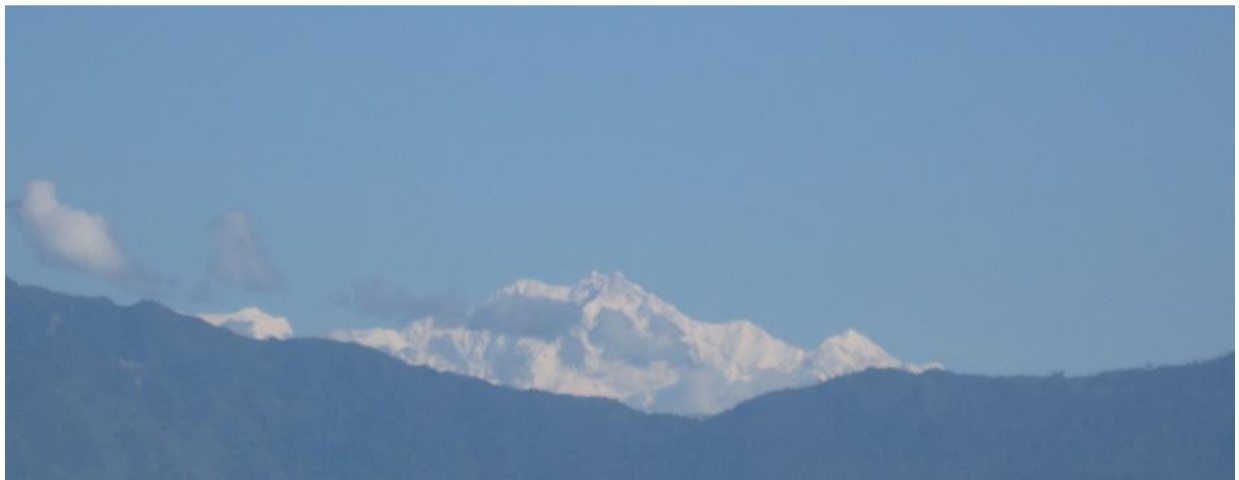


Indigenous Peoples of Sub-Himalayan North Bengal with Special Reference to the Rajbanshis



By

ASHOK DAS GUPTA

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PREFACE

This book is a compilation of different articles presented by the author in 17th World Congress of the IUAES (International Union of Anthropological and Ethnological Sciences) organized during August 5th-August 10th, 2013 at The University of Manchester, UK.

Out of thirteen papers for different sessions there, ten has been selected for this book with two extra articles.

Aim of this book is to focus North Bengal as a sub-Himalayan pocket, indigenous communities staying or migrated there, their mode of production, identity issues and political historicity upto the current age. Rajbanshi people and their agrarian life are the central through of this book.

However, this book lacks food list, traditional implements and indigenous knowledge charts. And it is more keen to investigate the indigenous contribution in geopolitical situation of this cross border territory. This geopolitics itself has become integral part of folk life here and hence contributes to the Indigenous Knowledge System developed gradually in the course of time.

Ashok Das Gupta

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Introductory Note

Rajbanshis are indigenous community of northern districts of West Bengal state of India and at the same time bear a caste identity. This identity could be subjected to mode of production, social issues, politico-economic aspects and religious matters. Gender perspective can also be highlighted. Hindu Rajbanshis are traditionally agrarian and believe in social mobility and behave like a huge social fold with some sort of historicity. They also belong to Scheduled Caste category.

West Bengal state of India

Like so many states of India, West Bengal is situated at the eastern region of the country and this was the western part of ancient Nation State Bengal that now no more exists. Eastern part of this Bengal region has now become an independent country of Bangladesh. Bengali as a nation in undivided Bengal was a Muslim majority (approximately 28 million Muslim as against 22 million Hindus just before partition of Bengal in 1947 AD when India and Pakistan got independence from colonial British Raj). Hindu dominated western portion was included as West Bengal state into the federal structure of India. Eastern portion, known so far as East Bengal with Muslim majority; became a part of Pakistan and was named as East Pakistan. After war for independence in 1971 with active support from Indian side, this region got independence as present form of Bangladesh. Bengalis are the majority of West Bengal population who speak in Bengali language along with several ethnic minorities talking in their own dialects and languages. Rajbanshi is an important out of them.

North Bengal and the Rajbanshis

In pre-colonial times, the regions which are now designated as North West Bangladesh and northern West Bengal were then collectively known as North Bengal. North West Bangladesh contains sixteen districts under two Divisions (namely, Rangpur and Rajshahi). On the other

hand, northern portion of West Bengal state in India contains a sum total of six districts. These six districts out of total nineteen districts of West Bengal state are still known as North Bengal which is an administrative zone. Its head-quarter is located at Jalpaiguri town. These six districts are known as Malda (also Maldah), South Dinajpur (or Dakshin Dinajpur), North Dinajpur (or Uttar Dinajpur), Darjeeling, Jalpaiguri and Cooch Behar. North Dinajpur and South Dinajpur districts have been divided in 1990s for administrative purpose. Before that they together were known as West Dinajpur district. Eastern portion of Dinajpur falls into Rangpur Division of North West Bangladesh. Similarly, Malda was also a part of Rajshahi. The rest three districts of this northern West Bengal and Rangpur Division of North West Bangladesh should have some interrelationship. According to Census 2001, Hindu Rajbansis are 129,904 in Darjeeling of total individual 1,609,172; in Jalpaiguri 811,567 out of 3,401,173; in Koch Bihar 972,803 out of 2,479,155; in Malda 144,158 out of 3,290,468; in North Dinajpur 405,140 out of 2,441,794 and in South Dinajpur, 224,988 out of 1,503,178 and there of total 14,724,940 of North Bengal, Rajbansis have a population of 2,688,560 (18%).

(Source: Barma, 2007)

Rajbanshis and their Indigenous Statehood of Koch Bihar

Time to time, indigenous statehoods emerged out into the region of North Bengal fallen in the Indo-Himalayan track. Koch Bihar was such a Kingdom. That had probably emerged out in initial decades of sixteenth century AD during the Mughal period in Indian history and continued as a princely state throughout the British period. Koch Bihar means the Kingdom of the Koch. Koch is a tribal community. This tribal community combined with the agrarian caste Rajbanshis to form the Koch-Rajbanshi identity. Koch Bihar had its center in present day Cooch Bihar district town of Cooch Behar district of North Bengal. The Royal Kingdom was sub-Himalayan in nature. Two Himalayan states namely Bhutan and Sikkim were its closest neighbours beneath the Tibet plateau that now belongs to China. Himalayan Kingdom

of Bhutan is still in its existence whereas Sikkim in 1975 has been incorporated into the Federal structure of India. Inclusion of Sikkim and independence of Bangladesh were both in the year of 1975 and 1971 respectively.

Jalpaiguri and Darjeeling districts were formed during the rule of British East India Company in Bengal and British Raj in South Asia (1757-1857 AD and 1857-1947 AD respectively). These two are frontier districts of North Bengal. Koch Bihar was definitely contributed in their occurrences. Included foothill and lower hill areas of Eastern Himalayan track from Bhutan and Sikkim into British India gave rise to these two districts. Branches of Koch Bihar dynasty had their strongholds in different pockets of Greater Koch Bihar spread over Jalpaiguri, Rangpur and Bodoland (Assam). The most important of them was of Jalpaiguri that also spread over Panchagarh, Thakurgaon and Nilphamari. These latter three have now been incorporated in North West Bangladesh. They have been fallen under the Rangpur Division. Rangpur proper was also influenced by the Koch Bihar Dynasty.

Jalpaiguri as a district in colonial British India received a major portion of Bhutan foothills. Jalpaiguri branch was very keen about maintaining this Rajganj area that is actually the Barindland and connects Jalpaiguri with Darjeeling district.

Akin to Chumbi valley of Tibet; Sikkim Himalayas, Darjeeling Hills and Bhutan Himalayas represented ancient trade routes. Darjeeling Hill region was added to Siliguri foothills and in this way; present-day Darjeeling district has got its shape. This district includes four administrative subdivisions- Darjeeling Sadar, Kurseong and Kalimpong being the hilly ones and Siliguri as the foothill territory. Of these four, Kalimpong falls to the left bank of Tista River and therefore has direct continuity with Jalpaiguri district. Actually, this river Tista separates Darjeeling district into Kalimpong and the rest. Kalimpong is associated with Chumbi valley, eastern and northern Sikkim, Bhutan, Bhutan foothills (Duars), Jalpaiguri, Rangpur, Cooch Behar and North East India; the rest of Darjeeling district is on the side of western Sikkim, Nepal Himalayas, Indo-Nepal foothills (Terai), Bihar state, Dinajpur-Rajshahi (Indo-Bangladesh) and mainland India. Darjeeling district therefore connects mainland India and North East India. Jalpaiguri and Coochbehar on Tista-Torsa basin are

often considered as parts of North East India. Often entire North Bengal region and Sikkim are considered as part of this North East India. Jalpaiguri is the traditional route to Bhutan, Kalimpong, Sikkim and Chumbi valley of Tibet. Darjeeling, Jalpaiguri and Cooch Behar districts again connect Nepal, Bhutan and Bangladesh together. Bangladesh maintains its four international check points with India through Malda, South Dinajpur, Jalpaiguri and Cooch Behar.

Koch Bihar dynasty was always with the British helping them into creation of Jalpaiguri and Darjeeling districts. British set up Darjeeling municipality on the Darjeeling hills that is now the district town. Koch Bihar dynasty and also other native collaborators established their institutions in this town. British established tea gardens and forest department in Siliguri foothills (Terai), Darjeeling hills and Bhutan foothills (Duars) so far included in Indian Territory. In this land of Duars-Terai-Hill, many townships with rururban features have been so far developed in consequence to establishment of tea estates by the British and other native collaborators. Many mainland people from different parts of South Asia, Indo-Nepal and British Bengal came to this Frontier Bengal, North East India, Indo-Myanmar (Indo-Burma) and Indo-Malayan territories.

Adivasi people mostly from Chhotonagpur plateau of Jharkhand-Odisha region and Central Indian territories were brought into the sub-Himalayan tea estates to work as tea garden labourers.

Hill people from Himalayan country of Nepal under the Gorkha Shahi were also introduced to the tea estates mostly situated at the Darjeeling hills and some other remote sub-Himalayan pockets. These people are locally known as Nepali. Foothill people of Indo-Nepal borderland also invaded into this place.

Rail connectivity and road construction were some other instances through which other peoples came into this included territory. Many Bengali castes and agrarian Rajbanshis also invaded into the area in search of agricultural land. Agrarian tribes (like Santal and Oraon) as well as different caste groups from Adivasi dominated regions of Central India-Jharkhand were further attracted to this land due to job and business opportunities as well as

availabilities of fertile land patches on Mechi-Mahananda, Teesta-Torsa and Kaljani-Raidak-Sankosh.

Similarly, many Nepalese people entered into these territories and became Indian nationals. Many Nepalese hill people from Nepal and Nepali folks of Darjeeling Hills and other Diasporas joined into Gorkha regiments of both British Indian Army and British Royal Army. Gorkha regiment still exists in Indian Army.

These diverse peoples belonging to so many Nepali ethnic groups (primarily Hindu, Buddhist and animist), Adivasi communities like Santal (also Santhal) and Oraon (also Kurkhu), Rajbanshis, Bengali and other caste groups have had one thing in common and that is their settled mode of agriculture. These groups severely marginalized the indigenous communities in this Bengal Frontier. Among them were Mech, Bodo, Rabha, Toto, Koch, Garo, Tamang (Subba) and Lepcha. These communities were mostly shifting cultivators and producing different goods from forest resources. In the colonial period, they gradually accepted settled agriculture and other alternative ways of living. However, Totos and Dukpas tried a lot to keep them distinct on the basis of their orange orchards in Jalpaiguri Duars. In Totopara and Bauxaduar of this Bhutan foothill, Toto and Dukpas have been successful to keep their cultural identity intact, however in other politico-economic and social issues they are highly influenced by Nepali and Bengali people. Lepcha, Subba, Tibetan and Bhutia of Darjeeling Himalayas and Sikkim have been included into the Gorkha-Nepali fold. Dhimals of Siliguri Terai are similarly included within Rajbanshi fold as they were the probable wooden plough suppliers to the Rajbanshi agriculturists.

In 1911 AD, when Bihar (along with present day Jharkhand) and Odisha (along with several princely states there) as well as North East India (along with tribal pockets and princely states there) were excluded from jurisdiction of Bengal Presidency; the Gorkhas also demanded for a Pranta Parishad (marginal state or excluded area or autonomy). Later, in the light of Gorkha nationhood, they again and again demanded for separate statehood of “Gorkhasthan” or Gorkhaland- a separate homeland for the Gorkha people in India. From 1980s onwards, Darjeeling Hill area was enjoying regional autonomy by means of Darjeeling Gorkha Hill

Council that has now been evolved into the Gorkhaland Territorial Administration.

Adivasis in Terai and Duars have relationship with both Nepalis and Bengalis. They know very well about tribal nature of the foothill. Majority of them however do not make the demand for any separate statehood, but they have also time to time asked for Sixth Schedule under Indian Constitution or other safeguards.

Indigenous communities/aborigines also demanded for separate council.

Nepalis used to remind Indian government, state government of West Bengal and localites of North Bengal, that how important they are for the sustained inclusion of this land into India and their dedication to this country. They become emotional and too sensitive to address the demand of Gorkhaland. Their proposed area of Gorkhaland includes not only Darjeeling hills and Diasporas in foothills; but whole of the included territory and hence creating communal tension and causing ethnic clashes. These people of borderland often behave like human shields against Sino-Tibetan activities. However, this is also a fact that microstates and republican confederacies in Indo-Himalayan region would be fatal to Indian security.

Kingdom of Koch Bihar was very crucial strategic location. From Tibeto-Kashmir, Tibeto-Himalayas, Indo-Himalayas, Indo-Nepal, Sikkim-Chumbi-Bhutan, Frontier Bengal and North Bengal; a continuity could be found up to North East India, Tibeto-Myanmar, Indo-Bangladesh, Indo-Malaya, Bay of Bengal, South East Asia and South China.

In short, we can say that North Bengal is the gateway to North East India falling within Tibeto-Burmese fold. Similar to Teesta-Torsa and Mahananda of North Bengal, we can see that how from North East India rivers like Brahmaputra, Barak and Feni enter into Bangladesh, join into Gangetic Delta and fall in the Bay of Bengal.

Koch Bihar state and Coochbehar town were built up after the collapse of Kamtapur Kingdom once centering on Gossanimari fort; its ruins still exist in Sitai-Dinhata region of Cooch Behar district. Ruins of Gossanimari and present-day CoochBehar district town are both located on the banks of different distributaries of Torsa River. Koch Bihar and Kamtapur were represented by the Female Deities namely Baro Devi and Kamteshwari. Kamtapur state was ruled by Khens who have now some concentrations in neighbouring Assam. Khens more

focused on Tibeto-Himalayas, whereas Koch-Rajbanshis were more prone to Indo-Bengal political structure.

Kamrup, Kamaru and Cuchhur (also Cucchur or Kachhar) were some sorts of indigenous state and statelet in North East India. Kamakhya was the Supreme Goddess for the state of Assam (then Kamrup).

In Indo-Bangladesh pockets, there are local dialects like Boro-Kamta and Kok-Borok on Barak-Surma basin.

On Feni entering into Bangladesh from North East India, there was another tradition of Tripura-Comilla (Indo-Bangladesh pocket like Dinajpur-Rajshahi and Koch Bihar).

All these Indo-Bangladeshi pockets along with the Chittagong coastline represent the Chittagong Division where one and only one sea port of Bangladesh Cox Bazar exists in. In remote past, that region was known as Harikel. Chittagong coastline was a part of Arakan coastal province now falling into Myanmar. This has another name as Rakhine. People of Rakhine were mostly Buddhists in pre-Islamic era and skilled for trade in seas and riverways. The three major Buddhist centers around India are Tibeto-Burmese belt, Arakan coast (Rakhine) and Sri Lanka.

Arakan was also treated as way to invade in South East Asia. Arab traders built up colonies there. Portuguese also established stronghold there along with the local associates like the Mog pirates. Portuguese or “Harmad” groups were constant threat to Indian interest in Bengal for quite a long time and Mughals had to fight back against them throughout the seventeenth century AD followed by Anglo-French wars and British occupancy over Bengal and Andhra coast- the first step of British Imperialism. Actually, East Bengal in most of the time in history remained independent or Nation State doing business with Arabs, Orient, magical world, Iran and the Christians. Till now this region is independent in the form of Bangladesh. Rohingya Muslims are Islamic elements in Rakhine and due to communal tension in 2012 there, these minorities are fleeing into Bangladesh and other South East Asian countries. Inclusion of Rajbanshis into the mainstream of Indian society is too much important in the

context of South Asia.

Agrarian Rajbanshis and Development of Caste System

Caste, any of the ranked, hereditary, endogamous social groups, often linked with occupation, that together constitute traditional societies in South Asia, particularly among Hindus in India. Although sometimes used to designate similar groups in other societies, the “caste system” is uniquely developed in Hindu societies (Encyclopedia Britannica, retrieved 12 January 2013). Strange to see that despite of all the trade opportunities with present-day North East India, Bhutan, Sikkim, parts of Bangladesh and the farthest Myanmar and Tibet; Rajbanshis are still attached to agriculture. Rajbanshis are also present in North East India, especially the Bodoland Autonomous Territory of Assam state there. They are also there in eastern pockets of Bihar and Jhapa district of Nepal, which depicts the Indo-Nepal border. Eastern pockets of Bihar are Thakurganj, Kishanganj and Purnea districts of formerly greater Purnia region of Bihar. Actually, the Mahananda river valley from Darjeeling Himalayas has its basin in Siliguri Terai, greater Purnea, Malda district and Rajshahi Division of Bangladesh, besides the Jhapa district of Nepal Terai. These Rajbanshis within this Bengal-Bihar borderland were outside the direct influence of Koch Bihar Kingdom. So, it is quite clear that Rajbanshis have their distribution along the river flows of Mahananda and Teesta-Torsa towards Ganges and Brahmaputra respectively. I have found that the Rajbanshis of Mechi-Mahananda region does not hesitate to maintain a piggery, but that is lacking in Teesta-Torsha. Mechi-Mahananda basin was a prime location for supply of good quality of wooden plough throughout undivided North Bengal and Matigara weekly market was famous for that. Liquor is a common beverage for Rajbanshi folks, but that was reached to the level of an industry in Matigara area. Mechi-Mahananda region outside Koch Bihar Kingdom in pre-colonial time was ruled by Purnea estate. Many Muslim, Vaishnava and Bihari pockets were developed there in this region centering Matigara. Vaishnava herdsmen Ghosh also have a Diaspora here. Siliguri Terai was a forestland rather than an agrarian belt. Dhimals there have Mallick surname, and the Rajbanshis are commonly known as Sinha rather than being addressed by

Roy (mostly used in Jalpaiguri) and Barman (in CoochBehar). Rumours are there that the rivers in Mechi-Mahananda basin brought in gold sand with them. Communities like Hari, Dom and Chandal now belonging to the Scheduled Caste category also lived in the place. Kaivārtha people were also staying there. They served as both agriculturists and boatmen. Namasudra community has a better understanding with the Rajbanshis. Rajbanshis and Namasudras are the biggest Scheduled Caste groups in West Bengal. Majority of them in West Bengal belong to Hindu religion. Namasudras were once treated as shoemakers/ cobbler and marshlanders alongside the Rajbanshi (or pro-Rajbanshi) forest dwellers. Now, both of these are the backbone of agricultural activities of North Bengal within Hindu fold. They have many things in common. Many Namasudras along with different Hindu caste groups have entered in North Bengal from Bangladesh in order to defend themselves from Muslim dominance there. Economic opportunities also attracted many Bangladeshi people in India and they are legally and illegally entering into India. Major points of such trespassing were the unprotected river banks at Indo-Bangladesh borderlands. Border Security Forces have been deployed in these borderlands and other disputed Indo-Bangladesh enclaves along CoochBehar-Rangpur border areas. Tobacco, wheat, maize, pulses, vegetables, potato, and even small-scale tea gardens have been provided alternative agro-economy values that might resist the local people there previously cultivating paddy and jute only from getting indulged into any anti-national activity. Mechi River is said to be related to the ontology of Mech community. It also demarks the international boundary between Siliguri Terai and Nepal Terai. These rivers are now sites for boulder and sand collection used in various construction purposes. Many of the rivers in Jalpaiguri Duars are used for the similar purpose. Dolomite and poor quality coal are also found in lower hill tracks of Darjeeling and Bhutan.

This entire territory of sub-Himalayan region was often treated as the Kirat land. Kirats were certainly pre-agricultural people depending on forest resources. Rajbanshis of Jalpaiguri districts might contain some Kirat features and treated as Deshi or Desia (meaning indigenous). They mostly use Roy as their common.

Koch-Rajbanshi combination in Cooch Behar district is using Barman as their surname.

Barman is the common title for addressing royal designations in North East India and several pockets of pre-Islamic Bangladesh territories. Barman title was common among Royal Dynasties in North India, Indian Peninsula, Extreme South, Sri Lanka and South East Asia.

In the river beds of Cooch Behar, watermelon is being grown in large amount as never before. Areca and betel nut are associated with identity of the Rajbanshis. They also nurture bamboo bush at highlands, cane and sugar cane in marshes, grazing land in sandy river beds as well as fern vegetation in slopes. Small rivers full of local fishes and crabs and shrimps could also be noticed. Silk cotton, wood yielding shorea and teak, catechu, and mulberry plants with silk worms, taro and yam in pond side, water hyacinth and water lilies in pool areas, mushroom and lichens in damp jungles, wild potato and radish as well as ginger-turmeric in wastelands and vegetation of different gourds including potol signify the commonness between Koch Bihar state and Assam both falling on the Indo-Malayan flora. Rajbanshis also pray to some sorts of dummy Gods that they call Mashan who protect them from diseases, death of child and mother or any pregnant women, epidemics and natural calamities. Women could perform rain dance. This belief in Mashan prevails from Tibeto-Himalayan region to distant Indonesia. They could pray to different forms of Kali and Snake Goddess Bishahari or Mashan. They also pray to jiga tree and trees of other types. They offer blood sacrifice to different forms of Kali the mother Goddess. Females could perform rain dance or pray for good harvest. They might give marriage to frog prince with the princess for quick raining. Rajbanshis are fond of drama, music, religious ceremonies, river worship, forest worship, worship of fertility cults like Bhandani, songs, fairs and social gatherings.

Again there are impacts of North Indian Gangetic valley and Indo-Nepal sub-Himalayas also. An associated caste group Chunia prepares lime from the shells of mollusk. Mango is a common in both the places. Tobacco, wheat, cowpea and maize are some other instances. Various woody shrubs used for fuel purpose, sunflower, rapeseeds, lentils, pulses, dryland medicinal herbs, date, plum, jute seed propagation, silk, and tobacco are characteristic features of Deccan Plateau. Actually, we could see that Teesta-Torsa and Mahananda are two distinct river courses separated from each other by a ridge or watershed known as Barindland

or Varendrabhum. This is a highland with hard soil texture mainly covered with forest. This upland contains so many varieties of bamboo and ferns and mushrooms. This is a right place for wheat, mulberry, teak, and other plantations. Indigenous Rajbanshis here know carpentry very well. This upland is also a Diaspora of Varendri Brahmans of Hindu social fold. They often address themselves as early as Kashmiri Brahmanism or establishment of Aryan occupancy at distant Brahmaputra valley in the shape of Pragyotishpur. They prefer to pray to female deities and other fertility cults. They in Tibeto-Himalayas and sub-Himalayan belts are as ancient as the assemblage of republic confederacies there. We could exemplify by pointing out ancient Mithila, Koshal, Malla, and Panchala. These pockets of even pre-Vedic Aryans later have closed connectivity with Vedic culture of North India (Aryavarta). So many social developments and alternatives like Buddhism were developed in due course. Various post-Vedic elements have entered into South Asia from time to time like Indo-Greeks, Indo-Scythians, Kushans, Tocharians, Gujjars, Hapthelites, Satraps, Avars, Rajputs, Turk-Afghans and Mughals. They brought the concepts of Shahanoshahi and Padshahi that influenced Buddhist, Hindu and Muslim rulers of mainland Indo-Pakistan region and even at the Gorkha Shahi of Nepal. Other Nation States, statelets and pre-state elements have been directly or indirectly influenced by these Shahi traditions. Villages however thrived on agriculture and caste institution on the basis of Jajmani service exchange system between family heads generation after generation. But the Vedic culture has become localized and through Puranas interacted with folk traditions and other pre-Vedic values. Rajbanshis are not the exception. This Rajbanshi name was mentioned in Kalikapuran and Yoginitantra also. Rajbanshis in their own traditional society have no such Brahman, but Adhikari performing various religious ceremonies. This type of socio-religious rank is also addressed by Namasudra and Kaivarttha people of rural Bengal. These people were the ancient rulers of these lands. Rajbanshi literally means 'of the Royal Origin'. From the myth of Parasurama, we have come to know that these Kshatriyas or ruling categories of non-Brahminical type were excluded from the mainstream and therefore expelled (Vratya or Bratya). These groups are spread throughout Bengal in the names of Pundra Kshatriya, Bratya Kshatriya, Ugra Kshatriya,

Borgo Kshatriya, etc. They are mostly agriculturists. They generally bear the Kashyapa clan that symbolizes their link up with pre-Vedic Aryans and Kashmiri or such other type of Brahmanism as the probable alternative from the Vedic attacks. Varendri Brahmans were probably the earliest Aryan settlers of North Bengal more concentrated in the ridge or watershed areas. Rajbanshis of these highlands prefer to use Sarkar as their surname. Sarkar literally means 'the Government'. This title is common among Rajbanshi Hindus, non-Rajbanshi Hindus and even non-Hindus like the local Muslims. These Rajbanshis were locally known as Dhokras still lacking from Census of India. Dhokras are good with making jute mats and carpets from jute fibers collected from neighbouring lowland areas. So many rain-fed rivers have been originated from this watershed and meet into either of Mahananda and Teesta. This highland is distributed into Indo-Bangladesh and therefore attaining a transnational nature. This geographical distribution is composed of catchment and marshland areas. Marshlands yield local paddy varieties, jute, and cane. From cane varieties like gour and pundra, these places were once known as Gourvanga (Gour Bengal) or Pundrabardhan (also Pundravardhana). Tulaipanji is the best rice variety of local type of entire North Bengal that grows in this marshland. These rivers and streams are also known for small fishes of nadiali type. Marshland areas again have various fishing ponds with pond fish varieties. Big rivers and lowland paddy fields held for fish-cum-paddy cultivation in the monsoons have other fish combinations. Various grasses often with medicinal importance grow in this area. If Barindland is the catchment area, then Rajshahi would be marshland. Dinajpur after the name of King Danujamardan Deva was emerged out for a very short time during the Muslim rule in Bengal at this Barindland. Therefore, Barindland is now treated as Dinajpur. However, its interior portions in Bangladesh are now in Rangpur Division as well as Indian parts are sporadically spread over Mechi-Mahananda basin of Siliguri Terai, Rajganj block of Jalpaiguri district, Mekhliganj subdivision on Teesta River at Cooch Behar district. Panchagarh and Thakurgaon districts of Rangpur excluded from Jalpaiguri during partition are entirely extension of Rajganj block. "The Inner-fort" or Bhitargarh fort of this area has fallen into Panchagarh which is an important archeological site. Rajganj-Panchagarh-

Thakurgaon upland is the origin of three important rain fed rivers namely Karatoa, Purnabhaba and Atrai. These rivers are considered sacred and symbol of Aryanization of this region. These rivers nourish the entire Dinajpur and then create marshland Chhalan beel in the Rajshahi.

This Dinajpur-Rajshahi continuity at North Bengal was primarily represented by West Dinajpur and Malda. Portion of West Dinajpur where Purnabhaba-Atrai is passing by has been reconstructed as South Dinajpur district containing uplands, forests, rain fed rivers, canals and big water bodies. Remaining portion of West Dinajpur is known so far as North Dinajpur district. This district is the actual Bengal-Bihar borderline. While the Atrai-Purnabhaba-Karatoa flows towards Teesta, Brahmaputra mouth and Gangetic delta; North Dinajpur district is watered by another set of rivers like Nagor, Kulik, Gamor and Tangan that flows into Mahananda and therefore part of Gangetic plain. Local people say that the Mahananda water way was once regulated by Tibeto-Sikkim, Mech community, Kaivarthas and Varendri groups. Mechi-Mahananda basin, Mahananda-Nagor basin and Mahananda-Ganges floodland have now equally shared by Bengal and Bihar considering North Bengal and greater Purnea. Indigenous communities here are distributed among Suryapuria, Pulia Rajbanshis, Kaivarthas, Hari and local Muslim settlements.

North Dinajpur is famous for its brinjals. This region was once famous for Tangan horse breed that no more exist. Jute carpets and handicrafts of bamboo and wooden pieces are characteristic feature to this region. These are mostly performed by Rajbanshi womenfolk. Vapa rice cake is such identity of Rajbanshi womenfolk of Rajganj block next to sacred Baikunthapur forest. Areca, piggery, jute mattress, cattle herds, poultry, fern collection, horticulture and alcoholic beverages from rice ball are distinct features of Rajbanshi womenfolk of Siliguri Terai. Dhokra mattresses, duckery, fishing, betel, areca, kasai fragrant, use of medicinal weeds and wetland grasses, date liquor as well as preparation of pickles are features of Rajbanshi women of South Dinajpur. Gottary, Sheep, floriculture, ornamental fish propagation, and vegetables are features of Rajbanshi women activities of Jalpaiguri

highlands. Mekhla handloom, tobacco, natural dyes and silk worms were once distinct features of Mekhliganj subdivision highland of Cooch Behar. Chopra block of North Dinajpur, Siliguri subdivision, Rajganj block of Jalpaiguri and Mekhliganj subdivision of Cooch Behar are also characterized by pineapple and small scale tea garden. South Dinajpur is characterized by its chili and sunflower. Rajganj-Jalpaiguri area is featured by futki bushes used in fuel and local pulses like Thakurkalai. These North Bengal pockets of the watershed along with its heartland in North West Bangladesh (Rangpur and Rajshahi Divisions) were attacked from time to time. Dhokra also signifies a prickly shrub that was used for making barricades. Malda has relatively lower number of Hindu Rajbanshis. It was once a part of Rajshahi marshland. Mahananda-Ganges creates a floodland here which is good for paddy and jute. It has some highland also which is famous for mangoes and silk as against the potato, yam and so many vegetables of Barindland-Dinajpur. Further, Rajbanshi women of Jalpaiguri and Cooch Behar used to make fish balls, utilize taro and banana in various ways, propagate arum in kitchen garden, prepare delicate foods from leafy vegetables like dhenki, dhamsi, oshni, lafa, bathua, khuria kanta and so many others.

These are some proofs that how Rajbanshi people are not together any single community, but a huge social fold containing different ethnic communities with so many tribal and non-tribal affiliations. They could even possess different modes of production depending on local ecosystem a bit different in Mahananda plains and Teesta-Torsa areas. That would even generate different lines of polity, economy and even religious values however intensively overlapped.

Again going back to the indigenous state of Koch Bihar, we could mark this for a dynasty continued for four hundred years (mid 16th to mid 20th century AD). Its wish to establish control over buffer regions like foothills and lower hills of Sikkim and Bhutan through mutual negotiation, emphasis on settled cultivation, incorporation of other shifting cultivators and pre-agrarian communities into the agrarian Rajbanshi fold, friendly ties with Indian government in form of Mughals and British Raj, communicating between mainland and North East India, control over river trade routes from Tibeto-Himalayan region to mouths-firths-

delta of present-day Bangladesh have made this statehood so much exclusive to South Asia's regional interest. This princely state after independence wished to be incorporated into Indian federal structure, did not oppose partition of Jalpaiguri district into India and North West Bangladesh of present day, accepted Hindu minorities immigrating from Rangpur and Rajshahi and even further lower floodlands as an immediate consequence of partition of Bengal, and decided to become a part of West Bengal state. However, there were also demands of remaining a separate state or merging into Assam state of North East India. Koch Bihar dynasty has marital relationship with Royal Rajput family of Jaipur Rajasthan and also Brahmo Society centering on Kolkata (Calcutta). Brahmo Society was a major cluster of Bengali intellectuals as a direct impact of westernization due to the British and other European merchants. Many members of big landholders, landlords, native bankers, tradesmen, and strangers from older cities moved to Calcutta in search of good hope and felt the need of socio-religious reformations in order to avail economic comfort and political opportunities. Some bourgeoisie and middle class groups emerged in Calcutta with new thoughts. Brahmo Society was one of those who trusted on Hindu Vedanta and decided to reveal inner qualities of Hindu religion to the Western people who thought this religion being highly superstitious, caste oriented, closed and unpractical. Brahmos claimed that inner doctrine of this religion lies in every religion of the world. It permits pre-Vedic, Vedic, and post-Vedic values ranging from animism to Vaishnavism-Islam-Christianity. There are so many fertility cults and caste institution as a division of labour for the agrarian folks. There are ancient magico-religious practices symbolizing our fear, faith and belief. And at the same time there is provision of thinking beyond the caste, loving all the creatures, every human being sons and daughters of the Supreme God who is the eternal truth, always there, present everywhere, actually without any symbol or figure, and the only one entity. People have their good choice to configure and become polytheist. As people could also divide the society into so many divisions of labour on the basis of ethnicity, class, estate, race, slavery, power and so many things and even making this division hierarchical putting immense pressure on the womenfolk (the lesser gender?) and vulnerable segments of the society. But, if the society is

provided with alternatives to a situation only depending on agriculture and immense natural resources with a provision of preservation (feedback and natural resource management); then discriminations in the society would be automatically be reduced. Again, education and especially female education were timely demand. Widow Remarriage, abolition of burning alive of the Sati (Suttee), restriction on child marriage, protest against dowry, legal provision for property descendance to the female members were also issues raised by Brahmo Society. These things could not be the solution to the curse of black widow, witchcraft, black magic, immoral relationship, and means for preventing invasion of the outsider elements into a society who could hamper the social system.

Rai Saheb Panchanan Barma of Khalisamari village of Mathabhanga subdivision of Coochbehar district was an eminent personality of the entire Rajbanshi society who tried his best for status mobilization of the Rajbanshi society. He was in contact with the Hindu pilgrim center Kashi or Banaras (Varanasi) at the bank of Ganges River in North India. Due to his immense efforts, Rajbanshis have been included within the Varna system with Kshattriya status. They are no longer Bratya or excluded in nature. They are influenced highly by Vaishnava and Sufi Islam. They have also been influenced by Ramkrishna Mission, Bharat Sevashram Sangha, Satsang Vihar, Iskcon and Anandamargi organizations. At home they still practice worship of Mother Goddesses. Tribal groups closer to this Rajbanshis behave like dominant communities in pockets. They do not shed off ritual of blood sacrifice, magico-religious performances, ethno-medicinal practices, indigenous weather forecasting techniques, and the non-Brahminical Adhikari sect. They still maintain their Kashyapa clan name and good terms with Varendri Brahmans. However, with time the Brahmo Samaj influence has considerably reduced. Yearly Bhandani festival in spring could be linked up with monsoon paddy harvest. They still admire to Kamakhya, Kamteshwari and Baro Devi and in this way they express their historicity also. The marital relationship with Rajput Royal dynasty of Jaipur, their mention in the Puranas and sacred rivers in Vedic texts are also reasons for self-resilience. Being Vaishnava, they could behave like Dominant Caste. Vaishnava monks are however not cremated, but buried in underground chambers in special

posture. Some found lost traces of mummification. But such a guess is too imaginary to conclude anything. They have also Kirat affiliation. By means of Koch, they might have Bodo influence. Their village system was on the basis of joint extended families with a bulk of labourforce and cattle herds that used to cultivate a huge land called jote. Village was regulated by elders and the head. They should have influence of Mon people. Some Rajbanshis have Mondal title. Some have Das title like many of the Namasudras and Kaivarthas. Rivers from Bhutan into Jalpaiguri-CoochBehar and even in Siliguri Terai have specific locations by the names like Bhotbari, Bhotpatti and Bhutnir Ghat. These indicate once existence of ancient alternative parts of Silk Route from Tibeto-Bhutanese territory into Frontier North Bengal that finally reaches to Bengal, Arakan and Bay of Bengal. Such routes should be there throughout Himalayan passes from Kashmir to North East India as well as South East Asia opening into Bay of Bengal, Andaman Sea and Arabian Sea. Rajbanshis, Bengalis and Varendri Brahmins might have this Bhati influence in-depth. Majority of Rajbanshis are agriculturists with some additional works like carpentry, handicraft making, dye yielding, cloth making and livestock management. During India's independence movement they were influenced by Mahatma Gandhi, Netaji Subhash Chandra Bose and armed rebellion as well. A major section of them support land reformation and power decentralization at village level. They are always in favour of rural banking, nationalized bank, self-help groups and micro-credit. Rajbanshis, Koch-Rajbanshis and Pulias are included within Scheduled Caste category. Caste here is nothing but sort of division of labour by means of which Rajbanshis interact with other service groups like Jugi (related to clothing industry), Chinia (lime producer), Teli (oil extractor), Goswami (Vaishnava priest), Adhikari (non-Brahminical priest), Sarkar (ruling category), Bhattacharjee/ Sanyal/ Bagchi (Brahman priest), Ghosh (cattle breeders and sweet makers), Majumdar (ruling category), Mondal (agriculturists), Mahato (agriculturists), Mallick (agriculturists), Modak (sweet maker), Pramanik (hair dresser/ barber), Tanti (making clothes with jute fiber), Hari (thatchers), Chamar (butcher and shoe maker), Jele (fishermen), Sutradhar (carpenter), Kumor (pottar like Pal), Kamar (iron smith), Kolita (Assamese caste), Khen (oil extractor), Mali (agriculturist

cum labourer), Badia (snake healer and ethno-toxicants) and so forth. These castes basically belonging to Bengali or Assamese, but could avail a dual identity shared with Rajbanshis and speak in local dialects. Rajbanshis of North Bengal have several dialects and they say that these are originated from their own language Kamtapuri or Rajbanshi language so much closer to Bengali, Assamese and even Maithili-Nepali speech. Panchanan Barma was opinion of that Rajbanshi and Koch were two different groups. Rajbanshis were excluded ruling category and agrarian castes. Koch is a tribal community with Mongoloid origin. However, both of them overlapped in such a way that now it is nearly impossible to separate them. In earlier census, efforts were made to separate them, but culturally they are so close.

We could explain this in following manner. Mythical kingdom of Pundrabardhana was situated on Pundranagara city that had immense influence on Pundra (North Bengal), Vanga (Bengal Delta or East Bengal along with Sundarban and far flung Harikel), Sumbhra (heartland of West Bengal), Anga (Rajmahal area of Chhotonagpur plateau or Jharkhand) and Kalinga (Odisha, especially its coastal region and Chilika lake mangrove). Historically, the pre-Vedic urbanite and rulers of Pundrabardhana (namely, the Pundra-Kshattriyas) have been highly marginalized to interior regions and lower status quo of excluded type (Bratya Kshattriya). One such important pocket has been Jalpaiguri-CoochBehar. There they probably mixed up with Kirat, Koch, Mech, Kaivarthas, Pal-Kaivarthas, Kamboja-Palas, Puliyas, and other tribal groups, but praised for their technology of settled cultivation. Pundras were probably Austro Dravidians like Andhra, Savara and Pulinda. Again, Kirats were Mongoloid in racial features. But, both pre-Vedic stalks worshiped Lord Shiva in various forms. We can also see that this Jalpaiguri area was related to Jalpesh temple, Indo-Greek symbol of olive ("Jalpai"), pro-Kushan king Jalpa, Jalpaiguri town, and Jelep-la mountain pass connecting Sikkim, Bhutan and Chumbi valley of Tibet. Actually, this Jalpesh is a stone symbol of Lord Shiva. Some say more to this that the stone was highly precious, symbol of Pundrabardhana civilization, and a falling star; and brought into this place from the city of Pundranagara when those pre-Vedic rulers were uprooted by Vedic Brahmans (symbolizing Parasurama), took shelter into this Kirata or Koch land, and accepted alternative Brahmanism, Kashyapa clan

and pre-Vedic Aryan descent of sub-Himalayan track beneath Tibeto-Himalayan belt. Many such subterranean megaliths as the symbol of Lord Shiva are accompanied with this cult of Jalpesh. These are Jatileshtar at Hushlurdanga under Churabhandar village area of the same Mainaguri block and Jateshtar into Falakata block. Whatever it might be, Jalpesh temple is the symbol of unity in diversity of Jalpaiguri district. Many people regarded this district as a miniature of India. Koch people mark the Sankosh River bordering North Bengal and Assam as their probable origin. Sankosh is another name of Lord Shiva.

