapidly during the decades following Independence. According to the Christian sources we have mentioned

earlier, Bhutan also seems to have acquired a significant Christian presence of about one per cent in 2010.

Conclusion

The Indian Himalayan region that forms the crown of India, not only metaphorically but in real geographical terms, thus is moving away from mainstream India, at least in terms of its religious demography. The western part of the crown indeed became largely Muslim some centuries ago. But the exclusion of Hindus or Sikhs from this part was perhaps never as complete as it has happened in the Kashmir Valley in the recent past. The rise in conversion of the eastern part of the region to Christianity it has happened in the decades following Independence. Those parts of the region which had escaped conversion to Christianity during the earlier decades, like the whole of Arunachal Pradesh and certain parts and communities of Meghalaya, seem to be rapidly moving in that direction in the last couple of decades. Religious demographic data of census 2011 shall let us know how far the process has progressed.

The Himalayan region is among the most sensitive and dynamic regions of India in terms of changing religious demography. But, there are several other parts of India whose religious demography has been changing sharply from decade to decade particularly of Assam in North-East. The religious demographic data of census 2011 shall shed much light on this significant aspect of the situation. Therefore, it is important that the data be released as soon as possible.

References

The article is based mainly on the published data of census 2001. For comparison with previous decades, we have relied on our comprehensive compilation, A. P. Joshi, M. D. Srinivas and J. K. Bajaj, *Religious Demography of India*, Chennai, 2003 and *Religious Demography of India: 2001 Revision*, Chennai 2005. Data for Nepal and Bhutan is from David B. Barrett, George T. Kurian and Todd M. Johnson, *World Christian Encyclopedia*, Oxford 2001 and Todd M. Johnson and Brian J. Grim, *The World's Religions in Figures*, Wiley Blackwell 2013.

Contour of Uneven Population Growth in Assam

Jayanta Madhab*

Introduction

The illegal immigration movement in Assam is now thirty years old and still unabated. As a consequence of this movement, the economy of Assam has been badly affected. During this period, the State domestic product increased by about 3 per cent per annum on average while India grew at an average of 6 per cent per annum, thus widening the disparity between Assam and India. In this context it was felt necessary to do a statistical exercise to estimate the post 1971 illegal immigrants and also to analyse the consequences of delayed action. Earlier, a study was done under the auspices of Omeo Kumar Das Institute of Social Change and Development, Guwahati, restricting its analysis up to 1991. This study however extends up to 2020 and in two parts. First, it endeavours to estimate the illegal immigrants and secondly, it projects the Hindu and Muslim population of Assam on district basis up to 2020. Limitations of the study are also spelled out.

It has been observed that the State of Assam is experiencing quite an uneven growth of population, so far as different religious groups are concerned. The Muslim population in 1971 was 3592 thousand which stood at 8240 thousand in 2001 registering a 129 per cent increase over the above period. On the other hand, Hindu population rose to 17296 thousand in 2001 from 10604 thousand in 1971 showing an increase of 63.09 per cent during the period. The Christian, Sikh and other religious

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groups together registered strength of 428 thousand in 1971 and 1118 thousand in 2001 showing an increase of 161 per cent during the same period. This third group constitutes only 4.28 per cent of total population of Assam in 2001 as such percentage increase of population of this groups will not affect largely in absolute term, whereas an increment of growth of Muslim population, sharing 30.92 per cent of total population, has a significant bearing in their total population. It is noteworthy that while percentage shares of Hindu population to total population of Assam had gone down to 64.8 per cent in 2001 from 72.51 per cent in 1971, that of Muslim population rose to 30.92 per cent in 2001 from 24.56 per cent in 1971.

Table 1 presents the growth rate of population in Assam according to religion since 1971.

Table 1: Growth Rate of Population in Assam – By Religion

Year	Hindu	Muslim	Others
1971-1991	41.90%	77.42%	132.42%
1991-2001	14.95%	29.31%	12.54%

Source: Population Census, RGI

* in the year 1971, growth rate for Christians and others declined due to separation of Meghalaya and Mizoram from Assam. After that normal increment shows high trend.

The plausible reason of higher population growth of Muslims as compared to that of Hindus is high birth rate of Muslims in addition to immigration from Bangladesh. It is quite interesting to note that the percentage share of Muslim population to total population is increasing in all States as well as at national level. What is surprising is that while in some States viz. Gujarat, Maharashtra, Karnataka etc., the increase in percentage share of Muslim population is very nominal; in the case of Assam it is too high registering 7.6 percentage points increasing the share of Muslim population over the period 1961 to 2001. Another State showing similar pattern is West Bengal, recording 8.0 percentage points increase share of Muslim population over the same period. The figures in Table 2 present the percentage share of Hindu and Muslim population of some major States with sizeable Muslim population for the year 1961 and 2001 as per population census data.

Table 2: Percentage Share of Hindu and Muslim Population of Some Major States of India – 1961-2001

Year	India	Assam	J&K	U.P.	Bihar	W.B.	Gujarat	Maharashtra	Kerala	Karnataka
Hindu										
1961	83.4	66.4	28.5	84.7	84.7	78.8	89.0	82.2	60.8	87.4
2001	80.5	64.9	29.6	80.6	83.2	72.5	89.1	80.4	56.2	83.9
Muslim										
1961	10.7	23.3	68.3	14.6	12.5	17.2	8.5	7.7	17.9	9.9
2001	13.4	30.9	67.0	18.5	16.5	25.2	9.1	10.6	24.7	12.2

Source: Population Census, RGI

The above figures present a national phenomenon of decreasing trend of percentage share of Hindu population except for the States of J&K and Gujarat. It is noteworthy that share of Hindu population in Assam has slightly reduced by 1.5 percentage points during 1961 to 2001. In the neighbouring State of West Bengal, the share of Hindu population has gone down by 6.3 percentage points during the same period. The other States have recorded lower reduction in percentage points of Hindu population.

Going through the data on percentage increase of Hindu and Muslim population during 1961 to 2001, Assam recorded the highest (198 per cent) increase of Muslim population among the States having sizeable Muslim population. The figures in Table 3 present the percentage increase of Hindu and Muslim population during 1961-2001.

Table 3: Percentage Increase of Hindu and Muslim Population between 1961-2001

	India	Assam	J&K	U.P.	Bihar	W.B.	Gujarat	Maharashtra	Kerala	Karnataka
Hindu	125.8	119.4	196.6	114.6	75.6	111.1	145.9	139.3	73.9	115.3
Muslim	194.3	198.0	179.3	185.0	137.2	189.8	163.2	238.5	159.7	177.6

Source: Population Census, RGI

The above statistics presented by population census data has generated a sense of curiosity among different circles on the future of Assam. The wild guess may promote fear psychosis among certain section of the population. But no methodical study hitherto has been made to estimate the projected population of Assam across different religions.

On the above issues there is a need for estimates of projected population of different religious groups in Assam, across various

districts made on the basis of scientific methodology. To meet this demand, an exercise has been attempted for this purpose.ⁱ

Migrants and their Offspring During 1971 to 2001

An attempt has been made to present the estimated number of international migrants for the period 1971-2001. Period earlier to 1971 is not taken into account since cut-off date for identification of illegal migrants is March 1971 as per Assam Accord. It is well known that the population census definition of 'migration' has undergone changes over time. In 1971, census migration data were collected for the first time on the merit of place of last usual residence in addition to the place of birth. In 1981 census, the coverage of enquiry on migration was further extended by collecting data on reasons for migration from place of last residence. The same exercise was continued in 1991 and 2001 census. The results in tabular forms provide distribution of migrant population by place of last residence, duration of residence and reason for migration. The data on inter-districts, intra-state and inter-state migration as well as immigration from abroad are also available in tabular forms. It is worth mentioning that these estimates were generated on the basis of 10 per cent samples.

Further the reliability of the census migration data is dependent on the cooperation of the respondent. There is every likelihood that the illegal migrants would not divulge their actual place of birth and last residence. Mr. Pakyntein, the Superintendent of Census Operation, Assam 1961 in *Census of India, Assam 1961 Report*, expressed his doubt about the reliability of census migrant data. He stated that 'it appears that the people who mostly concealed their birth place are those coming from East Pakistan. In 1951, people who returned to their birth place as Pakistan number 8,31,872 but in 1961, the number of such people is only 7,74,869.' The Assistant Director of Census Operation Assam 1971 also remarked 'this figure is also not reliable and cannot be used to make any valid estimate of growth of either immigrants themselves or the total population of the State excluding immigration.'

The study carried out by Omeo Kumar Das Institute of Social Change and Development (OKDISCD), Guwahati under the guidance of Prof. Atul Goswami in the publication *Population Growth in Assam 1951-1991* has estimated the international migrants to Assam during 1971-1991 as 6,86,344. The estimate has been arrived at by deducting the inter-state migrants on the basis of 1991 migration table of population census.

Table 4: Inter-state and International Migrants to Assam

Period	Interstate migrant (A)	Total migrants (B)	International (B-A=C)
1971-91	2,90,625	9,76,969	6,86,344

Source: Anil Sakia (Ed), *Population Growth in Assam 1951-1991*, Akansha Publishing House (New Delhi: 2003).

The authors expressed their apprehension that “the possibility of a section of inter-state migrants first entering other neighbouring State, viz. West Bengal, Bihar, Meghalaya, Tripura etc., subsequently migrating to Assam and reporting the initial place of entry as the place of birth cannot be ruled out.” In such eventuality the above estimates of international migrants would be under representative.

In spite of the above limitations and knowing that it may be an under estimation, an attempt here has been made to find out the probable number of international migrants and their offspring during 1971-2001 taking into account the international migration during 1971-91 as 6,86,344 as estimated by Prof. Atul Goswami.

Table 5: Decadal Migration, Birth Rate, Death Rate and Natural Growth Rate in Assam.

Decade	Migrant	Birth rate	Death rate	Natural growth rate
1971-81*	3,43,172	33.0	14.89	18.6
1981-91*	3,43,172	33.15	13.47	19.68
1991-01	1,30,966	28.89	9.93	18.96

Source for Birth rate and Death rate Sample Registration System (RGI) (The rates are overall i.e. irrespective of religion)

* the estimated number of migrants 6,86,344 during 1971- 1991 has been equally distributed in the period 1971-81 and 1981-91 as there was no census operation in 1981 in Assam.

Table 6: Migrants and their Offspring: Births, Deaths and Number of Offspring of Migrants in Assam.

Decade	Migrant and their Offspring	Birth	Death	Offspring of Migrants
1971-81	3,43,172	1,13,418	51,098	62,320
1981-91	7,48,664	2,48,182	1,00,845	1,47,337
1991-01	10,26,967	2,96,691	1,01,978	1,94,713
1971-01(Total)	12,21,680			

Source: Based on authors estimates

From the above table it may be seen that the migrants with their offspring stood at 12,21,680 in 2001 since 1971. As per estimates of Prof. Atul Goswami and others the migrants with their offspring stood at 49,15,058 during the period 1951-1991. The Census migrant data also reveals that bulk of migrants to Assam is from Bangladesh. Out of the total migrants of 1,30,966 during 1991-2001, 1,14,844 (88.7 per cent) from Bangladesh and 11,209 (8.6 per cent) from Nepal.

The estimates of migrants and their off springs presented here are under estimated as the overall natural growth rate i.e. irrespective of religion is applied for arriving at the estimates. It may be mentioned that birth rate of Muslims is quite high in comparison to persons belonging to other religions, the reasons of which are described in the later part. Therefore it may be assumed that international migrants between 1971-2001 would be in excess of 12 lakhs

Methodology for Projection of Population According to Religion up to 2020

Three different approaches have been attempted to project the population of Assam according to district and religion as follows:

Method 1: Applying General Fertility Rate (GFR) to State total population of Hindu, Muslim and others as per 2001 census and then moving forward estimates up to 2020 has been worked out. Thereafter, breaking them up as district-wise share of religious groups as per 2001 census.

Method 2: In this method General Fertility Rates are applied directly to the district-wise population of Hindu, Muslim and others groups as per 2001 census and then moving forward.

Method 3: In this method, decadal variation of different religious groups for each districts as per 2001 population census are used.

Three different sets of estimates are generated through application of three different methods mentioned above. It may be mentioned that separate estimates for religious groups other than Muslims and Hindus would not be made as their population size is too small to arrive at valid projection. As such they are clubbed as others.

Assumptions and Limitations

1. The General Fertility Rate as available for the latest year data of Sample Registration System (SRS) conducted by Registrar General of India is used. It may be noted that SRS estimates provide different GFR

for different level of education of women belonging to child bearing age i.e., 15 to 49 years at State level. The State level GFR of SRS are used for different districts uniformly as GFR at district level is not available. It is observed that GFR is highest for illiterates and decreases with higher level of education of women in the reproductive age group. In the case of Muslims GFR for the illiterate women as estimates through SRS which is 135 is considered to be useful for the following reasons:

- Immigrant Muslims consists of bulk of the Muslim population in Assam. Most of the females of these groups are known to be illiterate.
- Polygamy is largely prevalent in this section of the population.
- Practice of family planning among them is negligible.
- Early marriage and re-marriage is common.

In the case of Hindus and other groups, GFR for education of middle level is 88.4.

The above assumptions are made as the separate GFR according to religion is not available.

2. The RGI has provided sex-wise population in different age groups at State level. This information is used to estimate the percentage of women in child bearing age. This ratio is taken to be identical for all the religious groups at the State as well as at district level. The ratio is estimated at 24.67. Taking this ratio as constant number of females belonging to reproductive age groups are estimated for the State as well as at the district level for different religious groups and for different years by forward movement.

3. Estimate has been attempted for erstwhile 23 district of Assam as per 2001 census and estimates as per prevailing new 27 districts of Assam could not be made due to data constraints.

Findings

Through application of method I, II and III as mentioned earlier the percentage share of population belonging to Hindu, Muslim and others to the total population of Assam in 2020 will be as follows:

Table 7: Percentage Share of Hindu, Muslim and Others to the Total Population of Assam Method Hindu Muslim Others

Method	Hindu	Muslim	Others
2020 (estimates)			
Method I	51.4	43.0	5.6
Method II	52.5	43.9	3.6

Method III	52.0	44.3	3.7
2001 census	64.89	30.92	4.19
1991 census	67.13	28.43	4.44

Source: Estimated from 2001 Census Data, Census of India, Assam

The pattern of percentage share in regard to different religious groups will witness a phenomenal change across districts over the period under study. The following table depicts the changes in percentage shares as per estimates arrived at by following method II.

Table 8: District-wise Projection of Share of Hindu, Muslim and Others in 2020 in Assam