Both Bengali and Rajbanshi are primarily Hindus with some portion belonging to religious minority. Rajbanshis converted into Islam are known as Nashya Saikh or North Bengal Muslim. A few portions are again Christianized. Rajbanshis are primarily settled cultivators and have developed the caste system. Rajbanshis are talking into various local dialects in North Bengal. Bengali speaking people are also the majority in Muslim dominated country of Bangladesh. They along with other ethnic and religious minorities are together treated as Bangladeshi. A few Hindu Rajbanshis also exist in Rangpur region of Bangladesh. May there be population who belong to the Muslim majority of Rangpur and but are talking locally into Rangpuria dialect that also these Rajbanshis use. Other Hindu caste minority there also use the same dialect. These Nashya Saikhs also behaved like a caste. However, Islam does not approve the caste system and both Islam and Vaishnavism following the era of Buddhism are always against religious sanction to the caste. Caste is however present there in some form in order to facilitate the division of labour. Islam, Buddhism, Christianity and Vaishnavism always stand in favour of alternative options to agriculture. As a result of this, they focus much on trade or estate. Trade and estate are alternatively directed towards slavery, serf, employment, and class system. Agrarian mode of production of the Rajbanshis compelled them to become a caste. They are not shifting cultivators or estate holders or business personalities in a wider form. But now in this era of globalization, they are increasingly attracted towards urban life. Some Rajbanshis even set up small scale tea plantations that they never did before. They are further attracted towards organic cultivation, alternative crops, crop rotation, mixed cropping, fallowing in some cases, nitrogen fixation, seed production,

nursery, complex agriculture and cash crops. They are demanding for easy transportation, cold storage, and wider accessibility, food processing industry, subsidy, information and right rice list evaluated on regular basis.

Impact of Caste System on Rajbanshis

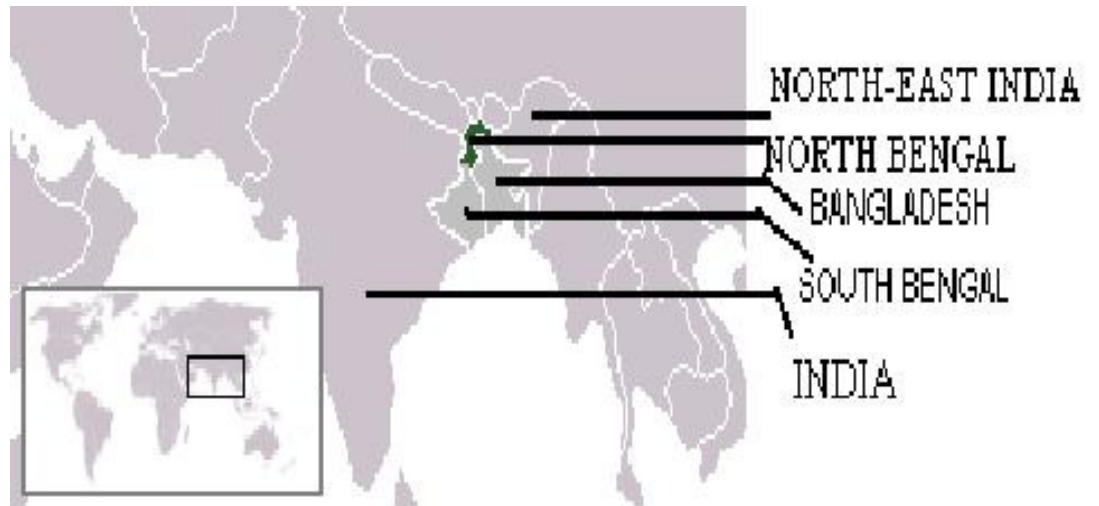
Bureaucracy, class formation and caste-class-power nexus definitely exist among these Rajbanshis; some sections of this society are feeling deprived as many ethnic and religious minorities are feeling today. Many of them are demanding for separate statehood from a sense of deprivation in post-Soviet era. They are not free from the increasing economic discrimination and rat race happening in India. People are fleeing into the urban, per-urban, sub-urban and rururban areas. They are talking in favour of sustainable development and inclusive growth. They are simple people and want a peoples' friendly government. They are now putting the highest emphasis on their culture, identity, self-reliance, and education. Caste system is still the primmest feature of this heterogeneous social fold with its diverse history. Caste system is definitely a kind of social inclusion for them. But that does not happen in all the cases. Caste system often serves for social exclusion.

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MAP1: LOCATION OF NORTH BENGAL IN THE CONTEXT OF INDIA AND THE WORLD



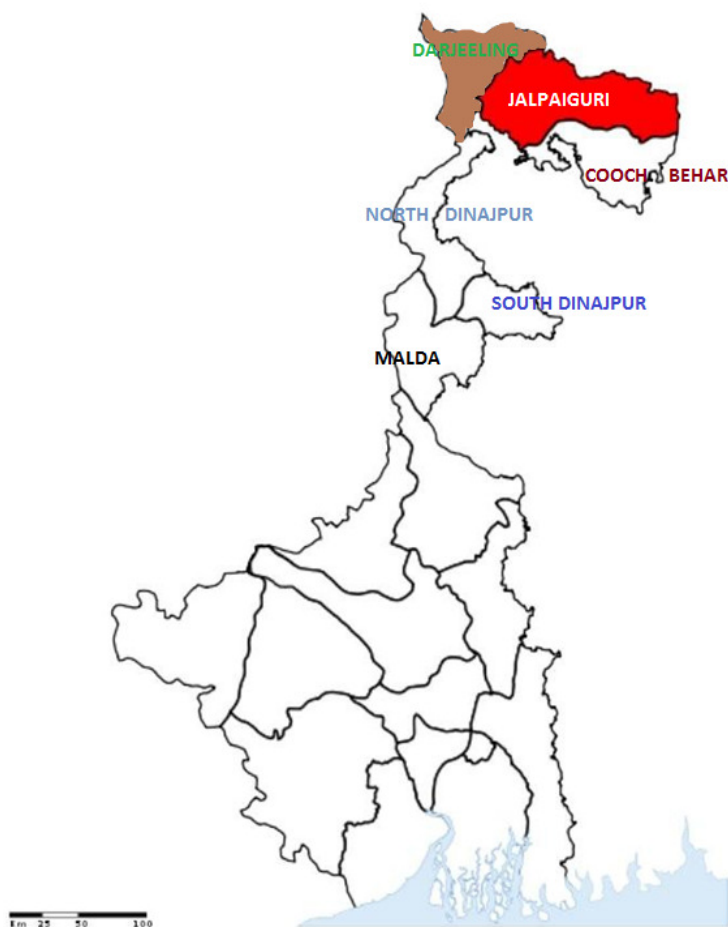
MAP 2: MAP OF INDIA INCLUDING WEST BENGAL

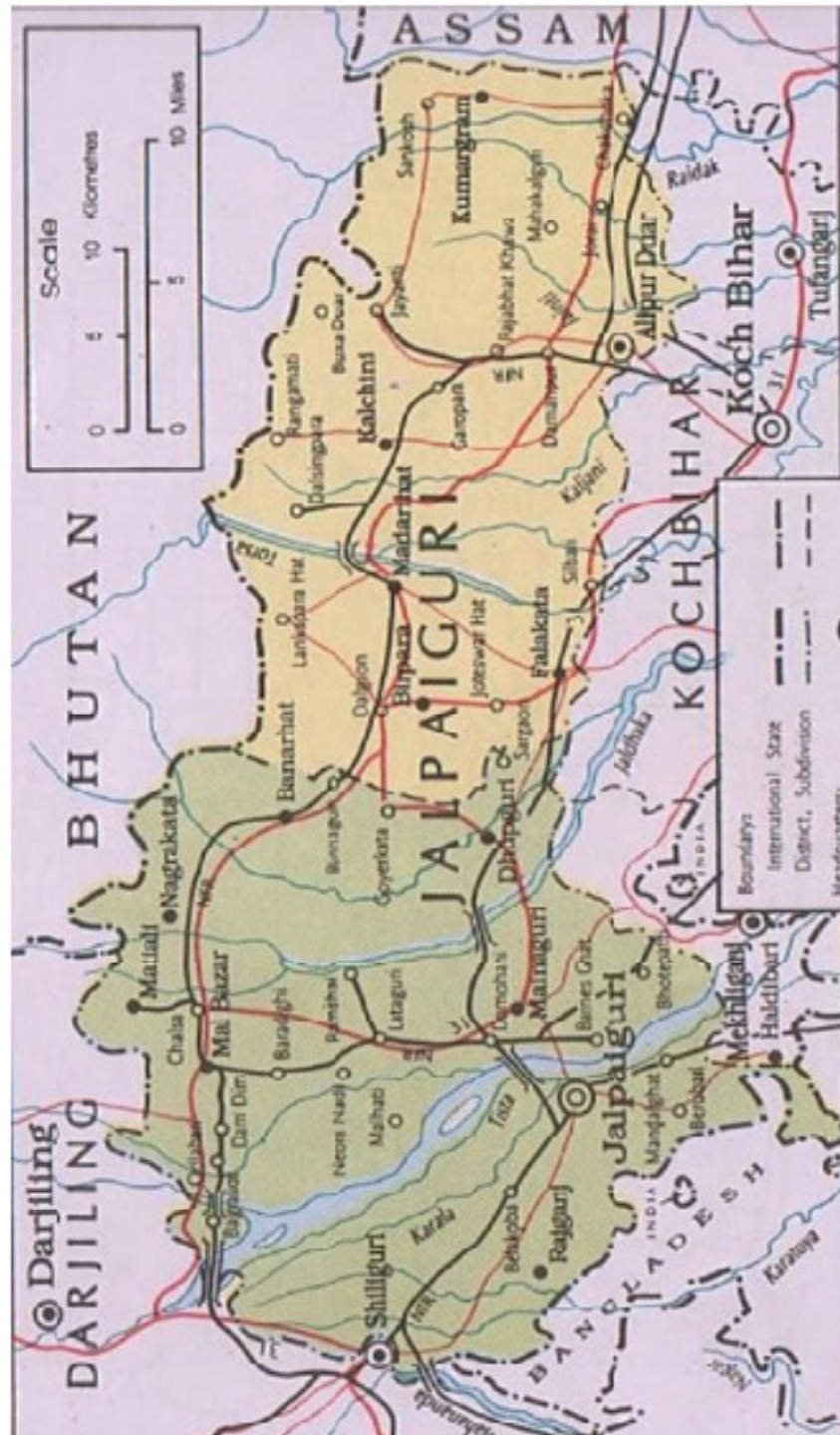


MAP 3: MAP OF WEST BENGAL



MAP 4: SIX DISTRICTS OF NORTH BENGAL (NORTHERN WEST BENGAL)

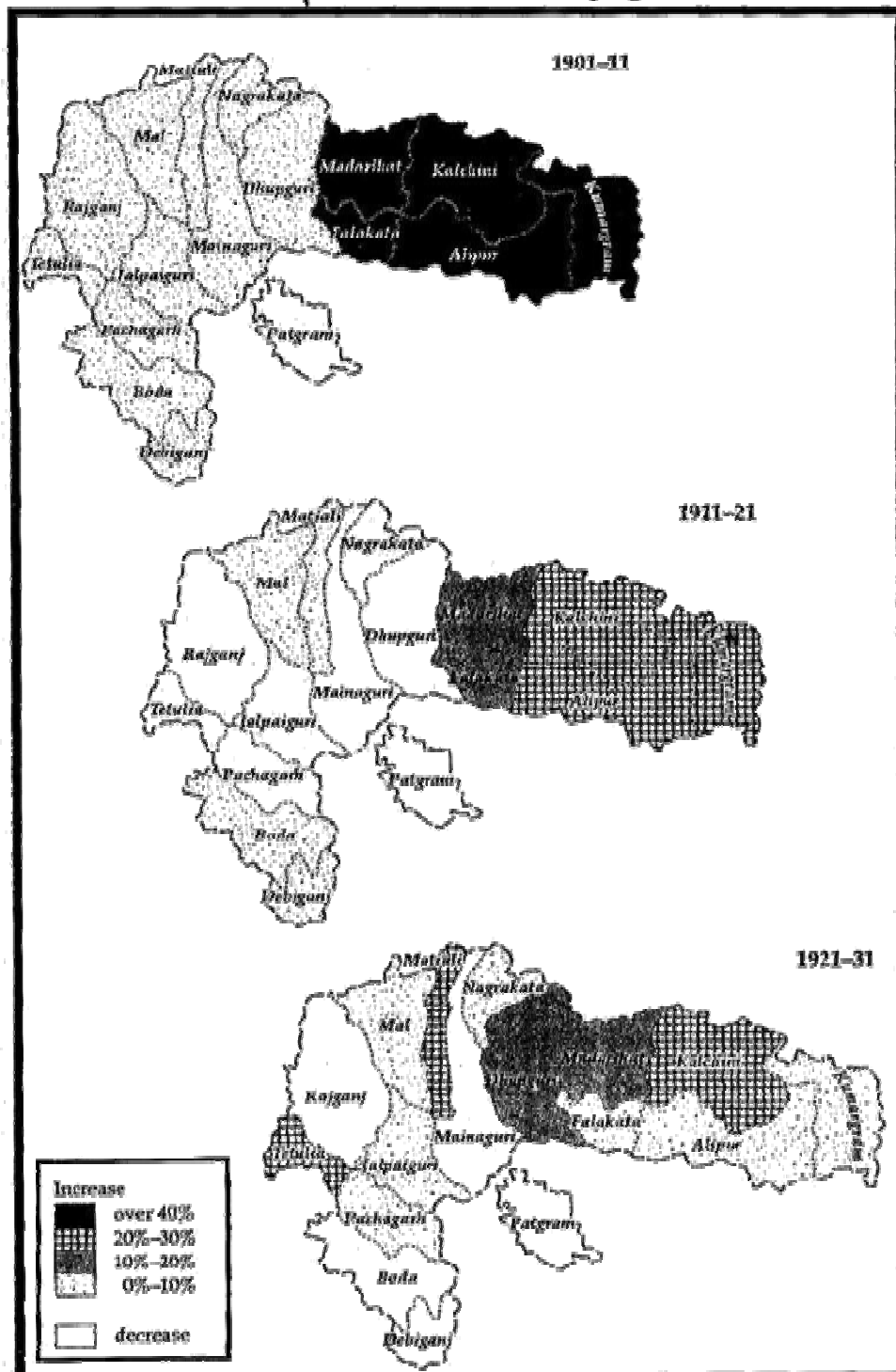




MAP 5: JALPAIGURI SADAR AND ALIPURDUAR SUBDIVISIONS OF JALPAIGURI DISTRICT

MAP 6: POPULATION INCREASE/DECREASE IN JAPAIGURI (UNDIVIDED) IN COLONIAL PERIOD

Foundation of the Colonial Structure in Jalpaiguri I.E. Duars.



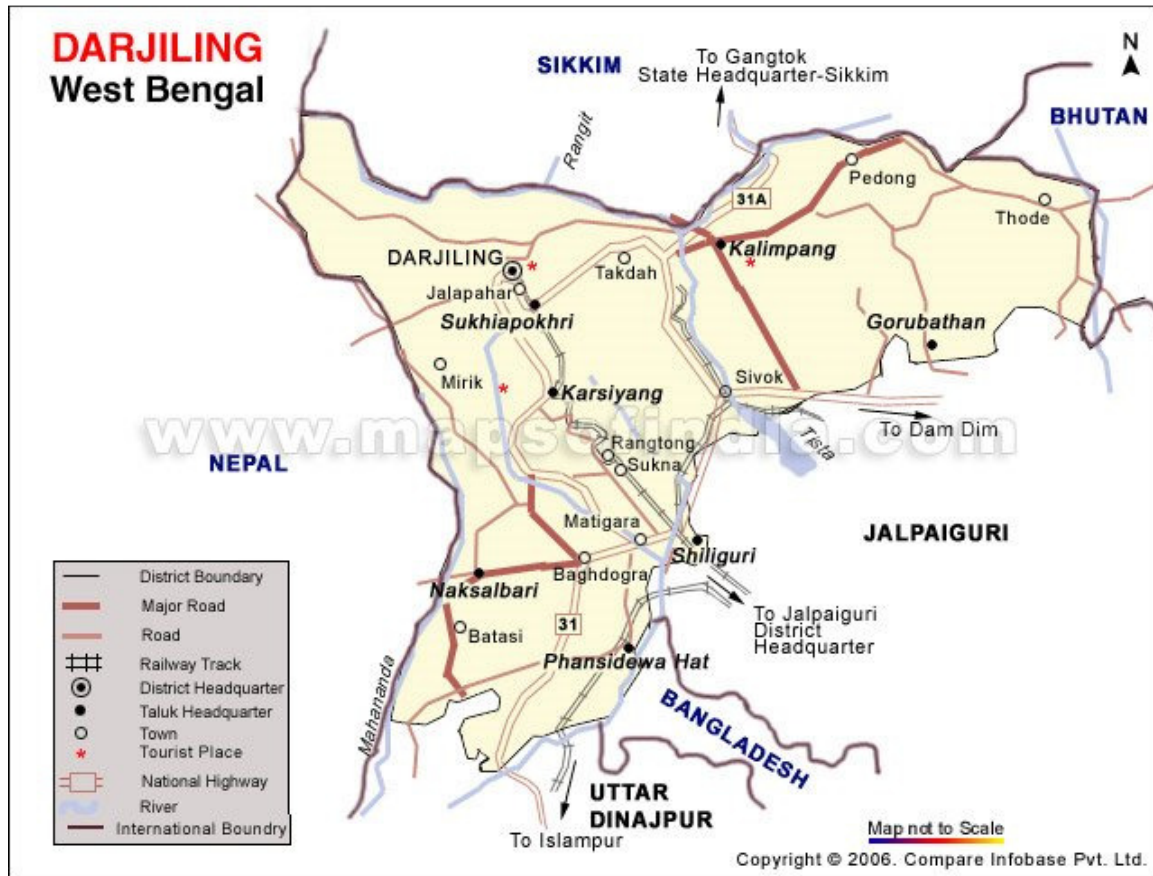
Intercensal population growth in Jalpaiguri Thanass; 1901-1931.

MAP 7: DARJEELING DISTRICT IN THE STATE OF WEST BENGAL



MAP 8: DARJEELING DISTRICT IN INDIA



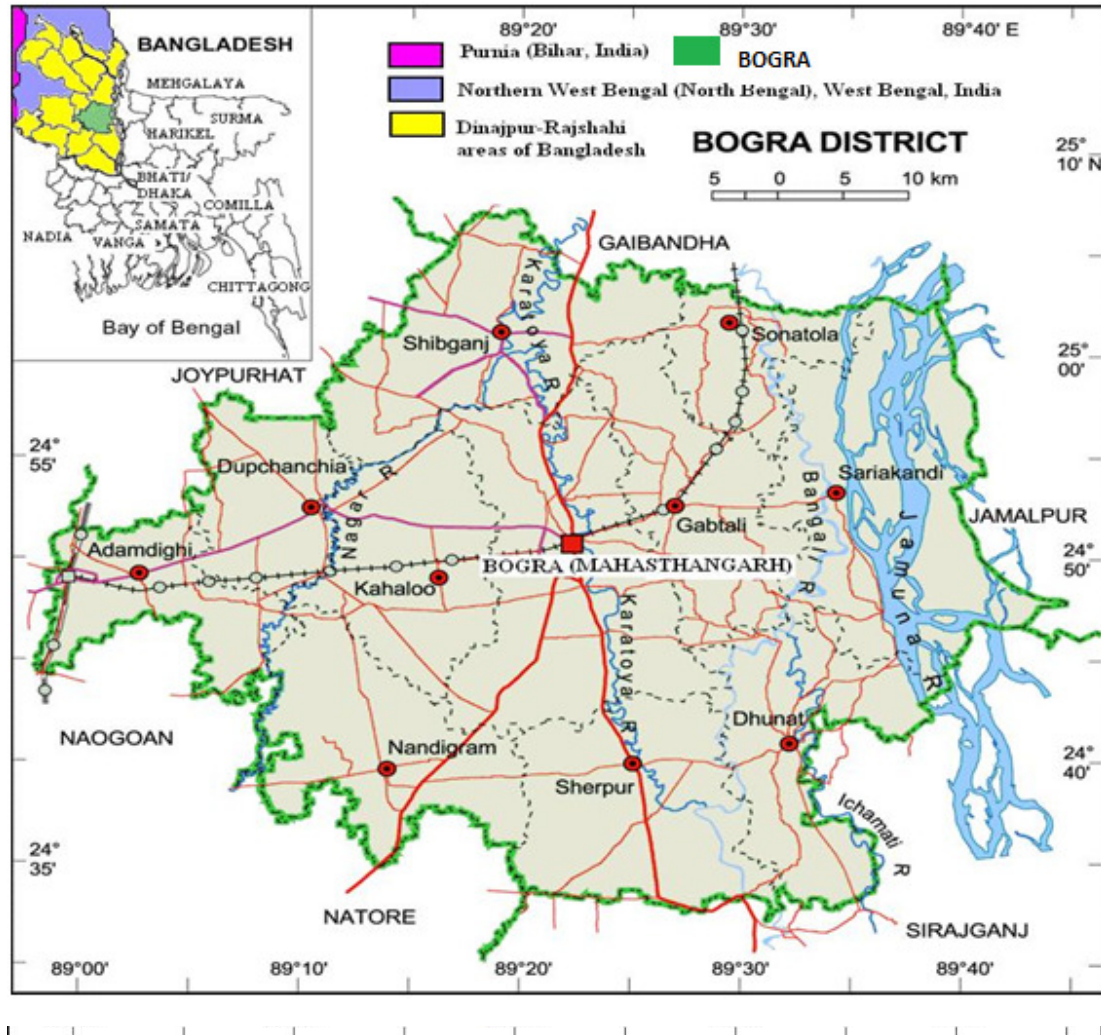


MAP 9: DARJEELING DISTRICT

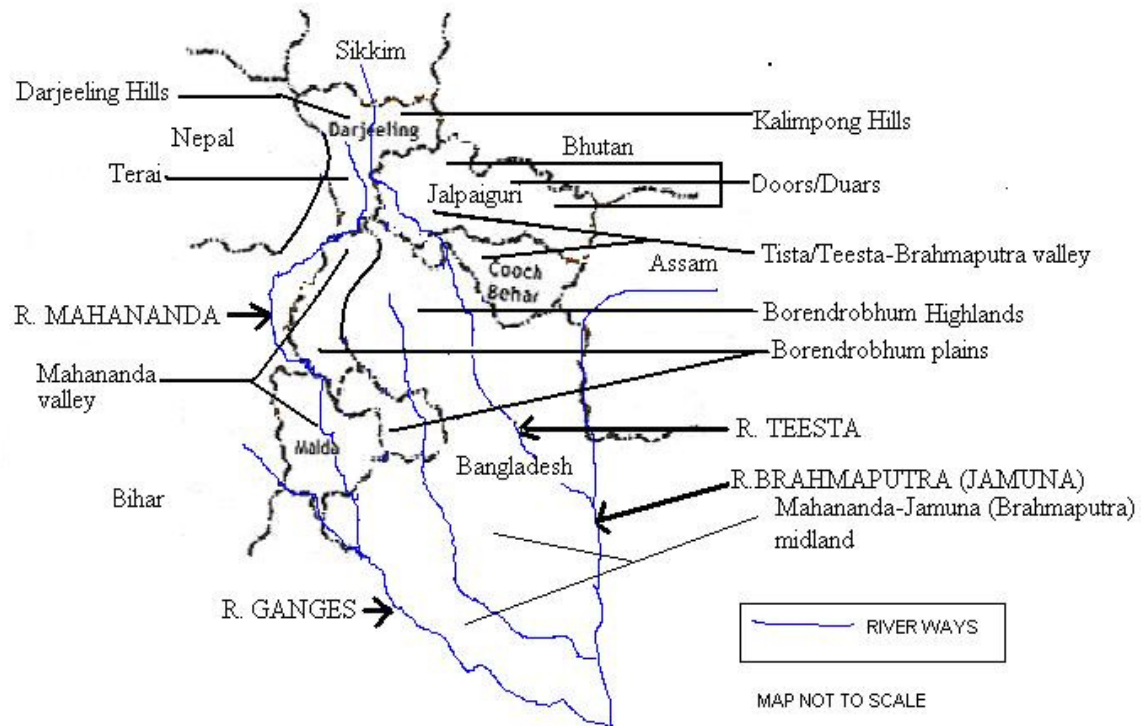
MAP 10: INDO-BANGLADESH 1



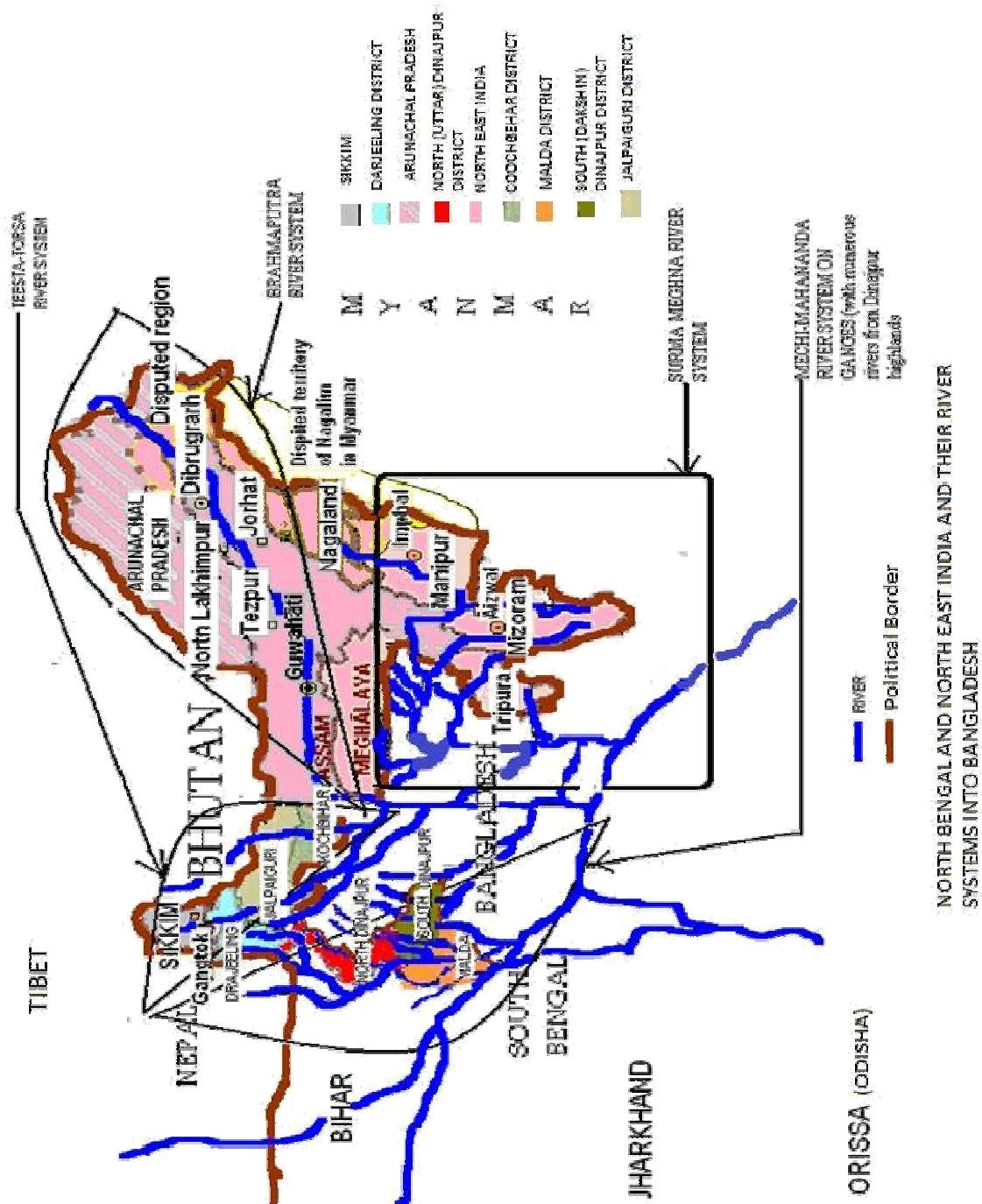
MAP 12: INDO-BANGLADESH 2 (LOCATION OF BOGRA/ MAHASTHANGARH/PUBDRABARDHAN)



MAP 13: TEESTA AND MAHANANDA FROM NORTH BENGAL TO BANGLADESH



MAP 14: RIVER WAYS FROM NORTH BENGAL-NORTH EAST INDIA TO BANGLADESH



Ample of Indigenous Communities in the Cross Road of northern West Bengal state, India

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Abstract: India is a multicultural country and believes in Unity in Diversity. This paper will focus on presence of so many communities in transnational North Bengal consisting of many indigenous communities.

India is a multicultural country and believes in Unity in Diversity. This paper will focus on presence of so many communities in transnational North Bengal consists of many indigenous communities.

Some models from World View of indigenous communities are to be discussed here:

Koch-Kamboja Model; Kashmir-Tibet Model and Tibeto-Myanmar belt; Himalayas and sub-Himalayan Model; Mithilanchala Model; Pundrabardhana-Bogra Model; Rajbanshi social fold; Aryan innovation; East India Model; Bengal Delta Model; Deccan Model; Extreme South of Indian Peninsula; Chola-Arab Model; Ancient Trade route; North Bengal Model; Shahi Model; British India and incorporation of foothills and lower hills from Sikkim-Bhutan Himalayas; Gorkha people; Adivasi People; Formation of Tea estate, Irrigated settled agriculture, Urbanization and notion of Indigenous statehood; (and) Role of Church and Ashrama.

These things are to be discussed here.

Introduction

India is a multicultural country and believes in Unity in Diversity. This paper will focus on presence of so many communities in transnational North Bengal consisting of many indigenous communities. India is the largest country of South Asia surrounded by Pakistan, Nepal, Bangladesh, Bhutan, Tibetan Autonomous Territory of China, Myanmar, island of Sri Lanka and isles of Maldives. It is also close to Afghanistan, Iran and Central Asia. India has a population of over 1.2 billion. It consists of 29 states and 6 Union Territories. In India innumerable languages are being spoken off and of these many have no written form at all. Many of the Indian states are formed on the basis of language spoken like Odisha for Odiya speakers, Maharashtra for Marathi speakers, Karnataka for Kannada speakers, Tamil Nadu for Tamils, Kerala for Malayalam, Andhra Pradesh for Telegu, Gujarat for Gujratis, Rajasthan for Rajasthanis, Punjab for Punjabis, and the National language Hindi is the largest spoken one predominant in Uttar Pradesh, Uttarakhand, Hariyana, Himachal Pradesh, Delhi, Bihar, Madhya Pradesh, Chhattisgarh and Jharkhand with regional dialects. Bengali speaking people have the highest numerical strength in West Bengal and Tripura along with a fraction in Union Territory of Andaman and Nikobar and Barak valley of Assam state. Assam is a state with majority speaking Assamese. Assam is the largest state of North East India along with six more small states and Sikkim. There are some other languages within Hindi speaking North India like Bhojpuri, but people there generally more appreciate Hindi. Sindhri, Konkani, and Nepali are some other recognized languages. Urdu, Arabic, Parsi, Pali, and Sanskrit are some other important languages. Jath people of Hariyana and western Uttar Pradesh have their own dialects. In Jammu and Kashmir, Vidarbha region of Maharashtra, Bundelkhand and Baghelkhand regions of North India, Abadh in Uttar Pradesh, Mithilanchals in Bihar have different languages and dialects, but that does not mean that those states should be broken down only because of linguistic identities. Language is obviously a criterion for formation of a separate state, but that cannot be an excuse to make a separate state just on the basis of the language and dialect. Actually, there are so many languages and other dialects in Indian Territory. Many of them have started talking in common language like Sadri for so many Adivasi aboriginal communities of Jharkhand. Similar could be found in Chhattisgarh

in the name of Chhattisgarhi. Mizo, Manipuri, Tuipra, Karbi, Dimasa, Bodo, Kuki, Garo, Bodo, Miri, Mishmi, and Chakma are some communities that are speaking their own languages in North East India. Naga tribes each has own language and in common they talk in Nagamese. In Arunachal Pradesh and Sikkim that are the states in Eastern Himalayas, there are also many linguistic communities, but they prefer to talk into Hindi and in case of Sikkim also in Nepali. Tibetan and Tibeto-Burmese languages of both pronominalized and non-pronominalized Himalayan forms are there that are spoken off by Khas, Kagatiya, Yalmo, Bhutia, Sherpa, etc. Limbu, Lepcha, Dhimal, Toto, Tharu, Mech, Koch, and Rabha are some other examples. Language is just one of the so many existing ethnic criteria. Religion is another one that may be animism, worship to mine and forest resources, worship to agricultural products, worship of blood and fertility cult, magico-religious practices, ethno-medicinal practices, folk religion, worship of ancient trade routes, Vedic traditions and caste system as the division of labour in agrarian sector, Vaishnavism as quasi-egalitarian sect and cattle as the capital, Buddhism, Jainism, Judaism, Sikhism, belief in gold as the capital, Islam, Sufism, and various schools of Christianity. India is a place of cultural diversity and there is actually no constitutional bar against their movement from one to other part of the country. In transnational regions or places with trade and commercial interest, people try to come in large number and settle down there. These in-migrations and immigrations can make a place multicultural where we can see majority with minority, secular with religious, ethnic with plurality, local with national and global, and coexistence of many social-political-economic-religious institutions from different place, but now in more or less same ecosystem providing similar natural resources to which these communities have to adapt. In such places various alterations in modes of production can be seen. Urbanization may also emerge out spontaneously shifting its location from time to time with each major and effective migration. So many models can be developed that the local people of that specific place know, believe, respect, and fear.

These communities may be traditional or modern, close to nature or not, native or carrying colonial mindset or thinking of a post-colonial society, and aborigine or migrant. These peoples are expected to have some sort of traditional ways of living outside the western one. That we may recall as the Gandhian way of living, the caste system, the pre-Vedic traditions, the Vedic traditions, the post-Vedic traditions incorporating Indo-Greeks and Shahis followed

by sub-Shahis, princely statehood, colonial time, Swadeshi movement, formation of Pakistan, inclusion of Nation States as well as post-colonial period in respect to Third and Second and First Worlds. So, non-Western people of so many kinds are more or less indigenous here. Indigenous may not always be native or aborigine, but with a folk life close to nature bearing intellectual reasoning of day to day life experiences through trial and error, with intimate understanding of nature and doing informal experiments without any proper scientific laboratory, and therefore capable of providing some sort of public services at global level. They can openly provide you information and in few cases, you have to decode their cultural symbols. Indigenous communities would not oppose modernity and development agenda and create obstacles, if they are incorporated in these activities and development looks sustainable to nature and society and beliefs.

Here, in this paper a transnational region of India is taken as reference which is at the same time multicultural in nature. This is a set of six northern districts of West Bengal state known as the North Bengal. This is the only link between mainland India and North East India. This North Bengal is surrounded by North Western part of Bangladesh (Rangpur and Rajshahi Divisions), eastern part of Himalayan range as well as Himalayan states of Bhutan and Sikkim (Sikkim is incorporated into India). North Bengal-Rajshahi transnational region contains the watershed that separates Brahmaputra valley of North East India and Gangetic valley of mainland India. The region is closer to Tibetan Autonomous Territory of China; Tibeto-Myanmar belt actually encircles entire North East India formed by valleys and watersheds and hills and eastern Himalayas and plateau and tribal pockets and forests and mines. Rivers from Tibeto-Myanmar belt cross North East India to enter into Bangladesh and form river network there with Gangetic delta as Ganges also enters into Bangladesh but from mainland India. Bangladesh was once East Bengal that is now an independent country and western part of Bengal is the West Bengal state of India. During the British rule in India, the entire region was known as Bengal. Prior to 1911, places like Bihar, Jharkhand and Odisha states of today were combined with that Bengal to form the Bengal Presidency. Bengal Presidency in South Asia was then known as Eastern India and then there were so many ways directly to communicate with North East India. But now, only North Bengal remains a direct link to North East India, Bhutan and Sikkim to mainland India. North Bengal has borders with Bihar and Jharkhand states. Malda, South Dinajpur and North Dinajpur districts of North

Bengal are Indian part of Dinajpur-Rajshahi transnational region and also overlap with Bihar state (Purnea-Katihar region) and Rajmahal area of Chhotanagpur plateau of Jharkhand state. Jalpaiguri and Cooch Behar districts of North Bengal are actually part of Brahmaputra valley of North East India that produces the Brahmaputra-Jamuna mouth in Bangladesh. All these districts contain both sides of the watershed in fractions. Assam Duars foothill of North East India, Bengal Duars foothill of Jalpaiguri, and Kalimpong hill of Darjeeling district were parts of Bhutan and later incorporated into India during 1860s. From Sikkim were incorporated the territories like Darjeeling and Kurseong hills to be added into Siliguri Terai foothill and give the primary shape of Darjeeling district. Sikkim, Darjeeling district and Bihar have international border with Nepal which is an independent country on Central Himalayas. Indo-Nepal border along Uttar Pradesh and Bihar were location of various Little Republics and Vedic settlements with steady flow of Indo-Greeks and Shahi elements. So, North Bengal is too closer to North East India, eastern part of Himalayas, Tibet, Bhutan, Sikkim, Bihar, Rajmahal of Chhotanagpur, Nepal, Indo-Nepal borderline, Tibeto-Myanmar belt, Bangladesh, and Bengal Delta. It is definitely a transnational zone and a multicultural situation has been developed here with certain levels of indigenoussness. To realize this multiculturalism or cultural diversity here in North Bengal, we can discuss in a systematic way and according to the models.

Models

Koch-Kamboja Model:

Koch Bihar and Kamtapur were two ancient kingdoms developed on Teesta-Torsha region. Such states were also there in Brahmaputra valley like Kamrup and Kamaru. Kantaji temple of Hindu God Krishna or Hori in Dinajpur Bangladesh still exist.

Koch Bihar and its ancestral indigenous state Kamtapur were settled by Koch and Khen tribes respectively. Both had their prime centers at Cooch Behar district of North Bengal areas. Koch is included within the Bodic language group of North Bengal-North East India that behaved like a huge umbrella covering Rabha, Mech and Koch. Bodos have links with Garos back to Meghalaya plateau of North East India.

Goddess Kali is chief deity for the inhabitants of Bengal. Kolkata, the capital of West Bengal state, as well as Dhaka, the capital of Muslim majority Bangladesh, both contain Hindu Kali Temple. In every traditional household, Kali is worshiped with dignity. Kamakhya in Kamrup, Kamteshwari at Kamtapur and Borodevi at Koch Bihar have remained symbolic to those indigenous statehoods.

Kamboja is rather an Aryan descent in present Pak-Afghan region. This tribe is known as Kamboh and they are now Muslims in religion. They are actually horse-rider warrior people who from Irano-Afghanistan region entered into India from time to time and reached up to Gujarat, Deccan, North India and Bengal, especially North Bengal and Rangpur plus Rajshahi Divisions.

Kaivatha agitation in Barindland watershed and attacks by Kambojas (Kamboja-Pala) at North Bengal were lethal to the 400 years long Pala Kingdom in Bengal-Bihar region (750-1165 AD). Kaivarthas were of two types: valley people doing agriculture and fishermen community regulating the river trade routes.

These horse-trader Kambojas were mentioned in history as cavalry who once stayed within Persian Empire. In Afghanistan, Kapisha was an indigenous statehood. Kambojas of Kapisha were treated as horse-breeders and hence in Sanskrit known as Ashmaka. From this terminology, Afghan as a community name has been originated. These people might have links with ancient trade routes with Central Asia, Eurasia, Indus valley and Baluchistan, other ancient civilizations and even Egypt. However, Kamboja was mentioned by both Indo-Aryan and Indo-Iranian stalks. Kapisha was also a part of Indo-Greek colonies. Kushanas had to cross this land before entering into Afghanistan. In Islamic period, Turk-Afghans entered into India, gradually spread over the Rajput states, and reached into Bengal and tried to enter into Tibet through North Bengal but failed.

Kashmir-Tibet Model and Tibeto-Myanmar belt:

Koch, Mech, Bodo, and Rabha are district tribal groups in Brahmaputra valley of North Bengal and North East India fallen under this Tibeto-Burmese language group. Some are using classic Bodic language and Tibetan vowels, where others becoming pronominalized and variously influenced.

Many of the Tibeto-Burmese linguistic groups of North East India-North Bengal including

the Koch may have some linguistic links with Mundari-Kolarian groups of AustroDravidian dominated Central India and Chhotonagpur.

In this way, pronominalized languages have been developed there in North East India and North Bengal having Indo-Malaya biodiversity. Toto in Duars region of sub-Himalayan North Bengal is an example of non-pronominalized Tibeto-Burmese group, whereas Dhimals close neighbour to the Toto in Siliguri Terai of Darjeeling district and even at Morong in Nepal Terai are rather non-pronominalized one. They might have links with Tharu in Indo-Nepal Terai and again with Koch-Rajbanshis of North Bengal.

In Meghalaya-Barak area of North East India continuous with Mymensingh-Surma territories at Indo-Bangladesh, linguistic groups speaking Boro-Kamta and Kok-Borok are there. Khasi dominates in Shillong region of Meghalaya plateau. Kuchhar is a juncture between Brahmaputra valley of North East India and Barak valley of Meghalaya-Barak region. Karbis in Kuchhur are prominent.

In Indo-Myanmar borderland, there stays the Chin-Kuki linguistic group. Khmer is a prominent group in South East Asia. Near the Mekong Delta there, Cambodia or Kampuchea is a country existing from ancient times. Mon-Khmer is an important overlap. Mon and Bagan are two ancient territories in Myanmar.

In past, Chittagong Division of Bangladesh was denoted as the Harikel and Coomilla or Kumilla was an important place there that still exists. Coomilla is the other part of Chittagong Division where Feni-Haora river system opens there from Tripura district of North East India and joins with Surma to form Meghna. Chittagong is a coastal area that is also a juncture of Arakan coast of Myanmar, North East India-Myanmar overlap, and Indo-Bangladesh territories including North Bengal and Tibeto-Burmese belt. However, Bengali speaking people are now dominating this Indo-Bangladesh territories and Chittagong coastline at Bay of Bengal. Bangladesh is a Muslim dominated country. Bangladesh contains major part of Bengal Delta, Jamuna-Brahmaputra mouth, Barak-Surma-Meghna river system, Feni-Haora basin, Chittagong hill track and coastline, Bay of Bengal region and highlands and watersheds like Meghalaya-Mymensingh and Dinajpur-Rajshahi. However, Khmers have been marginalized and transformed into other identities, but that still exists in North East India, North Bengal, South East Asia, Indo-Tibet and Indo-Nepal regions in various names. Koch under the Bodic group and Tibeto-Burmese family is an example of pronominalized people of

such type.

Mon-Khmer itself is a model. Khmers were probably pre-Aryan stalks. With time, many of the indigenous people of North Bengal have converted into Vaishnava sect of Hinduism. Acceptance of settled agriculture has merged them into a greater identity like Rajbanshi and made them caste people.

Kak is a group of Kashmir inhabitants. Kangra temple and Kullu-Manali high altitude passes we can see in Western Himalayas. Kandi-Katoa region of Mid Bengal is a bit highland and historical power center. Kakdweep of South Bengal is a mangrove area in Bengal Delta associated with sea trading. Rajmahal of Chhotonagpur was once treated as K'jangan just on the other side of Katihar by river Ganges. Kalabhra tribe in-migrated into Andhra coast. Tibet, Thanessar and Kashmir in different phases of 600-750 AD invaded into Bengal that was also treated as Panchagauda. That was a time between Late Guptas and Palas in Bengal-Bihar region.

Local people in North Bengal speak that Koch tribe was originated from Sankosh River that is the natural boundary between North Bengal and North East India. But they could be linked with Tibeto-Burmese belt as well as Afghanistan-Kashmir regions.

Himalayan and sub-Himalayan Model:

On the other hand, Kirat is a common term from the Himalayan groups in Nepal. Kagatiya people stay at high altitude along the Tibet borderline.

Ancient civilization of North Bengal-Rajshahi was centered on the city of Pundranagara that is the Bogra town in Bangladesh now. The Pundra community of Pundrabardhana and their legendary King Paundrik Vasudeva is till now treated as the originator of Pundra (North Bengal), Vanga (East Bengal), Anga (Chhotonagpur), Sumbhra (southern West Bengal) and Kalinga (Odisha). Those people were ruling category and probably pre-Vedic. They were non-Brahmins like Savara, Andhra, Pulinda and such other instances. They were treated as ruling category and hence similar to Kshatriya category (Varna) of the Vedic semi-nomads and agriculturists. But Vedics usually treated them as excluded category of Kshatriya or Vratya Kshatriya. Many believe that the indigenous agricultural caste categories of Bengal have been originated from this Pundra identity. Many of them might have been converted into Buddhists, Vaishnava and Muslims. Rajbanshis should have relation with Pundras. Pundras

were afraid of Parasurama- the symbol of Brahman supremacy and absolute agriculture. Pundras and Rajbanshis took shelter of alternative Brahminism in the form of Kashyapa. They all accepted the Kashyapa clan. Kashyapa was a Hindu priest of Kashmir that was placed on a transnational trade route- the secret behind various Nation States. Kashmiri Brahmins were there from very early and even before Aryan occupancy in Indus valley and Indian mainland. Pre-Vedic Aryans spread in TibetoHimalayan regions and the foothills that might cover North Bengal, North East India, South East Asia and even South China. They faced off the indigenous communities of Bengal and India who were either forest dwellers or involved in trade and ancient urbanizations present only in myths.

Along with caste based agrarian social structure, among Rajbanshis and Bengalis the quasi-egalitarian Hinduism is so common and perfect for trade. The priestly category among this semi-egalitarian community does not cremate their corps, but buries their dead in a special manner. Making chamber within the grave and keeping the death in sitting posture with some flowers and kinds even gold at a time were the rituals. These practices recall us of the ancient Silk and Spice Routes, Human Resources and Gold as the capital, and even mummification. There is a myth that there were Gold Mines in North Bengal watersheds, highlands, hills and river flows. Tibet and Sri Lanka were said to be full of Gold. Were these ancient people Pre-Aryan treasure hunters who took shelter of Kashyapa?

Mithilanchala Model:

Mithilanchala or Trihut along Bihar-Nepal transnational region was another gateway from Tibet into India. There the capital Darbhanga was considered as the Dwar or door to Vanga or Bengal and even up to Arakan. Now, Darbhanga is just a district head. Koshi River from Tibeto-Nepal creating various mountain passes in Nepal Himalayas enters into this ancient territory of Mithila and flows down to Katihar to meet Ganges which then flows into Mid-Bengal (Murshidabad) and creates the Delta. Delta with rivers adjacent to Dinajpur-Rajshahi watershed and marshland territories, Brahmaputra-Jamuna mouth and other valleys from North East India has a greater exposure from Chhitagong-Arakan to Odisha on Bay of Bengal. Mithila at a time included the foothills of Terai region of Nepal and had even influence over the Nepal Himalayas. This Indo-Nepal Terai was renowned for origin of Buddhism and Jainism as well as due to Aryan settlements forming Little Republics.

Janakpur-Sitamarhi Indo-Nepal region of Mithila has been mentioned in the Epic of Ramayana. Mithila actually permitted communication between Tibet and South Asia leading to Bengal, Chittagong-Arakan, Midnapore-Odisha, Indian Peninsula-Sri Lanka, South East Asia, Bay of Bengal, Andaman Sea and Indian Ocean. This is a myth that Tibet had been the hinterland of the Yaksha and on the other side, Arakan-Sri Lanka trade routes were dominated by the Raksha.

Mithila was not so far from North Bengal and North East India that contain foothills of the Himalayan range and routes to Tibet. Pragyotishpur of North East India and Pundrabardhana of North Bengal had their mentions in another epic Mahabharata. Bhimbar is a quite unknown place in Mechi-Mahananda basin of Siliguri Terai foothill in Darjeeling district of North Bengal that is both attached to Kaivarttha agitation during the Palas at early Medieval history of Bengal-Bihar and far before with myths of Mahabharata. A mound in there by side of a pond full of flowering hydrophytes is there in Bhimbar (a gateway to Tibet?).

Pundrabardhana-Bogra Model:

Pundrabardhana was an ancient settlement probably overlapped by all pre-Aryan, Aryan and post-Aryan people. This watershed with fertile marshland also permitted transnational trading through river ways originated from it as well as other rivers from the Himalayas flowing by its both sides. Through passage of time, the place has been from Pre-Buddhist city life and trade to the Buddhist center of Mahasthangarh-Paharpur, and ultimately sacred place of Vaishnavism and Islam and Sufism.

During Muslim rule over India from Delhi-Agra region, Prince Bogra Shah, the eldest son of Sultan Balban, ruled over Pundra and from His name the place was renamed as Bogra. From ancient Greek Settlement in Afghanistan, Bactria or Balkh, Islamic scholars in medieval period came into Bogra and conducted Islamaization. Bogra was a major Islamic concentration in Bengal. Its Karatoya River was marked by the Vedic who also mentioned the name of Purnabhava. Probably, Indo-Greeks were spread out from sub-Himalayan North India to this place. Koch Bihar and Kamtapur however prevented much political influence of Muslim rule in Bengal, but they maintained friendly times with Muslim rulers in Bengal. Jalpaiguri pocket of Koch Bihar Kingdom was however named after Jalpai meaning Olive sacred for the Greeks.

In pre-Islamic period, Pundrabardhana was ruled from the City of Pundranagara. Ruins can still be found out near Bogra town by the bank of Jamuneshwari-Karatoya. Founder of this kingdom was Paundrik Vasudeva who distributed His Empire among His sons and in this way several states originated by the names of Pundra or North Bengal, Vanga or Bengal Delta, Anga or Chhotonagpur (Jharkhand), Kalinga or Odisha and Sumbhra or South Bengal. Portions of Pundra and Vanga and Anga; complete Sumbhra; western part of Brahmaputra valley; included parts from Sikkim and Bhutan; and border with Kalinga or Odisha have configured the present state of West Bengal in India.

Rajbanshi Social Fold:

Ruling category there is considered as Kshatriya under Hindu social structure. Rajbanshis in North Bengal are treated as Pundra-Kshatriya. They are such Kshatriyas who have certain connectivity with the ancient Pundras. Myths tell us that those ruling categories were excluded from their Kshatriya status as they primarily belonged to non-Brahminical society and they on their own manage their religious ceremonies. Rajbanshis in their traditional social system have a rank called Adhikari who deals with these issues. Rajbanshis later fled out into more remote Cooch Behar-Jalpaiguri in vicinity of present day Indo-Bhutan and Tibet. Those excluded or Vratya people therefore have been treated as Vratya Kshatriya. They somehow accepted settled agriculture as the primmest economy and also the role of Brahman in that. But they accepted Kashyapa clan, Kashmiri Brahminism, Varendra Brahmans and magico-religious customs regulated by Kamrupi Brahmans at their best. They later accepted Vedic values and regained the status of Kshatriyas. But, this is also true that they admixed with the local communities to form Rajbanshi Social Fold. Actually, many pre-agrarian communities of the sub-Himalayas were attracted to the Rajbanshi social system that also believed in caste. Rajbanshis accepted peasantry as their prime economy. Time to time, they were attached with Khen and Koch communities directly so as to postulate Kamtapur and Koch Bihar kingdoms and generous states. They were in between Muslim Bengal and Brahmaputra valley ruled by Chetia-Ahom. Koch-Rajbanshis still use Barman as their surname. Much native statehood in allover India, Bangladesh as well as South East Asia used this Barmana or Barman or Verma title to express their royalty. Barmans were often treated as Snake worshipers who could go deep inside the jungle, collect forest resources, medicines, mines and even after deforestation cultivate the land. Other major surnames are Sinha, Roy and Sarkar that all indicate to their

ruling status. These excluded Kshatriya not only moved to Teesta-Torsha, but also in various pockets in Bangladesh, North East India, Bengal Delta, Mid and South Bengal where they were transformed into agrarian peasants.

Most of the Rajbanshi has converted into caste in agrarian social structure and at the same time, behaved like Dominant Community, allied with Mughal Padshahi, Rajput estates, and then with the British Raj. Koch Bihar was always against involvements of Bhutan into Duars and wanted inclusion of that same Duars into India. Koch-Rajbanshi kings and princes established strong ties with mainland India and preferred to stay in Bengal rather than as a part of North East India. Rajbanshis and other agrarian castes as well as ancient trade route users not always remained Native Collaborators and time to time agitated against discriminations to them in Varendrabhoom or Barindland, Rangpur-Dinajpur, and wetland of Rajshahi-Pabna during the British rule in India.

Aryan Settlement Model:

Aryans settled in North Bengal who might be pre Vedic, much magico-religious and Vedic also. Varendri Brahmans constituted an important settlement on behalf of the Aryans to this watershed-wetland geography of Dinajpur-Rajshahi that not only contains forest, mines, rain fed rivers, highland crop field, irrigation canals, but water bodies also. Being Brahman category of Hindu society, they behaved both like caste and community. They preferred more Kashmir model of Aryanization rather than Gangetic Heartland. They put emphasis on Indo-Nepal Himalayas and Sub-Himalayan foothills as well as Indo-Tibet transnational pockets like Sikkim and Bhutan. Later on, Brahmaputra and Teesta-Torsha turned into Aryan Settlements by the names of Pragyoitishpur. Pundrabardhana has been mentioned in Mahabharata. Dhaka and Chittagong were rather treated as Dabok or Bhait and Harikel respectively. Bhatiali folk song is developed by boatmen depending on the hidden water routes. Dutta trading community considered Dabok their heartland.

East India Model:

Bangladesh, North and South Bengal of West Bengal State, Odisha and Bihar are combindly treated as East India. Chhotonagpur was shared by Bengal, Bihar and Odisha. Presently, its main segment has been separated from Bihar state of India and now in this era of

globalization, a new state Jharkhand has been formed in 1990s full of mines and ores. This state formation has happened due to long demand of the Austro-Dravidian Adivasi tribal communities indigenous to the place, certain historical facts and administrative purpose. This place contained two major power centers: Pataliputra-Rajagriha (Patna-Rajgir) of South Bihar and Gour-Murshidabad (Malda-Murshidabad). Dhaka in Bangladesh, Bogra in Rajshahi Division and Munger-Bhagalpur near Bihar-Jharkhand borderline were other power centers. Nalanda in South Bihar, Tamralipta in Midnapore, Mahastangarh-Parbatipur in Bogra-Jaypur, and Mainamati in Coomilla-Tripura region were major Buddhist centers. Pataliputra in ancient India was a major power center during Nanda, Maurya and Gupta Empire who tried their best to unify South Asia. Maurya and Gupta ruled over Bengal, especially ancient Pundrabardhana.

During the Late Guptas, Buddhist pockets like Thanessar North India and Kamrup of Brahmaputra valley interfered into Bengal.

During Karkata Dynasty in Kashmir (7-8th Centuries AD), Tibet and Kashmir established political control over Bengal.

During 400-year long Pala Dynasty of Bengal-Bihar (750-1165 AD), Buddhism and Vaishnavism dominate over Brahminical system; East Bengal was ruled by Barmanas and Chandras; Kambojas attacked North Bengal and established Kamboja-Pala Dynasty for a short time; Kaivārtha agitation was insurrected thereon. Rajput elements from North and Central India as well as Deccan and even extreme south of Indian peninsula had conflicts at late period with these Palas. Palas for sometime interruptedly controlled Odisha and negotiated with the Cholas of extreme south fighting back against growing Arab influence in Buddhist pockets during the Crusade in West Asia. Palas competed with Gujjar-Pratihara of North India and Rashtrakuta of Deccan on control over Kannauj at the heartland of North India. Gujjar-Pratihara was ultimately successful in establishing control over Kannauj as against the Palas and Rashtrakuta-Chalukyas.

In post-Pala period, Buddhism was demoralized and strict Hindu codes and conducts led to Vaishnava upheaval and Islamic innovation by the hands of Turk-Afghan horse traders rampaging North Indian Rajput Pockets and Buddhist Bihar. From Gour Vanga of North, these Turk-Afghan Islamic elements gradually occupied entire Bengal-Bihar and tried a lot to get inside Barindland, Kamtapur-Koch Bihar, Brahmaputra valley, East Bengal, Bengal Delta,

Harikel, Mithilanchala, Nepal, Odisha, other tribal pockets, and Tibeto-Himalayan region.

During Muslim rule over Bengal, Mog pirates of Arakan and their associate Portuguese traders tried to control slave and opium business in Bengal and dominated over the river routes in Bengal Delta, Gour Vanga and associated rivers. Semi-Autonomous local Feudal Lords emerged out and the most crucial of them were the twelve Great Barons (Baro Bhuiyans) ruling all over Bengal.

Bengal Delta Model:

Prevailing over Indo-Bangladesh, Bengal Delta is the World's largest delta that is made up of so many river systems:

Gangetic system of Indo-Nepal Himalayas and North Indian plains forms Bengal Delta by Bhagirathi-Hoogly and Padma distributaries (Indo-Bangladesh transnational) Bengal Delta was with off-shore mangrove biodiversity of Sundarban Bengal Delta comprises of southern part of West Bengal state of India (delta region of South Bengal) and Khulna Division of Bangladesh.

Most of the rain-fed rivers from Chotonagpur plateau of Jharkhand state of India flow through non-delta region of South Bengal and fall into Bengal Delta there.

All tributaries from Indo-Bangladesh watershed and plateau along with other adjacent rivers from the Indo-Nepal and Eastern Himalayas, Jamuna-Brahmaputra mouth, Barak-Surma-Meghna basin and Feni-Haora river system contribute to Bengal Delta in Bangladesh.

Tributaries from Barindland-Dinajpur watershed fall into Mahananda-Ganges basin, Padma (Ganges) and Jamuna (Brahmaputra).

Deccan Model:

Indian Peninsula contains two broad geo-political categories: Deccan and Extreme South. Historically, they fought with each other over Raichur Basin, Autonomous Mysore and Andhra coast. Historicity of Deccan contains distinct periods like Maurya-Satabahana, Satabahana-Kalinga, Satabahana-Scythian satrap, Bakataka-Gupta, Chalukya-Rashtrakutas, Later Chalukya, Chalukya-Chola combination at Andhra, Hoisala at Telengana, regional power houses at Ratnagiri and Khandesh, Muslim innovations and formation of Daulatabad, Bahamani Empire and Shiite States, Mughal-Rajput successive attacks and establishment of Mughal Padshahi, emergence of the Marathas with the concept of Hindu Pad Padshahi,

Hyderabad Nizam and local Nabobs, Maratha Sardars controlling over various trade centers and Nagpur-Odisha region, British control during colonial time and formation of Bombay Presidency, Dalit Movement, Subaltern Movement and Neo-Buddhism, and finally, the City of Mumbai at Arabian coast becoming the economic capital in India.

Of these all, Rashtrakutas, Later Chalukyas, Chola-Chalukyas of Andhra, Marathas especially from Nagpur, Hyderabad Nizam, freedom fighting against colonial rule, Ambrdkar, and Mumbai city have had potential influences over Bengal, especially South Bengal. That resulted into formation of Sen Dynasty in post-Pala regime for a short period as well as occurrence of Nabob System from Murshidabad (Mid Bengal) during the Mughals. Those things also had some influence over North Bengal. During the Sen, Varendri Brahmans at North Bengal became too much powerful. At the time of Nabob, emphasis was given upon Purnea. Just after that during the British, Barnidland-Dinajpur watershed was virtually brought under control. Thereafter Darjeeling and Jalpaiguri states were formed ensuring easy access to North East India, Bhutan, Sikkim, Nepal, Tibet and even Burma (now Myanmar at a distance).

Extreme South of Indian Peninsula: Chola-Arab Model:

Extreme South of Indian peninsula has its own historicity regarding Cher, Keral, Cholas and Pandyas related to Pallavas and Sri Lanka. During Crusade between Arabs and Holy Roman Empire over Near East, Arab interference rapidly grew up in Sind, allover Indian coasts, various islands and isles, Arakan and South East Asia, Malacca and Far East ranging from Zanzibar to Brunei. Cholas at extreme south opposed that unilateral occupancy and spread over Sri Lanka, Malabar Coast, Bay of Bengal, Andaman Sea, Malaysia and Indonesia. Decline of Buddhism in those regions adversely affected the Palas in Bengal. Cholas tried to make the Palas of Bengal-Bihar region a subsidiary. Kaivarta agitation and Kamboja attacks were organized during that period in North Bengal. Cholas completely fell down during 13th century AD when Pandyas took over the control of extreme south. Arabs however successfully established colonies in different port and coastal areas including Pandya state that they called the Mabbar. Arabs in Mabbar were fallen down by Delhi Sultanate in 14th century AD. Later in Deccan and extreme south, Muslim Bahamani and Hindu Vijayanagara were emerged out within 14th-15th Century AD respectively and they also fought for

establishing control over Raichur basin, coastal Andhra and even western coast on Arabian Sea. During formation of Mughal Padshahi in North India over the ruins of Turk-Afghans at 16th Century AD, Shiite states out of Bahamani in Deccan combined together and destroyed Vijayanagaram Hindu Empire on extreme south, Mysore and Andhra coast into local Poligars. Delhi Sultanate, Shiite Deccan, Portuguese at Goa, Mughals, Maratha and Nizam, Mysore Arabs, and European traders were there in Indian peninsula throughout the late medieval. French and British fought to each other to establish control over ports, Arkot district and Thanjavue Delta of extreme south. British established initial control in Andhra coast and Bengal Presidency that they utilized for growing business and unification of South Asia. That ultimately had an impact at North Bengal and its frontier to eastern part of the Himalayas and Tibeto-Burmese belt along with East Bengal and North East India.

Ancient Trade route and North Bengal Model:

Included from Bhutan and Sikkim, two Himalayan states, there are Kalimpong and Darjeeling-Kurseong regions in North Bengal respectively. These along with Siliguri Terai postulate Darjeeling district. Darjeeling district was the first pedestal for inclusion of Sikkim within Federal Structure of India. Sikkim is a state now in India that shares international border with Chumbi Valley of Tibet (China) along with Royal Kingdom of Bhutan.

Kalimpong continuous with both Bhutan and Sikkim Jelep la mountain pass of Sikkim connects Kalimpong with Chumbi valley.

Darjeeling-Kurseong continuous with Nepal Mechi-Mahananda basin initiated at this place shapes Siliguri Terai and receives water from Indo-Nepal Mountains and flows into Purnea of Bihar and Malda at North Bengal. Malda, North Dinajpur and South Dinajpur in North Bengal are actually attached with Dinajpur watershed in Rangpur Division and Rajshahi wetland of Rajshahi Division of North West Bangladesh where Mahananda River meets into Bengal Delta.

Teesta originats in Sikkim, whereas Torsha (Amu chu) in Chumbi Valley Torsha from Chumbi enters into Bhutan and then in Bengal Duars foothills of Jalpaiguri district Teesta from Sikkim flows towards Kalimpong (excluded from Bhutan) and Jalpaiguri

Duars Teesta is actually the margin of Kalimpong with Darjeeling-Kurseong and Boikunthopur respectively.

This is a transnational region made up of Himalayan state Sikkim, Royal Kingdom of Bhutan, Tibet (China), independent country of Nepal, Bodoland Autonomous Territory of Assam, 16 districts of Rajshahi Division of North West Bangladesh, Purnia-Katihar region of Bihar state, Rajmahal-K'jungle of Jharkhand, and Murshidabad district at Mid Bengal next to South Bengal.

North Bengal is itself an administrative block. South Bengal comprises of Indian portion of Bengal Delta, rain-fed river courses from Chotonagpur, and Midnapore coastline continuous with Odisha.

Shahi Model:

These seven Shahis in South Asia and these are Turk-Afghan-Kushan, Mughal, Rajput, Deccan, Lucknow, Gorkha and Dinajpur-Rajshahi.

In post-Alexander regime in Iran, Shahnoshahi concept developed. During Buddhist, Hindu and Muslim regime, Shahi concept flourished in India. This is a kind of Syncretism that we can find in Mahayana Buddhism, Bhakti or Vaishnava Hinduism as well as Sufi Islam. Concept of Welfare State of Asoka during Mauryan Empire, Aryanization of Buddhist Philosophy and penetration of this upto the folk people (parochialization?), establishment of national control over forest and mines, urbanization, formation of Brahmi script for Pali speaking commoners, emphasis on both gold and cattle as the capital, maintenance of transnational trade and existence of village republics, army and intelligence, taxation and consumerism were there in India from prior to the Indo-Greeks. Greek innovation in mainland India from Irano-Afghan colonies, establishment of world's first Christian state in Abyssinia, their influence over Indus Delta during Parthian Greeks, Bactrian Indo-Greeks spreading into sub-Himalayan North India, Scythian kings and subsidiary satraps were stories of 200 BC to 200 AD. The first Shahi was formed by the Kushanas over the Turk-Afghan pockets, various Greek colonies at Irano-Afghanistan, and Central Asia or Turan connected through Silk Routes with China. Kushanas controlled Kashmir and Indus valley and exerted influence over Scythian Satraps of Indus Delta and Gujarat-Malwa. They paved into Mathura and occupied local statehoods on Yamuna-Ganges basin, North India, North-Central India, Sub-Himalayas upto Bihar-Bengal.

Formation of Dinajpur-Rajshahi was probably took place at that period of time. Kushana

Song of the Rajbanshis here in North Bengal, myths of pro-Kushana king Jalpa, Jelep-la pass to Chumbi valley, symbol of Jalpai (Greek Olive) and the temple of Jalpesh with the highest priority for the Rajbanshis and their statehoods clearly reveal the prevalence of natural resources, notion of statehood, transnational trade, Indo-Greeks and Shahi formation in North Bengal whose prime part is now in North West Bangladesh.

On the remnants of Kushanas various local states were developed. Guptas on the basis of Brahminical Hinduism and negotiating with pre-Vedic Aryan pockets of the sub-Himalayas through marriage untied large part of India and entire eastern coast of India. They exerted influence over remaining Kushan Shahi in Pak-Afghan region, Shahanoshahi Iran, and also on transnational trade from Sri Lanka to South East Asia.

Gupta-Bakataka combination of Deccan tried their level best to include Gujarat-Malwa region from Scythian satraps. Tread with Rome, Roman gold, Buddhism, autonomous behaviour of regional rulers and feudal lords decayed the Brahminical feature of Gupta Empire. Huns from Eurasia destroyed Western Roman Empire and also caused troubles for the Guptas. White Huns or Chwa Huns brought in India the legacy of Shishodia or Shahi concept among the Hindus and gradually converted into the Rajput elements representing a Hindu Rajput Shahi, agrarian caste system, and estate system. Gujjar Pratiharas defeated both Chalukya-Rashtrakuta and Palas of Deccan and Eastern India respectively in order to occupy Kannauj. Those neo-Kshatriya Rajputs established various states and estates in North-Central India.

With the fall of Kideraite Kushanas in Tank Province (ancient Taxila) of Pakistan and Islamization in Balkh-Bamiyan-Kapisha region of Afghanistan; Turk-Afghans flooded over Arab Sind, Kashmir, Indus valley, Thanessar (Hariyana) and Delhi, Sub-Himalayas, North India, South Bihar and Bengal and from there gradually occupied entire Gangetic plain, North Bihar, Mid and North Bengal, present-day Bangladesh, Gujarat-Malwa. They also exerted their influence in Indian Peninsula. Rajputs could not fully enter into Bengal, but Turk-Afghans settled autonomous statehood there keeping relations with the Sultanate in Delhi.

From Turk-Afghan Shahi, the power shifted over to the Turko-Mongols in 16th Century AD around hundred years later from attack of Tamerlane (also Timur the Lame) from Central Asia (Maverannahar). Uzbeks ruled out Turko-Mongols from Central Asia and therefore they entered into Indian Subcontinent after crossing Irano-Afghanistan and Indus valley, established Mughal Shahi, made Mughal-Rajput alliance, regained North India, reached into

Bengal-Bihar region, occupied Gondwana in Central India, kept close eye on Kashmir and trade routes through Himalayas, and also pierced in Deccan and extreme south. Akbar's One Nation Policy was strictly followed.

Due to the pressure created by Turk-Afghans and Moguls, Gahadavala Rajputs of Kannauj had been shifted to Gaharwal Himalayas too close to Indo-Nepal region and permanently fallen India as the Uttarakhand state. Parallel to this, Gorkha Shahi in Nepal Himalayas organized them from Gorkha-Katmandu region and united various hilly ethnic communities under the banner of common Gorkhahood. Gorkha power house in Nepal had a policy of Pan Himalayan statehood including the sub-Himalayas and even TibetoHimalayan borderline.

Jaunpur-Azamgarh was a power center of North India proper during the Turk-Afghans. Shiite Nabob of Lucknow during the Mughal era control entire Abadh (Oudh) and the subHimalayas. Lucknow is often treated as a distinct Shahi.

With its glorious past during Chalukya-Rashtrakutas and Bahamani Empire, Deccan's own Hindu Pad Padshahi was developed by the Marathas on the ruins of Shiite states taken over by the Mughal-Rajputs. Maratha Sardars in Baroda (Gujarat) and Malwa plateau were very powerful likewise that in Nagpur-Odisha. Rajput states of Rajasthan and Central India as well as Jats of Delhi-Agha region were also important. Ajmer was under Mughal control in Rajasthan. In Deccan, Hyderabad was another power center laid down by the Mughals to rule over entire Deccan. Hyderabad Nizam maintained relation with the poligars in extreme south and coastal Andhra as well as Mysore. Nabobi system at Bengal Presidency (Suba-e-Bangal) was laid down by Hyderabad and Marathas always kept close eye on both Bengal and Lucknow Nabobs. Nagvamshi king of Chhotonagpur tribal pockets also kept good relation with Shahi concept as did the other Princely States of South Asia and its borderlands including Koch Bihar Dynasty. However, Mughals had to work out tough to condemn both the Hindu and Muslim Feudal lords of Bengal, but faced serious challenges from Mogs and Portuguese in case of controlling the trade routes there. Sikhs at Punjab developed their estates and states. In western Punjab from Lahore Punjab was emerged out as a distinct state that had influence of Kashmir also. Irano-Afghanistan, Central Asia and Sind-Baluchistan were out of Mughal influences and Irano-Afghan elements rather tried to penetrate into Indian mainland and making Delhi a subsidiary. Arab element was strong in Mysore and Indo-Afghans were trying to control sub-Himalayan pockets like Rohilkhand. There were other

border pockets that never be under the Mughals and thrived on traditional trade routes.

British India and incorporation of foothills and lower hills from Sikkim-Bhutan Himalayas: British and French were facing each other in controlling those trade channels and finally British took over India and also established the Commonwealth. British included those trade pockets, Bengal, Indian Peninsula, Sri Lanka, Bay of Bengal, so many islands and isles, Indo-Malaya including Myanmar (then Burma), Mog province of Arakan, North East India, and settled disputes with Nepal, Bhutan, Sikkim, Tibet, Punjab, Kashmir, Sind-Baluchistan, Afghanistan and Iran as well. They negotiated with China, Russia and Arabs. British included Duars foothills and portions of South Sikkim and developed Darjeeling district, Bengal Duars in Jalpaiguri district and Assam Duars in Assam in late 18th century AD and mid 19th century AD respectively.

Gorkha people:

During British Colonial Rule, peoples from Gorkha Shahi entered into included parts of Darjeeling-Kurseong to work in the tea gardens. They also settled in Terai-Duars along with the Adivasis. In British Company, during British Raj and even in Indian Army; there has been the Gorkha Regiment. Further, Nepalis could claim credit for introducing settled cultivation among the other hilly autochthones. Nepalis have become major bulk of population Sikkim included in India. In the name of Lochhampa, they also stayed in lower Bhutan. In entire North East India, Gorkhas have their Diasporas.

Adivasi People:

British Company and British Raj encouraged both civilians and native collaborators in establishing tea estate in Bengal and Assam Duars as well as Darjeeling-Kurseong-Siliguri continuity. Monopoly of China on Tea trade ended. Later on, in African highlands, extreme south, Sri Lanka, pockets of present-day Indo-Bangladesh and different parts of the Himalayas; tea gardens were established. In Duars-Terai region, aboriginal Austro-Mundaric Adivasi peoples from Nagpur-Chotonagpur as well as Central India-Deccan were introduced as laborers. They along with Nepali groups in tea garden barracks and adjoining regions changed the demography of those included territories. Tea estates and newly established

permanent cultivable grounds and well as establishment of Forest Department there brought a new kind of economy other than previous forest dwelling, shifting cultivation and transnational trade. Agitator Santals from Rajmahal against the British spread all over Bengal-Bihar regions including North East India and North Bengal.

Formation of Tea estate, Irrigated settled agriculture, Urbanization and notion of Indigenous statehood:

British authorities despite the Kalimpong subdivision of Darjeeling district established or encouraged establishment of tea gardens. Tea estates were set up in formerly Lower Sikkim areas (Darjeeling and Karsiyang subdivisions) and Terai extension (Siliguri subdivision). British also established similar tea estates throughout the Duars. Further they brought people from Deccan and Gorkha Shahi of Nepal as the labour class beneath a unique hierarchical system. Further, higher categories were also brought there from various Shahis for other employments.

Rajbansis, Koch-Rajbansis, Bengali caste groups and Muslim folks from different parts of Bengal entered into these Sub-Himalayan pockets along with Adivasis (both tea garden and non-tea garden). They introduced irrigation and settled way of crop cultivation rather than shifting cultivation and agro-forestry.

British along with tea gardens, forest departments and other alternative economies constructed bridges, roads and railways in North Bengal and its included areas. Siliguri, Kurseong and Darjeeling were major urban centers developed by the British in Darjeeling district apart from pockets like Kalimpong, Matigara or Chathat by the rivers. They also established rural areas like Malbazar, Nagrakata, Banarhat, Madarihat, Birpara, Kalchini-Hamiltonganj, Alipurduar and Kumargram each of which represented one block in Bengal Duars within Jalpaiguri district. Jalpaiguri-CoochBehar was the core of indigenous statehoods like Koch Bihar and Kamtapur. British never tried to condemn these. Koch Bihar Dynasty always remained an importance alliance of the British in this transnational cross-border.

Roles of Church and Ashrama:

Christians express gratitude to Church organization and the Missionaries. It provides them education and a 'guideline' to improve the socio-economic condition. In North Bengal,

exclusively in watersheds and included areas of Jalpaiguri and Darjeeling districts, tribal population is much higher there. Tribals encompass animism, but they can also be influenced by Hinduism, Buddhism and Christianity in North Bengal. Tribals attached with the Church are often found to be quite successful in becoming a white collar middle class. Many of these Christians have acquired plentiful agricultural land and behaved like absentee landowners deploying poverty stricken animists as wage laborers there on contractual/temporary basis. On the other hand, animists oppose the Church and this gives them one kind of integrity. However, in tea garden labour class marriage between animist and Christian families is not rare. Economically, they are at a quite similar level. An animist could have a Christian relative. Christians do not think much of clan, but for animists clan exogamy is a custom. Animists often consider themselves as the Hindus, participate in Hindu festivals and even maintain certain food restrictions. There are so many indigenous communities in North Bengal forest regions like Mech (Bodo), Rabha, Garo, Dukpa, Mech and even Dhimal and Toto. Many of them hold a degree of Christian religious identity which again depends on their internal social restrictions. Community exogamy seems to be nearly impossible in the traditional social systems, but here economic opportunities in a rural areas of Duars have made it least possible. Tribals are basically against the marriage before puberty and Youth Dormitories are not there in course of time. Tribals understand the necessity of modernity by means of health, education, political and economic institutions. Education in own language, at least at primary stage, is a great demand here among the tribal and other backward communities. They often try to develop a common language like Sardi, Kamtapuri and Nepali. They are also emphasizing on certain religious or social festivals of their own. Hindi speaking and Urdu speaking linguistic minorities are also there in North Bengal. People here know the importance of national language Hindi and also that of English. Non-Christian people demand education in Hindi (among the Adivasis) and Nepali (among the Gorkha identity holders). Again, Totos, Dhimals and few others prefer to study in Bengali and using Bengali script for documentation of their own culture. Rajbanshis of North Bengal having few local dialects are talking about a common language Kamtapuri and identity on that. But these sensitive issues have often been canalized into the political matters. Many of these tribals are also attached with NGOs and Ashramas that are alternative religious institutes mostly of the Hindus. Ramkrishna Mission, Buddhist Monasteries, and Swedish Mission at Totopara

(where the Primitive Tribal Group Toto community resides in) are some examples. These institutions are also doing work for education, social awareness, Self-Help Group, health and treatment.

In a broader sense, Mission, Muslim, Medical and Mon are the four M that will come again and again in studies on indigenous communities. Mon is a common name of all indigenous mankind who in their folk life use either forest or agriculture as their recourse. Some exploit mines. Some do trade and business and for that produce goods from a variety of raw materials. People do not want to see any harm to their course of life and only at that condition invite modernity. They also believe in disease treatment, procurement of illness and sickness and for that again depends on magico-religious events, medicines that they produce from nature and addiction to smoking and alcoholism. Areca nut in betel leaf with catechu and lime extract is another instance and kind of showing solidarity. Tobacco, hemp and even poppy grow up in various pockets of North Bengal. People are also appreciating modern medical system. Pathological lab, dispensaries, Red Cross Society, voluntary blood donation camps, agencies working on mother and child health, nurses, physiotherapists, pharmacists, para-medical doctors, Primary Health Centers, Nursing Homes, Hospitals and the North Bengal Medical Colleges and Hospital along with newly established Malda Medical College and Hospital are highly appreciated apart from tradition treatment, astrologers and Shamans. There is a great demand of establishing a branch of AIIMS (All India Institute of Medical Science, New Delhi-Indian capital) in Raiganj district town of North Dinajpur district of North Bengal also.

Muslim was a major population in North Bengal, now the Muslim dominated districts have been gone into Bangladesh. Many people are here by occupation goldsmith and they conceal their identity to public. However, they are now going to other places inside and outside the state of West Bengal as goldsmith. And at the same time, accessibility to the fourth 'M' or Mission is a dignity to indigenous communities of North Bengal apart or aside from traditional Brahmanism.

Conclusion

These eighteen models are very much effective in doing research in North Bengal areas on indigenous communities each having modes of production, exploitation of resources, social structure, Super-Nature, culture, identity and traditional knowledge on intimate understanding of nature, informal experiments and tribal and error method. In other parts of South Asia, such type of model formation would be definitely helpful in doing research on indigenous communities. Model formation while doing research and doing research while forming the model are two sides of the same coin. Notably, proper documentation with late analysis is too helpful for proper understanding of the indigenous people and model formation. Models will not only make the research easier, but also facilitate the folk to reinvent themselves.

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Angdahaoa- the lost trade route

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Abstract: Angdahaoa is a Toto word that means ancient trade route. Toto is a primitive tribal community situated in Totopara village of Duars region in Indo-Bhutan international sub-Himalayan border with only a few more than 1000 population.

Toto is a unique primitive tribal group of Indo-Bhutan borderline in Totopara village in the vicinity of Torsa River or Amu Chu. Latter is a transnational river way and business route from Chumbi valley of Tibet, Bhutan and its foothills Duars comprising of so many trade routes or doors, and ancient statehoods of Kamtapur and Koch Bihar, followed by watershed of Barindland-Dinajpur with its wetland Chhalan bil at Rajshahi Division of Bangladesh in-between Brahmaputra-Jamuna mouth and Mahananda-Ganges Delta.

Local people in North Bengal believe that Gypsy tribes from Kashmir-Tibet region crossed Himalayas and settled colonies or Diasporas likewise Boikunthopur forest region of Barindland watershed. Bhote community from Tibeto-Bhutan region successfully entered into this region along Teesta-Torsha waterway and put holistic impacts that still exist in folk life. Toto chief Gapu and priest-cum-shaman Kaiji or Subba along with other hamlet heads, lineage heads and elderly persons Yangpui, Pau, and Yongtong actually maintained these routes being a porter tribe under Zinkarf elites of Bhutan from high latitude ecosystem of Ha province. Totos were familiar to Tibetan breed of horses, dogs and cattle herds of Yak.

So, nothing to deny Toto's Angdahaoa that faces both demographic and ecological transformation. Most of the Primitive Tribal Groups in India can be found around the Bay of Bengal from the ancient times who merely exchange women with outer societies.

Introduction

Toto is a primitive tribal group residing only in a small enclave Totopara in Jalpaiguri district of West Bengal, India. Totopara is located at the foot of Bhutan Himalayas along the borderline of Bhutan and West Bengal. It is an establishment on the western bank of Torsa River. Geographically the location is 89° 20'E 26° 50'N.

Totos were nearly becoming extinct in the 1901, but protective measures from the Constitution of India have helped preserving their heritage and assure a steady population growth. The total population of Totos according to 1951 census was 321 living in 69 different houses at Totopara. In 1991 census, the Toto population had increased to 926 who lived in 180 different houses. In the 2001 census, their number had increased to 1184 - all living in Totopara. The area of entire Toto country called Totopara is 1,996.96 acres (8.0814 km²). Totos live near the northern edges of Jaldapara National Park. The village is sub-divided into six segments – Panchayat Gaon, Mandal Gaon, Subba Gaon, Mitrang Gaon, Puja Gaon and Dumchi Gaon. But in due course of time, Totos retained with their identity only in Totopara. Now there is no other place in India where the Toto tribe lives in.

The original 347.43 acres of land under the Totopara could not remain free from outside encroachers as many non-Totos, especially the Nepali speaking Gorkha identity holder people (Gurkha) could be found in Totopara and these people have already encroached 72 acres.