Sl no.	Districts	(Figures in %)								
		Hindu			Muslim			Christian and Others		
		2001	2020	Change %	2001	2020	Change %	2001	2020	Change %
1	Dhubri	24.74	17.75	-6.99	74.29	81.6	7.31	0.97	0.65	-0.32
2	Kokrajhar	65.60	65.89	0.29	20.36	24.00	3.64	14.04	10.11	-3.93
3	Bongaigaon	59.18	48.04	-11.14	38.52	50.1	11.58	2.30	1.86	-0.44
4	Goalpara	38.22	29.04	-9.18	53.71	65.02	11.31	8.07	5.94	-2.13
5	Barpeta	40.19	28.66	-11.53	59.37	71.00	11.63	0.44	0.34	-0.10
6	Nalbari	76.05	64.92	-11.13	22.10	33.39	11.29	1.85	1.69	-0.16
7	Kamrup	72.80	60.16	-12.64	24.78	37.61	12.83	2.42	2.23	-0.19
8	Darrang	57.74	45.15	-12.59	35.54	49.21	13.67	6.72	5.64	-1.08
9	Sonitpur	76.00	63.24	-12.76	14.89	28.96	14.07	9.11	7.80	-1.31
10	Lakhimpur	79.06	70.38	-8.68	16.15	25.11	8.96	4.79	4.51	-0.28
11	Dhemaji	95.95	94.62	-1.33	1.84	3.13	1.29	2.21	2.25	0.04
12	Morigaon	52.21	39.88	-12.33	47.59	59.97	12.38	0.20	0.15	-0.05
13	Nagaon	47.80	33.94	-13.86	50.99	65.13	14.14	1.21	0.93	-0.28
14	Golaghat	85.94	80.74	-5.20	7.91	13.09	5.18	6.15	6.17	0.02
15	Jorhat	92.86	89.38	-3.48	4.77	8.16	3.39	2.37	2.46	0.09
16	Sibsagar	88.21	82.73	-5.48	8.17	13.61	5.44	3.62	3.66	0.04
17	Dibrugarh	90.79	87.36	-3.43	4.49	7.71	3.22	4.72	4.93	0.21
18	Tinsukia	89.48	86.59	-2.89	3.48	6.03	2.55	7.04	7.38	0.34
19	Karbi Anglong	82.40	80.35	-2.05	2.20	3.85	1.65	15.40	15.80	0.40
20	N.C. Hills	69.91	73.58	3.67	2.49	3.42	0.93	27.60	23.00	-4.6
21	Karimganj	46.70	34.45	-12.25	52.30	64.8	12.50	1.00	0.75	-0.25
22	Hailkandi	41.11	32.03	-9.08	57.63	67.09	9.46	1.26	0.88	-0.38
23	Cachar	61.37	48.78	-12.59	36.13	49.10	12.97	2.50	2.12	-0.38
24	Assam	64.89	52.50	-12.39	30.92	43.90	12.98	4.20	3.61	-0.59

To summarize the above table, Table 9 depicts the projected changes between 2001-2020.

It shows clearly that in 2001, 17 districts had a majority Hindu population, while in 2020 only 13 districts will still remain Hindu majority districts.

Table 9: Changes of Share of Hindu Population in 2020 by Districts

% share of Hindu population	As per 2001 census	As per 2020 estimates
Less than 30	Dhubri	Dhubri, Goalpara, Barpeta
30-40	Goalpara, Barpeta Hailakandi	Morigaon, Nagaon, Karimganj, Hailakandi
45-50	Nagaon, Karimganj, Hailakandi	Bongaigaon, Darrang, Cachar
50-60	Bongaigaon, Darrang, Morigaon	Kamrup
More than 60	Kokrajhar, Nalbari, Kamrup, Sonitpur, Lakhimpur, Dhemaji, Golaghat, Jorhat, Sibsagar, Dibrugarh, Tinsukia, Karbi-Anglong, N.C. Hills, Cachar	Kokrajhar, Sonitpur, Lakhimpur, Dhemaji, Golaghat, Jorhat, Sibsagar, Dibrugarh, Tinsukia, Karbi-Anglong, N.C. Hills, Nalbari

Similarly Table 10 reveals the position of different districts as per their share of Muslim population. It is interesting to note that while in 2001, 6 districts had a Muslim majority, by 2020, 8 districts would have Muslim majority population. Most of the Muslim majority districts are curiously neighbouring Bangladesh.

Table 10: Changes of Share of Muslim Population in 2020 by Districts in Assam

% share of Muslim Population to total population	As per 2001 census	As per 2020 estimates
Less than 30	Kokrajhar, Nalbari, Kamrup, Sonitpur, Lakhimpur, Dhemaji,	Kokrajhar, Lakhimpur, Dhemaji, Golaghat, Jorhat, Sibsagar,

	Golaghat, Jorhat, Sibsagar, Dibrugarh, Tinsukia, Karbi-Anglong, N.C. Hills (13 districts)	Dibrugarh, Tinsukia, N.C.Hills (9 districts)
30-40	Bongaigaon, Darrang, Cachar (3 districts)	Nalbari, Kamrup, Sonitpur (3 districts)
40-50	Morigaon (1 district)	Darrang, Cachar (2 districts)
50-60	Goalpara, Barpeta, Nagaon, Karimganj, Hailakandi (5 districts)	Bongaigaon, Morigaon (2 districts)
More than 60	Dhubri (1 district)	Dhubri, Goalpara, Barpeta, Nagaon, Hailakandi, Karimganj (6 districts)

The above Table indicates that by 2020 some additional Hindu majority districts will be converted to Muslim majority district.

So far as Christian and other religious groups are concerned these groups as a whole have a comparatively nominal share of total population of the State. The share of this group to total population of Assam was 4.20 per cent in 2001 and will register 3.61 per cent in 2020. In N.C. Hills district the percentage share of Christian and other Minor religious groups together is the highest among the districts being 27.60 per cent and the 2020 estimates indicates that it will slide down to 23 per cent. The district with relatively higher share of population of this groups are Karbi Anglong (15.40 per cent), Kokrajhar (14.04 per cent), Sonitpur (7.48 per cent), Goalpara (8.07 per cent), Tinsukia (7.04 per cent) and Golaghat (6.15 per cent). The 2020 estimates suggest very nominal change in percentage share of the group in all districts.

Conclusion

The closeness of the three sets of estimates arrived at through three different approaches suggest that the methodology adopted is in order. However, under representation of the estimates could not be ruled out as the estimates are based basically on census population figures which are usually widely criticized as under reporting. Moreover, some experts on this subject express their apprehension regarding presentation of ground realities through the SRS data.

The distribution of projected population according to religion is as per the erstwhile 23 districts of Assam as on 2001. If the Bodoland Territorial Area Districts (BTAD) are taken into account the percentage share of Muslim population will further increase in the following districts: Dhubri, Bongaigaon, Barpeta, Darrang, and Nalbari because of curving out of area with less Muslim population to form the BTAD districts.

As the Total Fertility Rate among immigrant Muslims is too high as compared to other religious groups the Muslim dominated districts will witness further increase in population. The situation will be aggravated further if illegal migration from Bangladesh continues. This phenomenon will be responsible for higher population density as well as reducing land-man ratio (effective land) in particular districts. The reduction in land-man ratio will have an adverse effect on the economy of the rural people particularly the immigrant Muslim majority of whom depend on agri-based livelihood. The situation will The Assam Accord (1985) between the Government of India and AASU & AGSP stated quite clearly that (1) foreigners who came to Assam on or after 25th March 1971 shall continue to be detected, deleted from electoral rolls and expelled in accordance with the law; (2) the international border will be made secure against future infiltration by erection of barriers like walls, barbed wire fencing and other obstacles at appropriate places. These are two vital agreements to identify and deport and check further illegal infiltration. But, even after 24 years of the conclusion of the agreement, the Government of India has yet to honour the commitments. compel them to move to other districts in search of land and livelihood. Free movement of population irrespective of religion across districts will lead to movement of Muslim population from Muslim concentrated district like Dhubri, Goalpara, Barpeta, Nagaon, Hailakandi, Karimganj etc. to other districts and will thereby change the demographic pattern of all the districts. In such an eventuality, fear psychosis will develop in the minds of the erstwhile residents of the districts thinking that they will be deprived of economic opportunity and the outsiders will grab the land and other assets they are presently enjoying. It will create social conflicts as has recently been witnessed in the districts of Tinsukia, Dibrugarh, Jorhat, Lakimpur etc. It needs no emphasis to explain that constant social conflict looming large will be a major future deterrent of growth and development of the State.

The estimates of Hindu population cover Hindu migrants from Bangladesh. It may be observed that after 1971 the migration of Hindu

population from Bangladesh to Assam is decreasing and is now negligible. As per 2001 census, the bulk of the migrants were from Bangladesh (88.7 per cent) and migrants from Nepal to Assam constituted only 8.6 per cent. As a result of this Hindu population growth rate, as well as their percentage share to total population bound to decline further in future. The study clearly suggests that by 2020 the ethnic composition of the population of Assam will undergo rapid change, where the difference of share of population between Hindu and Muslim will be very thin.

Reflections on the Issue

Large-scale Bangladeshi immigration started from the third decade of the last century, continued unabated which led to an anti-illegal immigration movement in the late seventies and early eighties culminating into an agreement between the Government of India and the All Assam Students Union (AASU) and the Assam Gana Sangram Parishad (AGSP) in 1985. As a result of this, the people of Assam elected the movement leaders to form government twice in the eighties and nineties. Despite this, immigration problem remains a major issue, yet to be solved. This resulted in instability which in turn manifested in low economic growth from seventies to nineties. Assam which was at the beginning of Independence, one of the high per capita income States, now, can be counted only from the bottom.