Government of India has identified 75 Primitive tribal groups (P.T.G) located in 14 states and Union Territories (including Andaman and Nicobar Islands). Totos are one of such three PTGs in West Bengal: Lodha, Birhor and Toto. Toto ontology can help in sorting out of many grey areas. Modernity can do a lot for them and in turn can learn many from the same. Totos were very little in numerical strength; at a time they are without any sort of educational, political and economic opportunity. They are now gradually developing. Totos are however like other PTGs: in Andhra Pradesh, there are 12 PTGs; in Bihar-Jharkhand region, there are 9 PTGs; in Odisha 14; in Karnataka 2; in Gujarat 5; in Kerala 5; in Madhya Pradesh and Chhattisgarh 7; in Maharashtra 3; in Manipur 1; in Rajasthan 1; in Uttar Pradesh and Uttarakhand 2; in Tamil Nadu 6; in Tripura 1; and in Andaman & Nikobar again 5 (Ministry of Tribal Affairs, Annual Report 2004-05). So, here we can clearly realize that maximum PTGs are situated in Bay of Bengal region and mostly concentrated in Odisha-Andhra region. From there such PTG are scattered in Tamil Nadu, Chhattisgarh plus Madhya Pradesh,

Jharkhand plus Bihar and Andaman –Nikobar. Along with the Adivasis, some PTGs have also reached into the tea garden belt of North Bengal-Assam Duars. In West Bengal, there are actually 3 permanent PTG staying from time immemorial and Toto is one of them. Riang of Tripura-Mizoram and Maram Naga of Manipur-Nagaland region are also exclusive. Some are there in Uttarakhand, Uttar Pradesh, Rajasthan and Gujarat on another trade route from Himalayas to Arabian Sea. In Kerala's Malabar Coast and in the states along with Arabian Sea; there are a few PTGs. How could we forget about Maysore-Nilgiri, Raichur basin and the mangrove deltas in coastal area, if we are actually talking about the peoples of Indian peninsula and their historicity! These were all trade routes where tribes, pre-Buddhists, Buddhists, post-Buddhists, pre-Aryans, Aryans, post-Aryans, local warlords and native kingdoms, Vaishnavism and Islam, Christianity and modernity, Shahis and colonialists left their impressions. And more marginalization of PTGs has occurred throughout the time span. Toto as a PTG on ancient trade route might not be developed of a single origin, but they are the result of admixing. But now they maintain group endogamy, but clan and lineage exogamy. They still succeed not to be abolished, transformed, absorbed or integrated, and remain quite isolated and only negotiating with outer world in a controlled way.

Trans-nationality and River System

Out of 29 states and 6 Union Territories of India, West Bengal contains 13 southern districts and 6 northern ones, known as North Bengal. Latter is a transnational region and continuous with a set of 16 districts of Rangpur and Rajshahi Divisions of north western Bangladesh. These 6 districts are namely Jalpaiguri, Cooch Behar, Darjeeling, Uttar Dinajpur (North Dinajpur), Dakshin Dinajpur (South Dinajpur) and Malda.

This Indo-Bangladesh continuity of North Bengal contains two major river systems: Mahananda and Teesta-Torsa towards Ganges and Brahmaputra respectively that are gain separated by Barindland-Dinajpur watershed.

Barindland-Dinajpur is surrounded by various basins formed by Mahananda River, Mahananda-Ganges floodland, marshland of Chhalan Bil and Bengal Delta, Karatoya River, Karatoya-Atrai river system, Atria-Purnabhaba river system, Jamuneshwari (the lost flow of

Karatoya-Teesta), Teesta-Torsha waterways, and Jamuna-Brahmaputra. Most of Dinajpur highland is located in North West Bangladesh which is actually the Rangpur Division there in association with Rajshahi. Rangpur-Rajshahi region not only covers Dinajpur Proper, but also rainfed rivers from this highland like Jamuneshwari, Karatoa, Atrai and Purnabhaha. Atrai and Purnabhaha develop a marshland just above of the Bengal Delta. This Chhalan Bil marshland is also a part of Rajshahi. Some pockets of this Dinajpur highland are in Indian portion. Its western part is in India by the name of West Dinajpur that constitutes two separate districts of North Bengal- namely North Dinajpur and South Dinajpur. Its northern portion is again in India by the name of Barindland or Varendrabhoom. Malda was also a part of Rajshahi and mostly contains floodland. Actually, Karatoa River initiates from this Barindland and flows then into Dinajpur highland where now it meets with Atrai-Purnabhaha system. This Barindland-Dinajpur behaves like a watershed separating Mahananda and Teesta Rivers to its western and eastern directions. Mahananda river system initiates from Indo-Nepal Himalayas, flows through Bihar-North Bengal areas of India, and then as a tributary meets into Ganges Delta in Indo-Bangladesh territories. Similarly, Teesta river system begins at Indo-Sikkim Himalayas (Sikkim now is a part of India) and Torsha at Tibeto-Bhutan Himalayas; both rivers then enter into Jalpaiguri-CoochBehar region of North Bengal that overlaps with Brahmaputra river system of North East India. Teesta, Torsha and Jamuneshwari are different tributaries of Brahmaputra. Actually, Brahmaputra, Teesta and Torsha are all initiated from Tibet-Eastern Himalayan region and after crossing North East India and Jalpaiguri-CoochBehar enter into Bangladesh. So, Jalpaiguri-CoochBehar is the westernmost part of Brahmaputra valley and not actually Gangetic plain. Teesta-Torsha is separated from Mahananda river system which is to Ganges by Barindland-Dinajpur region. So, the rest part of North Bengal consisting of Darjeeling district, North Dinajpur, South Dinajpur and Malda is mostly part of Mahananda river system, Gangetic plain and West Dinajpur.

Barindland watershed in India is located in Jalpaiguri district as the Boikunthopur-Rajganj areas. East of this lies Teesta-Torsha transnational river system continuous with North East India, Bangladesh, Royal Kingdom of Bhutan, Sikkim state of Eastern Himalayas and Chumbi valley of Tibetan Autonomous Territory under China. Rivers from Indo-Myanmar tract like Barak and Feni also cross North East India and enter into Bangladesh and thereafter

form the Surma-Meghna water way. This along with Brahmaputra-Jamuna mouth and major part of Gangetic Delta or Bengal Delta in Bangladesh formulate a very complex river network that finally opens into Bay of Bengal. This Bay is surrounded by Indian Peninsula or South India, Bengal region including independent country of Bangladesh, and South East Asia.

So, obviously Teesta-Torsha region is a transnational region. Foothill of Bhutan Himalayas has now been included into India as its integral part. Its western Teesta-Torsha portion is in Jalpaiguri and eastern part directly to Brahmaputra valley of North East India. Western part is therefore known as Bengal Duars and the eastern portion as Assam Duars. Using this water way one from Tibet and Sikkim and Bhutan can reach up to Bay of Bengal. That was probably a transnational trade route in pre-colonial times and therefore states and kingdoms like Sikkim, Tibet and Bhutan emerged out and Jalpaiguri-CoochBehar was also center for indigenous statehood formation from time to time. That might be Koch Bihar and Kamtapur. That could be further associated to British Rule in India, formation of Jalpaiguri district containing CoochBehar plains plus Bengal Duars plus Barindland, formation of Darjeeling district by southern Sikkim plus western Bhutan plus Indo-Nepal foothill Terai, formation of tea estates in included Duars-Terai-Hills, in-migration of Gurkhas and Adivasis from Nepal Himalayas and Central Indian Plateau in these included regions, Pabna peasant agitation, Sanyasi and Fauquier agitation (monk agitation), Mughal Padshahi, Gour (Malda), Rajshahi, Bogra, Kamboja-Pala, Prithu rajar garh (Fort of King Prithu), Panchagarh, Jitari monk, Varendri Brahmans, Sen Kings and Lakshmanavati-Ramavati, Pala, Kaivarcha, King Jalpa and Jalpesh Temple, pro-Kushana, Guptas and Nal rajar garh (Fort of King Nal), Mauryas and Mahasthangarh-Paharpur Buddhist center, Pundranagara city and Pundrabardhana state, legend of King Paundrik Vasudeva, formation of Pundra and Sumbhara and Anga and Kalinga and Vanga, emergence of Magadha and Pragyotishpur, presence of sub-Himalayan confederacy of Little Republics along Indo-Nepal border, folklores relating to Great Indian Epics like Mahabharata and Ramayana, non-Brahminical Pundra-Kshattriya (Kshattriya meaning ruling class and warriors) and their exclusion, formation of Rajbanshi agrarian caste based social fold, worship of fertility cults and nature, pre-Vedic concepts like Kamboja and Mon and Bhati and Bodo, persistence of Kamrup and Kuchhur and Kamaru and Kok-Borok and Boro-Kamta and Coomilla, existence of Kirat and Kagatiya, and other historical and mythical evidences. There are legends of Parasurama and Kashyapa, Vaishnava sect, Islam

and Sufism, Christianity, and caste Hinduism in North Bengal.

Even the name Jalpaiguri derives from King Jalpa, Jalpesh temple of the Rajbanshis, Jelep la mountain pass to Chumbi valley and Jalpai or olive plant. Till date there we can find out so many sculptures of so many Gods and Goddesses from different corners of North Bengal as well as Rangpur and Rajshahi Divisions of Bangladesh. Pundranagara ruins in Bogra region of Rajshahi Division was an ancient politico-economic center in vicinity of Jamuneshwari (old Teesta-Karatoa). Bogra has become an important Islamic center during 12th century AD. Prior to that, the place was a prime Buddhist center by the name of Mahasthangarh-Paharpur. So, local people in North Bengal still remember these continuities and new comers manage themselves to this situation. Trans-nationality and river systems are definitely two basic facts here.

And Totos in Totopara are just the tribal community to the rank of Primitive Tribal Group (PTG) in Indo-Bhutan transnational Bengal Duars by the bank of Torsha River that is known as Amu chu or Amo River in Tibet and Bhutan Himalayas. So, the question raised here is whether the Totos were associated to such transnational trading?

Transnational Route

In Jalpaiguri Duars, Torsa is a very important river which is again transnational. It initiates from Chumbi valley of Tibet Autonomous Territory of China and then flows into Bhutan Himalayas by the name of Amo or Amu River (Amo Chu: Chu meaning River). It then becomes Torsa in Jalpaiguri-Cooch Behar and divides into two distributaries. The older one in Cooch Behar is associated with Singimari-Jaldhaka and various tributaries like Jarda, Dudua, and Mujnai. This union produces River Dudua in Cooch Behar-Bangladesh region. Ancient power house Gosanimari is located in this enclave of Torsa-Singimari in Dinhata of Cooch Behar district. Gosanimari was the capital of Kamtapur kingdom contemporary to Turk-Afghan rule in Delhi Sultanate and from Gour at Bengal or Bengal Presidency. Another branch of Torsa flows by the district town Cooch Behar and in Tufanganj region of the district unites with Kaljani-Raidak water system.

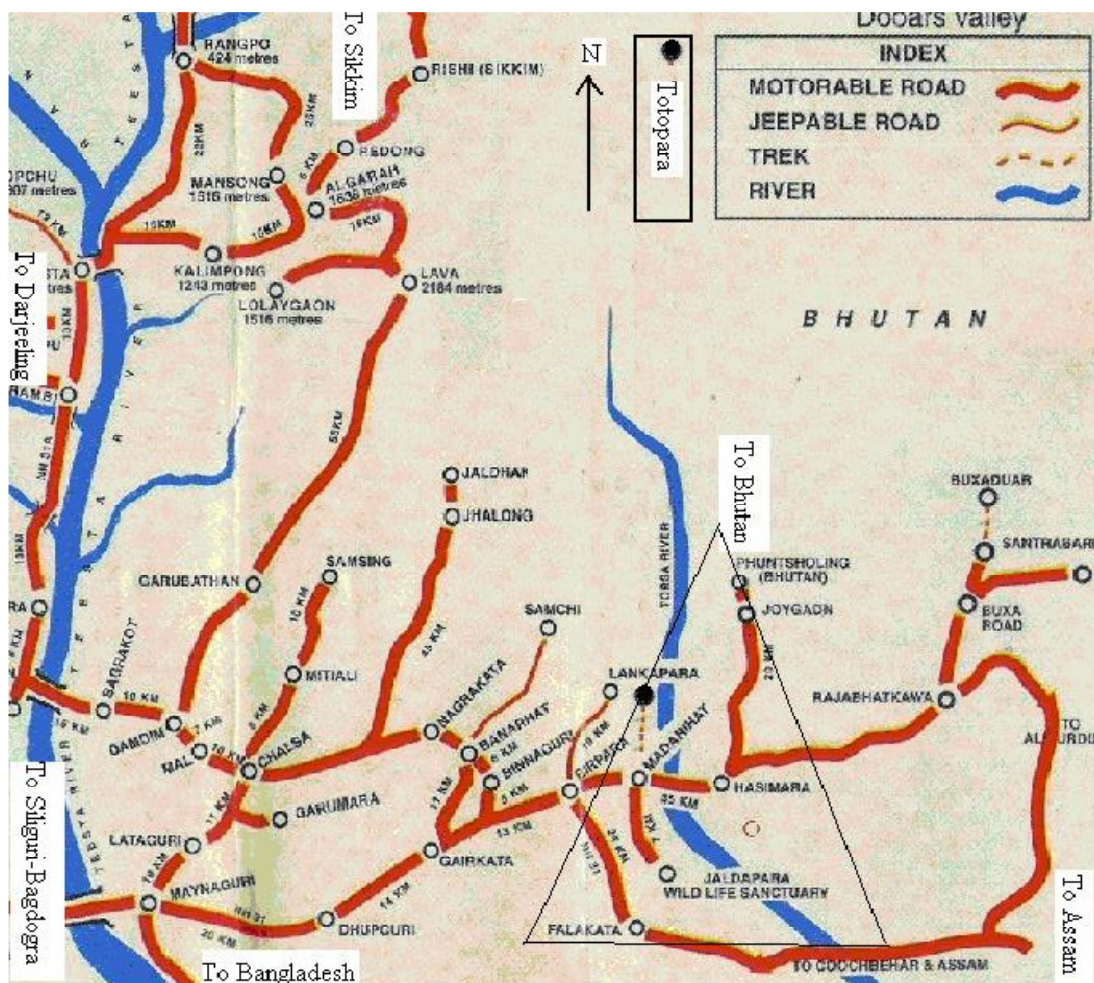
Both Jaldhaka and Kaljani-Raidak are initiated from Bhutan Himalayas and they are on right and left sides of Torsa River respectively. Amongst these Mujnai and Kaljani are so closer to Torsa confining the gateway of Bhutan. Lankapara-Birpara, Totopara-Madarihat, Joygaon-Hasimara-Kalchini-Hamiltonganj, Bhutanghat-Jayanti-Bauxa Duar-Rajabhatkhawa-Alipurduar are amongst various gates. There were actually 18 major gates once in Duars of which 8 were fallen in Jalpaiguri.

However, Joygaon-Hasimara is the key route. This is on the left bank of Torsha, whereas Totopara-Madarihat of the right side. Madarihat moves towards Jaldapara National Park and Falakata settlement where it meets with Lankapata-Birpara route. From Falakata, ways move upto Mathabhanga where Jarda meets Jaldhaka. From Mathabhanga, way goes to Gosanimari-Dinhata where Jaldhaka-Singimari meets with old channel of Torsha. However, both Falakata and Mathabhanga are also linked up with Cooch Behar district town after crossing Torsha. Cooch Behar town is itself situated on the bank of a Torsha distributary. This branch of Torsha joins with Kaljani-Raidak river system further east at Tufanganj-BakshirHat with Balarampur soil. Kaljani flows through settlements like Joygaon, Hasimara, Kalchini, Hamiltonganj, Rajabhatkhawa, Alipurduar and Tufanganj as well as Raidak by Kumargramduar. This Kaljani-Raidak and then Sankosh-Gadadhar are opening at Brahmaputra just like Jamuneshwari, Teesta and Torsha. Crossing these rivers from west to east is the actual way to Assam both by road connectivity and railways. Kaljani-Raidak and Sankosh have their origin at Bhutan Himalayas and Bengal Duars. There is another Bauxa National Park that once served as Bauxaduar trade route to Bhutan at the vicinity to Joygaon, Alipurduar, Kumargramduar and Sankosh. Chilapata Reserve Forest contains the ruins of Fort of King Nal or Nol.

Therefore, Totopara to Falakata to Mathabhanga to Gosanimari is definitely a trade route. Totopara in Madarihat block is nearer to Pahargaon settlement in Bhutan and it falls under Ballalguri village governing body. It is rather known as Laxmiduar or Luckyduar. It is also connected to Mujnai, Dharala-Jaldhaka and Jarda water ways. These rivers are on Lankapara-Birpara, Sengten-Chamurchiduar-Barathat and Malbazar-Lataguri-Mainaguri regions. Malbazar is a small business center and through Chalsa and Damdim connected to Gorubathan. Bagrakote serves connectivity to Kalimpong. Gorubathan and Kalimpong are in the Kalimpong subdivision that is in the Darjeeling district instead of Jalpaiguri and once a

part of Bhutan Himalayas. Kalimpong is that region which is directly linked up with East Sikkim district of Sikkim Himalayas where Jelep la pass is connected to precious Chumbi valley. It is a valley with triangular shape. Its other side opens at Bhutan and Torsha River which actually originates in this valley enters into Bhutan and then through Totopara into Indo-Bangladesh. If we can consider Joygaon, Bauxaduar, Alipurduar, Kumargramduar and Sankosh as a set; then why not considering Totopara at Luckyduar, Lankapara-Birpara, Chamurchiduar and Mainaguri-Malbazar-Bagrakote-Gorubathan-Kalimpong-Jelep la another one! Gorumara National Park, Neora Valley forest and other forest bits cover a huge portion here. These are the two sides of Torsha and Totopara is on the right side.

MAP: ROUTES ALONG TEESTA AND TORSHA OF DUARS (showing Totopara)



Courtesy: TOURISM DEPARTMENT OF GOVERNMENT OF WEST BENGAL

West of Bagrakote is the Teesta River and Boikunthopur Forest of Barindland. Teesta from Sikkim divides Darjeeling hills of Darjeeling district west of Kalimpong hills. Teesta itself is a route to Jalpaiguri district and district town that through Haldibari-Mekhliganj goes into Bangladesh.

Haldibari-Mekhliganj along with Sitai-Sitalkuchi of CoochBehar district has continuity with Boikunthopur-Rajganj or Barindland of Jalpaiguri. From there Karatoa River initiates whose lost track is Jamuneshwari River in Bangladesh. This highland has continuity with Panchagarh, Thakurgaon and Dinajpur proper in Bangladesh as well as Chopra-Goalpokhar regions of Islampur subdivision of North Dinajpur, Raiganj, Balurghat and even Bamongola-Habibpur of Malda.

Teesta, Torsha and Jamuneshwari (old Karatoa) cover Lalmonirhat, Kurigram, Rangpur, Nilphamari and Gaibandha upazilas of Rangpur region as well as Bogra upazila of Rajshahi. Rangpur and Bogra of Bangladesh have therefore direct continuity of Teesta-Torsha. Karatoa, Atrai and Purnabhaha rivers cover regions like Barindland (India), Thakurgaon, Dinajpur proper, Balurghat (India), Nawabganj, Joypur, Rajshahi, Natore, Pabna and Sirajganj. Most of these rivers meet into Brahmaputra-Jamuna in Bangladesh.

Darjeeling hill is the origin of Mechi-Mahananda basin along with few tributaries from Indo-Nepal region. All of them have to cross the Indo-Nepal Terai foothill consisting of Morong of Nepal and Siliguri subdivision with Siliguri Municipal Corporation in Darjeeling district. Mahananda water system develops Mahananda-Kanki-Mechi basin in Thakurganj district of Bihar. Then Mahananda-Nagor basin is distributed between Islampur region of North Bengal and Kishanganj district of Bihar. At Raiganj, rain fed tributaries like Gamar, Chhirimati and Tangan from Dinajpur highland are preparing to meet into Mahananda River in Purnea of Bihar and Malda of North Bengal. Then Mahananda enters into Nawabganj upazila of Rajshahi Division of Bangladesh to finally meet into Ganges Delta.

So, North Bengal of India along with Rajshahi Division, Rangpur Division, Bhutan, Sikkim, Chumbi, Kalimpong hills, Darjeeling hills, Indo-Nepal Terai, North Bengal-Bihar borderline and North Bengal-Assam overlap definitely constitute a transnational route. And Totopara so far neglected is a part of this, at least considering portion between Teesta and Torsha

comprising of Jaldapara and Gorumara National Park.

Totos in Totopara

Totos are one of the 74 recognized “Primitive Tribe Group” (PTG) of India. They have been residing at Totopara at the Himalayan foothills around 30 km from Madarihat police station. However, this seems to be that there were many other Totos in Western Duars likely Totopara in Falakata, Totopara in Jaldhaka-Dhupguri, Totgaon in Malbazar as well as Tatpara in Alipurduar near Mhakalguri.

Bhutan war between British in India and Royal Kingdom of Bhutan was happened in 1865. Bhutan Duars Act in 1868 assumed full control of British East India Company in favour of Mughal Padshahi over the Duars area so far incorporated and divided into western Bengal Duars and eastern Assam Duars. Along Indo-Bhutan border, there are 18 doors or Duar and as a result of this, the place is known as Duars or Doors. Eight doors have been fallen in Bengal Duars or Jalpaiguri district and the rest ones in Assam. The term “Duar” is also used in various other sub-Himalayan and nearby highland pockets. Eight doors in Bengal Duars of Jalpaiguri along Indo-Bhutan boundary are namely Chalsa-Malbazar-Jom Duar or Mainaguri, Chamurchi Duar of Jaldhaka and Singtam, Lankapara-Birpara, Lucky Duar or Luxmi Duar, Alipurduar-Hasimara, Bauxa Duar, Kumargramduar, and Sankosh. Though it is a jungle area and we have to cross Se-Ti and Hauri streams twice to enter into existing Totopara village; but a jungle route near the bank of Torsa still exists. This is a part of Jaldapara National Park (formerly a wildlife sanctuary) and called as Titi reserve forest. It is the remoteness and natural guard-wall that still protects the village.

We can have a small village Totopara on the lost route. It is now under the Ballalguri village governing unit under Madarihat administrative block and Alipurduar subdivision of district Jalpaiguri. The village was once populated by a small community Toto; however there are now so many non-Toto communities. The village Totopara is divided into six sectors, namely Panchayat Gaon, Mondol Gaon, Subba Gaon, Mitran Gaon, Puja Gaon and Dhumchi Gaon.

Totos are basically animists, homogeneous tribal community with specific territory-culture-language, and a group associated simple economy and polity. They have strong association with Tibeto-Bhutanese linguistic groups, developed Gapu-Kaiji system of their own, and step-

cultivators. They used to be associated with orange orchard, forest-dwelling, hunting-and-gathering, slash-and-burn cultivation, domestication of cattle, thatching, leatherwork and lac preparation, and manual transportation of goods from Bhutan into the Jalpaiguri-Cooch Behar plains. They know the use of natural dye and silk cotton from catechu plant, and tobacco smoking. They are good brewers from millets and rice; they prepare Eu liquor on regular basis. This is the must in every festival. They were once very conservative; but these people now do not much hesitate for external communication. They are now habituated with settled cultivation in foot hills, hill slopes and Torsha valley. They raise areca nut agro-forestry and still cultivate cane in few amounts. They always oppose tea estates at their place. Totos are settled at Totopara village in Indo-Bhutan borderline fallen under Titi reserve forest within Jaldapara National Park (formerly a wildlife sanctuary). The forest contains python, snakes, leopard, elephant, boar, bear, deer, tiger are so forth. However, Totos have no such criminal records and they do not perform poaching. But Totos have a festival of Sinchako Kobi that they used to perform before going inside deep jungle for collection of Minor Forest Produce and even hunting.

Totos on ancient Trade Route: How Justifiable?

In their physical feature, Toto people are of Mongoloid stock with a darker skin. Traditionally Toto language is a non-pronominalized one within sub-Himalayan groups under ‘Tibeto Himalaya Branch’ of ‘Tibeto-Burman subfamily’ under Tibeto-Chinese family. During Bhutan’s hegemony, Totos were subordinates of Zinkarfs of Drukpa society who ruled over the Bhutan Himalayas and trade routes from Tibet and Chumbi valley. Bhutan was a Buddhist Nation and Drukpas dominated on various small communities in and around Bhutan; they were bound to pay services at free of cost. Such bonded labour was known as Huiwa and Totos were not above that. That practice of bonded labour was also there within the Toto society. Common Totos had also to deliver Huiwa to their Gapu and Kaiji who are their political and religious chiefs.

Totos again use a term toto in their mother tongue that means thatched objects basically made

up of bamboo flakes and plantain leaves from jungle. These thatches are used in basketry that these people use to carry goods. Goods from Bhutan were basically orange and spices. Till date orange, spice and potato as well as wooly clothes of Bhutan have their market in Indo-Bangladesh markets. In reality, Totos were primarily transporters carrying goods from Bhutan to plains and vice versa. That was actually their prime economy. So, thatching is the core of their livelihood. This can be an assumption of Toto name formation. In traditional society, transportation from hills to plain was governed by Toto religious priest Kaiji and the reverse route by political head or chiefdom Gapu. Latter could only guide the community ceremonies like Amchu and Moyu that are basically related to annual river trade route worships. But Kaiji and Gapu were assisted by other important experienced elderly personalities called Yangpui. Totos maintain thirteen exogamous clans (sarkhae). These are Linkajibei, Dankobei, Dantrobei, Nubebei, Machingbei, Mantrobei, Mankobei, Bongobei, Budubei, Budhbei, Pischangobei, Nurun-changobei, and Dhiren-changobei. Totos have still in their cognition maintained community sentiment, clan property, and supremacy of Gapu and Kaiji (political and religious leaders respectively). Gapu is actually owner of this total property of Totopara. British in 19th Century provided protection to the Totos and reduced the rank of pro-Bhutan Kaiji below the Gapu as a tax hoarder. In Toto society, Gapu and Kaiji are also regarded as Mondal and Subba. Besides them, Totos have developed posts like Yangpui, Pau, Yongtong, Kharbari (messenger), and Chowkidar (village guard). They had the Amepha as their traditional rural governing body. Yongtong is basically an elderly person of the lineage or clan from the Toto society. They primarily take care of normatic behaviours regarding rites-de-passage. Totos also exhibit their gratitude to priestly categories Pau present in each hamlet. Pau is their traditional medicine men. Jhankiri of Nepali community also deals with medicinal plants, disease treatment, mental health and spirit possession. Yongtong and Pau are associates of Gapu and Kaiji. Previously, there were Yangpui to assist both Gapu and Kaiji. Sugrib Toto is now the Gapu. Jitsang Heubba is the chief priest. Together, they maintain the Toto social system. They still have a notion of community property. They call in their relatives as Neoscha which is of two types-miphu papaya (consanguinal) and pami-bei (affinal). Cross cousin marriage is however permitted along with widow marriage, polygyny, and love marriage. Negotiated marriage and monogamy are but the most preferred. There are

four usual ways of acquiring the mate viz., (1) marriage by negotiation (Thulbehoea), (2) marriage by escape (Chor-behoea), (3) marriage by capture (Sambehoea) and (4) love marriage (Lamalami). Marriage is now held in the months of January, February and March. Actually, the Toto people once sold their orange throughout the winter and autumn. They had the money to arrange the marriage ceremony. There is a provision of Sangailaomi or Sangai-Lam-Pami which is a ceremony of confession before the entire clan. Totos are patriarchal, mostly believing in nuclear family and without any youth dormitory; however women get their status more than average. They are like a community on any ancient trade route and dealing in orange trade and carrying other products like spice, silk, ethno-medicines, and Tibetan products who raised yak in a semi-nomadic livelihood in high Tibeto-Himalayan altitudes. Totos take tea without sugar but with salted butter. This is a Tibetan way of preparing tea. Bhutia traders once got into these plains with their goods on the back of tanga horses. During winter, Bhutanese Sharchop tribes came down to Duars due to heavy snowfall in high altitude Bhutan Himalayas. They brought with them orange, wool, yak skin, yak milk product Chhurpi, fermented alcohol Chhang and Tibetan horses and dogs. Totos do not domesticate Yak but mithun (pi'ka).

Totos are now good with linguistic communication, but they are still very much conservative in case of establishing marital relations with outside. It is the cultural lag for what they are still highly associated with traditional values and norms. The community here in Totopara still keeps their distinctiveness and does not move towards any greater identity. That may be due to their 'lost heritage' and therefore keeping their identity instinct while forgetting everything about their ontology. They in their sense were probably prosperous and affluent that was only possible through trade of the goods in a wider periphery. Toto males dress up with Andung and Bachha, whereas females with Mera, Bijung, Tumba, and Pari. Both at a time wore ornaments which they describe as Iring, Tishe, Kei, Nanshi, etc.

Totopara-Madarihat was known as Lucky Duar, in addition to Chamurchi Duar of Jaldhaka and Jom Duar of Mainaguri. These routes pass to ruins of Gosanimari of Cooch Behar (Dinhata). They also go parallel to Teesta and move into Rangpur Division of Bangladesh. Bauxa Duar, Kumargram Duar and Alipurduar on the other side of Torsa move towards Cooch Behar (Koch Bihar). Ancient trade routes and trade relations still exist within the culture and cognition of the Totos. Among the Totos, marriage is generally performed during

October-February. During early days when they raised orange orchards, winter and autumn seasons were so exclusive to them. They then allowed outsiders in Totopara, sold orange fruits and with the cash or kind they got, they perform marriage ceremonies. Totos still prefer to marry in winter-autumn. Their lowland associates (Mech) perform festivals like Bagrumba and Boishagugelenai in autumn and at beginning of summer with song and dance. During winter, Bhutanese Sharchop tribes came down to Duars due to heavy snowfall in high altitude Bhutan Himalayas. They brought with them orange, wool, yak skin, yak milk product Chhurpi, fermented alcohol Chham and Tibetan horses and dogs. Still these pre-Summer occasions are so exclusive to the people of Totopara-Madarihat region on Laxmi Duar (Lucky Duar). In mainland Indian and among Hindu caste society, Laxmi is the Goddess of Gold; many tribal communities also pray to Her.

Totos are aware of modern life, economy and polity. They however negotiate with outer world. Ethno-tourism and various organizations provide them the opportunity to further interact. They are interested in electronic gadgets, mobile phones and dish televisions. They are equally interested in knowing what is going outside their own community. Even Totos have accepted modern political structure of India, but post of Gapu we can still see. Sugrib Toto is now in the post; he is working in the Totopara branch of rural banking sector (Uttar Banga Kshetriya Gramin Bank). His daughter Rita Toto has completed her graduation from P.D. Women's College of Jalpaiguri Town set up long ago by Jalpaiguri Branch of Koch Bihar Dynasty. Now, she is an employee at Tata Consultancy in Kolkata (formerly Calcutta). Kolkata is the capital city of West Bengal, a mega city of India and during British India remained a major power center for the entire South Asia. Still now in Toto society which is basically patriarchal in nature, women play a crucial role of pathfinder when the community is in crisis or their surroundings are in a transitional phase. Totos are willing to go to the defense sector and Indian army and join Gorkha regiment of the Nepalis. Many of them go to Bhutan for job. Totos also want to go to other parts of India for jobs. They are highly attracted by Maharashtra in Deccan and have listened about India's business capital Mumbai. Few of them have visited Kolkata (Calcutta) and Siliguri-the main two urban centers of west Bengal state.

Totos take school education in Bengali. They are now publishing articles in their language but in Bengali script. They are good in speaking out in Bengali, Hindi, Nepali, other tribal and

Rajbanshi dialects and languages, and they can also understand English a bit.

Totos are no doubt very much Indian and proudly speak out in favour of who from their community go to Police, Army, Para-Military as well as they also mention names who are good in playing football, teaching, government jobs in bank, library and post-office. They have a mother-and-child care unit in the village. Politically, they are in favour of indigenous status quo along with Rabha and Mech (Bodo); and yet they support Gorkhahood of the Nepalis who parallel to Adivasi people in Duars create human shield in Indo-Bhutan border essential for India's national interest. They say that they are very much in opposition of terrorist activities in this trans-national region or any such terror-based economy. They can do all for showing their Indian-ness. They provide land to para-military forces from their community land for peace in the region as well as for their security.

Angdahaoa- the lost trade route

Totos are contemporarily supposed to be very peace loving people. But their origin is a mystery as they have no script. Totos do not know from where they have come to this place, but aware about their entity as well. They have forgotten about Angdahaoa which was transactions of goods through ancient trade routes. Those probable trade routes throughout Jalpaiguri Duars extended upto parts of Cooch Behar. The main center was obviously Totopara. There are many places on those routes with names initiated with Tot, Tat, etc. These places are often accompanied by places whose names include the term Bhot or Bhat as well as Bauxa, Baxi or Bakshi. These additional places indicate to peoples of Bhutan as well as Bauxa Duar. That might be just a guess, as no such distinct evidence we can present.

Drukpa people of Bhutan have their branches in Sikkim in the name of Denzongpa, in Nepal as Sherpa and also in Eastern Himalayas as Monpa. People of Bhutan in North Bengal are locally known as Bhote. We can find places like Bhutnirghat or Bhutnirhat in Himalayan and Sub Himalayan regions. Bhutia people and women carry goods to river ports and weekly markets of Duars and Jalpaiguri. A huge portion of river plains now fallen into Bangladesh is known as Bhati and people there have a typical folk song known as Bhatiali sung by boatmen controlling the river routers. Bengali business groups include various castes and a few of them

have been included under Teli community. Personally, I know many Teli people good with their educational and professional life and they are very good in communicating with these tribal communities situated on ancient trade routes. Teli basically refers to traditional oil extractors. Teli is again another business oriented community among the Bengalis. Ancient Kingdom of Kamtapur from Gosanimari at the juncture of old Torsa and Jaldhaka-Singimari at Dinhata-Sitalkuchi region of Cooch Bihar district was set up during Sultanate rule in Delhi, Islamic innovation in Rajshahi Division and upheaval of Chetia people in Brahmaputra valley of North East India. Kamtapur was run by Khen people who were also oil extractors according to some sources. Khens were often treated locally as Teli. Kamtapur was followed by Koch Bihar. Capital of Koch-Rajbanshi kingdom Koch Bihar was present day Cooch Behar town (Koch Bihar was emerged out during Mughal Padshahi, Bengal Nabob and Ahoms); that as a Princely State along with its Jalpaiguri estate existed throughout the entire British rule in South Asia and still Cooch Behar and Jalpaiguri are the district towns of Cooch Behar and Jalpaiguri districts. Jalpaiguri town is situated at the right side of Teesta towards Baikunthopur-Rajganj heights of Barindland. Cooch Behar town is situated on present flow of Torsha River.

Torsa River is spoken as Amo Chu that is worshiped by the Totos. There is Amu Darya River to Aral Sea in Central Asia. Central Asia is west to Tibet. We can imagine Tibet being the link between Amo Chu of Chumbi and Amu Darya of Central Asia. Central Asia or Turan has been influenced by Irano-Afghanistan, Alexander, Arabs, Russians and Chinese; the place was occupied by Mongols, Turks, Tajiks and various Aryan tribes. Definitely, the Indo-Aryans entered along ago in this subcontinent after crossing Hindukush range and Indus valley and then in India. But it is also true, various Gypsies and Aryan tribe fractions moved into Tibet, Kashmir, Himalayas and Sub-Himalayas. From there, we may further conceptualize the entrance of Mongoloid and Aryan admixtures into Sikkim-Bhutan, Duars, Teesta-Torsa and Barindland watershed also highly populated by pre-Buddhists, Buddhists, Vaishnava Hindus, and Turk-Afghan elements along with caste Hindus practicing settled cultivation. Varendri Brahminism is generated from this very Barindland. Similarly, Maithili and Kamrupi Brahmans are there in sub-Himalayan Bihar and North East India.

Totos are now praying to Mahakal worshiped by both Buddhists and Hindus. In Chilapata forest near the fort of King Nal, there is a cult of Mahakal. In Mainaguri region, Jalpesh

temple has similar cult. These are basically stones deep inside the ground. Such temples are also at Jateshwar in Falakata as well as at Jatileshwara in Hushlurdanga (Upland of Hushlu or Hultz). These temples are manufactures and repaired again and again. Hushlurdanga is within Churabhandar village area in Mainaguri region. The temple appears to be of Lord Shiva and Mother Goddess. The Shiva temple is located underground and surrounded by quadrangular stone wall. Each wall is with a passage door. Temple is very small, beside a pond covered by water lilies and lotus and a banyan tree. Such ponds and temples or mounds are there in various unknown pockets of North Bengal sub-Himalayas. Stone wall has been sculptured with dancers, yogi and drummers. The yogi might be the Buddha or Mahakal. Similarly, the eroded sculptures in dancing posture of thousands years back might be fertility cult, symbol of fertility testing, women warriors and bloodsheds. Local folk people have belief in soul, spirit, spirit possession, pre-Vedic cults, ghost, mashan (goblin) and poiri (fairy). Such huge pieces of stones are not locally available. That might be brought from Bhutan Himalayas. Bhutan today has so many dolomite mines and rivers in Duars bring in boulders, stone chips and sand used in construction. It is also believed that there were gold mines and rivers with gold sand in and around Barindland as well as Tibeto-Himalayas. During the time of gold, many people other than believers in crop and forest resource and cattle might be there. There is no direct evidence of Totos involved in stone crushing or mining. However, in these days they go outside Totopara in search of job and many Totos in Bhutan. Torsha River is a good source of sand and boulders. Hasimara railway station is used for uploading of these construction items and sending them to different parts of India. Bhutan is a producer of alcoholic beverages, orange juice, red meat and cement. So, the passion of Angdahaoa still exists and this has risen beyond any specific community. The term is a Toto word, but it is an organization in it. Totos are natural worshipers and the things they worship include river routes and jungle paths which is a clear indication to tread lines. All other communities rather than Totos have negotiated with caste groups. However, Totos have more interaction with Nepali speaking Gurkha identity holders consisting of tribes, ethnic communities and castes mostly originated in Nepal or the Central Himalayas.

Conclusion

Toto, a PTG, is unique in it. They have succeeded to preserve their identity. They have strong resilience and self-control. They communicate with outside and are very much optimistic. But they do not want to anything that would lead to be a part of a greater-and-wider social fold. They ancient routes Angdahaoa have been lost, but they are still alive in their culture and cognition. They provide women higher than average status in their patriarchal family. Totos were basically pre-agriculturists and their prime economy was a set of agro-forestry, forest produces and ancient trade route with a transnational nature. They were animists, but maintained good terms with Bhutan that is still a Buddhist Nation. They were also influenced by Swedish Mission and Christianity to some extent. They are fond of high proteins from pork, beef, fowl and pigeon rather than goat and fish. They are not actually settled cultivators and never accepted Hindu caste system. They were the British who provided them protection and alternatives. Secular chief Gapu eventually became more powerful than religious chief Kaiji dealing well with Bhutan Buddhist nation. Destruction of orange orchard in 1930s and outsiders' influences (especially the Gurkhas) were two crucial factors. Nepali speaking Gurkhas could work in tea gardens, do settled cultivation in hill side, join in British and then in Indian army, and have faith in Gorkha Shahi. Totos have experienced huge impetus in their lives after coming to an attachment with Gurkhas and not just their cohorts like Subba, Lepcha, Drukpa, Doya, Lokpa, Jalda, Dhimal, Tharu, Mech (Bodo), Khen, Koch, Rabha and even the caste Rajbanshis and Bengalis.

Revival of such transnational routes in new form may be economically beneficial in this time of globalization and global market economy. But the region of North Bengal is geo-strategically very important. It is the chicken neck that connects North East India to mainland India. Tibeto-Myanmar belt, Eastern Himalayas and other hilly tracks, watersheds and river valleys, prime river networks throughout Indo-Bangladesh and Bay of Bengal hold Angdahaoa and innumerable trade routes of such types. Most of them have however lost due to Shahi concept, modernization, tea estates, settled cultivation and other economic alternatives.

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Impact of Migration on Indigenous Knowledge System

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Abstract: People with Indigenous Knowledge System (IKS) have the capabilities to provide several Public Services that parallel to the Modern systems is equally important. An indigenous community may be marginalized due to in-migrations or be out-migrated. It may be immigrated or emigrated. In both the cases, IKS could be altered due to changes in modes of production.

In a transnational region of India is Duars region of northern West Bengal state of India. This is actually an included area from Bhutan Himalayas and formerly considered as Buffer.

Ancient trade routes have lost and people could only imagine of their indigenous statehood like Koch Bihar and Kamtapur. Tribal communities like Mech (Bodo), Rabha, Garo, and Koch have been mostly incorporated into the wider social category of agrarian Rajbanshi caste. Varendri caste group there speaks off their Aryan origin but on to Kashmir-Tibet ways. Nepali speaking Hill Nepalese of Nepal are actually immigrants but recruited in Indian Army. They also construct the labour class in Tea estates along with Adivasi people of Dravidian-ProtoAustraloid origin from Central India.

A new form of IKS has grown up locally that contains identity movement, human shield in this border territory and multiculturalism. For that the British rule in India obviously got the credit. Mutual understanding between IKS and Modernity can really fulfill the goal. We cannot consider IKS being a part confined in mode of production, but the structure and the super-structure (or cognition) that speaks openly in favour of culture to multiculturalism.

Introduction

Shift from one place to another in a general way is treated as migration. Migration may take place on individual basis or at community level. It might be temporary or permanent. It may occur at a small scale or in a huge parameter. It may also be seasonal. Migration may be induced or from a self-reliance perception. Those who migrate are treated as “migrated”. Migration might be a continuous process and in that case, the individual or community is actually “migrating”. Migration is a common feature for living beings. Animals and other fauna in ecosystem can migrate. Spores and seeds of plants also shift from place to place. Microorganisms spread to another place and often cause diseases and epidemics.

Human is the only creature on earth which belongs to a society with culture. Human in this long course, has innovated so many techniques and by applying these techniques produced so many tools. These techniques acquired by human beings are the result of their unintentional and organized experimentations followed by trial and error method. Those techniques and innovations are kept inside the mind as knowledge. They communicate with one another to share their knowledge traits and transmit to the next generations through the teaching and learning methods. To make those information and knowledge traits long lasted, they have mixed them up with their belief, values, norms and customs-together these things are nothing but culture. They make the law. They documented the information in forms like sign, symbol, art and script; and in order to express used vocabulary, word, speech and language. Society with no script has to depend more on gesture, behavior and personality. They use their culture as a book and the only book. Their culture can use so many performances and be expressed through folk song, folk music, folk art, folk myth, folk lore, fairy tale, legends, epics, folk rhyme, folk riddle, folk games, folk religious rituals, folk subsistent economy, folk polity, folkways, folk norms and values, folk customs, folk taboos, folk prohibition, folk education, ethno-medicine, folk proverbs, folk material culture and all other aspects of folk life. In a particular ecosystem, a group of people with community sentiments utilizes the resources there to fulfill their psychobiological needs and according to their organizations and institutions. In doing so, they build up a World View in their mind. They also classify themselves in gender and age groups, and then various types of divisions of labor from simple to complex forms; hierarchical and quasi-egalitarian. People had been primarily nomads and

semi-nomads before they learnt how to domesticate plants and animals, utilize seasonal cycle, and initiate permanent village life. Skill of writing actually helps in good quality of documentation and with freedom in mind people are able to think off new things as never before and create civilization. People indulged into trade and various trade routes were established. Trade brought in and out people from place to place. On the other hand villages became village clusters, big settlements, sub-centers and centers, urban points and state. Some people remained pre-state and few Nation-State. many others considered state machinery welfare and another group unjustified. People had property concepts of both individual and community types. So, people initiated new types of migration: village to village, village to urban centers, state to state, settlement to resource sectors, to the mines and forests, to new river valleys and fertile plains, to new grazing lands, to new islands and isles, and so forth. People became travelers, strangers, monks, sailors, adventurers, treasure hunters and enslaved other groups in order to supply human resources. Various types of stratifications have evolved: age group, gender, slavery, estate, caste, class, ethnicity of various types, race, nationality, regionalism and locality, occupation, settlement and ecosystem. Among so many ethnic features, language and religion are the two most important features. So many ecosystems, so many way of living, so many (traditional) knowledge systems and so many cultures promote a multicultural situation. Migration may happen from one culture area to another: cultural diffusion, cultural conflict and acculturation through culture contact may arise. Cultural diversity has eventually become the reason behind multiculturalism. Migration is basically of two types: in-migration and out-migration. This is highly relativistic. Migration to “my” place from another place is in-migration of a person or community in my view and the opposite process would be out-migration. We-feeling and they-feeling can be visualized in these two types of migration. Migration from one country to another is immigration. When immigration takes place due to certain political or other pressure, then it is called emigration. Those who immigrate are immigrants. Those who emigrate are the emigrants. Emigration is a global phenomenon that could include more than two countries. The word “emigration” comes out of the French term “émigré” which was used to indicate those persons or families who left France during French Revolution. This term is generally associated with war, civil war, refugee, war victim, state-less people and such persons suffering from identity crisis in other country where they have taken the shelter. Emigration is not a non-biased or secular

term.

It is related to political shelter in another country. An emigrant can get the status of immigrant, when he or she got legal permission to stay in the new country. Emigration has no time limit: it may be for a shorter period or for thousands of years. Emigrants can move back to their motherland when the war is over. That process would also be political. Migration may also seem like innovation and successive innovations. Behind migration or immigration, there may be so many reasons: economic, educational, marriage, trade, job opportunity, army deployment, search for a stress-free life, resources, better quality of living and such expectations. We know about exodus when the Jew left Egypt and established in Near East. There they formed a country in the name of Israel. People from time to time left their old place in search of new habitat where they could stay with new set of ideas. Transformation and Renaissance might be motivational forces behind such huge type of migration when the set of people used to think that they had no need of the past. Socio-cultural, ideational and structural change within a closed or fixed social system could facilitate only status mobility but not the transformation.

Scientists believe that human originated in Africa and then migrated throughout the globe: from Africa to Near East and thereafter in Middle East, Eurasia, South Asia, South East Asia, Far East, Orient, Australasia, Bays, Seas, Oceans, islands and isles, Pan-Pacific, and the New World. When they reached into those new territories, they might face other forms of pre-humans and apes. Neanderthals were there in Europe until 30.000 years ago. Similarly, Rhodesian Man was there in southern Africa. Various forms of *Homo erectus* were there in Asia, Europe and Africa. *Homo erectus* and other early *Homo* were probably originated from Africa. *Australopithecines* of Pliocene were ancestors of them all and could be classified into robust and gracile (e.g., *Australopithecus affarensis*). So, key of origin and spread of present day man (*Homo sapiens sapiens*, now divided into certain races) is hidden inside migration. All the communities on earth believe in Adam and Eve. Late Paleolithic Fossils from Grimaldi in Italy, Cro-Magnon in Europe and Chancelade in France are said to quite similar to that of Negroid, Caucasoid and Eskimoid or Mongoloid races respectively. Australoids and Proto-Australoids are told as the aboriginal or archaic Caucasoids. The earliest forms of Caucasoid are still found among the Australoid aboriginal tribes. Negro racial elements outside Africa are there in South East Asia and Ocean islands from Indian Ocean to Pacific

Islands where they overlapped with the Australoids. Mesolithic fossils of Muge Man are supposed to resemble with the paleo-Mediterranean that is represented by Dravidians in South Asia mainly with maximum concentration in Indian peninsula. They might be associated with the earliest civilization in Mediterranean and beyond (e.g., Indus Valley Civilization). Ofnet Man of Mesolithic from Europe is thought to be the origin of alpine races among the Caucasoid. In India, both Proto-Australoids and Dravidians along with Mongoloids are present. They are followed by other Mediterranean elements (Classic, Atlanto, Indo-Afghan/Irano-Afghan) as well as Caucasoid groups. Indo-Aryans and Indo-Iranians from Pamir-Kyrgyz of Central Asian Stepper is noticeable. Iranians treated the Central Asians as Turani composed of Truks, Mongols and Tajiks. The latter is treated similar to Alpino-Carpathians. Armenian and Armenoid-Anatolian elements are also present. Nordic and Proto-Nordic features could also be sporadically found in South Asia. Clash between ancient civilizations and Indo-Iranian Empire made the platform for Alpino-Dinaric or Alpino Adriatic intervention in 3rd Century BCE. Alexander the Great of Greco-Macedonia and his policy of unity among different people of East and West are still fresh in Eurasian cognition. So, many races are here in South Asia and racial admixture also takes place. People are divided into so many ethnic groups and ethnic identity is a crucial factor in this multicultural situation. The basic theme of Indian civilization is Unity in Diversity. South Asia cannot deny from the impacts of trade routes like Silk Routes and Spice Routes. We can not say who the autochthon of this land was. Pure Negroid features are lacking but African culture may have some impetus. Pre-Dravidians, Dravidians, Atlanto or Littoral and Indo-Afghan-Iranian Mediterranean stalks innovated into India. On the other hand, Anatolian, Indo-Iranians, Indo-Aryans, Iranians, Tajiks, Greco-Macedonian, Yavanas (Ionians), Bactrian and Parthian, Abyssinians, Scythians, Sassaniod or Shahi ideology, Turk-Kushanas, Roman Gold, White Huns, Arabs, Tibetan elements, Kashmiri, Turk-Afghans, Turk Moguls, Portuguese, Western Europeans, French and British, Dutch and Danish, Germans, Russians, Chinese, Japanese, Thai elements, and so forth. Various Shahis in post Indo-Aryan period were established in South Asia throughout Buddhist, Hindu and Muslim rule over this subcontinent. Parallel to that there were Shahanoshahi Model active in Iranian plateau and Bay of Bengal region was another set up. British East India Company ruled over India in the last days of Mogul Empire and within that 1757-1857 AD time period they occupied all the trade routes and trade

pockets in and around South Asia and Bay of Bengal and simultaneously built up the Commonwealth including numerous Oceanic islands and isles, Egypt and larger part of African Continent, gold and diamond mines of South Africa and Accra, Australasia, New Found Land, large part of New World from the Red Indian nomads and Eskimos, Guinea and Caribbean West Indies, plus trade pockets of Mediterranean, of Far East, of South East Asia, of Iran and also of Arabian World. They also showed interest in Near East as well as Russia-Turkey relations regarding Balkan. In the next 90 years British established direct rule over South Asia in the name of British Raj. Politics has been continuing since the British Raj in post-independent India on the lines of Swadeshi, Third world, Second World and First World. So, migration with a hope of better opportunity and way of living is a continuous process and it is directly related to mode of production and politico-economic system affection other domains of life.

Some Useful Definitions

According to International Organization for Migration, "no universally accepted definition for (migrant) exists. The term migrant was usually understood to cover all cases where the decision to migrate was taken freely by the individual concerned for reasons of "personal convenience" and without intervention of an external compelling factor; it therefore applied to persons, and family members, moving to another country or region to better their material or social conditions and improve the prospect for themselves or their family. The United Nations defines migrant as an individual who has resided in a foreign country for more than one year irrespective of the causes, voluntary or involuntary, and the means, regular or irregular, used to migrate. Under such a definition, those travelling for shorter periods as tourists and businesspersons would not be considered migrants. However, common usage includes certain kinds of shorter-term migrants, such as seasonal farm-workers who travel for short periods to work planting or harvesting farm products." (IOM, Glossary on Migration, International Migration Law Series No. 25, 2011)

A human right comprising three basic elements: freedom of movement within the territory of a country (Art. 13(1), Universal Declaration of Human Rights, 1948: "Everyone has the right

to freedom of movement and residence within the borders of each state.”), the right to leave any country and the right to return to his or her own country (Art. 13(2), Universal Declaration of Human Rights, 1948: "Everyone has the right to leave any country, including his own, and to return to his country. See also Art. 12, International Covenant on Civil and Political Rights. Freedom of movement is also referred to in the context of freedom of movement arrangements between States at the regional level (e.g. European Union). (IOM, Glossary on Migration, International Migration Law Series No. 25, 2011)

A person who, "owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country. (Art. 1(A)(2), Convention relating to the Status of Refugees, Art. 1A(2), 1951 as modified by the 1967 Protocol). In addition to the refugee definition in the 1951 Refugee Convention, Art. 1(2), 1969 Organization of African Unity (OAU) Convention defines a refugee as any person compelled to leave his or her country "owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country or origin or nationality." Similarly, the 1984 Cartagena Declaration states that refugees also include persons who flee their country "because their lives, security or freedom have been threatened by generalised violence, foreign aggression, internal conflicts, massive violations of human rights or other circumstances which have seriously disturbed public order." (IOM, Glossary on Migration, International Migration Law Series No. 25, 2011)

Some Facts

As the rate of forest cover depletion in densely populated regions has increased in recent times, the interaction of demographic and environmental change has received closer attention (Cincotta et al., 2000). South Asia in general has high population densities, but certain parts of it—and especially the plains of north India—support some of the highest human population densities on earth (Kar, 1994). Efforts at ecosystem conservation through the establishment of protected areas, or other policy initiatives aimed at regulating forest resource use, can run into

conflict with growing human populations and needs for cultivable land, pasture and employment. This is particularly relevant in India where biodiversity conservation has caused dislocation of people from agricultural lands (Agrawal 1992). By their nature and circumstance, immigrants can be more versatile and adaptable compared to residents. They may function as rural extension agents dispensing new skills and showing ingenious modification of local agricultural systems to increase productivity (Arunachalam, 2001). Religious groups in India are considered to have different educational, occupational, economic, family, community and other characteristics that justify their designation as ethnic groups (Kurien 2002; Varshney 1998).

Earlier People of North Bengal

The people of Paundrabardhana were commonly stated as Paundra. These people have been mostly converted into caste people and associated with agriculture. These segments of people often found to be associated quasi-egalitarian version of Hinduism, i.e. Vaishnavism. Some of them have converted into Islam through Sufism. The Hindu elements among them like to illustrate their address with the Kashyapa clan and make them associated with the myth of Parasurama. These people have now scattered throughout Bengal. They say that they are the aborigines of Bengal mainland and holders of unique historicity of King Paundra (mythical character). These ruler-cum-agriculturists say that they are of the Hindu Varna Kshatriya (ascribed ruling category). But as their status has been devalued, they belong to an excluded/Bratya category and are often spoken off as Bratya-Kshatriya/ Barga-Kshatriya/ Paundra-Kshatriya. Such people are also present inside the Brahmaputra valley. Such people with Bratya-Kshatriya dogma are present but may have variously mixed up with Mongoloid tribes there through a Tribe-caste Continuum. These Mongoloid stalks may be migrated from Tibeto-Burmese plateau. However, a significant interbreed population of Paundra-Kshatriya stalk prefers to address themselves Rajbanshi. They beyond the agrarian setup of North Bengal and adjacent Assam form marginal population in Nepal Terai (Morang) and Purnia-Katihar region of Bihar. Rajbanshis here are closely associated with Koch community. There may be a debate that whether the Koch elements of western part of Brahmaputra-Tista

triangle have any connection with the Kirata population prevailing in many parts of Nepal or so called Kamboja/Khmer population scattered in various parts of the old world. Rajbanshi of Jalpaiguri-Cooch Bihar are more mixed up with Koch elements and therefore known as Koch-Rajbanshi using a prestigious Title Barmana as surname. Bodo, Bhati, Mon and Khmer are the terms that are often subjected to the indigenous communities many of whom have been shifted from pre-agricultural to agricultural and post-agricultural stages. This alteration in their mode of production have put an impact on their social structure and even to some extent into their superstructure (magic, religion, values, customs, art, law, belief, knowledge, moral, norm, etc.).

Migration of People in North Bengal: Possibilities for Social Change

There were several migrations in the region of North Bengal. Migrations may be of tow types: in-migration and out-migration. Immigration is another type of migration where it involves two different countries and the people from one country move permanently to another and settle there. Emigration is also trans-national and one type of out-migration where people permanently leave a country. Migration may be temporary as well as permanent. Migrants can form a Diaspora and even they may loose contact with the place of their origin. Migration may be legal or illegal. One may be sent to political exile or exile of other kind. People may migrate individually or in group or on community basis. There are nomads as well as semi-nomads. Cause of migration may be economic, political, ecological, resource searching, due to a search for a better life, social (marriage etc.), war, natural and/or man-made disasters and even seasonal. It may cause Founders' Effect and Genetic Drift in the Population. It will compel the migrant to adapt in the new environment/climate/ecosystem and therefore invent new ideas/knowledge/technologies intentionally or unintentionally and if they are the folk people, then preserve these functional inventions inside their non-functional value system expressed through their customs, performances and norms of their folk life. They make these innovations integral part of their lives and often institutionalized them within their less-adaptive politico-economic organizations and mind set up. The latter is the place where their surrounding nature reflects and makes them to think and generate their culture and identity on

both material and non-material grounds. Further achievements and technological revolutions can only provide them the opportunity to expand their periphery beyond the traditional. People in that wider perspective become much more rationalized and scientific in modern-global sense and aided with advanced technologies with the notion of something big or mega and thus transforming their folk life and traditional non-adaptive institutions to a well-equipped life plus ever-adaptive expanding organization. This kind of development shapes into civilization that owes its presence in state formation, pure economy on trade and industry and legal-constitutional system and therefore civilization should have an aspect of migration within it. There is always a debate that whether there should be a compromise between civilization and culture, modernity and tradition, science and ethno-science, nature and super-nature as well as unidirectional development and both-way/multidirectional/absolute/sustainable development...because this is all about human survival in a more harmless condition definitely with some feed-back in a planet with limited resource, definite bio-diversity and opportunities where life can thrive. The migration and culture contact between the migrants and the earlier inhabitants/aboriginals become therefore obvious. Such culture contacts can therefore facilitate diffusion of culture traits from a culture area to another with or without specific periphery. Diffusion may be there between two or among many communities in a single way or through a multidirectional approach. This arise the question of acculturation and necessity of cross-cultural study in both synchronic and diachronic ways. Finding out the trend of culture change on functional/non-functional grounds and/or the degree of social transformation for a given Diaspora of any migrated population from the mother population are prime objectives of such studies. The effects of earlier inhabitants over the migrants and vice versa are crucial in this context. Social change may occur in various conditions; it could be broadly categorized and thereof discussed into cultural, social, structural & ideational levels. This may cause status mobility, functional mobility, transitions and transformations allied to politico-economic power structure. Concept of Multiculturalism with contrasting features like dominant and minority, secularism and communalism, integration versus assimilation, plurality against ethnicity, regionalism opposite to nationalism and nexus between globalization and localization would often seem quite relevant at both macro and micro levels. Multiculturalism is also a political terminology and often looks politicized.

The Duars

Jalpaiguri district (located 26° 16' N to 27° 0' N & 88° 4' E to 89° 53' E) is one of the six districts of North Bengal Sub-Himalayas. Jalpaiguri district, beneath Bhutan Himalayan Kingdom, is composed of watersheds between Gangetic and Brahmaputra basins. The district is in the Bhutan foothills; Bhutan is a Himalayan country situated at the eastern part of the Himalayan range and behaving like a buffer among North Bengal, independent country of Bangladesh, North East India and Sino-Tibet region. Jalpaiguri district includes the foothill region of Bhutan Himalayas by the name of Duars or Doors. The word Duars has been derived from the Sanskrit term 'Dwar' which means door in Nepali, Bhojpuri and Bengali languages. Of the entire Duars region, the western part by the name of Bengal Duars is included in Jalpaiguri and the eastern part in North East India all along the Indo – Bhutan international boundary. In Bengal Duars, there are so many jungles and tea estates along with various transnational river sub-systems that in the Indo-Bangladesh region meet with the Brahmaputra-Jamuna river system; the entire river network covers Tibet, Indo-Bhutan, North East India, North Bengal and Indo-Bangladesh all falling within the Tibeto-Myanmar enclave. There were 18 major gateways (or doors) from Bhutan to India and they all are located. From Teesta to Sankosh-Manas and then from there to river Dhansiri have been constituted Bengal Duars (Jalpaiguri district of West Bengal state) and Assam Duars (Bodoland region of Assam state of North East India) respectively. These doors are namely (1) Dalimkot, (2) Maynaguri or Zumerkot (3) Samchi or Chamurchi (4) Laksmi/ Luckee (5) Buxa / Passakha (6) Bijni (7) Chapakhmar (8) Chapaguri (9) Banskha (10) Gharkolla, (11) Kaling (12) Buriguma, (13) Baraduar, (14) Bhalka, (15) Gumar, (16) Ripley (17) Chirang, (18) Bagh or Chhotto Bijni. Of these, the first five are definitely within Bengal Duars along with Kumargramduar and Alipurduar.

According to D.H.E. Sunder's description the length and breadth of Bengal Duars were 86.75 miles and 38 miles respectively. In Bengal Duars there are Gorumara, Jaldapara, Buxaduar and Neora valley National Parks along with various protected forest areas. About 29% and 32% of total geographical area of the district are covered with forests and tea gardens respectively.

After the end of the British regime the Western Duars in the 1860s in British India some fundamental

changes were there due to establishment of tea estates, village settlements by the outsiders doing settled crop cultivation, rururban pockets and road-cum-rail connectivity fallen under Jalpaiguri and Alipurduar townships that favoured rapid population growth and drastic alteration in the local demographic scenario previously composed of a handful of tribes like Toto, Mech, Bodo, Garo, Rabha, Koch, etc. The vast forest tract brought under forest department. In this context the aborigines faced a new challenge.

Table 1- Forest Area of Jalpaiguri district (6245 sq km) year wise

YEAR	FOREST AREA (in thousand hectare)
1945-1946	363.3
1949-1950	364.6
1960-1961	167.3
1965-1966	164.3
1967-1968	168.2

1977-1978	172.56
1981-1982	172.56
1991-1992	100.86
2000-2001	174.56
2004-2005	179.0

Table 2- Name of the administrative blocks in Jalpaiguri district (6245 sq km) and forest areas

Name of the Block	Forest Area(in Hectare.) in 2001
Rajganj	20070
Jalpaiguri	566
Mal	5299
Metali	3768
Maynaguri	16816
Nagrakata	11941
Dhupguri	11225

Falakata	5588
Alipurduar-I	12972
Kalchine	55707
Kumargram	20797
Makarihat	8037
Alipurduar-II	1779
Jalpaiguri (Total)	174565

Table 3: Growth of population in Jalpaiguri (1901-2001)

Year	Population	Decadal Growth of Population (in%)
1901	546765	-
1911	663222	21.30
1921	695946	4.93
1931	740993	6.47
1941	847841	14.42

1951	916747	8.13
1961	1359292	48.27
1971	1750159	28.76
1981	2214871	23.17
1991	2800543	26.44
2001	3403204	21.52

Source : District Census Handbook, Jalpaiguri

Table 4: Growth of population in different blocks of Jalpaiguri district

Name of Blocks	Population in three decades.		
	1981	1991	2001
Rajganj	120688	166888	283967
Jalpaiguri	205182	261379	280927
Maynaguri	169602	238155	281700
Dhupguri	122145	345359	418461
Mal	183766	20093	265392

Metiali	74649	93253	105906
Nagrakata	70148	101782	115907
Kumargram	119657	153891	178047
Falakata	157013	207842	254273
Madarihat & Birpara	123386	152199	185470
Kalchini	151948	203054	252571
Alipurduar –I	261692*	175107	197231
Alipurduar-II	-	170049	196984

Source: Census of India 1981, 1991, and 2001; Alipurduar I&II combined(1981)

There is all about 151 mother tongues spoken in India. Among them 42 are yet to be categorized and 8 are foreign language. Remaining 101 languages fall into 4 distinct families, such as – (1) Indo Aryan, (2) Dravidian, (3) Austric and (4) Tibeto-Burmese. Many of these belong to different ethnic groups and several of them are in tribal forms. There are 40 different tribes in West Bengal. It is matter of fact that almost all the tribe can be found in this Duars region of Jalpaiguri. Many of them have been brought in to serve as the labour class in the tea gardens from Central India and Himalayan track of Nepal. These tribes could be broadly categorised into (a) Mongoloid group (b) Dravidian and proto-Australoid group. These people have delivered a flavour of multiculturalism to the Duars region and also formed human shields in this geo-strategically crucial area. But what has happened to the indigenous groups?

Indo-Mongoloid Group:

Bhutia

Chakma

Dukpa or Drukpa

Garo

Hajong and Hajang

Koch and Kuchhuri

Lepcha

Limbu/ Subba

Mogh/ Mogor

Mru

Mech

Rabha

Rai

Sherpa

Tamang

Dravidian-Austic group:

Asur

Baiga

Bedia

Birjia

Birhor

Bhumij and Bhuin and

Bhuinhar

Baraik and Chik Baraik

Chero

Gond

Gorait Ho

or Kol

Kharia

Kisan

Kora

Dravidian-Austic group:

Karmali

Korwa

Kharwar

Khond

Lohara/Lohra

Mahali

Malpaharia

Munda

Nagesia

Oraon

Parhaiya

Souria – Pahariya

Sabar

Santal

The Scheduled Tribe and Scheduled Caste Orders Amendment Act, 1976- The Gazette of India [Extra ordinary] Part-II, Section 1. Sept. 20, 1976 notified several tribal groups Scheduled in Jalpaiguri mostly confined in Duars region. These groups include 1)Asur, (2) Baiga, (3) Bedia, (4) Birjia, , (5) Birhor, (6) Bhumij, (7) Bhutia, (8) Chakma, (9) Chero, (10) Chik- Baraik, (11) Garo, (12) Gond, (13) Goreit, (14) Hajong, (15) Ho, (16) Karmali, (17) Kharwar, (18) Khond, (19) Kishan, (20) Kora, (21) Korwa, (22) Lepcha, (23) Lodha- Kheria- kharia, (24) Lohar, (25) Mogh, (26)Mahali, (27) Mahli, (28) Malpaharia, (29) Mech, (30) Mru, (31) Munda, (32) Nagesia,(33) Oraon, (34) Rabha, (35) Santal, (36) Parhaiya, (37) Savar, (38) Souriya- Pahariya*(39) Tamang, *(40) Limbu (included in the year -2003)

Table: 5. Population of ST Communities in Jalpaiguri District

Serial No.	Community	1951	1961	1971	1981
1	Asur	-	-	-	2684
2	Baiga	-	-	-	91
3	Bedia/Bediya	-	-	-	266
4	Bhumij	-	519	6181	1551
5	Bhutia	616	1170	3244	5434
6	Birhor	-	-	-	134
7	Birjia	-	-	-	224
8	Chakma	-	747	-	16
9	Chero	-	-	-	280
10	Chikbaraik	-	-	-	9023
11	Garo	-	619	428	1431
12	Gond	-	-	-	949
13	Gorait	-	-	-	366
14	Hajong	-	348	47	331
15	Ho	-	-	3	111
16	Karmali	-	-	-	152
17	Kharwar	-	-	-	2083
18	Khond	-	-	-	84
19	Kisan	-	-	-	390
20	Kora	-	5563	6419	794
21	Korwa	-	-	-	793

22	Lepcha	201	138	901	396
23	Lodha/Kheria	-	24009	14120	29267
24	Lohara/Lohra	-	-	-	14501
25	Magh	-	229	80	278
26	Mahali	-	13098	24320	18696
27	Mahli	-	-	-	2543
28	Malpaharia	-	1774	10505	2664
29	Mech	10507	13178	10387	24368
30	Mru	674	536	30	126
31	Munda	39490	53811	71685	69469
32	Nagesia	-	2876	1530	3516
33	Oraon	115776	181749	159619	259280
34	Parhaiya	-	-	-	115
35	Rabha	-	4132	343	8632
36	Santal	29928	38560	71539	28906
37	Souria/Pahariya-	-	-	-	1306
38	Pahariya	-	-	-	182
39	Savar/ Sabar	-	11263	47214	359
	Others				
	Total	189192	354741	428595	91791

NB: Bhutia includes Sherpa, Toto, Dukpa, Kagatay, Tibetan, and Yolmo since 1961

Apart from Hajong there were 352 Hajang according to the source of information.

Source: Bhattacharya, K. 2007. Silent Departure: A Study of Contemporary Tribal
Predicament in Bengal Duars: 68, Kolkata: Papyrus

Table 6. Population Growth of Western Duars (1865-1891)

Population growth of Western Duars	
Year	Population
1865-67	49,620
1872	100,111
1881	182,687
1891	296,964

Source: Sunder, D.H.E. 1895. Survey and Settlement of the Western Duars in the District of Jalpaiguri.

Table7. Growth of population in Jalpaiguri district during colonial period

Year	Total	Rural	Urban
Population			
1901	54674	536475	10289
1911	663222	651457	11765
1921	695946	681333	14613
1931	740993	722031	18962
1941	847841	820065	27776

Source: Gazetteers of India, Jalpaiguri, West Bengal

Table 8. Growth of population of Jalpaiguri district after 1947 (the year of Partition of Bengal into newly independent Pakistan and India causing emigration across the border and illegal immigration)

Year	Total Population	Decadal Variation
1951	916747	+8.13
1961	1359292	+48.27
1971 (independence of East Bengal or East Pakistan from control of Pakistan in a new form Bangladesh)	1750159	+28.75
1981	2214871	+26.55
1991	2800543	+26.44
2001	3401173	-

Source: Census of India, 1991, 2001

JALPAIGURI DISTRICT AT A GLANCE:

- Σ Headquarters Jalpaiguri
- Σ Area 6,245 km² (2,411 sq mi)
- Σ Development Blocks: 13
- Σ Gram Panchayet (village administrative body): 122 **(26 new have been created in 1998 with the inclusion of tea gardens and forest villages)**
- Σ Municipality: 4 (Jalpaiguri, Alipurduar, Malbazar, and Dhupguri; Jaigaon and Falakata also recognized recently)
- Σ Police station: 17

Nature of marginalization

Tea plantation formation, incorporation into mainland India, post-independent emigration, other immigration basically from Nepal and Bangladesh including Tibet, and other in-migrations have provided Duars in Jalpaiguri a multicultural setup. Traditional transnational trade routes were replaced with inland connectivity between mainland India and North East India and controlled network among Nepal, Bhutan, Sikkim, Bangladesh and even Tibet through Nathu la Himalayan pass. Forest has been reduced by formation of tea gardens, human settlements and cultivable land. Rest forest part is under National Parks and other reserved forest lands.

Layer by layer the pressure have been developed in Duars due to these migrations-

1. Nepali working in tea gardens and Gorkha Regiment of Indian Army
2. Adivasis from Central Indian territories mostly in tea gardens and adjacent agricultural pockets
3. Rajbanshis often speaking off about their Social Fold, caste, clan, settled mode of agricultural production, and indigenous statehood of Kamtapur and Koch Bihar
4. Varendri Brahman Hindu community keeping under the Kashmiri Brahminic tradition, working in tea gardens at high rank, and also concentrating in and around major urban or rururban centers of Jalpaiguri
5. Bengali and other Indian castes and business communities
6. Peoples from both mainland and North Esat India
7. People with different mainstream religious identities and their institutions other than animism

These things along with altered modes of production have reasoned for consequent marginalization of communities in Duars. However, multiculturalism has also been flourished in this place. Despite of presence of various human shields with some political purviews; multiculturalism is still on there in Duars along with all the achievements and grievances. However, development especially in the line of sustainability along with National Interest and the concept of Unity in Diversity is the current status of this remote but strategically very much important area. Not only indigenous technical knowledge and related culture, but the whole cognate and way of living (the Indigenous Knowledge System) may be influenced in due course.

This is also a fact for the people who have immigrated to Duars. If they are close to nature and find some similarity in natural conditions of the two places, they should go for informal experiments and accumulation of new information. That would impact their way of living in a holistic manner. For instance, Oraon is a Dravidian community of Chotonagpur plateau of eastern and central India and locally overlapped with the Mundari language group. Traditionally, Oraons knew settled agriculture and irrigation. They enjoyed a hierarchical superiority among the Adivasi tribal society in Ranchi-Palamu area of Chotonagpur (Jharkhand). During the British rule in India, they were added to the multicultural social structure of Terai-Duars sub-Himalayas as they were settled with other Adivasis, Nepali ethnic communities and other local tribal groups as well as various caste people. This sub-Himalayan transnational buffer was included in India from Sikkim-Bhutan Himalayas and demographic shift created a human shield there. Change in mode of production brought alteration in their lives and they again locally migrated from tea estates to neighbouring villages and other rururban areas. Here linguistic communication and religious institution like Church have become so influential for them. They have as a result entered into cultural-linguistic identity movements on the basis of common language Sadri, common constitutional provision of Scheduled Tribe (ST), common ethnicity as Adivasi, common occupation as Tea labourers, and for integrity of common territory of Terai-Duars.

Nepali caste and ethnic groups along with few tribes are there with Gorkha identity, settled cultivation in hills and regiment in Indian Army are also exclusive to the foothill and hill of North Bengal near the Himalayan range.

Therefore, the ethnic communities indigenous to this land like Toto and Dukpa are highly marginalized. Jaldai, Tharu and Dhimal do not exist at all in Jalpaiguri. Limbu and Lepcha are added to the Nepali speaking immigrants and settled cultivators. These two communities are now residing in Darjeeling hills of North Bengal and Himalayan state of Sikkim. Doya community has been completely moved back into Bhutan. Rabha, Mech, Bodo and Koch are other communities in a compromising condition with caste group of Rajbanshi who are again in closer contacts with Bengali and other Indian castes. Tribes from Central India are also in tea gardens and agricultural patches of upland ridges, watersheds and foothill river valleys.

Toto tribal community in Totopara village in Indo-Bhutan borderline, at a time being porters and shifting cultivators and pastorals and producers of leather and lac and thatched elements and grass objects and cane and bamboo and natural dye and collectors of forest produce and fruits from agro-forestry, have now been totally converted into settled agricultures, producers of areca nut, landless labour, using modern health and educational facilities, attracted by modern technologies and also searching for alternative jobs. They try much to keep their identity intact but with a least numerical strength. This community has placed within 75 Primitive Tribal Groups of India mostly for their lower population (only 1227 as per 2001 Census). Out of the Scheduled Tribe communities of the State, 3 communities namely Lodha, Birhor and Toto have been declared as Primitive Tribes by the Government of India. The total population of these three communities is 58,534 as per 2001 Census. The population of Lodha community of West Midnapore district is 57,028. There are 279 Birhors of Puruliya district.

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Indigenous People and notion of Nation State: Case Study from northern West Bengal, India

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ABSTRACT: This paper is going to focus on Indigenous People and notion of Nation State in respect to northern West Bengal, India. Unity in diversity is key theme of India and Nation States still exist in form of State within State but in cognition and pro-Indian forms.

Traditionally, globe is divided into Magical, Buddhist and post-Buddhist world. Innovations occurred during pre-Aryan, Aryan and post-Aryan realms. Agrarian India is more prone to caste, caste-like institutions, agriculture oriented religions, trade-based religions, syncretism and self-sufficient villages.

Little republics, Urban Centers and Indigenous Statehoods are not unlikely in South Asia. On the basis of transnational trade routes, indigenous Statehoods took their shapes. India, however, has mostly accepted the cognate of Shahi and its close ties with Iran and Eurasia. Shahi believes in unification of South Asia in various ways. Commonwealth incorporates India as an important member.

Transnational trade route from Sino-Tibet, Sikkim-Bhutan Himalayas, North Bengal and North East India and Bangladesh to Bay of Bengal as well as river ways there core of emergence of so many indigenous statehoods locally. They, earlier or later, accepted unification with India. Kamtapur and Koch Bihar in the vicinity of Torsha or Amu Chu tributary of Brahmaputra-Jamuna River mouth in Indo-Bangladesh were gradually included during the Turk-Afghan, Mughal-Rajput and British India.

In this high time of globalization, notions towards these indigenous statehoods formulated by Rajbanshi

social fold incorporating so many castes and tribes have revived. Nation States still exist in local cognition and are influenced state policies.

Introduction

India is a country with 29 states and 6 Union Territories. It has a federal structure. Still the country possesses the Shahi tradition indicating towards centralized governance. What would be then its impact on the traditional or indigenous statehoods behaving like a Nation State or Microstate? This is a big question. Case study is to be taken from North Bengal territory of sub-Himalayan India. The centralized authority in the fashion of Shahi was followed by colonial and post-independent periods. A gradual shift from Nation State to Centralized Authority on a definite administrative structure may include various stages like Republican Confederacies, city states, regionalism, multiculturalism and Unity in Diversity.

Tibet and Kushan/Turk-Afghan Shahi

Tibet is again believed to be Roof of the World situated on once upon a time famous Silk Route between Far East and the West and also passing some sub-routes into India through mountain passes of Himalaya. These could be again categorized into three zones:

Indus river system,
Ganges river system,
and Brahmaputra river system.

Besides Indian Punjab and Himachal Pradesh in India; the major part of Indus valley from Tibet is now represented by independent country of Pakistan that ultimately reaches into Arabian Sea. Disputed territory of Jammu and Kashmir state segregated among India, Pakistan and Tibetan Autonomous Territory of China also falls on the way of Indus valley. That Pakistan region along with Afghanistan have acted as the gateway to India for Central Asian elements once spread

throughout the Steppe: Indo-Aryan tribes, Scythians, Kushana, Hun (Chwa Hun), Khan, Turk-Afghans and Turk-Mongol (Mughal) were all followed the same track into India.

Apart from the influences of Central Asia and Indo-Aryan groups; this Pak-Afghan region was highly overlapped with Indo-Iranians from Iranian plateau followed by Macedonian, Greek, Parthian, Bactrian of Balkh, Syrian, Egyptian, Abyssinian, Roman, Arab and lastly, Western European elements influential or trying to be influential over this area. These groups have amalgamated with pre-Aryan elements who introduced settled cultivation in Indus valley and formulated Indus valley Civilization. Arabian influence over Pak-Afghan territories up to Central Asia caused people being converted into Sunni Islam, however Iranian influence retained by means of Sufism and Shiite school of Islam. Shahanoshahi concept emerged in Iran during Greek colonies in Irano-Afghanistan and the Kushans from Central Asia to this region and then into Indian mainland brought the Shahanoshahi concept and its sublime Kushan Shahi for the first time.

That Pak-Afghan pockets during the Kushan (or Kushana) rule of about 2 millennia back was flooded with Buddhist heritage and continued until Hinduism revived back by the hands of Huns and Rajputs as well as Islam entered there with the help of Arabs at Sind and rapid Islamization in Afghanistan, Central Asia and Kashmir valley along with Sufism.

After 1000 AD, Islamic influences started increasing in Indus valley from the side of Afghanistan which was then forwarded up to Kashmir valley, Indo-Nepal foothill regions and other Buddhist, pre-Vedic Aryan pockets, Indo-Greek colonies upto Dinajpur-Rajshahi part of Bengal. The latter has its eastwards extension into Bangladesh (formerly East Pakistan) known as **Dinajpur-Rajshahi**. This highland region is the birth place of numerous rain-fed rivers and separates Brahmaputra-Teesta river system from Ganges river system. Turk-Afghan elements in India (Hindustan) developed the concept of Turk-Afghna Shahi on the line of Islam.

The concept of **Deccan Shahi** was also influenced by Iran. Actually, these invaders through Indus Valley used up the routes of Rajasthan and Malwa to pierce deep into Central India, Narbada/ Narmada valley, Gujarat, Maharashtra, Telengana, Mysore and even upto the extreme south in Indian peninsula. Besides Hindu dynasties from ancient historical timeframe, Deccan had remained a center of Buddhism and Jainism and later on Islam also reached into the place by both Arabs and Irano-Afghanistan followed by Christians in real sense.

Turk Shahi was later on politically replaced by establishments like **Mughal Padshahi** formed by Turko-Mongols again from Central Asia into India after crossing the bars of Irano-Afghans and Indus valley during 16th Century AD followed by the British Raj (1857-1947 AD). Mughals were associated with Hindu Rajput Shahi controlling so many estates and states in North-Central India and also in Rajasthan-Gujarat areas. So, an alliance with the notion of unification of South Asia was developed since mid 16th Century AD in the name of **Mughal-Rajput or Mogul-Rajput**.

Gorkha Shahi Impact of Nepal

The last Hindu kingdom in North India was of the Gahadavala Rajputs who by the way of Badaun-Amroha shifted during Islamic intrusions in North India in 11-12th Centuries AD to Gaharwal hills in today's Uttaranchal state of India (also known as Devabhoomi). That was also a door to Tibet. The entire foothill region of Central Himalayas was famous in ancient India history for being association of so many little republics of pre-Vedic Aryans mixed up with local groups. These foothill regions primarily regulated the Central Himalayan polity; but later on hill communities have been united under the common dogma of Gorkha nationality under the Gorkha House of Nepal or the **Gorkha Shahi** from Gorkha-Katmandu area there. Sub-Himalayan terrains of Nepal are shared by Indian territories like Badaun-Oudh-Gorakhpur-Bhojpur-Mithilanchala-Purnia (Uttar Pradesh and Bihar borderline with Central Himalayan country of Nepal). This independent country Nepal has a strip of marginal foothill areas known as the Nepal Terai thus shared by Uttar Pradesh and Bihar states of India. In these days the Gorkha Shahi has been removed by democracy and ultra-left movement in Nepal of 1990s and first decade of 21st Century AD.