Bangladesh's density of population is always high and is now a little over 1100 per sq. km. which is more than three times that of Assam. Rural poverty and earlier exploitation by the Zamindari system in Bangladesh compelled them to migrate to Assam. The Muslim League Ministry in Assam in the early forties of last century provided incentives to come to Assam for the "grow more food" campaign. Economically, Bangladesh has done well in recent years. Its economic growth rate recorded a 5-6 per cent per year and the population growth rate has come down to 1.7 per cent which is lower than India's 2.3 per cent. Bangladesh needs to be congratulated for the success on these two fronts. As regards the population growth, however, it seems strange that the same stock of population in Assam has a growth rate just double that of Bangladesh (3.2 per cent). One explanation could be a lot of people may have migrated from Bangladesh to various parts of the world, including Assam and elsewhere in India. Another concern is that some environmentalists predicted that because of global warming, half of Bangladesh would be under water in about fifty years. Obviously

this will have further implications for Assam. India, Bangladesh and other developed countries need to work on this issue.

The Bangladesh Government now headed by Sheikh Hasina need to be cultivated to appreciate the problems of Assam. Indeed, the Government of India should provide aid to Bangladesh Government to develop the border districts of Bangladesh, so that some of the immigrants may find it worthwhile to go back to their country of origin. A prosperous Bangladesh is an asset for Assam. A prosperous Bangladesh can also solve Assam's problems to a certain extent.

Internally, the Government of India must, in all earnestness, detect the post-1971 immigrants, delete their names from the electoral rolls and try to deport them in a time-bound manner. However, the Government of India's record earlier in deporting illegal immigrants is hardly worth mentioning. It is easier to provide those illegal immigrants with one year work permits to be renewed after a gap of six months on the basis of good conduct and without voting rights. They must be barred from buying and occupying land. No land can be transferred in their name. They may also be encouraged to settle in other States of India.

Number of suggestions have been made in various forums to control the high rate of population growth irrespective of religion. Some of these are:

- To see that every child gets a minimum education up to high school, irrespective of sex and religion. For an educated person has better knowledge about health, hygiene and family planning besides skills for jobs.
- Family planning need to be encouraged vigorously. The Government should consider disincentives for having more than three children.
- Registration of marriage should be made compulsory and marriage below the age of 18 should be made illegal. More than one spouse at a time should be discouraged through education and incentives and disincentives. In fact, a unified civil code will be preferable.
- Strong action should be taken against those who occupy the Government land.

These suggestions have been aired and discussed in various forums but without any result. The problem is that the main political party in Assam depends on these vote banks; and, the opposition party, which was established to find a solution to this problem, now thrives on this issue. In the meantime, Assam suffers.

In addition, Assam's immigration issue is not well understood by the rest of India. After all immigration is a universal phenomenon; we all are immigrants at one point of time. Hardly any country is immune to it. There was Muslim migration to Assam since 12th century onwards. Assimilation was not a problem. Then, why is this movement? Amongst the various reasons one could cite the following: First, it may be remembered that there was an anti-Bengali movement, when the erstwhile British rulers changed the official language from Assamese to Bengali for some time. Secondly, late M.A. Jinnah demanded Assam as part of Pakistan but had to settle for a part of it. Thirdly, when Bangladesh was formed, it was originally conceived as a Secular State, but later on declared as Islamic Republic. The Hindus at the time of partition formed 22 per cent of the population in East Bengal, now it is less than 9 per cent. Fourthly, many Bangladeshi political writers including top leaders have argued for inclusion of a part of Assam into Bangladesh. Further, Bangladesh has given shelter to about 10 radical islamist organisations over and above Assam's and North East's revolutionary organisations like ULFA, etc. These are old stories; but the apprehensions with the people of Assam remain with the continued illegal immigration from that country. On the top of these, the sincerity of the Government of India in solving this vexed problem is being questioned. People often wonder if the much longer border in Punjab and Jammu and Kashmir could be sealed within a couple of years time, why does it take quarter of a century to complete the border fencing in Assam, Meghalaya and Tripura?

Time passes, the movement goes on, the communal harmony, which Assam was proud of, suffers, and, the economy of Assam moves at a snail's pace, creating further problems for communities and the Government.

¹. Shri B.N. Das retired Joint Directorate of Economic and Statistics of Assam has provided statistical assistance for the study.

Water Resources in Himachal Pradesh: Issues and Scopes

M.L. Thakur and Vineet Negi*

Background

Water is one of the most important requirements of mankind and all over the world most of the human civilizations flourished mostly around some suitable water sources. Management of water resources in India from time immemorial was considered one of the main components of the erstwhile ruler's responsibility, mainly due to very large temporal and spatial variation in rainfall and the resultant divergence in the river flow and ground water aquifers. Despite the presence of a moderate glacier base, big rivers, springs and small perennial streams, make effective water resource management in Himachal Pradesh. This is more important, due to a very high run off, mainly due to the altitudinal gradient and the changing land use in the form of urbanization, industrialization and changes in the forest cover.

National Water Supply and Sanitation Programme (1954), initiated on the recommendations of the Environment Hygiene Committee (1948-49), is considered the first major step in conservation and management of water resources in Independent India. Subsequently, a number of such programmes and policies were initiated for the conservation and management of availability and the quality of water resources. Public participation in water resource management has been ensured by the 73rd Amendment Act of 1992, in which 29 subjects have been added to the jurisdiction of the local bodies for drinking water, minor irrigation, water management and watershed development.

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Scenario in Himachal Pradesh

Himachal Pradesh is a mountainous State situated in the north-west Himalayas and more than 90 per cent of the population lives in villages. The State has a total of 16997 inhabited villages and 45367 habitations, mostly around cultivable lands, water bodies, edges or inside the forests. Main sources of rural water supply are streams and perennial springs. In addition, tube-wells, hand pumps and perennial or seasonal streams are also the sources of water supply in some areas. Himachal Pradesh Water Supply Act, 1968 and Rules, 1989 were enacted to develop and address water related issues like drinking water supply schemes, sewerage systems management, irrigation systems and flood protection to protect life and property in the State.

Resource Situation in Himachal Pradesh

Water Resources and the Physiography

The State is generally divided into four physiographic and agroclimatic zones viz., subtropical low hill or Shiwalik zone, mid-hill zone, dry hill zone and cold hill zone. There is a huge difference in annual precipitation and water availability in these zones (Table 1).

Table 1: Physiographic zone-wise precipitation and water resource management related issues in Himachal Pradesh

Physiographic Zone	Altitudinal range (in meters)	Annual rainfall (in mm)	Main Issues
Subtropical low hill or Shiwalik zone	500-1200	800-1600	High runoff and industrial expansion
Mid hill zone	800-1600	1800	Agriculture related activities
Dry hill zone	1600-2700	1000-1500	High use of pesticides and fertilizers in horticulture
Cold hill zone	>2700	<200	Fragile cold desert region

Ground Water Resources

The State has very good ground water availability. Himachal has a total replenishable groundwater reserve of 0.0366 hectare metres (ha m) per year and a net draft of 0.0053 ha m per year.

Table 2: Ground water utilization in Himachal Pradesh

S.No.	Sector	Reserve/Availability
1.	Total replenishable ground water	0.0366 ha m yr
2.	Domestic and industrial sectors	0.00731 ha m yr
3.	Irrigation	0.02929 ha m yr
4.	Reserve	0.02399 ha m yr
5.	Level of ground water development	18.1%

Lakes and Rivers

Himachal Pradesh is bestowed with several natural freshwater and brackish water lakes, and a few large man-made reservoirs. Natural lakes are distributed among different climatic zones of Himachal Pradesh. Some of the prominent among these are: Renuka, Rewalsar, Khajjiar, Manimahesh, Chandertal etc. Some large reservoirs have also been formed due to damming of rivers, e.g. Pong and Govind Sagar. Besides five major rivers which flow through the State i.e. Yamuna, Sutlej, Beas, Ravi and Chenab, besides there is an intricate network of seasonal and perennial torrential streams. Further, high altitude pastures encompass an important water-related ecosystem in the State. These pastures are covered by snow during winters and play a very important role in deciding the quality and quantity of water available to the inhabitants living in the lower areas.

Table 3: Major river system in Himachal Pradesh

River system	Vedic & Sanskrit Name	Catchment area (in Km ²)	Origin and course in Himachal Pradesh	Main dams
Satluj	<i>Satudari, Sathdru</i>	20,398	Mansarovar Lake in Tibet. Enters Himachal Pradesh at Shipki, Kinaur district and leaves at Bhakra village to Punjab.	Bhakra Dam, Kol Dam

Beas	<i>Arijika, Bipasha</i>	13,663	Beas kund (Pir Panjal, Mountain Range), Kullu. Leaves at Mirthal to Punjab plains.	Pandoh Dam, Pong Dam
Ravi	<i>Purushini, Erawati</i>	5,528	Bara Bhargal (Pir Panjal). Leaves at Mirthal to Punjab	Chamera Dam, Thein Dam
Chenab	<i>Askini (Vedic)</i>	7,850	Chandra and Bhaga rivers form Chenab at Tandi (Lahoul & Spiti) Origin of Chenab-Chandra-tal and Bhaga-Suraj Tal. It is the biggest river of Himachal Pradesh (by volume). Enters Jammu & Kashmir at Sansari Nullah.	
Yamuna	<i>Kalindi (Vedic)</i>	5,872	Origin: Yamunotri Glaciers	Asan Barrage

Glaciers

Snow is a form of precipitation during winters in higher altitudes of Himachal Pradesh and about 1/3rd of the total geographical area remains under thick snow cover during the winter season. Most of the major rivers and the perennial streams originating from the Himalayas depend upon this snow cover for their discharge constancy. Himalaya has the largest concentration of glaciers outside the polar regions. Principally Himalayan glaciers are valley type in morphology and most of them are covered by debris. Therefore, they provide model of unique and complex interaction with climate. Melted water from these glaciers form an important source of water for most of the north Indian rivers.

Glaciers are of great importance in a State like Himachal Pradesh. Almost all the noted glaciers are found to be located in higher Himalayan range easily above elevation of 4000 m, in Dhauladhar, Zaskar, Pir Panjal and the Great Himalayan Ranges. There are around 800 glaciers in the State.

Table 4: Basin-wise distribution of glaciers and snow fields in Himachal Pradesh

Basin name	Number of glaciers	Aerial extent (in sq km)	No. of snow fields	Aerial extent (in sq km)
Beas	6	15.843	47	72.442
Parvati	36	450.627	131	188.188
Sainj	9	37.255	59	51.934
Spiti	71	258.237	597	368.366
Baspa	25	203.3	66	64.964
Satluj	55	154.762	194	110.843
Chenab	457	1055.27	732	245.000

It has been noted that the number of glaciers over the past few decades are on the increase, which is due to the breaking up of old glaciers and formation of smaller new ones. The main contributing reason for this increase through fragmentation of glaciers from the main glacier is global warming and its subsequent alterations in atmospheric temperature. As per a recent study, there are a total of 334 glaciers in the Satluj basin, of which 202 are located in Himachal Pradesh. Chenab basin, the other important river basin has some 457 glaciers. The total area covered by these glaciers in Satluj and Chenab basins is 2175 km². Besides glaciers, there are 2679 permanent snowfields in these two basins with a total area of 1775.189 km².

The major area of concern in the Himalayan glaciology is receding of Glaciers especially along the Indo-Chinese borderline. Glaciers in Himachal Pradesh, especially those along the Chinese/Tibet border, are receding alarmingly. Since 1962, the total area of glaciers has come down from 2,077 sq km to 1628 sq km. Studies reveal that there has been deglaciation of 21 per cent of the total area since 1962.

Water Resources and the Hydropower Sector in Himachal Pradesh

The western Himalayan State of Himachal Pradesh has huge potential for hydroelectricity generation. The State has been heavily targeted for hydroelectric power generation under “Mission-2012: Power to All” of Government of India and all the five perennial river basins, namely Yamuna, Satluj, Beas, Ravi and Chenab have great potential for harnessing the hydropower. As per preliminary estimates, Himachal Pradesh has about 25,000 MW of hydel potential which can be exploited by constructing various major, medium, small and mini/micro hydel

projects. More than 7000 MW has been harnessed by the Central and State government agencies and private power developers in the State. Of the total assessed hydro power potential of the State, around half (48 per cent) have been identified in the Satluj river basin, more than 22 per cent in Beas and a little more than 11 per cent each in Ravi and Chenab rivers. In the State, more than 85 per cent of the electricity is being generated by joint sector. Moreover, the share of the State and private sectors is about 7 per cent and 6 per cent respectively. In addition, more than half of the total electricity is being produced on Satluj river alone.

Drinking Water: Status and Challenges in Himachal Pradesh

Himachal Pradesh has provided piped drinking water to its entire population. There are 7,989 piped water supply schemes in Himachal Pradesh and in addition, also present in the State are number of traditional drinking water sources such as wells, *baolies*, springs, ponds and *khatries*.

With the increase in population of the State the demand for drinking water has also risen exponentially. As per a recent estimate, the drinking water demand has grown 2.4 times in rural areas and 6.8 times in urban areas in a time period of 50 years. The demand will further rise 1.62 times in rural area as well as urban areas in the next 30 years.

Analysis of the rainfall data shows that there is no decline in average rainfall in Himachal Pradesh. While there are year-to-year fluctuations, no declining trend is noticeable. The problems of water scarcity are due to population growth, increase in per capita demand, urbanization, agricultural use and industrial demand. *Baolies*, dug wells, step wells, *khatries* and springs are the traditional water harvesting structures that have been used as source of drinking water in this region over the centuries. In many villages these systems have fallen into disuse with the spread of piped water supply. The size of catchments, limits the quantity of water collected. The water demand has risen many times. Mostly it is not possible to meet the demand of the villagers from the local sources. On an average, 540 hand pumps are drilled every year and are mostly installed in areas where there is road connectivity.

Water Resources and Livelihood Options in Himachal Pradesh

In Himachal Pradesh, nearly 70-75 per cent of the rain occurs during monsoons, which flow as run-off with least conservation. As a result

all areas without assured irrigation suffer from water stress and low productivity, leading to loss of livelihood. Inundation of forest areas and inadequacy of vegetation cover in catchment areas is increasing the problems of low productivity of soils as well as degradation of natural water sources. Approximately 80 per cent of all holdings in the State fall in the category of small and marginal farmers. The majority of people suffer from scarcity of water resources and that too when about 80 per cent of the total cultivated area is rainfed.

The topography of the State is largely hilly, where cultivation is mainly done on terraces. The cultivation in hills is subjected to soil erosion, since crop cultivation is practised over 5 per cent to 30 per cent slopes. This also affects water quality, soil fertility and changes in pH values.

The abnormal pattern of rainfall over the past few years has caused great fluctuations in crop production and consequent price rise of food grains and vegetables in particular. This is manifested in fluctuation in yields and consumer price.

Long-term adverse effects accruing from the immediate gains of fertilizers and pesticides have been ignored in the State. The problem has arisen because of extensive and wrong application of chemical pesticides which leave residual toxic effect on food articles. Indiscriminate use of chemicals has caused imbalance of nutrients available in soil and loss of useful microbial flora. Furthermore, the indiscriminate and excessive use of fertilizers has made soil unfit for growing legumes for their detrimental effect on nodulation bacteria. The indiscriminate use of chemicals has also resulted in price rise in pulses and pollution of potable water and edibles.