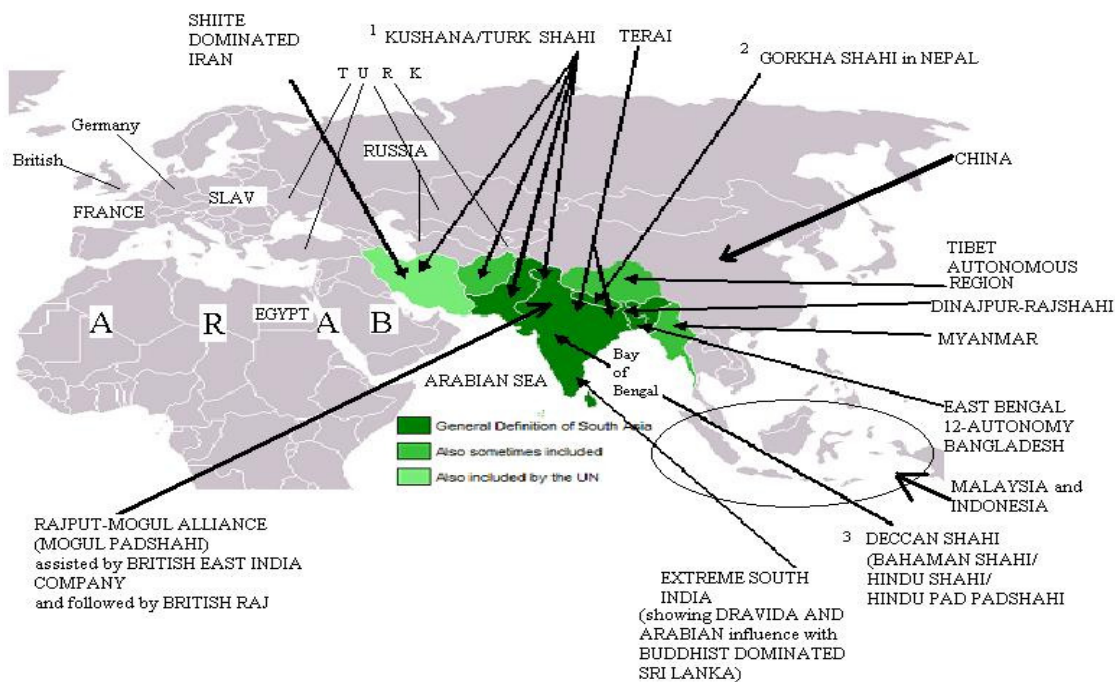
Terai region includes entire Sub-Himalayan region of Uttar Pradesh and Bihar

- Rohilkhand the gateway of Devbhoomi land of Devas Uttaranchala,
- Koshal or Ayodhya or Oudh with Lucknow the capital city of Uttar Pradesh state of India and also associated to the Epic of Ramayana,
- Gorakshpur the birthplace of Nathism,

- Mithila/Trihut the birthplace of Jainism and Buddhism and also associated to the Epic of Ramayana,
- Madhubani-Drabhanga i.e. door to Bengal from Tibet through Koshi river valley leading upto river Ganges in Purnea-Katihar just before MidBengal/ Malda- Murshidabad and Rajmahal hills of Chhotonagpur plateau.

These pockets at **Terai** with Indo-Greek influence often show consolidation of Vaishnava and Muslim sects. The shahi so far developed there was known as **Lucknow Shahi** having several centers besides Lucknow and Jaunpur.

MAP 1: South Asia and existence of Shahis (Kushana/Turk, Dinajpur-Rajshahi, Deccan, Gorkha/Nepal, Lucknow/Terai and Mughal-Rajput/Mogul-Rajput)



So, the Shahis cover a huge portion of India, Pakistan, Bangladesh and Nepal along with various other sub-Shahi princely states and other associates. In Bengal, mostly the East Bengal (presently known as Bangladesh), comprised of twelve autonomous regions famous by the name of baro bhuiyan or Twelve-Autonomy besides other frontire states like Koch Bihar, Tripura, Kuchhur, Manipur, Kamrup and Ahom. Extreme south of Indian Peninsula had similar princely provinces and autonomies like Mysore, Coorg, Travancore, Arkot and Tanjore.

But in India there are so many indigenous communities and many of them even formed indigenous states and Nation State similar to today's Sri Lanka and Maldives. What has happened to those nation States? A suitable example is going to be illustrated there in terms of northern part of West Bengal state or North Bengal areas of India.

Rather being a Nation-State, often the state of West Bengal seems like a border state. I am not against the Bengali nation, but the state has actually been separated in several occasions and shown under several extensions. West Bengal before India's independence in 1947 A.D. was associated with today's Bangladesh- an eastwards lying independent country formerly East Pakistan or East Bengal or association of famous 12 autonomies in late Mediaeval period. North Bengal part of West Bengal is a link between North East India and mainland India. It is also a cross border transnational territory surrounded by Tibeto-Myanmar belt, North Western part of Bangladesh (Rangpur and Rajshahi Divisions), Bhutan, Sikkim, Nepal and East Indian states like Bihar and Jharkhand. It along with Rangpur and Rajshahi Divisions forms an Indo-Bangladesh transnational territory that consists of portions from both Brahmaputra and Ganges river systems and a ridge cum watershed/upland associated with a marshland cum floodland known as Dinajpur-Rajshahi in-between. This watershed is also a cut link of Chhotonagpur plateau of Deccan extension in Jharkhand and Meghalaya plateau of North East India. North Bengal ahs also border with Assam-Meghalaya region of North East India. The latter is composed of eastern Himalayas, Brahmaputra and other transnational river courses, hills and watersheds. Assam and North Bengal contain included portions of Duars which is the foothill portion of Bhutan Himalayas. So, Duars in India is known as Assam Duars and Bengal Duars. The latter is incorporated in Jalpaiguri district. Southern portion of Sikkim Himalayas and western part of Bhutan Himalayas in close proximity with Chumbi valley of Tibet have been incorporated with Siliguri foothills or Terai to formulate Darjeeling district. Jalpaiguri and Darjeeling districts are

actually frontire of North Bengal. The place North Bengal has overlapping with neighbouring state Bihar. Sikkim, Darjeeling district and North Bihar have international border with Nepal in the central Himalayas.

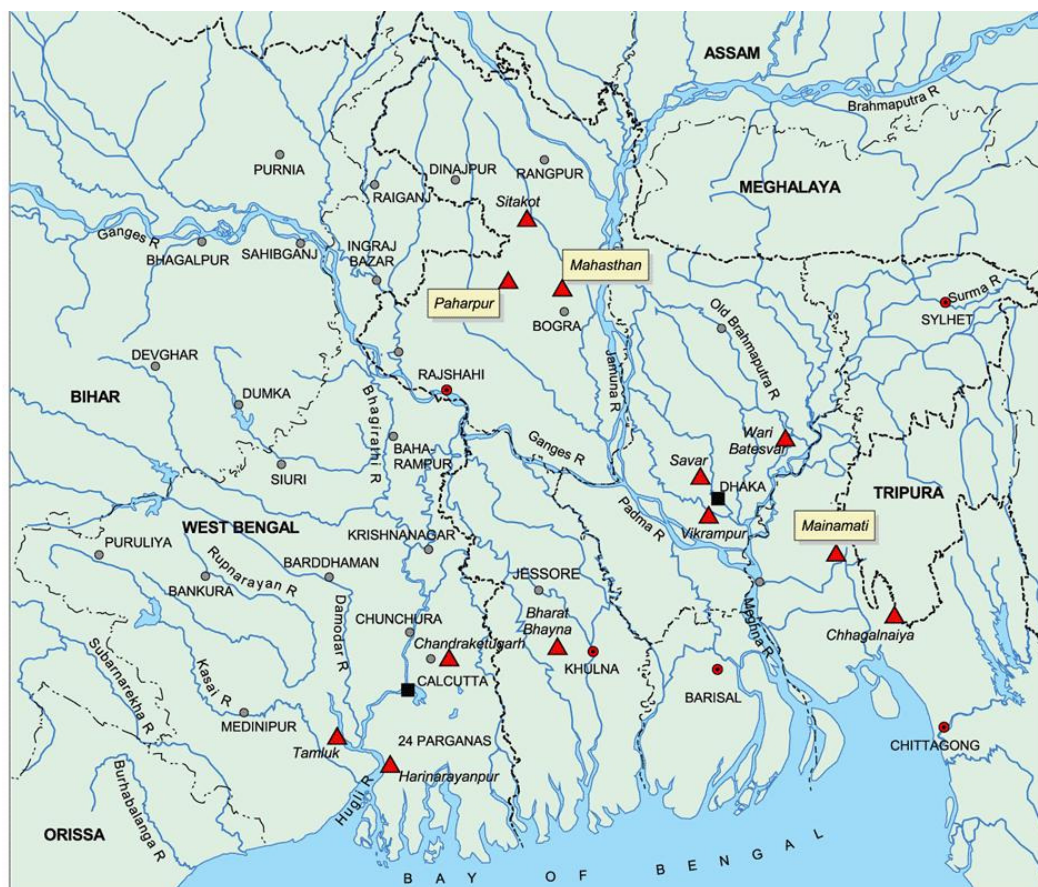
Now the question is what do we mean by saying Nation State? The Nation State is a political and geopolitical entity specified with particular cultural and ethnic identity. It may proclaim a sovereign or a sovereign territorial unit. It usually contrasts multinational state provoking for Unity in Diversity. It may also show similarity with city state, little republic, and confederation. It may be a part of a country or federal structure, subjected to partition and demographic shift, included as autonomy or a dependent territory within an empire, and thriving on a transnational state.

Was North Bengal and Rajshahi in past represented a Nation State that has been changed in course of time into Dinajpur-Rajshahi, Kamtapur-Koch Bihar and lower hills and foothills of Sikkim-Bhutan Himalayas and thereafter as a part in West Bengal and another in Bangladesh?

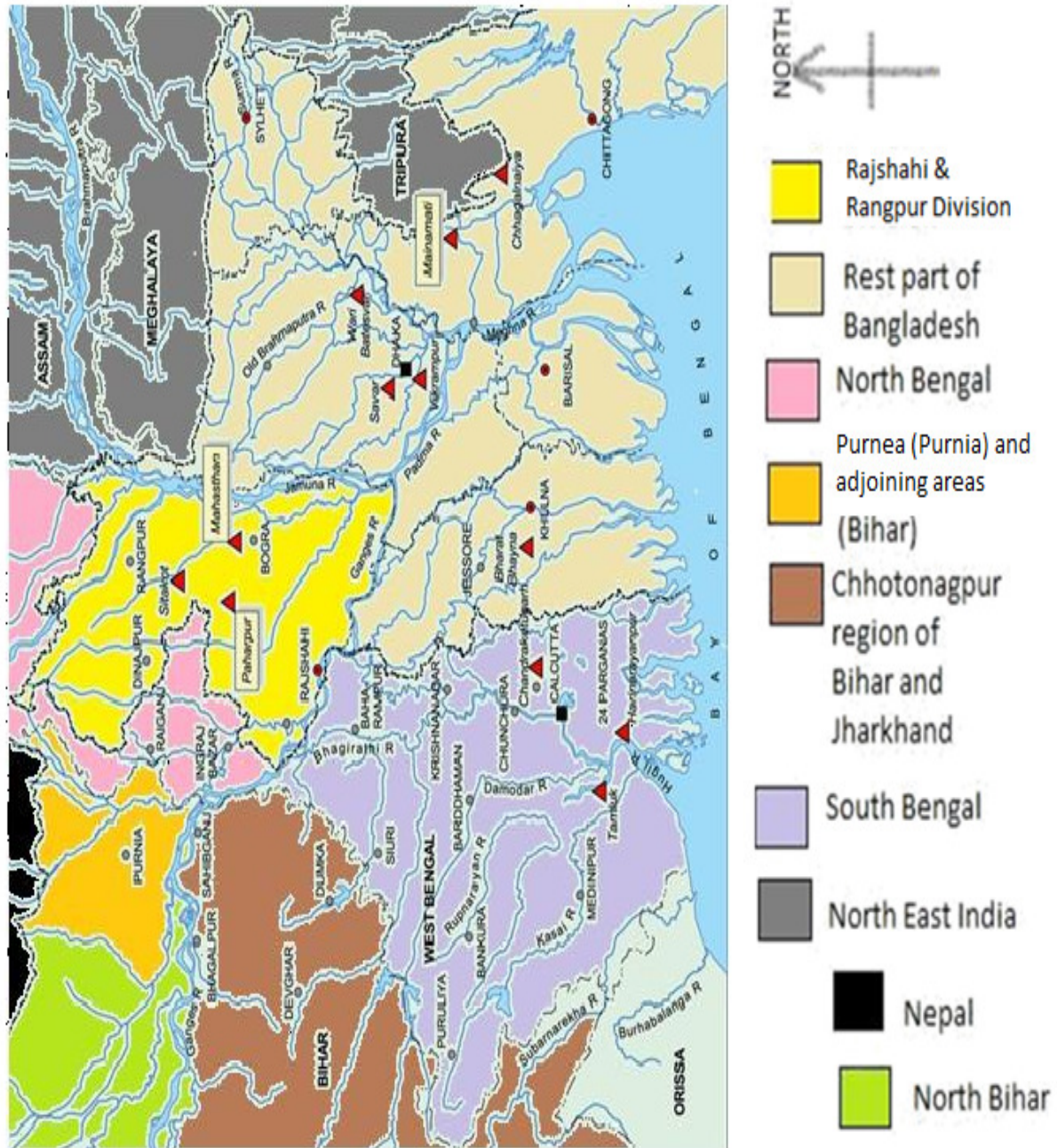
Mahasthangarh to Dinajpur-Rajshahi

Mahasthangarh or Pundrabardhana or Bogra is a place located within Dinajpur-Rajshahi region of present-day Bangladesh being one of the highest Muslim concentrations over there. Pundranagara or the City of Pundrabardhana was the place where the old track of Teesta-Karatoya joint river flow (now Jamuneshwari River) met with Jamuna-Brahmaputra River system. Teesta and Karatoya (Jamuneshwari) now flow separately.

MAP 2: LOCATION OF MAHASTHANGARH (Bogra) in BANGLADESH



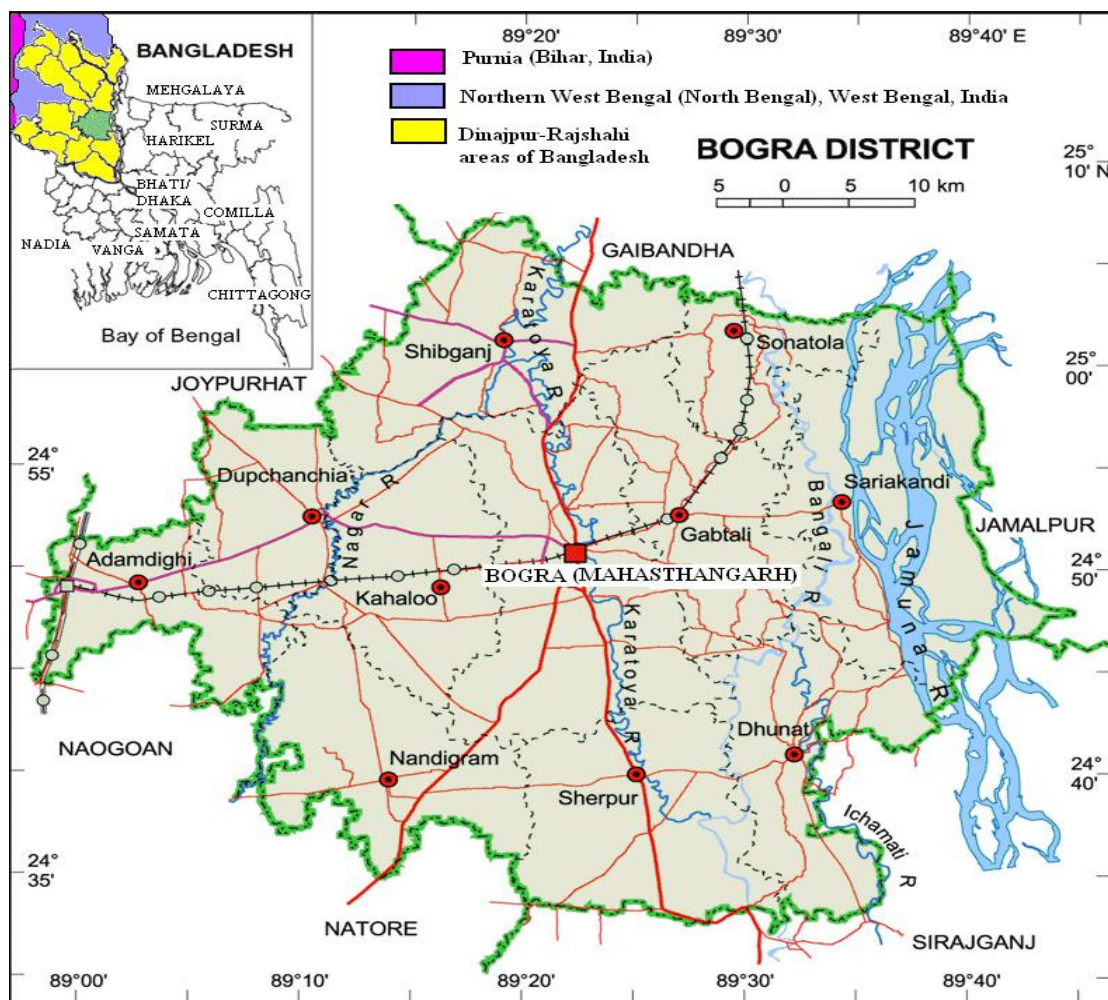
MAP 3: LOCATION OF INDO-BANGLADESH (FOCUSING ON NORTH WEST BANGLADESH AND NORTH BENGAL)



Pundrabardhana named after the Pundra (Paundra) people, is one of the most significant territorial divisions of ancient Bengal. The Pundra as a tribe has been mentioned for the first time in the Aitareya Brahmana (c 8th century BC). They form a distinct group with the pre-Aryan stalks: Andhras, Shabaras, Pulindas and Mutibas.

The earliest evidence suggests that the authority of the Mauryas from Bihar establishing a Pan-South Asian Empire around 200-100 BC also incorporated Pundrabardhana area. Ruins of Pundranagara provides us with the first definite evidence of urbanization in Bengal.

MAP 4: LOCATION OF BOGRA in BANGLADESH



The location of Pundrabardhana on the trade route connecting China with Magadha (power center of eastern India) enhanced its importance. Pundrabardhana is also recalled as Varendra (habitation of Varendri Brahmans) with its natural boundary of the Ganges and the Mahananda to the west, the Karatoya and the Teesta and even the Torsha to the east, the Padma River or Gangetic Bengal Delta to the south and along with the pocket of CoochBehar-Jalpaiguri (Koch Bihar) and included foothills of Duars to the north. Historical evidences indicate that this region of Dinajpur-Rajshahi dominated all over the Surma valley (Shrihatta or Sylhet), Meghna valley (Harikel or Coomilla), Boro-Kamta region (Susanga Durgapur and Mymensingh opposite to Meghalaya plateau), Dhaka (Dabok or Bhati areas), and even the Bengal Delta (Vanga, formed by distributaries of Ganges. Pundrabardhana or Pundravardhana or Pundra was originated from mythical king Paundrik Vasudeva along with Vanga (just mentioned), Sumbhra (South Bengal), Kalinga (Orissa or Odisha) and Anga (Chhotonagpur or Jharkhand).

Mahasthangarh (PUNDRANAGARA), located 10 km to the north of Bogra town, was the capital of PUNDRABARDHANA. During the 4th BC to 8th century AD this region was ruled by various dynasties. From the middle of 8th century AD, it went under Pala rule that continued till 12th century. Sena King VIJAYASENA conquered the region defeating the last Pala King MADANPALA. Bogra came under the Muslim rule during first half of 13th Century. In 1281-1290 AD, Sultan Nasiruddin Bagra Khan, the second son of the emperor of Delhi Sultanate GHIYASUDDIN BALBAN became the ruler of Bengal. Bogra was named after him. The anti British Fakir-Sannyasi movement spread over Bogra region since the British East India Company rule. The leader of the fakirs MAJNU SHAH had direct encounters with the British. The Indigo Rebellion spread over Bogra in mid 19th century.

This region was a part of Bengal Presidency during British Raj and the peaceful demonstration during Pabna agitation in 1870s caused end of the Permanent Settlement Act in land tenure. (Banglapedia: National Encyclopedia of Bangladesh)

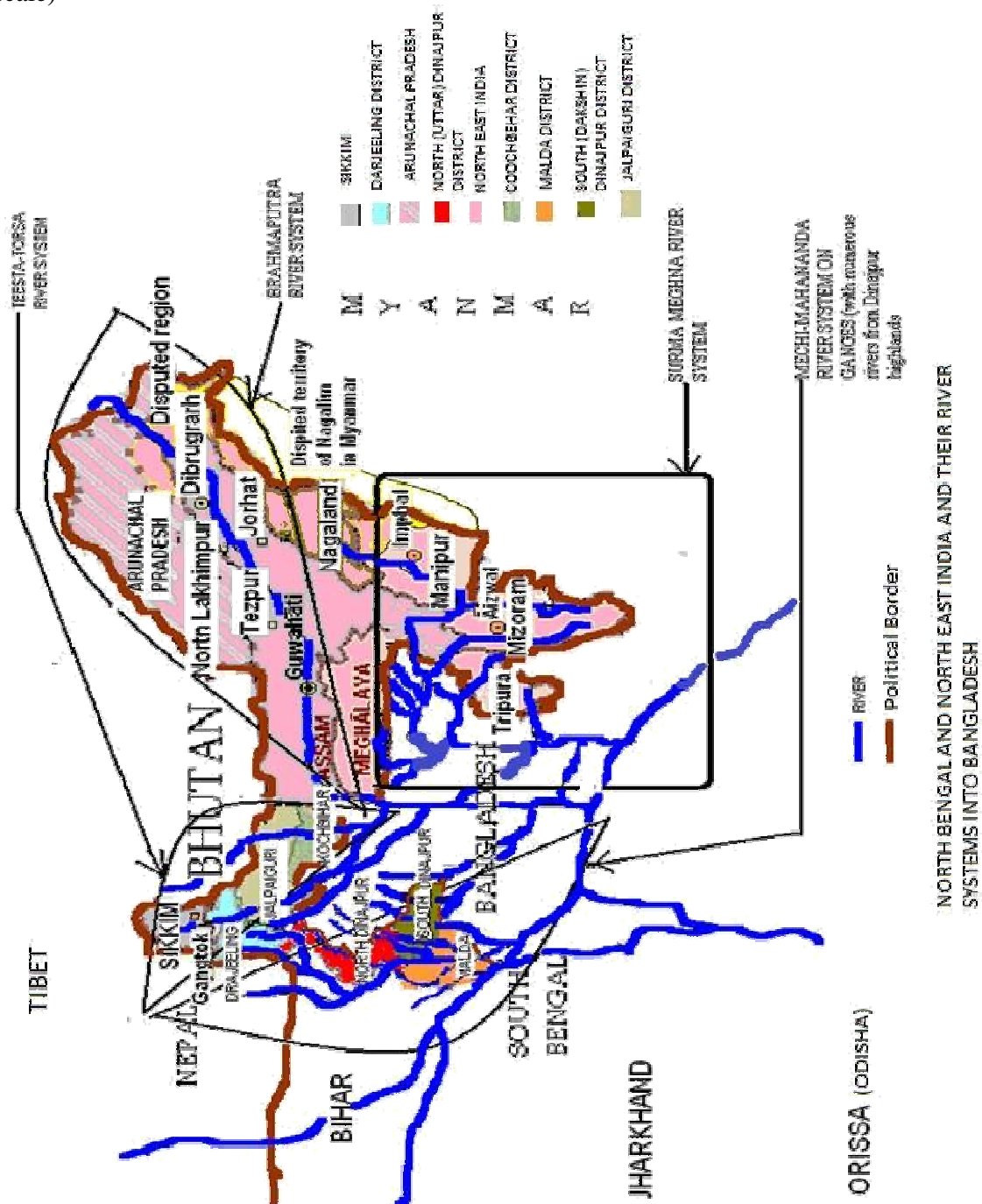
Impact from Brahmaputra, Surma and Meghna River Systems: Formation of Indigenous Statehood

North Bengal and North East India have been being influenced by river systems like Mechi-Mahananda, Teesta-Torsha, Brahmaputra-Teesta, and Surma-Meghna sharing borders with Bangladesh. So, they fall into a sandwich condition between Tibeto-Myanmar and Bangladesh-Bay of Bengal regions.

The Teesta-Torsha valley in northern West Bengal (North Bengal) is actually initiated from Eastern Himalayan territories like Sikkim state and Bhutan. This river system flows down southwards into Bangladesh and unites there with Jamuna/ Brahmaputra River basin coming from Assam. Then this Brahmaputra-Teesta river system flows further south keeping the Dinajpur-Rajshahi highland to its west. It later unites with Padma the major distributary of River Ganges forming Bengal Delta at Indo-Bangladesh. Teesta valley people have communications with those residing in Brahmaputra valley, Meghalaya plateau, Surma-Meghna valley system and Tibeto-Myanmar belt. Actually, the entire set up is hence folded by Tibeto-Burmese belt. In Teesta-Torsha valley, despite of all other tribes and non-tribes; PaundraKshattriya-

BratyaKshattriya people linked with ancient Pundrabardhana have been admixed with local Koch/ Mech/ Kirata elements of the Sub Himalayas and formulated the Rajbanshi/Koch-Rajbanshi social fold that procreated indigenous statehoods like Kamtapur and Koch Bihar in different time scales of last millennium. They keep close contacts with huge Boro groups like Bodo-Kamta of both Brahmaputra and Surma-Meghna systems.

MAP 5: RIVER-WAYS of NORTH BENGAL (Darjeeling, Jalpaiguri, Cooch Bihar, Malda, North Dinajpur and South Dinajpur) AND NORTH EAST INDIA into BANGLADESH (not to scale)

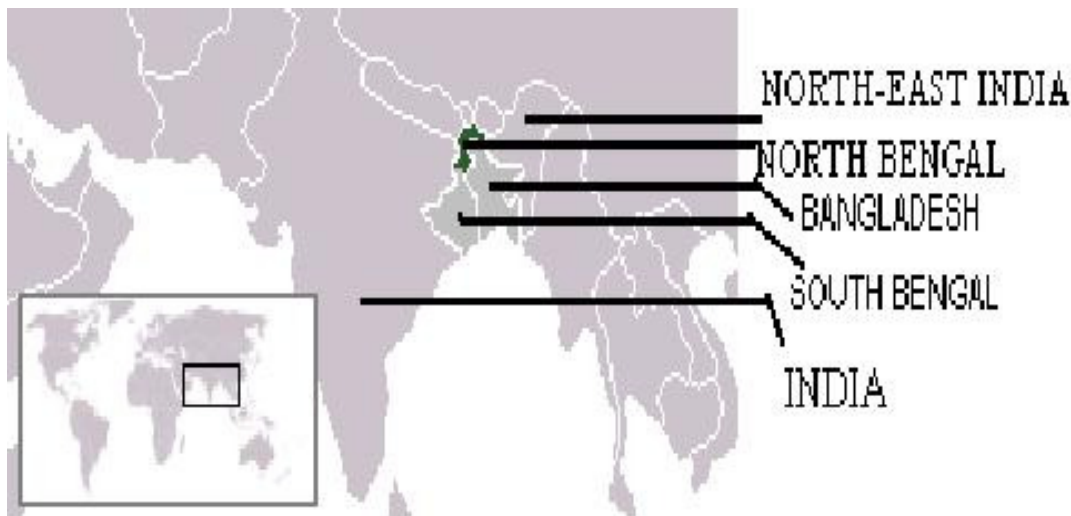


Formation of North Bengal

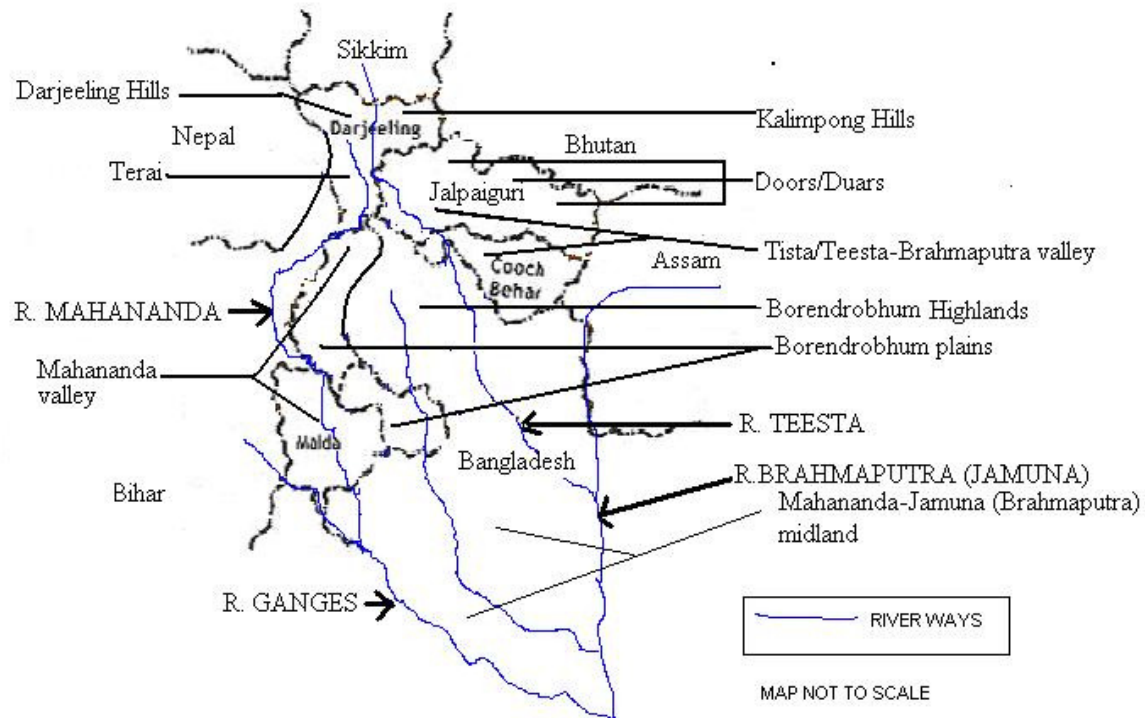
North Bengal or northern West Bengal has got its shape incorporating Koch Bihar (Cooch Behar), Jalpaiguri, Darjeeling, North Dinajpur, South Dinajpur and Malda. North Bengal on the basis of its formation has unique population composition:

PaundraKshattriya to BratyaKshattriya, BratyaKshattriya to Koch-Rajbanshi groups, Mon-Kamboja-Bhati-Boro overlapping, indigenous groups (aborigine tribe), seven Shahi extensions: Turk-Afghan-Kushan, Rajput, Gorkha, Deccan with the Adivasis- aborigines of Central India, Dinajpur-Rajshahi, Mughal, and Lucknow Shahis), Pal-Kamboja Pal, Muslim, Buddhist, Caste Hindu, Vaishnava Hindu, Dalit (non-Brahmanical), Kashyapa clan holders, Kayastha (caste group) and local heads of semi-/self-sufficient villages or village-clusters (generally, Mondal).

MAP 6: LOCATION OF NORTH BENGAL (not to scale)



MAP 7: DIEERENT REGIONS OF NORTH BENGAL (not to scale)



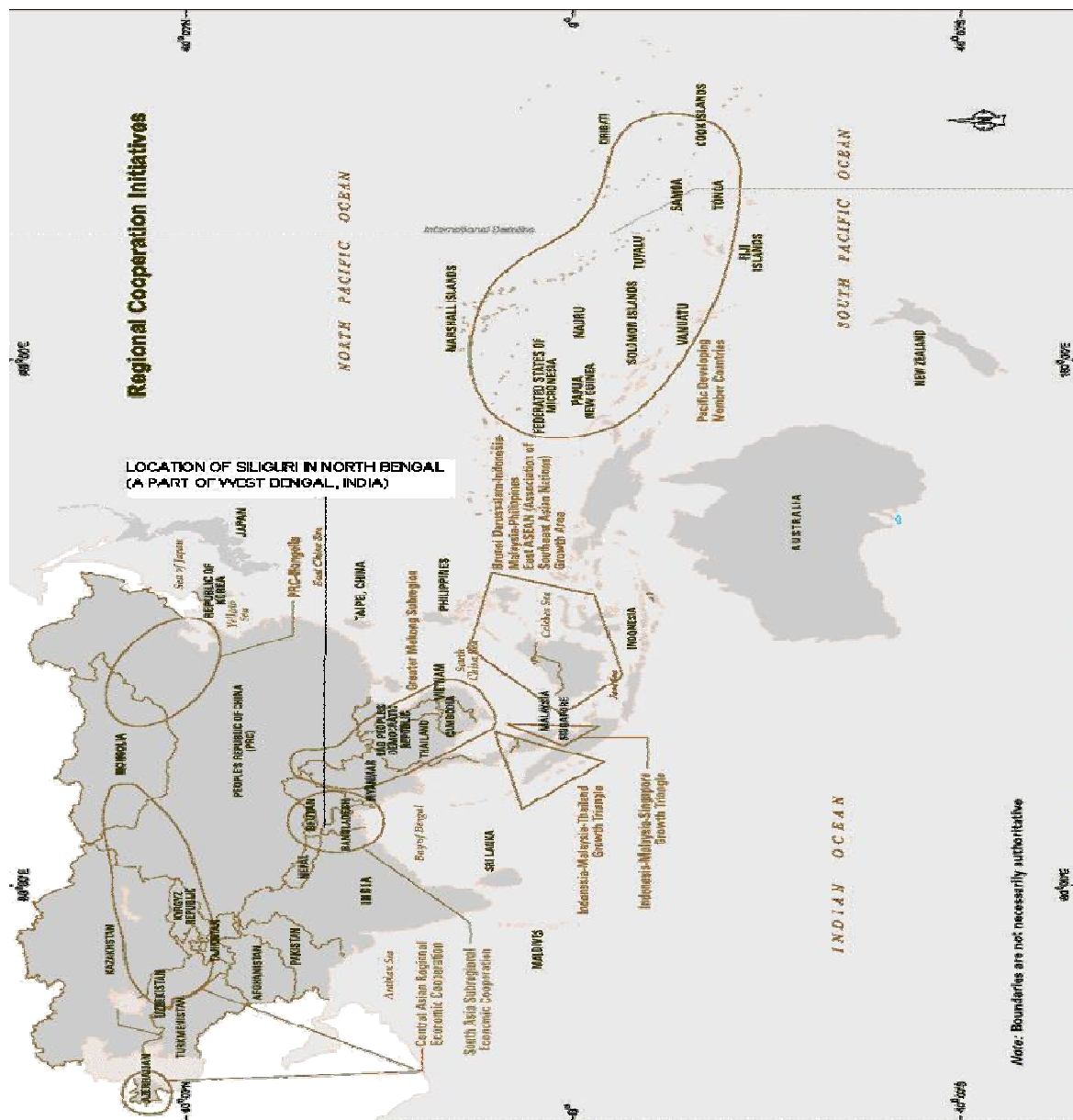
Separatist Activities

Demand for separate statehood of Kamtapur by the Rajbanshi people is there. Kamtapur was a state under the Khens during the Chetia occupancy over Brahmaputra valley and so reducing the control of Garo hill dwellers over the entire Teesta-Brahmaputra valley. Greater Coochbehar movement is in favor of wider Koch Bihar- the land of Koch Rajbanshis. Koch Bihar state was formed at a time around 16th Century AD when there were Ahom occupancy in North East India and Mughal-Rajput proved to be a successful alliance to unify South Asia that was later followed by British rule. Koch Bihar always kept good terms and conditions with Mughal Padshahi and British Raj and as a subsidiary alliance worked in favour of Indian integrity. The six districts of Darjeeling, Jalpaiguri, CoochBehar, North Dinajpur, South Dinajpur and Malda are parts of Kamtapur, Koch Bihar and Pundrabardhana that is also known as Mahasthangarh and Bogra, and Dinajpur-Rajshahi. These six districts have been developed by the British in colonial period. During independence of India in 1947, partition of Bengal took place and western part of Dinajpur came to India. Adding a few pockets from Purnea region of Bihar, this Indian Dinajpur was named as West Dinajpur district that in 1990s was divided into North Dinajpur and South Dinajpur districts for administrative purposes. Cooch Behar districts along the Indo-Bangladesh borderline have so many disputed pockets or Indo-Bangladesh enclave. They are all lying along the Lalmonirhat and Kurigram upazilas (under Rangpur Division of Bangladesh). In September 2011, the governments of India and Bangladesh announced an intention to resolve the issue of 162 enclaves, giving the residents a choice of their nationality. Included regions like Duars and hill areas of Darjeeling districts have a demography showing up Adivasi and Gorkha dominations respectively. North Bengal has become a multicultural region at most of its parts. So, a hope of regeneration of a Nation State is tough in this context. But, often the earlier communities and migrated groups in their pockets confirm human shield that is important development in this geo-strategically important region. The entire region of North Bengal contains few urban centers with numerous rururban sub centers. Siliguri Municipal Corporation is the second largest city in the state of West Bengal and it is located in Siliguri subdivision of Darjeeling district.

At the same time, the Global Market would try to pierce into the local market and expand itself

so as to revive from the recession scar. But chief question remains the same that if such neo-urbanization with both advantages and disadvantages can become a cause of separatist movement like recalling Kamtapur and Greater Koch Bihar.

MAP 8: Regional Cooperation Initiatives in Asia and Australasia



Conclusion

Politicians, policy makers and investors have to re-decide what to do and how to do! Formation of a new state in such a hilly terrain with so important trans-national strategic location might not be the proper solution. Pro-people Development strategies in the hills and foothills as well as accommodation of the local people with this global market economy could perhaps be the only solution.

This should also be kept in mind that India is the overlap of several economies: traditional, mixed, macro, microfinance, and global economy.

USSR fell down in post-cold war situation (1990s). Iran showed abrupt political transition. Global economic cake was shared by the West, the Arabs and the Chinese. We have now some options to be opted- banking, stock exchange and party control in decision making. We face terrorism, separatist demand, ultra-left activities, religious turmoil, criminal activities, mafia and even private army. On the other side, there we get instances like police, law, administration, cultural groups, sports, corporate lobbies, and education and health sectors. We often speak on global terrorism, state-sponsored terrorism, urge for sustainable development, subaltern politics, and mass corruption. Socially we have seen caste, dominant caste and dominant community. Indian politics is now leading to a bi-party system, although an option of third front could not be totally overruled although becoming more and more intrinsic. Small states have been yet formed in such terrains that are full of mineral ore or once performing as a knot in transnational trade routes. People compare globalization with gold and also categorize it broadly into two parts-native and outside India. That could be Shrine and non-Shrine. That might also be dealing with concepts like Buddhist and Arab and Latino gold speaking out for alternatives. That may also be in the form of Roman Gold in symbolic way. Revival of ancient Silk Routes and Spice Routes are also recalled. But, Indians also possessed options like crop, cattle, and human resource that they could never shed off. Conversion of property and kind into cash, credit and gold are also deliberately attempted. Army and bureaucracy are two important and influential institutions. Press and media are playing crucial

roles in building opinion and sharing information. Disparity is increasing between natives and global collaborators. Many people after getting struck in competing global market, they are increasingly turning towards localization and beginning from the primary stage. In that case, demand for separate state could also raise its hands. Revival of Nation State or such demand could be a tactic in timely approach towards globalization in an alternative way in a fishy situation. People were always there but not always claiming for separate statehood. Such demands are made to express grievances, oppose existing situation and finally in favour of revival or ancient trade routes and trade pockets that are highly needed in this era of globalization. But such demands are generally made in a controlled way keeping in mind the local, national and international situations. Such demands are more politically motivated and therefore, simultaneously causing obstacles and favouring interest of the other. These are more than just a question of identity or cultural survival or resource utilization. That might be a demand from within the bi-party system or beyond. Actually we could not comment on that that an indigenous community has to be pre-agriculture or agrarian and only satisfied with meeting psychobiological needs. The community can use its culture as psychic unity of mankind and could raise upto the level of civilization by its own way creating mega-structures and producing certain advanced technologies. But at the psychic level, they could not shed off their traditional values and norms, especially when attached to the religious institution. People becoming more scientifically advanced, would leave staying on hypotheses, superstition, magic, Supernature and ethnosience based on informal experiments by chance and trial and error methods. Advancement can often cause people detaching to nature and unfair exploitation of the resources

without feedback. People may even loose their traditional values and customs. If they could not retain the pace, they often find themselves in such a situation without resource when they could not get back and lead to extinction, erosion, transformation or incorporation within another way of life and social system bearing new polity, economy and values. Only same resource availability and circumstances can provide their life back. But that would be really hard to regain the lost heritage in the same condition. After all, time has crossed away a long course and many new experiences have gathered in the mean time.