Critical Issues Associated with Water Resources in Himachal Pradesh

Status of existing rural water supply schemes

In the present day scenario of excessive pressure the conventional sources of water, like springs often have insufficient yield or are contaminated. Due to rather fast sub-surface water movement in hill areas, it is common for springs originating in the upper slopes to disappear and then reappear as down slope springs. Moreover, perennial springs are not found in the Shiwalik area, due to the low water holding capacity of rock formations, therefore it is common in this area that a single pumped system could provide water up to 100 villages. Many schemes were commissioned without sufficient investigation regarding source sustainability. Available sources were used with little planning

regarding the possible growth of upstream water demand. There are a number of irrigation schemes in Himachal Pradesh which reduce the downstream flows, especially during the lean season. Generally, in Himachal Pradesh, only the main habitation is provisioned and the rest manage with little supply or depend on limited traditional sources. Lack of an integrated water resource management is evident.

Wastage and Shortage of Water

Wastage and shortage is another critical issue in the State. Public and household water supply is used for irrigating the vegetable patches due to which the next downstream village remains starved of even their basic requirement.

Condition of Infrastructure

In Himachal Pradesh, there is no provision for dedicated electricity line for distributed pumping stations. In addition, at places with high head, 2-3 stage pumping is required and failure of any of them cripples the system. Pipe breakage is quite common during the rainy and winter seasons.

Supply Augmentation

Many sources have not been able to supply sufficient water due to competing upstream use for agriculture, drying up of the source, catchment degradation and lack of funds for source augmentation. In addition, demand management has not been attempted so far in the State.

Water Quality

A very high percentage of traditional water sources are contaminated due to unhygienic methods of handling water in the State. Slaked lime is used to settle water in *khatries*, but its efficiency in dealing with pathogens is limited due to continuous infiltration of contaminated water. Excess iron has been reported in about 10-15 per cent hand pumps of the State.

Implementation and Operational Modalities

Water resources can further be effectively managed by adopting some modern methods of operation and management and an integrated vision.

Vulnerable Section

As always, poorer sections of the society are more prone to water shortage as these people are either working as labour or are associated in some agricultural practices.

Situation of Women

The burden of water scarcity is borne by the poorer households, especially by women. In many areas of the State, the men migrate to the plains in search of jobs and women are the de facto heads of the households. The entire burden of maintaining the house, agriculture, livestock rearing, fetching water and fuel, and other domestic responsibilities lie with the women. The task of collection and transportation of water is left entirely to women.

Sanitation

Though, in small dispersed settlements, sanitation problems are not severe but with fairly rapid movement of groundwater in the hill terrains, many of the traditional sources, especially the downstream settlements are likely to get contaminated by the soak pits. Lack of land in the dense settlements, especially in the hands of the poor, is another constraint on sanitary issues. There is thus a desperate need for an integrated approach to water supply and sanitation.

Irrigation Water Supply Measurement

The distribution of water for irrigation schemes such as *kuhals*, small canals should be done on a volumetric basis instead of surface area method through water users committees/associations.

Judicious Views of Potable Water

Treated potable water should not be allowed to be used either in the construction activity, sanitary applications, irrigation and other such purposes as the cost of treatment is very high.

Neglect of Traditional Water Resources

Many traditional water resources in the State have been facing a state of neglect due to the government supply schemes.

Community Priorities

Water supply along with roads are reported as the most common community priorities. Traditional mountain agriculture is unable to provide sufficient incomes for the rural youth, except in areas where the cash crop has become popular. Since the government has the responsibility for providing water supply, community initiatives are absent, even in the areas of severe scarcity. People mostly try to provide for their household needs rather than rejuvenating their traditional sources.

Sector Specific Policy Situation

Under difficult terrain and dispersed habitation, managing a water supply can become very expensive if sufficient social development input is not provided. This is one of the main problems now facing the rural water supply schemes in the State. With current level of reliability on water supply it may be difficult to realize the full tariffs. Demand side management or refurbishing of traditional systems has not been taken up seriously in the State. Village level distribution should be handed over to village Panchayats. Multilevel management systems of water resources should be linked with user-groups/village representatives.

Maintenance of Installed Structure

Generally it has been observed that many of the irrigation/drinking water supply schemes where huge investment had been made, go defunct because of multiple reasons and thereafter no effort is made for their repair and maintenance.

Public Health Risks Associated with Pollution of Water Resources

Improper management of wastes like sewage and other household and agricultural pollutants, pollute drinking water which leads to public health risk. At the State level, cases of admission in hospitals due to diarrhoea increased from 16,263 in 1995 to 16,602 in 2002. Similarly, cases of admissions in hospitals due to hepatitis increased from 379 in 1995 to 421 in 2002. At district level, Chamba, Hamirpur, Kinnaur, Kullu, Lahaul & Spiti, Mandi, Sirmour and Una reported increase in admissions in hospitals due to diarrhoea during 1995 to 2002. Similarly, Bilaspur, Chamba, Kangra, Kinnaur and Una reported increase in admissions in hospitals due to hepatitis during 1995 to 2002.

Initiatives Taken in Himachal Pradesh

Moisture Conservation

In Himachal Pradesh fruit production in general is carried on under rainfed conditions and almost no irrigation is given to orchards. In the higher hills and mid hills, there is no arrangement for irrigation as there are no permanent sources for supplying water to fruit trees. In some areas, particularly in valley areas, life-saving irrigation is possible.

Watershed Development Programme

Integrated Wastelands Development Programme (IWDP)

Integrated Wastelands Development Programme is being implemented in nine districts of the State viz: Chamba, Hamirpur, Kangra, Kullu, Development Blocks Nichar and Kalpa of district Kinnaur, Mandi, Shimla, Sirmour and Development Block Kandaghat, Solan and Nalagarh of district Solan on watershed approach since 1995-96. A total of 67 projects comprising 873 micro watersheds have been sanctioned under IWDP till date. These projects were funded 100 per cent by the Central Government up to 31.3.2000. Since 1.4.2000 these projects are being funded on sharing basis @ Rs. 5500:500 per ha between Central & State Governments respectively.

Drought Prone Area Programme (DPAP)

Drought Prone Area Programme is being implemented in 3 districts of the State viz., Bilaspur, Una and Solan (Development blocks Kunihar and Dharampur). It was initiated on the funding ratio of 50:50 by the Central and State Governments and now a days 75 per cent of the funding is borne by the Central Government. Under this programme 412 micro watersheds have been taken up for development for a period of five years.

Desert Development Programme (DDP)

Under DDP, 552 micro watersheds have been taken up for development in district Lahaul & Spiti and Pooh block of District Kinnaur.

Financial Constraints in Water Security Sector

The water distribution systems including reservoirs, canals and other infrastructure are funded by the Central and State Governments and in some cases this funding is shared by the users. Maintenance of these water distribution systems in the past have faced shortage of funds. Therefore, the efficiency of these systems have faced severe losses. Lack of proper funding has affected the current construction projects,

therefore, delays in operationalization of these projects is a common feature in the country. As per recent estimates, water consumption will double in the next twenty years, therefore funding pattern needs critical analyses especially in the water sector.

Irrigation sector has been the largest recipient of government funds in India and over US\$ 9 billion were spent in this sector during the 8th Plan, which includes the subsidies of almost 0.3 per cent of the GDP during the 1994-95 fiscal year. Almost similar subsidies have been given to the drinking water and sanitation sectors, but lower economic efficiency has discouraged conservation of water resources. In general, in all water-related sectors, government funding is running at a deficit.

Therefore, development of new water supply schemes and maintenance of older structures will continue to exhaust government funds while new issues, such as water pollution and scarcity, will require greater investment over the long-term.

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Socio-Political Implications of Khagragarh (Burdwan) Blasts in West Bengal

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For a long time the glaring facts of Bangladeshi infiltration in West Bengal were restricted to brief (if not apologetic) reports in the Indian news media (both electronic and print) till the visible emergence of BJP in Delhi and West Bengal. And also, there was an undeclared prohibition on a discussion of Islamic terrorism because of the undeclared policy of Muslim appeasement of the Left Front, Congress and Trinamul Congress in West Bengal. Words like 'infiltration' 'terrorism' etc. were avoided by the so-called secular parties due to vote bank politics. As a result, terrorists get safe corridor in this State and the normally high growth rate of Muslim population becomes higher due to infiltration; on the other side, this tends to strengthen to sectarian politics of Hindu too. Till today, not a single word has been said by the Chief Minister of West Bengal on the infiltration problem. Not even a single statement has been issued on the recent Khagragarh (Burdwan) blast and involvement of several private madrassas in West Bengal. It is a 'dangerous silence' for the State Government. A hidden fear of losing Muslim votes is haunting her. Are the ordinary Muslims not against this terrorism? Why TMC failed to play a strong role against the vicious links of infiltration and terrorism? One simple logical proposition is, nearly all terrorists are Muslims, but all Muslims are not terrorists. Why should then the Muslim community as a whole feel irritated by any discussion regarding relations between terrorists and madrassas? May be someone related with these madrassas can be irritated. Apart from

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that, all Muslim youths are not madrassa students and all of them do not subscribe to the terrorist mindset. Why then the TMC suffers from a fear to lose Muslim votes?

Is there any need of madrassa education in the twenty-first century? The need of the hour is an open discussion on this topic. Where are the difficulties? Madrassas may be necessary for religious education, but terrorists are using these institutions to fulfil their purposes. It is not only true in West Bengal or India; it is also true in Pakistan, Bangladesh, Iraq, Syria and other countries in the world. Madrassas link with terrorism in most of the South Asian countries is well-known. And majority of the victims are Muslims as in Pakistan. So, how many madrassas are really needed to teach religion in this State of West Bengal, and what are the ways to regulate them properly. It should be a matter of concern to the Muslim community.

Terrorism represents a vital component of the problem of large-scale infiltration through Indo-Bangladesh border. Though infiltration is a reality, it is not possible for the Indian people to welcome this extra burden of population. A clear government policy should be enunciated on this matter, and a wide discussion is needed in the society. It is not simply a religious problem; it is a problem of the society, economy and polity.

Bangladesh Link: In the nineteen eighties, planned migration from Bangladesh was encouraged by most of the Indian Muslims in the border States under the protection and patronization of some political and social forces of India's Eastern and North-Eastern region. This continuous infiltration from across the border has steadily changed the demographic pattern in the border areas, especially in the States of West Bengal and Assam. This changed demographic scenario easily lends itself to disrupting social harmony. This is a religio-cultural process taking place in a geographical space considered to be strategically important.

Earlier the growing population pressure and crippling poverty and pauperization of the marginal rural masses in Bangladesh encouraged, if not forced, them to put the agenda of migration as a life and death question. In the meantime, the consolidation of Islamic forces was apparent. Islamists adopted the agenda of a greater Islamic region as a grand political strategy. Although it was an emotional issue of Sheikh Mujib, later it became a political and strategic issue with the support of Pakistan. Besides, both sides of the Indo-Bangladesh border are inhabited by a population which is ethnically, linguistically and

religiously identical. It has thus become easy for the insurgent outfits to wage a proxy war at an unpublicized level. The costs and risks of this war are low, and yet it destabilizes the security of eastern and north-eastern India. Harkat-ul-Mujahidin (HuM), Bangladesh Jamat-e-Islami (BJI), etc. and their counterparts in India are reaping benefits with the help of some local Indian political and social forces for spreading their terrorist networks in West Bengal, Assam and other States in India. The links with the TMC of West Bengal are expected to be elaborately uncovered by the investigation of National Investigating Agency (NIA). New information is coming out regularly from the investigative agencies. Therefore the people of West Bengal are passing through turbulent times.

During the last three and half decades, a planned and conscious effort has been made to popularize madrassa education among the Muslims under both the government and private initiatives in West Bengal and Bangladesh. Even an initiative has been taken to attract a section of poor Sc/St of Hindu communities to this education, who is almost permanently poor and hence vulnerable. This is a kind of ominous imposition upon a non-Muslim segment of people when their young minds are subjected to a sort of subtle conversion of faith. In this controversial dusky zone, madrassa education remains highly imaginative with much new potential. The Government of West Bengal has taken an initiative to bring new madrassas under the fold of a Madrassa Education Board which is parallel to the West Bengal Secondary Education Board. A lot of students are coming to the madrassas. After passing higher secondary level education (Fazil), they get admitted in the colleges or other higher educational institutions, but the number is too small in comparison to the total student strength, though numbers of students are much higher in the private khariji/ or Qawmi madrassas in West Bengal.

Madrassa /religious education has taken a firm root in the Muslim society since long. Now modern education has overtaken the main stream of the society instead of religious education. But madrassa/religious education is still popular and is a parallel system which is equally getting importance in the society of West Bengal and Bangladesh, i.e. in the Bengali Muslim society, particularly in the poor and lower-middle class income group. Not only it is a low cost education but also a large number of madrassas provide free food and lodging for the poor students. Importance is given on the Arabic language and Islamic theology in the private madrassas because the Muslim society

is still being dominated by the fundamentalist Moulanas/Moulvis and Imams. A fascinating tendency in the Muslim society to read the Koran/religious scripts and perform *namaj*, wearing caps, keeping beard, etc. in the Bangla-speaking region has been noticeably on the rise during the last few decades.

Madrassa education was never a secular and modern education system. Even enlightened sections of civil societies of Bangladesh and Pakistan opine that communalism and Islamic fundamentalism are spreading through this education. It is difficult for us to understand, how the Left Front and TMC Governments of West Bengal discovered secular elements in this traditional religious education. The students who are coming to get admitted in the government recognized madrassas had their primary level education (I-IV) completed through private madrassas, where there is no government syllabus or control. There they learn mainly Arabic and religion based education. There are rather cases of exception, when those who have passed from the primary level of private madrassas are getting admitted in the normal high schools. Moreover, their thought process and outlook are never free from the views of religious indoctrination even when they have gone through so-called secular madrassa education introduced by the Government of West Bengal. No positive influence has been seen in the entire Muslim society even after introduction of new courses in the madrassa education systems in 1988-89. If Moulana/Moulvi and Headmen of the Muslim society have not lost interest in government madrassa education, how can so many private madrassas (khariji/Quami) proliferate in West Bengal? Emergence of radical Islamic forces and pouring of foreign money to build mosques and madrassas in this region are also an important factor.

The Government of West Bengal has taken initiatives to appease a large section of Muslims in the name of modernization of madrassa education. But actually, the government is pushing them backward in the socio-cultural transformation process of human society. It cannot be denied that vested interest is active behind these so-called progressive steps. A large section of the Muslim masses in rural Bengal tend to favour private madrassas including Khariji/ Qawmi madrassas, ignoring government aided and guided madrassa courses. These private madrassas pursue syllabus that is not only soaked in radical Islamic fundamentalism, they are also grooming centres of pro-Taliban activities, which have already been visible in the madrassas of Bangladesh and Pakistan. When a 'madrassa child' becomes a 'madrassa boy' and

prepares himself to grow up, his educational background makes him totally alienated from the modern conscious stream of the twenty-first century and forces him to be a different sort of man. The after-effect of madrasa education in West Bengal can in no way be different from that of Bangladesh and Pakistan. Madrasa education in the rural West Bengal is affecting family planning and health awareness programmes. Most of the women, who are willing to take birth control measures, have to refrain from them for the fear of *Talak* by their husbands and biddings of the society—Imams and Moulanas are deadly against birth control programmes and they themselves are the leaders of the society in most of the cases. For this reason, government /non-government family planning programme in the rural Muslim society is a complete failure. As a result, not only Muslim population grows rapidly but also success of poverty alleviation programmes becomes harder. Consequently a large number of poverty-ridden backward people under religious influence are bound to accept cost free or low cost madrasa education as an inevitable destiny.

Most of the active radical Islamic groups build their support bases and recruit cadres from these madrasahs. Curriculum and environment of these madrasahs are very much conducive to help grow a communal outlook and intolerance to other faiths among the students. ISI, HuM, BJI and some other organizations and agencies of Bangladesh with their counterparts in India are very much active in West Bengal to encourage radical Islamic ideas among the backward Muslim masses and trying to generate an inflammable situation. Khagragarh (Burdwan) blast is a glaring example for this situation. Emphasis is also given to consolidate Islamic unity and madrasa education. Already some political groups are vocal in favour of private madrasa education and Muslim consolidation against NIA investigation (to unearth terror networks) and the role of the Central government. If one raises voice against prejudices and medieval outlook of the Muslim clergy even from their own society, he will be condemned as a *kafir*. In fact, this mentality of the Muslim society contradicts the Indian ethos of “unity in diversity”.