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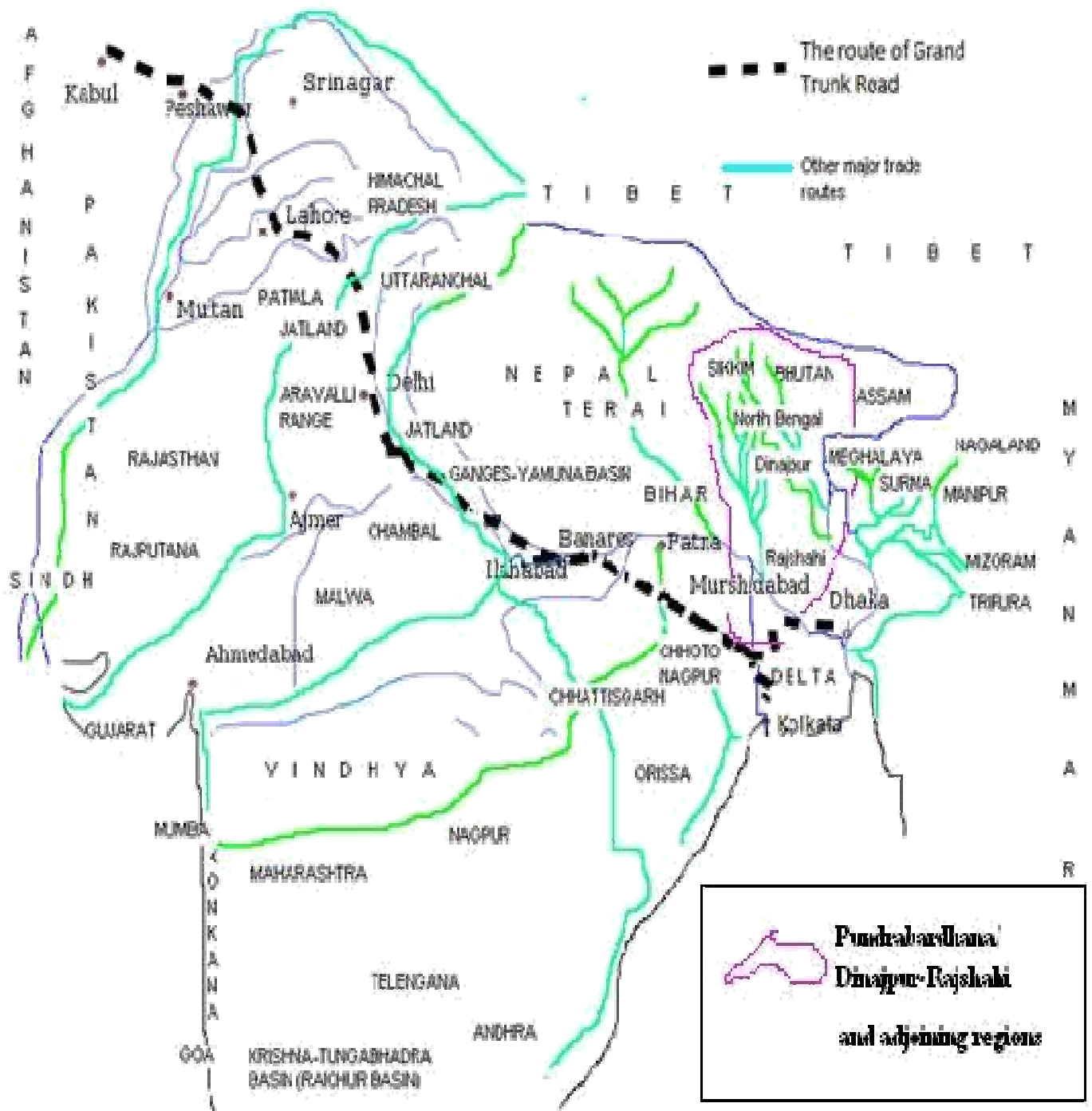
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MAP 9: The route of Grand Trunk Road at its farthest historical extent



Indigenous knowledge of the other people: A humanitarian approach

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ABSTRACT: India is a developing country and characterized by multiculturalism. A culture like a book holds certain politico-religious organizations and socio-economic institutions. The social systems beyond the western influence or having own features are traditional. Their Indigenous Knowledge system holistically is too useful for certain Public Service that could not ever be imagined. Here, in this paper, certain case studies are dealt with that are appearing to resolve, national and global problems. Could we imagine?

INDIGENOUS KNOWLEDGE SYSTEM (IKS) AND FOLK LIFE

The term indigenous has become highly integrated with the concepts like Sustainable Development and Folk Life. Mostly undocumented, originated from the very reflection of the nature and natural happenings in day-to-day life upon the Folk Mind, shared by a huge bulk of population spread out from forest to village, and of course, the most functional in form for their continuous loss and gain, discovery and rediscovery with time, Indigenous Knowledge traits could not remain kept apart from the known Modern knowledge traits and are quite able to formulate a new sub-system with some Universal attributes under the Global Knowledge System, mainly for two basic reasons. These are:

- Σ a lot to be learnt from the traditional societies, the folk communities and the holders of the Little Tradition to make up the side effects, hazards and damage caused by

- unidirectional and unjustified implementation of modern technologies and modern developmental works; reducing the folk agitations and ensuring share of profit to all;
- Σ need of mutual understanding between folk and modern societies for establishing a sustainable way of planned development to gain the highest degree of support from all associating parts of the society so as to
- attain suitable economic growth and growth in both culture and civilization,
 - produce a good quality human resource,
 - and achieve properly organized way of living, avoiding the probabilities of conflicts like between majoritarians and minoritarians or of global-local nexus or even a clash in the frame of ethnicity or religious communalism.

There are many folk societies living on the community basis chiefly within or aside the forest, using the forest products for their daily use, with the sense of a common territory, common dialect, non-subsistent type of religion, traditional health and politico-economic systems of their own, homogeneity, simple way of living, and mechanical solidarity that make them fallen under the category of 'folk'. The main features that create the difference between the folk and the rest are their non-adaptive domains and their high level dependence on nature that plays a great role behind the formation of a system of indigenous knowledge traits in order to maintain their daily life. The closest to the folk society is the peasant society whose basic criterion is the fruitful application of peasantry type of economy where the agricultural produce is not all distributed among the group members or clan or tribe in a village on community basis through barter or reciprocity deeply associated with myth and customs of folk life making it unique in feature, but marketized by means of monetary economy and therefore a country-town nexus has eventually formed there. In past, the villages in India showed strong willpower to remain their solidarity or unity that provided it a specific nature of local-level self-sufficiency which could not be disturbed by any kind of political alteration at the regional or even in a broader perspective.

The folk in their traditional condition may lack the modern amenities simply considered as

the various styles of a civilization, but in reality they should contain some kinds of civilizational level by means of cultural traditions and social relationships established with both outside and in inside. Still the folk communities have their own technological apparatus differing strikingly from the modern amenities. The simplicity in their technologies is the prime factor behind considering these societies primitive. These technologies might be so simple, but on the other hand, they are highly effective in protecting the feed back system built up within the relationship of nature and the folk communities. These technologies thus have played great roles in proper maintenance of their daily life and therefore, very influential in the determination of their cultural identity.

The artifacts they produced with the very help of their traditional technologies from the natural products construct their material part of culture. Using these artifacts, they exploit the nature which creates certain types of division of labor, and in order to maintain the same, they create some rules in the names of folkways, norms, and customs according to their beliefs, values and morals that uniformly regulate their behavior and construct their social aspects (socio-facts). With this aid of traditional artifacts and primitive type of technologies used systematically according to the socio-facts, the members of a folk community would perhaps be able to regulate the nature and natural happenings. In due course of regulating the nature, they develop the magic and when the belief in super-nature comes into, the concept of sacrifice so as to appease a supreme entity in the form of religion, various related customs, cultural performances and specialists automatically appears. That has been the set of magico-religious activities associated with the traditional ways of disease remedy/supporting the mental strength/agricultural or post-agricultural performances or other kinds of traditional economy/ rites de passage and other social ceremonies actually responsible for the gradual development of folk dance, folk songs, folk lore, folk riddles, folk literature, folk rime, folk plays, folk cookery and folk recipes, folk craft, paintings, myths and other related issues like folk notion of time-day-week-season-year, folk architecture, folk play, folk dialect, and so forth. These symbols actually reveal out the World Views of the folk peoples, and open the closed chapters of their cognition.

These all including material culture of a folk community construct the folk culture; again this folk culture associated with the socio-facts plus folk economy, folk politics, folk religion, and

folk way of disease treatment figure out the folk-life. Ultimately, parallel with the Global Knowledge System, another system by the knowledge traits of the indigenous communities, Folk Wisdom and non-reflective domains (specially related with socio- and psycho-facts) have been developed at the local level. That system has been found distributed asymmetrically (within the genders, age-groups, labor divisions and social strata). Moreover, this system could be worked out from the tactics used to maintain the daily life properly, and related with the non-subsistent parts, though being highly functional in nature: produced and reproduced, developed and lost with time. This is called as the Indigenous Knowledge System (IKS).

The set of indigenous knowledge traits builds up a system called indigenous knowledge system working as the regulator of folk life. The system would include everything present within a folk life (both functional and related non-functional). So, the system ranges from all the material and the non-material, tangible and intangible, verbal and non-verbal aspects of life among the members of a traditional or better to say, an indigenous community to the domains of folk song, folk proverb, folk etymology and chants, folk music, folk tales, folk literature, folk dance, folk painting, folk sculpture, folk recreation, folk play, folk art and craft, folk cookery, folk settlement patterns, folk architecture, the notion of time, weather forecasting, dialectology of folk speech, superstitions, myths, legends, riddles, folk religion, folk lore, sense of right and wrong (folk ways), norms (regarding kinship relations and rites-de-passage), folk customs (regarding household affairs, agricultural operations and other social behavior), various types of organization (political, economic, religious, and social), ethno-medicinal practices, folk technology, folk agriculture and other production domains.

Pasayat in 1998 talked about Tribe-Caste Continuum and Folk Cultures by referring tribal and caste communities living in the villages of Sambalpur district of Orissa; he described what Folk Lore is and how it assures an importance position of its within the Folk Life of a Folk Community. The uniqueness and differences of Folk Life with the cultures developed in urban-industrial, rural, peasant, elite and tribal societies have been thoroughly discussed here. This ethnographic work is very importance for the study of IKS of a folk community. Pasayat again cotes the words of Dorson (1972): it is clear that verbal art constitutes only a part of folklore and likewise, folklore constitutes only one segment of folk culture or folk life studies. Warren (1991) delivered typical definitions of indigenous knowledge. The words used to

denote indigenous knowledge are very much overlapping and confusing; since whenever speaking off about the terms like indigenous knowledge (IK), folk knowledge, traditional knowledge, local knowledge, indigenous technical knowledge (ITK), traditional environmental/ ecological knowledge (TEK), People's science or ethnology, they said something of the various closely associated directions through which one could investigate the Symbols and the World View of an indigenous community in favor of protecting their rights, their national level provisions and even international designations [through the terms like Scheduled Categories (S.C. and S.T.) in India and universally accepted 'Indigenous Peoples']. Study of IKS is also important for creating in a sustainable way of development and it actually helps in preserving the endangered species, ecosystem and bio-diversity of a region.

According to Warren (1991), typical definition of indigenous knowledge is as follows:

Indigenous knowledge (IK) is the local knowledge- knowledge that is unique to a given culture or society. IK contrasts with the international knowledge system generated by universities, research institutions and private farms. It is the basis for local level decision making in agriculture, health care, food preparation, education, natural-resource management and a host of other activities in rural communities (Warren, 1991).

IK refers to the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men indigenous to a particular geographic area.

The words we use to denote indigenous knowledge are not still significant and confusing, since these terms are affected by high risk of inter-subjectivity and often used interchangeably. Whether we speak off the terms like indigenous knowledge (IK), indigenous technical knowledge (ITK), ethnology, local knowledge, folk knowledge, traditional knowledge, traditional environment/ ecological knowledge (TEK), People's science, there are always arguably enough overlap.

Indigenous knowledge is chiefly oral, local, tactic or set of generation wise intelligence reasoning, learnt through repetition, empirical that is experimental rather than theoretical, asymmetrical, part of unreflective many, shared by many and originated from practices in day-to-day life, and communication ways, rather than any particular individual, and hence constantly changing with time, produced and reproduced, discovered and lost (Allen and Harris). R. Ellen and H. Harris in 1996 again stressed on the importance of the Indigenous

Environmental Knowledge in protecting the environment, natural resources, bio-diversity and ecological variations of a particular zone inhabited by a single or a number of folk communities connected with one another in various manners; they made a critical assessment of it in the Scientific And Developmental Studies Literature.

IK could be classified under various domains, such as, information, beliefs, practices and technologies, tools, materials, experimentation, biological resources, human resources, social system, education and communication.

DOMAINS OF INDIGENOUS KNOWLEDGE

This Indigenous Knowledge System (IKS) not only includes the indigenous technological knowledge traits, but also the set of knowledge traits used to maintain a folk life and that is why, IKS is also termed as Peoples' Knowledge. The folk peoples are closely associated with the nature and therefore, the Indigenous Knowledge System is also found to be closely attached with the nature; this close attachment gives IKS the name of Indigenous Ecological/Environmental Knowledge System. So, known by various names, IKS is found closely attached with social, cultural, natural and human capitals within the non-reflective population. It could also be classified into various systems of gender, and age-group. Though being functional in nature, IKS is closely associated with various non-functional symbols of human life.

Sengupta in 2003 wrote on perception of folk environment and folk taxonomy in land domain, plant domain, animal domain, color categories, hierarchical classification of folk food items and categories of food taste associated with natural environment. That perception was somewhat a direct interpretation of the folk cognition important for the study of ethno-science, but could not claim to be totally free from the external influence upon the language and some other contrasting modern-urban phenomena as could be found there. Three villages in the industrial enclave of the west Singhbhum district of Jharkhand comprising of two closely related folk communities, namely Santal and Kol were taken for the investigation.

S. Banarjee et.al. in 2006 have studied on Indigenous Knowledge Dissemination by means of

Farmer-to-Farmer Communication. Dissemination according to them is the last of the six steps of exchange of Indigenous Knowledge through recognition and identification, validation, recording and documentation, storage in retrievable repositories, transfer and dissemination. But for what this literature seems to be the most relevant in this paper is that from here one could get the meaning, proper definitions, characteristics, and foremost the typologies of indigenous knowledge traits distributed into various domains as well as about the role of different types of communication patterns in the very exchange of Indigenous Knowledge traits altogether giving it a Systematic Figurine. The authors further goes into dividing the IKS into various types at the community level each with some selected features like the area of knowledge, bearers of knowledge and manifestation of knowledge and also showing clear-cut gender based division of labor here.

On the basis of community study, IKS could be divided into various domains like Agriculture, Animal Husbandry and Poultry, Ethno-Fishery, Artisan, Disease Treatment Ethno-Medicine and Folk Remedy, Post-Agricultural Practices, Traditional Economic and Political System and associated Technologies, Material Apparatus and related socio-facts, and psycho-facts expressed by means of various symbols.

INDIGENOUS COMMUNITY

A community being closely associated with forestry and peasantry with a given set of indigenous knowledge traits is treated as an indigenous community. These indigenous communities are once considered as the ethnic minorities staying inside or close to the forest region, more exclusively the scheduled categories like the Scheduled Tribes in India. But now the label of indigenous community or indigenous population is considered in a broader perspective so as to include the whole sector of rural communities, close or remote to the modern access, maintaining the attributes of Folk Life, indigenous technological skills, traditional ways of Environmental Management System, Disaster Management, Weather Forecast, Agriculture, Animal Husbandry and Poultry, Ethno-Fishery, Disease Treatment and Ethno-Medicine, traditional economic and political organizations and so on, at least to some

extent. Such characteristics might be found beyond any forest-based tribal community and into the circumference of agriculturist tribal communities as well as caste societies and the complex type of agrarian rural society based on peasantry. They might be even connected with the urban-industrial sectors basically through the rural to urban migration, womenfolk and various types of communication by means of kinship, economic and religious ties. So, the IKS has actually a wider periphery but it gradually vanishes along with the increasing distance from the original habitat of the folk community associated with a specific type of ecosystem and bio-diversity.

Shift from one ecosystem to the other has the potentiality to put an impact upon the ways of living. The affected community thus may have to enter into a struggle for its acclimatization in that new environment and to accommodate with the earlier inhibitors, or to use other type of material apparatus than their traditional ones, and acculturate certain other kind of values and norms through the way of culture contact. They may have to select new words and terminologies into their own language which could alter the way of speech, methods for biodiversity management and develop the knowledge system, and technologies involved in production, food and food ways as well as transform their age-old beliefs and ideas, ideology of the life and way of justifying the truth, and even non-subsistent domains like traditional ways of healthcare, interaction of man nature super-nature, economy and polity. Ultimately the effect would be expressed up on both the subsistent and non-subsistent parts of the folk life.

Therefore, IKS could also be found beyond the folk community within which it originates, might be in a diluted form, through the very processes of migration, diffusion or culture contact between culture areas facilitating the process of acculturation of cultural traits. So, now basically the village peoples in a broader sense are collectively included under the category of indigenous community, and when the discussion is going on the issue of protection and violence of the rites of these indigenous communities and their folk life, it is all about the Indigenous Peoples. The terminology 'Indigenous Peoples' is synonymous with the terms like aborigines, aboriginal peoples, native peoples, first peoples, first nations, autochthons, and so on known differently in different parts of the World.

INDIGENOUS PEOPLES

Now the term 'Indigenous Peoples' is being used in a greater sense and that includes the scheduled, the non-scheduled and the excluded tribal communities and any non-tribal community with IKS and sharing the Folk Life; therefore giving an assurance of long-existed close attachment with the locality inhabited. Its periphery has now been expanded from the forest dwelling stalks up to the rural communities overlapped by both folk life and peasantry.

This concept of indigenous peoples is closely associated with the study of poverty, human rights, indigenous rights, land and forest rights, bio-piracy and illegal knowledge transfer, globalization and market system, human resource development and implementation of modernity, setting up of

Urban-industrial sectors and economic growth, anti-globalization anti-capitalist movements and need of sustainable development to condemn these agitations and the risks of terrorism and national disintegration by forming a balance between the World Views of traditional and the concepts of modern societies, decision-making system for the Policy Makers in Governance about minority development-poverty eradication-economic growth-community development in terms of health, education and social welfare, and so on.

In the Journal of International Development, Babu, Rajsekaran and Warren, 1991, published an article on how the indigenous peoples possessed certain trends of Natural Resource Management within them, highly integrated with their culture and social processes, thus contributing into the protection of nature and the process of Sustainable Development In Agriculture through application of their effective but alternative technologies in terms of bio-fertilizers, indigenous and natural way to control the pests and so on; and again their negative attitudes for what they should be brought under certain level of control.

Chaudhuri, 2003, emphasized on the need of proper interaction between modern and traditional ways of disease treatment for overall betterment of the health system of the folk communities. The traditional way of disease cure was an important part of their knowledge system. That could be considered rather as a discipline highly involved in the mental construction of the folk peoples. Many of their rituals were again connected to this system and

therefore, deterioration or replacement of this traditional treatment process could cause harm to the stability of the indigenous social life.

Md. Ayub Mallick, 2004, in a comparative study among Santal, Kora and Oraon on their socio-economic, political and religious perspectives in the rural West Bengal, emphasized more on the ways of applying development programs up on the tribal scenario; a proper study on their conception about life and life situation [in the context of the problems, the prospects, the ways of mobilization, their needs, poverty, resource and quality of information that they have got from the modern parameters] would be very helpful in understanding the proper way for their empowerment in order to make them agreed for participating in the development programs launched for them with a good quality of sustainability. Therefore, this approach could become effective in tracing out the relationship between Sustainable Development and World View of one or more tribal or folk communities living in rural societies as the indigenous peoples leading their traditional life in peasantry under the increasing impacts of modernity.

There is actually no internationally recognized definition regarding Indigenous Peoples; it is a contemporary terminology used by various internationally recognized institutions like United Nations, International Labor Organization and World Bank. It is highly related with Indigenous Communities, Indigenous Knowledge System as well as Indigenous Rights.

The term ‘Indigenous Peoples’ could therefore be defined in a very meaningful way and that follows like this:

Indigenous peoples are those cultural groups (and their descendants) having historical continuity (or association) to a region (parts of a region) or formerly or currently inhabit the region either

1. from a time before subsequent colonization
2. or, alongside other cultural groups (during the formation of a Nation-State)
3. or, independently or largely isolated from the influence of the claimed governance by a Nation-State.

Indigenous Peoples are supposed to be differentiated in some degrees from the surrounding populations and dominant culture of the Nation State.

Even if all these criteria are fulfilled, some peoples may either not considered themselves as

indigenous or may not be considered as indigenous by governments, organizations or scholars.

INDIGENOUS RIGHTS

Instead of being no universal scale for measuring indigenusness, the concern about Indigenous Knowledge System and Indigenous Peoples is day by day growing up in India since 1990s at various dimensions, for example, Peoples' Science, Traditional Knowledge System, Indigenous Technological Knowledge, Indigenous Agricultural Knowledge, Ethno-medicine, Folk life, Indigenous Environmental Knowledge and so forth (mainly for reducing the harmful effects caused by pollution, unidirectional and highly exploitative modern technological implementation for the sake of rapid technological development, economic growth, modernization, and market economy in this era of Globalization. In the Tenth Five Year Planning, emphasis has been given on Sustainable Development.

Moreover, ILO has postulated some indigenous rights on the global basis and not specifically concentrating on a single indigenous community, included all of them under Indigenous Peoples-the broadest category for them. Indigenous Rights construct a wide domain of study and are intimately condensed with Actually, Indigenous Peoples and Indigenous Rights are very intimately related to each other. Indigenous Rights encompass the domains like general policy (1-12), land (13-19), recruitment and conditions of employment(20), vocational training (21-23), handicrafts and rural industries (21-23), social security and health (24-25), Education and means of communication (26-31), contracts and co-operations across borders (32), administration (33), general provisions (34-36)- applicable to all the indigenous communities brought under the common umbrella of Indigenous Peoples [as recommended in ILO International Conventions and Recommendations 1919-1991 Vol. II (1963-1991)International labor Office Geneva]. The indigenous communities or even a community with a IKS may be included within this largest domain of Indigenous Peoples: not for only sustainable development or community development, knowing each other properly or formation of a balance between traditional and modern, but also to stop their complete

transformation and protect their potentiality to provide their environmental services (according to the IKS).

In a more formal side, legalistic and academic setting, these rights are also related with other aspects like prevention of bio-piracy, illegal knowledge and technology transfer, and in favor of sustainable development, basic Human Rights, Women Rights, Rights for the tribal communities, Intellectual Property Rights as well as suitable management of the various capitals likewise, nature capital, social capital, culture capital, human capital, intellectual capital, instructional capital, and knowledge capital (in the forms of knowledge management, human resource management, natural resource management and so on).

So, the concept of Indigenous Peoples therefore includes the aspects like folk life, indigenous communities, IKS, human rights, collective rites of an indigenous community, indigenous rights, sustainable development, proper communication with uncontacted peoples, knowledge awareness, culture survival of the indigenous communities, existence of the ethnic minorities, their historical attachment with the specific geography they inhabit, as well as the processes like Colonialism, Neo-Colonialism and Globalization. Bartholomew Dean and Jerome Levi, 2003, put emphasis on cultural and linguistic preservation, land rights, ownership and exploitation of natural resources, political determination and autonomy, environmental degradation and incursion, as well as from the from the side of the humanists living in the modern society, poverty, health and discrimination or inequality. These same issues could be different from the view point of indigenous societies and the non-indigenous view-point. It has also to be worked out that why and how the situation of indigenous peoples is improving in some places of the world, while their human rights continue to be abused in others.

RAJBANSHI SOCIAL FOLD OF NORTH NENGAL

Here the discussion is specially pointed towards the Rajbanshi Social Fold staying in the plains of North Bengal under the state West Bengal within the federal structure of India (Rajbanshis are also found in the adjoining territories of Bangladesh, Assam, Bihar and Nepal). This has to be seen that whether a complex social fold like the Rajbanshis here from

their historical perspective could be termed as indigenous peoples!

Actually, the first work on Rajbanshis was done by Sanyal, 1965, who wrote on the Rajbanshi community of North Bengal, with its own cultural heritage and their origin and important position even at the Indian context. According to him, these peoples were basically indigenous in nature, but involved in peasantry and associated with various agriculture related rituals, often acted as permanent agriculturists, established marital relationships with other sub-ordinates, underwent through the processes like Vaishnavization and Kshatriyaization, highly affected by Nathism, modified their traditional folk rituals so as to incorporate them into the Hindu fold, created the category of Kamrupi Brahmans, and transformation of the pro-Paundra Kshatriyas Rajbanshis up to the level of pro-Indian Koch-Rajbanshi community against all the Bhutanese interference in this buffer region. These Koch-Rajbanshis soon became the most dominating caste group with their relations with both other tribal and non-tribal ethnic communities during the entire Mogul Regime in Bengal up to the end of the British rule. Still these peoples maintain their folk life and possess their own values, norms, customs, symbols, and exclusive way of exerting expressions. These things would surely be helpful in determining their attachment with the land with a definite historicity. The author also provided handful of information on material culture, house type, folk songs, rite-de-passage, types of marriage as well as riddles found among the Rajbanshis. On the other hand, S.R. Mondal, 2006, discussed about the huge cultural diversity leading to a multicultural situation in North Bengal; this situation has been typically formed by the involvement of various ethnic communities consisting of tribal and non-tribal small and large indigenous and non-indigenous categories distributed throughout the diversified landscape; the diversity in the ecosystems of North Bengal varying from region to region never let them to adopt the same occupation and therefore they have to chose different lines in order to satisfy their energy requirements. They might be from the banner of the Nepali ethnic communities or the fold constructed by the multilingual Adivasi tribal groups or the caste groups belonging to the Bengalis allied with the Rajbanshi social fold connected with other small tribal sub-ordinates like Mech, Bodo, Rabha, Toto, Dhimal and so many. These communities living in villages and involved in peasantry or other non-subsistence type of economy in their traditional life have certainly become possessor of some kind of IKS. These IKS are the means of their

livelihood and at the same time the important assets of the whole population of this North Bengal.

In case of the Rajbanshi, it could be said that this extra-caste and extra-tribe ethnic category should have once an enriched IKS, but now loosing very rapidly. These peoples on the track of modernization are more akin to form a huge social fold within the multicultural construction of North Bengal. Their IKS should therefore vary in different regions as being subjected to external influences mainly coming through material apparatus as well as to the various non-adaptive domains like size of the population, religion, traditional politico-economic and educational organizations, health system, ecosystem and bio-diversity.

So, the Indigenous Knowledge System of the Rajbanshis could therefore be taken to quarry the extent to which their Social Fold remains indigenous, needs protection from the side of indigenous rights, is close to land-nature-natural happenings and could therefore be fallen under the category of Indigenous Peoples. It is a fact that Rajbanshis of North Bengal are continuously facing off various types of challenges against their sustenance, preservation of the cultural identity, the traditional way of living, and protection of their self-dignity. The pressure is creating upon both their traditional technologies and IKS as well as the non-adaptive part of the folk life again associated with IKS. So, there is a challenge of losing the IKS by new types of material apparatus (civilizational tool kits) and transformation of the non-adaptive domain that is the culture. The non-reflective domains involve traditional religious organization, health system, politico-economic system, educational system, values, norms, customs, socio-cultural performances that could only be replaced but not altered whereas the functional aspects includes traditional technologies, traditional way of disaster management, bio-diversity management, ethno-medicine plantation, agriculture, animal husbandry and poultry, ethno-fishery, ethno-toxicology, fuel collection, house construction, fodder preparation, water use, soil use, forest use, control and use of fire, storage, folk cookery, food preservation, folk craft, production and use of cloth and ornamentation, production and use of crop, fiber, alcohol and fruits; use of betel leaf and betel nut with lime and tobacco; lime production, application of lime in fishery, construction, remedy and food; honey collection, floriculture, fruit and vegetable production, sericulture, smoking and drug addiction, pottery and utensil, production and use of color, production of garments,

handlooms, carpentry, collection of raw materials, material culture and the dialect.

INDIGENOUS KNOWLEDGE SYSTEM OF THE RAJBANSHIS & RELATED NON-ADAPTIVE DOMAINS

This IKS of the Rajbanshis (and other tribal communities of North Bengal and the entire Indian North East) have to be thoroughly studied for conservation of bio-diversity and the natural resources;

to revive the way of utilization of natural resources in feed-back manner in agriculture, pre and post-agricultural works (from seed preparation to harvesting and storage, including various aspects like soil stratification, land categorization, weather forecasting and notion of time, day, week, month, season and year), ethno-fishery, poultry and animal husbandry, fuel collection, wood and bamboo collection, craft making, cloth production and dying, food production and food processing, ethno-medicine, ethno-toxicology, therapeutic measures, food-habit, nutrition;

in order to understand the way of use and management of natural resources and protection of the environment in nature's own way as done by the folk peoples;

for preservation and continuation of related non-adaptive domains at least the religious practices and other social performances and related folk culture, the craft-making heritage and traditional technological implementation associated with the traditional material culture;

for protection of folk wisdom associated with the traditional pattern of polity and economy (another non-adaptive domain);

for preservation of another non-adaptive domain of traditional health system and protection of mental strength (at least the effective parts) in the forms of traditional concepts about health and nutrition, food habit, and ethno-medicines;

and lastly, to form proper balance of these three non-adaptive domains with the modern impetus; their total replacement by the new be never possible, and if at least on the hypothetical ground so, that would be simply the development without any assurance of sustenance.

So, study of IKS tends to be so important.

The most influential non-functional domains associated with IKS are as follows:

the traditional ways of disease treatment

(concepts about reproductive health, pregnancy and child birth, related beliefs and performances in terms of rites-de-passage and religious festivals)

the magico-religious performances

(related with agriculture and other modes of production, post harvest measures and disease treatment),

the traditional economy with the following issues

- role of cash and kind, barter and reciprocity;
- division of labor on the basis of gender, age, kinship, lineage, and neighborhood;
- exchange of service;
- large scale patronage and concept of property, descent of property;
- role of myths, customs, values and norms in different stages of non-subsistent

economy; the traditional power system

(power sharing at the levels of family, lineage, caste, ethnicity, neighborhood, hamlet, village, gender, age, dominance, protective measures according to the constitution, caste association, minority association, religious institution, class, political party, lobbying),

and the traditional educational and health system.

So, study of the non-functional domains also appears to be so important in this context.

And therefore holistically, IKS and the related non-functional domains directly indicate to the different dimensions of the folk life of a community (Rajbanshi here) and ensure whether that community is culturally indigenous, require any kind of protective measures in the name of indigenous rights so as to preserve its own dignity, cultural identity, traditional way of living, folk wisdom and traditional rights to the nature and hence could be included within the category of indigenous peoples or not!

Further, IKS and the related non-functional domains could collectively play important role in controlling pollution and other kinds of hazards due to one-sided implementation of modernity, and disaster, both natural and man-made, at a region with a particular ecology

affected by a set of inputs from the outside modern society; the material apparatus of the mainstream society could here control the movement of the vehicle of folk culture causing personality divergence and even lead up to class formation.

Here within the Rajbanshi social fold, IKS is found functional but highly related to the relatively non-functional domains like religion (creating a culture lag due to formation of a disequilibrium between rapidly modifying material aspects and the traditional values) and caste system (provided with status mobility, structural changes, constitutional and legal provisions, human rights, caste-class nexus, caste-class-power nexus, public-private nexus). Other less-important non-functional domains are intrinsically related with the traditional politico-economic aspects and health cure system (now in the process of replacement by modern machinery).

The caste system has indigenously developed across the Indian sub-continent and becomes associated with the religious beliefs and the social practices among the Hindus sufficient to give it a hierarchical structure, practically or ideologically, as well as among the non-Hindus in the form of more or less ascribed economic categories related with agriculture without any religious provisions. The caste system itself is related with Indigenous Knowledge System providing a patterned division of labor needed for the societies with only agriculture and no trade at large scale, until it has been misused and become exploitative in nature. The caste system becomes either absent or quite invalid when the peoples in a rural society shed off their traditional values and knowledge system, change their traditional close-ended economy, become extremely urban, heterogeneous, individualistic, atomistic, dependent highly up on technological progress and do not bother much about the religious system. This type of social process on hypothetical ground would lead to an absolute social transformation and complete loss of traditional values, culture, norms, customs, identity and cause crisis to the culture survival, sustainability and civilization and at the real basis, could result into high level conflict and complete destruction that have not yet happened in case of the Rajbanshis.

Implementation of modern technologies in peasantry has reasoned into Green Revolution, the formation of big farmlands and entrepreneurship; proposed in favor of introduction of equity in agriculture sector and also inside the systems of storage, processing, and marketization; developed landlord-leader nexus on a semi-feudalistic background supported by bureaucracy,

caste politics, caste dominance and caste association in democratic India; again declined the caste dominance by forming dominant class there; and ultimately, new ways of extended patronage. But these things are not relevant in case of present day Rajbanshis of North Bengal as compared to the rest part of India. Here, some reverse approaches have also been frequently noticed, such as,

- Opposition against feudalistic measures, capitalistic developments, big-scale farming and mono-dimensional developmental programs adversely affecting nature and nature-oriented folk life;
- Protest by the peasants, peasant agitation, large-scale peasant movement on the ground of class struggle, caste and ethnicity, religious identity, historicity, status mobility, language, protected area, autonomy, and separate statehood;
- Improvement in transportation and communication plus power sector and electrification; emergence of self-help group; formation of referral health system and educational system (including basic, adult, skill-oriented and non-conventional);
- Increasing impact of modernity, demand for better livelihood, increase in educational level and population growth, demand for job against unemployment, out-migration, emergence of a privileged middle class, liberalization, demand for alternative job opportunities and income source;
- For the sake of forming a world wide market of the agro-based products of North Bengal like flowers, vegetables, honey, silk, spices, fruits, liquor, medicinal plants, cash crops, food grains, rubber, tobacco, tea, bamboo, jute, aromatic substances, fish, meat, milk and other things produced by the common peoples; approach has been taken in favor of Globalization. This could also set job opportunities in new plantations, storage-systems, export companies, processing factories [small scale to multinational, public to private, self-help group and co-operatives to large-scale], transportation, construction, real estate, special economic zone, infrastructure development, and technical skills. But the disparity in the profit level of the capitalist owner and the income level of the producer of the raw material; and secondly, the unorganized condition of the labors, their temporary recruitments at low price and violation of labor laws are the place where the government has made the compromise.

But, formation of a fixed market, improvement in the standard of living of the producer as compared with the former condition when there was no fixed price, no proper marketization system, and no proper system within the state machinery more depending upon subsidy and less upon the profit acquisition are the positive sides here. This feature of subsequent gain and loss at the same occasion and the risk of transformation and hence loosing the cultural and ethnic identities have promoted some side effects within the agriculturist communities and village peoples of West Bengal and Rajbanshi Social Fold could not remain detached from this. Therefore there always retains a scope for ethnic movement in the name of identity crisis, for caste politics, for class movement. A caste group or several caste groups are said to be discriminated within a close ended hierarchical system and encompassing major section of the poor could unite to form a vote bank so as to acquire their hold in the power sector. Demanding for a protected land, tribal area, scheduled area, separate statehood, autonomy, self-determination in the name of ethno-linguistic and cultural historical particularities could be the excuse for supply of terrorism, anti-state activities, any political gain or destabilizing the region against national security and national integrity; and also within the battle of globalization and localization between the lobbies. These things could promote the platform for the very emergence of religious sentiments in a secular country or even a kind of ultra-left activity. In a democratic country like India where development is a timely approach and still most of the people residing in the countryside could not fully cope up with this and living with their traditional way of living. These people would be extremely marginalized, and a kind of demand for sustainability in development program might emerge there.

That is their non-reflective domain that still sustained their culture identity. There has thus formed a cultural lag and now the non-reflective domains of their traditional economy, polity, education and health system have got the treatment of replacement through social transformation. The cultural identity and ethnicity have been seriously challenged therefore. But, increasing response to the protection of IKS world wide has also aware the Rajbanshis of their applicability in development, assured them of using them in fulfilling their demand or at least bargain with the authority and even caused the Global Machinery to take care off them at least to some extent before making their profit.

TRADITIONAL AGRICULTURAL KNOWLEDGE SYSTEM OF THE RAJBANSHIS

There has been brought a lot of changes among the Rajbanshi Social fold of North Bengal in the recent years. They generally criticize the increased population pressure for this altered situation. On one hand the improved health condition, vaccination programs, modern ways of disease treatment are highly responsible for this cause; and on the other side, innovation of Bengalis from the side of Bangladesh during partition of India in 1947 A.D. when the Sub-Continent got its independence from the British rule and again in 1971 A.D. during the independence of Bangladesh from Pakistan. These Bengalis were basically agriculturists and associated with peasantry. The increased culture contacts and acculturation, population pressure from both inside and outside, rapid change in the usual balance of the resource and demand, long going peasant movement all over West Bengal, land distribution program and abolition of traditional jotdati system (one type of feudatory agrarian system headed by patrilineal agriculturist joint families under which all other peoples basically worked as laborers), policy of decentralizing the political power through modernized democratic elective village governing system, necessity to grow more amount of crop are actually responsible to diffraction from the traditional agricultural knowledge system of the folk based Rajbanshi social fold.

At a time, the Rajbanshi women wore only a cloth rolling round their body very similar to the Dokna of the Mech females indigenous tribe of North Bengal. The males used to ware a piece of cloth with no garments on the upper body portion. At that time, their food habit was also quite different from today's context. They did not invest any excess energy to the system of agriculture. The low population rate and single dependence up on traditional way of disease treatment allowed that type of traditional agriculture highly based on the bio-diversity and the local eco-systems rather than on the application of chemical fertilizers, irrigation and pesticides. Their traditional pattern of agriculture was thus very health conscious and nature-friendly and therefore they did not allow any type of non-bio-degradable substances or toxic elements to enter into their food web and hamper the eco-system and bio-geo cycles. That is

strange to imagine that how these peoples without any single trace of knowledge regarding Western Tradition became so much wise of bio-diversity, ecology and environment management on their own oral indigenous roadway with the usual tendency of discovery and rediscovery of the knowledge traits as well as dependence over the non-subsistent aspects like religion and other sacred ceremonies that these Rajbanshis still preferred to maintain with full concentration and confidence.

Rajbanshis used to cultivate paddy and jute. The paddy strain they preferred the most was Kukra or Kukurjali, besides black Nunia, Tulaipanji, etc. They usually cultivated it in the season of monsoon and cut it in the season of Hemanta- a typical season between spring and winter when the dews started falling on earth. The Kukurjali was very sacred to them and they generally served meal with the rice from this paddy on ceremonial occasions like rite-de-passage, religious festivals and agricultural ceremonies. Usually they ate boiled Kamon or Kaon grown reluctantly in the natural environment. Both Kaon and traditional varieties of rice were replaced by the high yielding hybrid rice varieties and other types of vegetables. Rice was consumed in various ways, such as, boiled rice with salt, rice with pulses, vegetables and other non-vegetable items. They stored the rice in dry preserved condition. They first wet the rice, then fried it hot, and pressed in Chham (husking machine) manually so that the rice portion came out from the seed coat; the seed coat was used both as manure and fodder and the pressed and processed rice, chura, was served with card which was the most auspicious item for any kind of ceremony. They were not usual with the use of milk, but fond of card, dahi, and unsaturated fat called ghee. So, dahi-chura was one of the most delicious items to them. Later on, they learnt the preparation procedure of puffed rice, muri, on oven from the immigrant Bengali and the other Rajbanshi fellows from Bangladesh well overlapped with one another. They also prepared vapa, another exclusive rice item with some specific economic attribute to the Rajbanshi society. Here, they took some dust rice and prepared a soft watery lye of it, then prepared some disk like cakes of it that they cooked on steam one by one until they become hard, and dried them. For steaming, they took a handi on fire and the steam of the boiling water inside coming out of the single pore over the sieved plate used to close the open neck of the handi actually transformed the rice cakes into delicious vapa prepared on vap or 'the steam'. They took fried uncooked (non-boiled) rice with tea in the

early morning in their breakfast before getting involved in their daily work. Sometimes, they cooked the boiled water of the rice, fen or telani, with garlic. They prepared this especially with the new rice attached with the cotyledon as being husked manually in home. Fen was considered to be full of nutrients and it could be fermented to prepare alcoholic substances. Rajbanshi females usually prepared dahi, ghee, chura, muri, salted muri, husked rice, vapa within homestead while the males used to go into the field and participate into high laborious works in the field. Males often shared their work on mutual understanding among the close relatives or neighbors that they also did in case of child care under the aged fellows in the villages when no body was in the house. Males were also involved in preparation of wooden plough from highly non-degradable teak grown up reluctantly in the forest areas of North Bengal. Females often prepared vapa at night and then early in the morning went to the outside for selling them each against two bowls of rice. Teak plough was also an important item for collection of rice in the weakly markets. From the dried straw of the paddy crop, the Rajbanshis prepared sitting blocks, shade their roves and cautions. Rajbanshis were well aware of the distribution of the lower and upper landscapes-they called the latter danga. In winter, after harvesting the paddy crop, they cultivated vegetables in the danga region, whereas the lowland areas were used for production of pulses such as maskalai, thakurkalai and also the rapeseeds like tisi (mustered, spices, makoi or corn and wheat have introduced later). They produced oil from the rapeseeds in their own traditional way. Among the vegetables of winter, they liked Lafa the most. That vegetable, according to their IKS, had the potentiality to fall down their body temperature. Pelka, the food preparation of Lafa, caused them easily caught by the cold and therefore the dust of the dried winter entered into their nose during thrashing the paddy on floor came out. Sop sop is another one that they eat with pork. They at a time grew arum in huge quantity in the ditches here and there and often the good varieties like the Mukhi type in their kitchen garden. Brinjal, potato, bitter gourd, pumpkin, ginger, turmeric, hemp, chili, cucumber were also grown reluctantly. Jack-fruit, custar apple, guava, lime, banana, papaya, pindali, peach/ black berry, carambola and mango were the two most important fruit items for the Rajbanshis. Actually they never eat the soft, pulpy, juicy and sweet mango, because they considered ripened mango rotten in nature. They were actually fond of the sour taste of lime, tamarind, carambola and green mango with salts.