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Himalayas: Fact File

The Himalayas, or Himalaya, Sanskrit: हिमालय, *hima* (snow) + *ālaya* (dwelling), Sanskrit word literally meaning “abode of the snow”¹ is a mountain range in South Asia separating the plains of the Indian subcontinent from the Tibetan Plateau.

The Himalayan range is home to the planet’s highest peaks, including the highest, Mount Everest. The Himalayas include over a hundred mountains exceeding 7,200 metres (23,600 ft) in elevation. The highest peak outside Asia – Aconcagua, in the Andes – is 6,961 metres (22,838 ft) tall.² The Himalayas have profoundly shaped the cultures of South Asia. Many Himalayan peaks are sacred in both Buddhism and Hinduism.

The Himalayas straddle five countries: India, Nepal, Bhutan, China, and Pakistan.³ The Himalayas are bordered on the north-west by the Karakoram and Hindukush ranges, on the north by the Tibetan Plateau, and on the south by the Indo-Gangetic Plain.

Three of the world’s major rivers — the Indus, the Ganges and the Brahmaputra — arise in the Himalayas. While the Indus and the Brahmaputra rise near Mount Kailash in Tibet, the Ganges rises in the Indian State of Uttarakhand. Their combined drainage basin is home to some 600 million people with rich cultural history since ancient times.

Lifted by the collision of the Indian tectonic plate with the Eurasian Plate,⁴ the Himalayan range runs north-west to south-east in a 2,400 kilometres (1,500 mi) long arc. The range varies in width from 400 kilometres (250 mi) in the west to 150 kilometres (93 mi) in the east.

Ecology of the Himalaya

The flora and fauna of the Himalayas vary with climate, rainfall, altitude, and soils. The climate ranges from tropical at the base of the mountains to permanent ice and snow at the highest elevations. The amount of

yearly rainfall increases from west to east along the southern front of the range. This diversity of altitude, rainfall and soil conditions combined with the very high snow line supports a variety of distinct plant and animal communities.

The unique floral and faunal wealth of the Himalayas is undergoing structural and compositional changes due to climate change. The increase in temperature may shift various species to higher elevations. The oak forest is being invaded by pine forests in the Garhwal Himalayan region. There are reports of early flowering and fruiting in some tree species, especially rhododendron, apple and *box myrtle*. The highest known tree species in the Himalayas is *Juniperus tibetica* located at 4,900 metres (16,080 ft) in south-eastern Tibet.⁵

Geology

The Himalaya are among the youngest mountain ranges on the planet and consist mostly of uplifted sedimentary and metamorphic rock. According to the modern theory of plate tectonics, their formation is a result of a continental collision or orogeny along the convergent boundary between the Indo-Australian Plate and the Eurasian Plate.

Today, the Indo-Australian plate continues to be driven horizontally below the Tibetan Plateau, which forces the plateau to continue to move upwards. The Indo-Australian plate is still moving at 67 mm per year, and over the next 10 million years it will travel about 1,500 km into Asia. About 20 mm per year of the India-Asia convergence is absorbed by thrusting along the Himalaya southern front. This leads to the Himalayas rising by about 5 mm per year, making them geologically active. The movement of the Indian plate into the Asian plate also makes this region seismically active, leading to earthquakes from time to time.

During the last ice age, there was a connected ice stream of glaciers between Kangchenjunga in the east and Nanga Parbat in the west.^{6,7} In the west, the glaciers joined with the ice stream network in the Karakoram, and in the north, joined with the former Tibetan inland ice. To the south, outflow glaciers came to an end below an elevation of 1,000–2,000 metres (3,300–6,600 ft).^{7,8} While the current valley glaciers of the Himalaya reach at most 20 to 32 kilometres (12 to 20 mi) in length, several of the main valley glaciers were 60 to 112 kilometres (37 to 70 mi) long during the ice age.⁷ The glacier snowline (the altitude where accumulation and ablation of a glacier are balanced) was about 1,400–

1,660 metres (4,590–5,450 ft) lower than it is today. Thus, the climate was at least 7.0 to 8.3 °C (12.6 to 14.9 °F) colder than it is today.⁸

Hydrology

The Himalayas have the third largest deposit of ice and snow in the world, after Antarctica and the Arctic.⁹ The Himalayan range encompasses about 15,000 glaciers, which store about 12,000 km³ (3000 cubic miles) of fresh water.¹⁰ Its glaciers include the Gangotri and Yamunotri (Uttarakhand) and Khumbu glaciers (Mount Everest region), Langtang glacier (Langtang region) and Zemu (Sikkim). Owing to the mountains' latitude near the Tropic of Cancer, the permanent snowline is among the highest in the world at typically around 5,500 metres (18,000 ft).¹¹ In contrast, equatorial mountains in New Guinea, the Rwenzoris and Colombia have a snowline some 900 metres (2,950 ft) lower.¹² The higher regions of the Himalayas are snowbound throughout the year, in spite of their proximity to the tropics, and they form the sources of several large perennial rivers, most of which combine into two large river systems:

- The western rivers combine into the *Indus Basin*, of which the Indus River is the largest. The Indus begins in Tibet at the confluence of Sengge and Gar rivers and flows south-west through India and then through Pakistan to the Arabian Sea. It is fed by the Jhelum, the Chenab, the Ravi, the Beas, and the Sutlej rivers, among others.
- Most of the other Himalayan rivers drain the *Ganges-Brahmaputra Basin*. Its main rivers are the Ganges, the Brahmaputra and the Yamuna, as well as other tributaries. The Brahmaputra originates as the Yarlung Tsangpo River in western Tibet, and flows east through Tibet and west through the plains of Assam. The Ganges and the Brahmaputra meet in Bangladesh, and drain into the Bay of Bengal through the world's largest river delta, the Sunderbans.¹³

The easternmost Himalayan rivers feed the Ayeyarwady River, which originates in eastern Tibet and flows south through Myanmar to drain into the Andaman Sea.

In recent years, scientists have monitored a notable increase in the rate of glacier retreat across the region as a result of global climate change.¹⁴ For example, Glacial lakes have been forming rapidly on the surface of the debris-covered glaciers in the Bhutan Himalaya during

the last few decades. Although the effect of this will not be known for many years, it potentially could mean disaster for the hundreds of millions of people who rely on the glaciers to feed the rivers of northern India during the dry seasons.¹⁵ Some of the lakes present a danger of a glacial lake outburst flood. The Tsho Rolpa glacier lake in the Rolwaling Valley is rated as the most dangerous in Nepal.^{16,17}

Lakes

The Himalayan region is dotted with hundreds of lakes. Most lakes are found at altitudes of less than 5,000 m, with the size of the lakes diminishing with altitude. Tilicho Lake in Nepal in the Annapurna massif is one of the highest lakes in the world. Pangong Tso, which is spread across the border between India and China, and Yamdrok Tso, located in central Tibet, are amongst the largest with surface areas of 700 km² and 638 km², respectively. Other notable lakes include She-Phoksundo Lake in the Shey Phoksundo National Park of Nepal, Gurudongmar Lake, in North Sikkim, Gokyo Lakes in Solukhumbu district of Nepal, and Lake Tsongmo, near the Indo-China border in Sikkim.

The mountain lakes are known to geographers as *tarns* if they are caused by glacial activity. Tarns are found mostly in the upper reaches of the Himalaya, above 5,500 metres.¹⁸

Impact on Climate

The Himalayas have a profound effect on the climate of the Indian subcontinent and the Tibetan Plateau. They prevent frigid, dry winds from blowing south into the subcontinent, which keeps South Asia much warmer than corresponding temperate regions in the other continents. It also forms a barrier for the monsoon winds, keeping them from travelling northwards, and causing heavy rainfall in the Terai region. The Himalayas are also believed to play an important part in the formation of Central Asian deserts, such as the Taklamakan and Gobi.¹⁹

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