They first rubbed the mango at its tip on the rough bark of the tree to remove the bitterness, halved to remove the seed, and consume it with salt. They also pieced these green mangoes and dried them in sunlight of the summer with salt and edible oil in order to preserve them as prickles. They also liked the sticky taste of jack fruit, custard apple, guava, banana, peach/black berry and betel-nut very well. Banana as a fruit was important in religious ceremonies, but interestingly the banana local variety with seeds, namely daya kela or bichia kela (bichia= seed; kela=banana) was preferred more as the folk peoples believed in their medicinal importance. The use of betel leaves with tobacco items, lime and this nut they have actually learn from the Bangladeshi immigrants; that was also well practiced in the southern districts of North Bengal with more overlapping. They first dried the betel fruits and then collect the dried nut from inside, pieced it into small hard segments and chewed them to suck the sticky taste coming in contact with saliva. The thorn of young Mandar tree emerged on the stout trunk was an alternative of the betel-nut; it had some medicinal values also and therefore when being taken with basal leaves and honey, the face turned red in all. And when the Mandar tree grew up, its seeds produced the silk cotton. The Mandar or Shimul tree at a time was grown reluctantly along with the teak forest of foot hills of North Bengal. The silk cotton is very good for preparation of cushions and pillow. The Rajbanshis had a least case of diabetes, because they knew the importance of the juice of bitter gourd as well as application of the water with extract of gulancha, a kind of herbaceous plant. They also grew gourd and roof-gourd that they used in preparation of goat meat. The Rajbanshis often owned large-scale poultries of duck; probably that was the effect of Vaishnavism that prevent them from eating hen. In some jungle adjacent areas, they often ate the meat of gray hen. Pork, sheep, and pigeon were also highly favored by them. These items were actually associated with the blood sacrifice in their religious ceremonies, other social festivals and various types of magico-religious performances of the Rajbanshi social fold. They usually did not harm the tortoise varieties, but at a time they used to eat snails and frog. They considered frog as a delicious item, but opined that this food item was not their own and they learnt this from the Bangladeshi immigrants. Snails they cooked with pulses boiled alive and then suck the juicy portion from inside the shell directly to the throat. They believed in its high protein value without any the scientific evidence and strange! They were all correct. They were the

Bengalis who at a time avoided the Rajbanshis for this type of food practice and as a result of this; they gradually shed off this food item from their meal list. In pulses, they used to add ghee. They did not use the ghee in cooking the pulse, but added this unsaturated milk product atop the pulse when it was served with their dish. Rajbanshis used to fish from the local rivers and the small streams; they also collected small crabs and prawns with the help of their traditional fishing implements. Important fish varieties were therefore kajari, puti, chala, dhara, gughia, bain (electric eel), chanda, taki, bacha, bata, mourala, nadiali, singi, magur, koi, shol, boal; they let the small fishes and fishes with egg to free to conserve the species. They did not do any harm to the non edible fish varieties of which many were used to control the mosquito larvae under water. Agriculture in the marshy low land was also helpful in paddy-cum-fishery and many insect larvae present there were highly helpful in pest controlling. Later on, with increased amount of requirement, they have accepted various improved fishing technologies introduced by the immigrants and thereafter started the production in large economic scale in a trained manner at the ponds or for spending their leisure time. Meanwhile, they knew well to preserve the fishes in dried condition and this technique of drying could be used to trace out their connectivity with the East Bengal (Bangladesh), Sunderban and the coastal Bengal as probably once had been established through the ways of river trade. They stored these dried fishes under dry soil; probably they got the knowledge of preservative capacity of the dry soil from the nature as the mouse in the season of Hemanta stored the grains left on the field after the process of harvesting inside their dwelling holes under the dry soil. Vegetable-meat, pulse-ghee, steamed potato, chili, salt and card with rice or kaon are their ideal meal. They did not know about the use of wheat, they prepared bread from Marua, a kind of traditional cereal (millet). Earthen pots were once the usual utensils where food was served. Again, jute is another important cash crop yielded in the lowlands; the jute-fibers were used to prepare mattresses, carpets, rug, seat (dhokra) and so on. The dried sticks were used in preparation of house, boundary, and terrace along with broad leaves, bamboo fencing and wooden beams. Leaves of the jute plants were eaten as curry for their medicinal importance. Long dried grasses were basically used in preparation of brushes to plaster the floor with cow dung. Rice dust lye was used in painting and the rice seed coats mixed with cow dung gave the earthen walls extra strength. From khalisha grass and sital

grass Rajbanshis also prepare mattress. Fibers of jute, flex and tasar silk are important. Jute sticks and paddy straw are served as cattle feed, house construction, sitting blocks and manure.

Cane was an important production to the place with varieties like gour and pundra after which name of indigenous statehoods were given. Basically, houses were made up of bamboo, cane, straw, broad leaves, wood, teak and jute sticks. For protection from the heavy damage due to lashing rains, seldom peoples stayed in the wooden houses constructed on the wooden poles; still now this kind of construction has come to see in various parts of North Bengal. Brick made houses were only possessed by the rich; that kind of people had either huge amount of land or regulate the markets. Such type of peoples had their own army, horses, elephants, and weapons and participated in the battles against the foreign innovators in order to protect their indigenous state. The rich peoples got the money, gold, granary, social status, priorities, labor force, and even the attachment with both Great Traditions of India as well as the very impacts of Westernization. Peoples often buried the gold and other ornaments under the soil due to the fear of dacoits. Still now, from the ponds here and there many idols of cult figure are being recovered. These are clear evidence of once prevailing very good economic condition and prosperity of the local peoples dependent on nature for their livelihood along their enriched IKS. The prosperity actually came from trans-national going through these regions. Even an illiterate Rajbanshi till now could be found good in accountancy.

ON-GOING CHANGES IN THE AGRICULTURE DOMAIN AND ROLE OF IKS

Application of new varieties and genetically modified items could often exert a negative impact upon protection of the old varieties useful in sustenance of a biodiversity, an ecosystem, human life and the culture. And again, safe, good quality, local, hygienic, resistant, disease free and easily acclimatizing variety may also grab attention of many especially when as a domesticated crop it has been growing naturally, in a complete organic manner and applying no toxic or non bio-degradable substance in the form of manure or pesticide; therefore often involving the IKS of the local indigenous community. This type of process has found in

Bidhan Nagar region of Siliguri Subdivision, Darjeeling District of North Bengal; where the multinational food processing company Calypso India Private Limited provides a permanent market for the pine apple and other vegetables to the local peasants- these producers have now a permanent market where they could sell their products at a fixed price, obviously higher than before. But here the level of profit made by this multinational company remains concealed. The factory provides the cultivators organic manure produced from the waste rubbish of pineapple and vegetables. Many peoples get jobs in the factory at various positions and more other in transportation system. No doubt the standard of life has been increased in Bidhan Nagar region, application of harmful chemicals has been reduced in the field, not even any genetically modified variety has been introduced nor the cost of irrigation and electricity needed in the cultivation of dry season paddy have come to be seen there. But replacement of food crops by pine apple and pine apple economy must cause some sort of socio-cultural changes among the Bidhan Nagar peasants most of which are Rajbanshis followed by Bengali castes and caste like Muslims speaking mixture of local Rajbanshi, Maithili and Bengali dialects. Here, the concept of Indigenous Peoples is necessary for the safeguard of the IKS as well as the overall protection of the Indigenous Community that cultivates the pine apples in their land.

In this same Bidhan Nagar region, establishment of small tea gardens growing parallel with the Tea Estates at the end of 1990s was highly opposed by the local peasants. They were afraid of land alienation. That ultimately led to the initiation of ethnic movement in the name of Kamtapur (an indigenous state formed by the Khens throughout North Bengal and not by the Rajbanshis) and with the demand for announcing the spoken dialects of the Rajbanshis together a separate language (language is the basic criterion for state formation in India). Eventually, a new branch of separatist movements for the very formation of a new state was emerged out. That even got a passive support from the other frustrated peasants of Bidhan Nagar (falling under the Phansidewa Legislative Area secured for a reserved MLA). The region is mostly populated by Scheduled Caste Categories including the Rajbanshis and low caste Bengalis (basically falling under the same Kashyap clan and therefore being descendants of Paundra Kshattriyas).

Some religious minorities plus tea garden Adivasi laborers and other Scheduled Tribe

categories are also living there along with a fragment of Nepali and Hindi speaking North Indians (chiefly from Bihar). Here, concept of the Indigenous Peoples is needed for protection of the land rights exclusive provisioned for an indigenous tribal community having long time attachment to the land or the region. Here Indigenous Peoples would be applied to overcome the fear of loss of cultural identity, ethnicity, income source, Folk Life and traditional knowledge-belief-faith of livelihood; in order to check any kind of disharmony; establish proper communication with an effective mode of awareness; understand the Folk Mind and make a bridge between contrasting endowments like traditional and modern as well as local and global. As that were successful; many of the Rajbanshis on their own responsibility have initiated tea-plantation on their soil.

Unlike the tea plantation process, in pine-apple cultivation, the risk of land alienation is absent and therefore its impact remains more or less positive among the folk peoples in Bidhan Nagar area. Rajbanshis of Bidhan Nagar have now become quite detached from their traditional life pattern and IKS involved in agriculture and other cultivations and productions associated with non-subsistent domains. They have become habituated with hybrid cultivation with so many side effects causing within the nature and to the consumers. Unidirectional exploitation in the peasantry and implementation of modern technological affiliations have now led to the settlement of cement factories, ply wood factories, saw mill, satellite township, markets, roads, railway tracks, sub-urban areas and markets, dams and canals, truck terminus, storage and petrol pumps, check posts, government departments, health centers, cancer treatment center, Medical College and University, colleges, institutes and schools, religious institutions, nursing homes, housings as well as SEZ (Special Economic Zone) and Real estates throughout the Siliguri Subdivision. The greater Siliguri City has been surrounded by air port, army cantonment, MES and defense. These things are actually promoted here to bring in a drastic transformation in favor of the economic growth and generation of employment and employment chain. But the real thing is that this growth would not be possible without associating the local people, community development, sustainable way of development, proper awareness and communication. Here both the cognition and non-functional domains have to be thoroughly studied. Protection and fruitful application of IKS in a fashion of Global Public Services is highly required. Here, the aspects of indigenous

rights and Indigenous Peoples are highly needed in favor of the local peoples, even when they are approaching very fast in the track of modernization, in order to check their complete transformation and for continuous supply of the benefits of their IKS to the Global Public and environment.

IKS AND SUSTAINABLE DEVELOPMENT

So, the IKS of the Rajbanshi Social Fold (progressing on the track of modernity) is very essential to work out and in this process the non-functional domains could play an important role and ultimately the basic pattern of the folk life would therefore reveal out in front of us. And the most important thing is that only after getting this IKS, we could properly apply the modern knowledge upon the folk life and the nature in which it resides. From proper adjustment between traditional and modern technologies as well as between IKS and advanced knowledge system we could achieve actual way of conserving the bio-diversity, because from this biodiversity the indigenous community maintains its folk life and therefore protects it in its own indigenous feed back management system. To do it appropriately, the community needs a banner like Indigenous Peoples and aid from indigenous rights. Correct adjustment among folk life, proper management programs and indigenous rights could postulate a sustainable development. And this adjustment could only be achieved when there is a definite balance between traditional and modern knowledge systems through proper association of all the capitals from various domains like Knowledge, Nature and Human Resource, culture and society with their non-adaptive part, as well as intellect and instruction. Impetus is also needed from the domain of intellectual property rights and patent laws especially to check bio-piracy and illegal technology and knowledge capital transfer. Disequilibrium between these capitals, rights and systems could then produce catastrophic results from the very clash between Globalization and anti-Globalization.

CONCLUSION

The cognate of indigenous knowledge (on trial and error, informal experiment and intimate understanding of nature) is the indigenous knowledge system that includes mode of production, resource management, social system and belief system (religious and magico-religious aspects, believed facts or hypotheses, intangible cultural aspects like values and customs). And an input would rather affect on politico-economic sector more than cultural or religious part acting like a value barrier. The impact would also be fallen on educational and health sectors as well as social system like formation of nuclear family against joint-extended systems, migration from rural to urban and peri-urban areas, formation of rururban sectors, exposer to global media, etc.

From the above discussion, it could be said that Rajbanshis of North Bengal have an enriched IKS, but now rapidly loosing much of their indigenous knowledge traits, especially related to agriculture. They could be acknowledged for their importance towards the world humanity as being the only provider of the damage control mechanism against pollution, loss of biodiversity, loss of hygiene, uncontrolled utilization and large scale exploitation of natural products, unidirectional process instead of feed-back, damage to the recycling process, increase in the amount of artificial products and genetically modified substances, accumulation of non-degradable substances, hamper to the ecosystem and environment, increasing disparity and inequality, and introduction of the concepts regarding currency, profit and poverty.

There might be handful of modern impetus very essential for a primitive society and at the same time, some sorts of IKS applicable in the mainstream; but for the rest part, a better understanding between traditional and modern is always required through proper way of communication and knowledge awareness program. So, the benefit (if any) Rajbanshis are getting from the process of Globalization or other external inputs is appreciable, but it is also to be taken care of that this interaction would not affect their IKS.

The long on-going attachment to land and the knowledge regarding nature therefore go in favor of the subsequent protection, sustenance as well as improvement of the Rajbanshi Social Fold, but no to their transformation. Rajbanshis are the providers of IKS and could play crucial role in protecting the planet. IKS actually remains no longer less-important than other

knowledge systems. Sustainable Development (taking care the concern of all) is always needed, but not at the cost of cultural identity, non-functional heritage, global service of the functional IKS, social disharmony, political disintegration, ethnic violence, or a total transformation for the sake of localization or globalization. In this case, Indigenous rights and the concept of Indigenous Peoples using to bargain with the mainstream or political achievements and conspiracies are highly relevant for the on-going debate between development and sustainable development. The three way approach thereby reveals the close attachment of the Rajbanshis to the land as it has been continuing since long ago. They have actually a complex type of social fold and a rich historicity which are enough to prove their indigeness. But at the cultural ground, specifically in case of IKS, they have lost much of their traits. So, the concept of Indigenous Peoples becomes again relevant here in order to facilitate their development but not in a way where traditional heritage is going to be collapsed due to total transformation or a chaos could be emerged out produced in the very process of localization. They should be protected, promoted and developed, but in a way where their Folk Life, Cultural Heritage and IKS should be kept intact, of their own, under their property, but in the very service of the Global Public in a suitable circumference. Most of all the IKS is still very much essential in the present context.

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Sustainability of Indigenous Knowledge holders: A Needful Approach

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Abstract: The indigenous people live in areas very rich in natural resources. In this era of Globalization, there are attempts to control over these resources. Marginalization of these communities followed by destroying their natural resources, structure, culture and identity are to be mitigated by sustainable way of development; otherwise the system will be used and reused by outside vested interests. We should not forget that these people can contribute a lot on behalf of their Indigenous Knowledge systems to humanity. Unless we incorporate these people, sustainability in favour of our future generations can not be achieved. Rather crisis to the nation may arise. Believe or not, indigenous communities so far neglected and even being in a pre-State condition are highly patriotic and very much attached to their pre-agricultural and agrarian production systems.

Introduction

Indigenous peoples are those communities living in close to nature. They are the folk people or ethnic communities who are regarded as aborigines or natives during the colonial period. They have historical continuity with pre-invasion and pre-colonial societies. They have their

own territories where they now have become non-dominant sectors. They consider themselves distinct from rest part of the society. They have appraisal for their land, their ethnicity, culture, social institutions and even legal systems. They however might be influenced by various outside influences. They maintain intimate understanding of nature, generation-wise intellectual reasoning and informal experimentations on trail and error method. So, definitely Indigenous Peoples in each case develop a set of indigenous knowledge traits or traditional knowledge traits. When these knowledge traits work systematically in accordance to mode of production, division of labor, social system and faith-fear-belief systems, it is the indigenous knowledge system (IKS). IKS related to the ecosystem or microenvironment could be community specific or area specific. It serves for those who stay far away from modern facilities and meets the ends for basic livelihood. As modernity can cause harm to humanity and nature in various ways, the alternatives have to be learnt from IKS. We can not separate IKS the rational part from its non-rational part. However, IKS can be broadly divided into so many forms in the context of folk life, such as, agriculture, animal husbandry, poultry, fishery, handicraft, agro-forestry, biodiversity management, sustainable development, alternative ways of disease treatment, weather forecasting, disaster mitigation, and so forth. Nikobarese and Shompens of Great Nikobar island (Patnaik and Prasad, 2009), aboriginal Vanuatu fishermen (Johannes and Hickey, 2004), Inuit of Arctic (Nakashima, 2003) are various examples of Indigenous Peoples.

Knowledge is a philosophical term and can be conceptualized as a set of various facts and information traits. It is of two types: scientific and indigenous. Both work as systems and hence we use the terms like Scientific Knowledge System and Indigenous Knowledge System (IKS). These two together constitute Global Knowledge System. Scientifically proved knowledge is the scientific knowledge, whereas knowledge of the Indigenous Peoples can be treated as Indigenous Knowledge (IK). There is actually no universally accepted definition of IK. This is the major obstacle in doing research with IK. IK is the actual knowledge of a given population that reflects the experiences based on traditions and includes more recent experiences with modern technologies (Haverkort, 1991). Indigenous knowledge (IK) is the local knowledge- knowledge that is unique to a given culture or society. IK contrasts with the

international knowledge system generated by universities, research institutions and private farms. It is the basis for local level decision making in agriculture, health care, food preparation, education, natural-resource management and a host of other activities in rural communities (Warren, 1991). Indigenous knowledge is the systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture (Rajasekaran, 1993). Indigenous Knowledge traits are oral, undocumented, simple; dependent over the values, norms and customs of the folk life, production of informal experiments through trial and error, accumulation of generation wise intellectual reasoning of day to day life experiences, loosed and rediscovered, practical rather than theoretical as well as asymmetrically distributed. IK is also regarded by several names, such as, folk knowledge, traditional knowledge, local knowledge, indigenous technical knowledge (ITK), traditional environmental/ ecological knowledge (TEK), People's Science or ethnology that often look very much confusing and overlapping. IK has the following characteristics: (1) local or specific to a particular geography or micro-environment or ecosystem and folk people living there close to nature, (2) orally transmitted, (3) outcomes of informal experiments, intimate understanding of nature, and accumulation of generation-wise intellectual reasoning of day-to-day life experiences, generation-wise intellectual reasoning tested on "religious laboratory of survival", (4) originated through interactions and not at individual level, (5) empirical rather than theoretical or any abstract scientific knowledge, (6) functional or dynamic and hence constantly changing, discovered, lost and rediscovered in a new form (open-ended IK), (7) culturally embedded (close-ended) where separating the technical from non-technical, rational to non-rational is problematic, (8) repeating with time (as because IK is both cultural and dynamic), (9) segmented into social clusters or asymmetrically distributed within a population, by gender and age, (10) shared by many and even by the global science (Ellen and Harris, 1996).

Folk people have preserved these functional IK traits within non-functional symbols of their value loaded folk life. In order to gather IK traits, domains that have to be decoded within the folk life are folk song, folk proverb, folk etymology and chants, folk music, folk tales, folk literature, folk dance, folk painting, folk sculpture, folk recreation, folk play, folk art and

craft, folk cookery, folk settlement and patterns, folk architecture, the notion of time in folk society, weather forecasting, dialectology of folk speech, superstitions, myths, legends, riddles, folk religion folk lore, like sense of right and wrong (folk ways), norms regarding kinship relations and rites of passage (rites-de-passage), folk customs regarding household affairs and agricultural operations and behavior of the folk people, folk dialect to folk technology, various type of organization (political, economic, religious, and social) and ethno-medicinal practices.

Indigenous Knowledge System (IKS) is the cognate of IK. Folk people are well aware of how to apply IK traits in quite a systematic way and so to gain certain nature-friendly Public Services form the so formed Indigenous Knowledge Systems (IKS). So, Public Services from IKS are very much helpful in filling up gaps within Scientific Knowledge System and achieving sustainability in development programs. IKS is a multidisciplinary subject and incorporates the following dimensions: physical sciences and related technologies, social sciences and humanities. IKS can again be considered as summation of all traditional knowledge systems (TKS) scattered all over the world. Such summation in a systematic way through proper documentation can really contribute parallel to globalization. Indigenous Peoples suffering from global market economy can then access to Indigenous Rights (International Labour Organization). In that case, they will not take the way of localization, rather follow the way of globalization with certain safeguard and even contribute to overcome negative impacts of unidirectional modernization process.

IK/IKS is very much based on the relationship among (1) mode of production and reproduction, (2) social structure and (3) magico-religious/cultural issues. Simply saying, this is a relation among nature, human and super-nature. Communities who treat culture as result of their psycho-biological need and not mere psychic unity of mankind are not so much akin to civilization but are much closer to this relation among nature, human and super- nature (NMS).

IKS is a multidisciplinary subject and could be divided into various domains like agriculture and post-agricultural practices; animal husbandry and poultry; ethno-fishery; hunting and

gathering; artisan; disease treatment, ethno-medicine and folk remedy; traditional economic and political system. IKS could be divided into various domains like agriculture, animal husbandry (including poultry and fishery), handicrafts, tools and techniques, nutrition, health care practices and bio-medicines, psycho-social care, natural and biological resource, management of environmental and bio-diversity resources, disaster mitigation, human resource management, saving and lending, poverty alleviation and community development as well as education and communication. Each of these domains is provided with own respective area and manifestation (Mondal, 2009). If we only consider agriculture related IKS, we have to focus on definite interrelationship among production and technical practices in a specific farming system, conservation of crop varieties, alternative agricultural production, production of various cash crop/vegetables/spice/fruit and flower, maintenance of the nutrition level and traditional concepts of health, food preservation, labor-oriented hand-loom industry, traditional type of division of labor, ethno-fishery, animal husbandry and poultry, agro-forestry and use of forest products (timber and non-timber), sacred groove, agro-ecology and food web, bio-diversity with feed-back, water and soil management, house construction and kitchen garden, folk taxonomy, magico-religious performances, belief in super-nature, cultural lag, emerging socio-economic challenges, social transformation, sustainable rural and human resource development.

Actually, farmers remain no longer passive consumers, but active problem solvers (Warren, 1991). So, the highest priority is going to be given upon alternative role of IKS against the high-cost modern crop production system (Davis and Ebbe, 1993). It could then only allow a low-level external input among the traditional agriculturists living in nature-surrounded remote areas (Haverkort et. al., 1992).

Development is intensively connectively with political and economic aspects. In Indian perspective, most people live in rural society segregated into various agrarian rural structures. Here, the economy could be broadly classified into production oriented and trade related types; and simultaneously categorized into Traditional, Nationalized, Mixed, Macro and

Global plus Micro economy and Micro-financing (in a few pockets). Again, the polity could be stratified into 4 types: International and National Polity, Regional or State Polity and Traditional Political Systems. In this global era, what should be the mode of development? Perceptions of Policy Planners at Global/ National/Regional stages may require help from multi-disciplinary approach, especially anthropology which is holistic study of mankind and also emphasizes on socio-cultural aspects through qualitative in-depth micro study (community wise or cross cultural; synchronic and/or diachronic). People in traditional politico-economic system should move in the direction of civilization, but this is a fact that they are confined within Nature-Human-SuperNature relationship. The latter is related to culture which is Psychic Unity of Mankind or results out from Psycho-Biological need. But study of culture now more emphasizes on symbols, cognition/World View and Post-Modernism/New Ethnography. Culture of the subject group plus development process (input) result into sustainable development (output): development in such case is more nature-friendly and pro-people; maximum people gaining the status of stakeholders are attracted to it and benefited from the policy. Other than this could be reason behind outsiders' interference where a policy would be always challenged by another and therefore no development work could be performed or be slow down from a steady or faster pace.

Culture and Traditional Knowledge

Culture, value, norm, symbol, folk life, language as a mode of expression, World View, mind setup or the inner perspective, psycho-biological need, mode of exploitation of the ecological resources and technology used, structural-functionalism of the society, material culture, inputs, population size and various other factors are responsible for construction of knowledge. The Global Knowledge can be broadly disassociated into two types: Indigenous and Modern. Indigenous or Traditional Knowledge traits are scattered worldwide among the

folk people. These are oral and undocumented, subjected for loss and rediscovery, outcome of trial and error from informal experimentation during the course of folk life. Indigenous Knowledge is basically local (Warren 1991). It is actually oral and mostly undocumented. It is more practical rather than theoretical and repeating with time. IK generates through informal experiments, intimate understanding of the environment in a given culture and accumulation of generation wise intellectual reasoning of day-to-day life experience. It is generally tested in the religious laboratory of survival. Every native practice has back of it a definite (and to the native a sensible) reason. These reasons are based on tradition, superstition, worship of the departed dead and fear of the unknown. So, it could be said that Indigenous Knowledge traits are oral, undocumented, simple; and very much dependent over the values, norms and customs of the folk life (>folk culture>material apparatus). IK is the result of production of day-to-day life experience through trial and error. They could be loosed and gained in due course of time as well as asymmetrically distributed. IK is also spoken off by several names, such as, folk knowledge, traditional knowledge, local knowledge, indigenous technical knowledge (ITK), traditional environmental/ ecological knowledge (TEK), People's science or ethnology. That often looks very much confusing and overlapping. IK traits unite to form a knowledge system known as the Traditional Knowledge System and summation of so many such TKS is mentioned as the Indigenous Knowledge System (IKS). IKS is very closer to the religious organization (basically non-adaptive) and hence gets stability in terms of myth and belief- often looking extra-scientific, post-modern and superstitious. IKS hence seems like a living organization and IK are telling many things about the folk contribution to the entire humanity neglected so far. Especially it can fill up the gaps of modern developmental process with questions on sustainability. IKS can definitely provide some Global Public Service through a proper way or advising to the Humanity. IKS is a multidisciplinary subject and incorporates the following dimensions: physical sciences and related technologies, social sciences and humanities. On the community basis, IKS could be divided into various domains like Agriculture and Post-Agricultural Practices; Animal Husbandry and Poultry; Ethno-Fishery; Hunting and Gathering; Artisan; Disease Treatment, Ethno-Medicine and Folk Remedy; Traditional Economic and Political System. Simply saying, all of IK providers in forms of farmers, landless laborers, women, rural artisans and cattle rarer are well informed

about their own situations and their resources; what works and doesn't work and how one change impacts other parts of their system. Culture of such a community is mentioned as the indigenous culture where it is really hard to separate the technical part from the non-technical one and the rational domain from the non-rational sector.

In this era of globalization, the rapid developmental activities of the Western-Modern Society have caused 6 major problems as pointed out by United Nations Development Programme (UNDP) report: Challenges of global warming, Rapid loss of bio-diversity, Crisis-prone financial market, Growing international inequality, Emergence of new-drug resistant disease strains & genetic engineering (Kaul et. al. 1999). In this regard, Science, Traditional Knowledge and Sustainable Development (ICSU) in the Series on Science for Sustainable Development No. 4 have truly mentioned that the IKS of the local/rural/indigenous communities (basically under the banner of “underdeveloped” category) could be applied so as to control these crises especially in cases of biodiversity management and pro-people or sustainable development. IKS involves local-level innovations and their transmission to a wider periphery. Actually, IK providers remain no longer passive consumers, but active problem solvers (Warren 1991). It is exclusively related to the traditional non-subsistence symbols and technologies developed without direct inputs from the formal sector. This IKS is exclusively related to the communication process between informal and institutional sectors. There is a constant need so to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional life-styles and that would be very much relevant for the conservation of biological diversity and sustainable development. The indigenous communities have admixed their knowledge traits with their values and norms that create their folk life and develop their World View: so converting the knowledge systematized, integral, obvious, indifferent, hidden and open ended both, value-oriented, religious, super-natural and non-adaptive. These traits in the form of a system facilitate both psycho-biological functioning of the individual and structural functioning of various units of the social structure. The latter lives on the communication process which might be marriage, formal and informal contacts as well as language that establish relationship between two human, human and nature, human and the Super-Nature. Taking

only the human-human relationship, we can see that is actually the contact between two brains where the nature reflects and culture generates. A given relationship might have so many variables up to infinite numbers. Indigenous Knowledge as an integral part of Folk Life and Folk Culture (Indigenous Culture); generates from the outcomes of the complex multidimensional human mind very much sensitive to what is happening in the nature. And nature contains ecology, dead and living as well as the resource: so it knowledge, knowledge system, culture, functioning, mind and structure are all related to mode of production, use of technology, feed-back, agriculture and trade, rural and urban, culture and civilization, development and sustainability, population size and its need, the super-nature, the humanity and the super-structure turning the whole issue into extra-scientific level. So, the non-adaptive knowledge system could only be altered after change in ecology, population size, functioning process of society (holistically or partially), mind, culture, social structure as well as social relationships related with technological input, material culture, economy, polity, migrations, formation of new social sub-structures, status quo and social mobility. In a sense we can say that knowledge could be easily loosed but when systematized and non-adaptive, there might require a total change like social transformation to create a catastrophic effect on the society and the nature, if to destroy culture and knowledge system. Knowledge systems are not only hard to alter in a sudden but related with culture, values, norms, symbols, myth, religious faith, magic and superstition, belief in the Super-Nature, psychobiological need, structural functionalism, mind structure, World View, cognition, language, mode of expression, power of word, folk life, social mobility, inputs, material culture, formation of substructure, structural change, demographic shift, migration, ecology and social transformation. So, cultural symbols expressed in various socio-religious events are good for extracting or decoding the knowledge traits from human brain and folk life. The folk life overwhelms all the domains like folk song, folk proverb, folk etymology and chants, folk music, folk tales, folk literature, folk dance, folk painting, folk sculpture, folk recreation, folk play, folk art and craft, folk cookery, folk settlement and patterns, folk architecture, the notion of time in folk society, weather forecasting, dialectology of folk speech, superstitions, myths, legends, riddles, folk religion folk lore, like sense of right and wrong (folk ways), norms regarding kinship relations and rites-de-passage, folk customs regarding household affairs and

agricultural operations and behavior of the folk people, folk dialect to folk technology, various type of organization (political, economic, religious, and social) and ethno-medicinal practices that is all the material and the non-material, tangible and intangible, verbal and non-verbal aspects of life among the members of a traditional or better to say, an indigenous community. Culture is a complex whole that includes knowledge, belief, art, morals, law, custom and other capabilities acquired by human as a member of society. These acquired culture traits form together several culture complexes and these again formulate a given shape of culture pattern to a particular society. But cultural traits never remain absolutely and solely fixed to a particular society and they might diffuse to other societies during cross-cultural interaction. Cultural traits diffuse from a particular culture area centered around one culture core where the culture reaches to its climax, i.e. the civilization level. There are so many cultures and henceforth so many culture areas each influencing the other and even overlapping. This leads to a multicultural situation often expressed through the political term multiculturalism. It implies majority versus minority, ethnic versus pleural, secular versus communal as well as global versus local. Cultural traits are not ascribed but achieved/acquired; therefore culture could be only learned and transmitted from one generation to another (we can also say, from one group members to another). Culture becomes the social heritage of mankind. It might be either documented or oral and hence divisible into Great Tradition and Little Tradition. Culture is both material and non-material- the former is highly subjected to external influence; whereas the latter becomes the integral part of folk life and hidden-ended/ value-loaded/ non-adaptive. Culture is an organized system of purposeful activities to meet the human needs. Apart from technologies and material culture; the non-material culture might be documented, undocumented, replicated into language/message and not replicated so far. Non-material culture (not replicated into word/language) is expressed through certain ways of acting by the common people and their symbolic performances in various timely/ untimely religious/non-religious occasions. This non- material culture includes a set of information or knowledge that is also of two basic categories: traditional/indigenous/extra-scientific/ethno-scientific and modern/scientific. Indigenous knowledge traits are oral and undocumented like the Little Tradition of a culture. This is partly open-ended and viable; but the rest portion of it is hidden-ended and very much rooted

inside the same values and norms of a given society. The hidden-ended indigenous knowledge traits therefore work in a systematic way and regarded as the Indigenous Knowledge System. Culture and knowledge as its permanent part satisfy human need. From nature people get the resources for their livelihood by using certain tools and technologies. Common people know very well how to use a given set of tools and technologies in order to exploit the natural resources of the ecosystem where they are staying. But they do this with a notion of feed-back that lacks in modern and scientific processes of mega-development. They also do this to meet the minimum energy requirement of a given population size. So, cultural might be highly ecological and from this a hypothesis might be derived that different communities in various parts of the world but in more or less same ecological condition might have cultures quite similar in their forms. These communities are far apart from one another geographically. Migration and subsequent formation of a Diaspora are not relevant in all the cases and still different communities in same kind of ecosystem in various parts of the World have commonness in their culture, economy and polity traditionally. Culture manifestoes human capacity to grasp the natural resources in a controlled way. Culture depends on inter-human relationship that further facilitates transmission/ exchange of message, goods and women in both organized and unorganized ways, through formal and informal communication as well as institutionally and not institutionally. No doubt, culture is very much social. Culture is the psychic entity of mankind. Culture is the system of thinking. Culture related information and all the knowledge and knowledge systems are kept inside human brain. They are stored in both conscious and sub-conscious minds. For a given relation, there might be innumerable variation throughout the human society despite being limited to binary opposition. Nature reflects in human mind and culture generates. And this is the culture that makes the difference between human and other creatures. Human has both the biological and extra- biological endowments. Cultural expressions from the sub-conscious mind (or the gray matter of human brain) might be in the forms like sign, art, poem, sound, music and song. These cultural traits develop the way of thinking or World View of a community. Any change in World View of a community is far more complicated than transformation in its religious organization followed by the folk life and the embedded culture and knowledge systems in this. Culture is definitely a product of the social system/ organization/ structure based on communication processes like

inter-human, human-nature and human-supernature. These communication processes are aided by material culture, technologies, knowledge systems, folk life, religious organization and the World View. When the material culture, human-nature relationship, human-human relationship, folk dialect/language, human-super nature relationship (expressed through symbols in socio-cultural and religious performances), folk life as well as Folk Cognition/subconscious mind/World View get hampered; various information sets and (Indigenous) Knowledge traits and (Traditional/ Indigenous) Knowledge Systems stored in either individual basis or in a group/community/social system should be hampered. Anthropologists chiefly working on social-cultural domain as well as biological anthropologists could play a good role in preserving human's sociobiology pertaining culture, knowledge and knowledge system (both modern and traditional/indigenous).

On the other hand, political misuse of this concept of Indigenous Peoples is again another serious threat to the World People causing problems like terrorist activities and forceful suppression to this by the state machinery. It should not be forgotten that Indigenous knowledge is a very sensitive issue, related with cultural identity and ethnicity. It reflects mindset of the local community and puts its members on an equal platform with the outsiders in the process of technology development. IKS involves local-level innovations and their transmission to a wider periphery. Actually, IK providers remain no longer passive consumers, but active problem solvers (Warren 1991). It is exclusively related to the traditional non-subsistence symbols and technologies developed without direct inputs from the formal sector. This IKS is exclusively related to the communication process between informal and institutional sectors. There is a constant need so to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional life-styles and that would be very much relevant for the conservation of biological diversity and sustainable development.

Indigenous knowledge and Sustainable Development

International Science Congress Association

Indigenous knowledge traits form a working system called in as the Indigenous knowledge System (IKS). Etymology, stability, transmission, distribution and practical implication of IK are various features of IKS. It should not be forgotten that indigenous knowledge is a very sensitive issue, related with cultural identity and ethnicity of this stakeholders. It reflects dignity and identity of the local community. To some extent, IKS of an indigenous community can share itself with the Western and other major Knowledge Systems with a background of more complex culture or even a civilized life. This is because of the fact that communities in this planet perhaps can exist completely isolated from one another. A civilized body has so many things to be learnt from IKS of a nature-bound community, especially at this high time when this planet has severely suffered from so many problems like pollution, global warming, loss of biodiversity, war and economic crises, increasing economic diversity and subsequent fuel and food crises and at the end, use of genetically modified food, bio-piracy, etc.

Das Gupta (2011) has rightfully focused on need of sustainability in the rapid developmental activities performed by the market economy of Modern World in this era of Globalization. One way development is facing six serious problems as pointed out by UNDP report: Challenges of global warming, Rapid loss of bio-diversity, Crisis-prone financial market, Growing international inequality, Emergence of new-drug resistant disease strains & Genetic engineering [Grunberg, Kaul and Stern, 1999]. So, there automatically arises an urge for sustainable development. “The concept of Sustainable Development has become a common theme in the debates on development strategies; ever since the famous Brundtland Commission introduced this concept in its celebrated Report in the mid-1980s....Brundtland Commission Report defined sustainable development as that development which “meets the needs of the present without compromising the ability of further generations to meet their own needs”. The concept was more in the context of the impact of the development process on environment and vice versa....the concept of sustainable development should be considered in its wider framework for evaluating the development process and also for evolving suitable development for the future” (Panchamukhi, 2010). Concept of sustainability in that wider

context rather than being an economic term only could be classified into four categories: Environmental, Economic, Socio-Political and Cultural Sustainability. In this period of Globalization and Global Economic Meltdown, crises are prevailing on all dimensions: environmental, economic, socio-political and cultural identity; war and terror attacks as well as money and food crises are so common in this post-Cold War scenario. According to Panchamukhi (ibid), environmental sustainability has conceived different gradations: Weak Sustainability, Strong Sustainability and Deep Ecology. Deep ecology develops an ecological wisdom by focusing on deep experience, deep questioning and deep commitment. This concept of Deep Ecology even goes to metaphysical discussion with a constant process of integration of Ecological and Spiritual Consciousness. It goes beyond the science that only discusses about the Abiotic and Biotic Community within the ecosystem consisting of human, non-human and nature. It tries to incorporate discussion about the spirituality or supernatural where values and norms are expressed by the common people through their folk life, World View, magico-religious performances, material culture, intangible non-functional part of life, pattern of thinking. This is related to Man-Nature-Supernatural relations. Here, human is not the biotic element in ecosystem, but something more- its mind has also to be considered which might work beyond the scientific explanations. So, human gradually moves from strict demarcation of scientific discussion to the domain of humanities. From that domain of humanities of those folk people, information or knowledge regarding nature and how to conduct a nature-friendly livelihood with the notion of controlled exploitation of resources could be achieved. This type of knowledge is often looked less-profitable from the angle of pure market economy, but obviously helpful for environmental and other sustain abilities. These traditional knowledge traits are actually kept covert within Mind of these folk people that time to time express through the symbolism of arts-and-craft as well as value-oriented performances (religious/seasonal/ceremonial/regular/occasional). So, any kind of sustainability discussion (whether environmental or others) cannot set itself free from the virtue of traditional knowledge information and local-level informal innovations of folk people having the closest interrelationship with the ecosystem through value-loaded, community-centric, partial and unscientific/ethno-scientific cultural life. Traditional knowledge has no longer been viewed as part of a romantic past, as the major obstacle to

development, as a necessary starting point, and as a critical component of a cultural alternative to modernization. Traditional knowledge is treated as knowledge of the agricultural and environmental management as well as sustainable development.

Some Concepts in the Indian context

Simply saying, we can view polity from both state and pre-state levels. The pre-state scenario again might show a dichotomy: anti-state and pro-state. The latter one has so many variations such as health, education, police, administration, law, cultural groups, sports and private business (corporate sector). The state has to face off challenges from anti-state elements and at the same time heavily depend upon pro-state elements to run off the state machinery. Eminent Personalities and Civil Societies including intellectual middle class in urban and semi-urban areas have their precious roles in society.

At the same time, we can conceptualize economy into five categories: human resources, gold, cattle herds, crop and currency-cum-credit system on present day. We can correlate human resource with slavery; gold with adventurous treasure hunting; cattle herds with belief in sacred cow; crop with lumps of grains and other food items cultivated while staying at permanent village settlements; as well as currency-cum-credit system with industrialization where a distinct labor class is formed. On religious ground, folk practices are there closely associated with nature providing prime resources of livelihood. Religion can be broadly categorized into two strata: agriculture and trade. An agrarian social structure needs a huge division of labor. When there is no major alternative like trade, the labor divisions become fixed, strict and close-ended. Such occupational strata in India are regarded as caste synonymous with the native terminology “jati”. Within Hindu religious fold, such stratification gets religious safeguard from 4-fold Varna system and eventually turns into a hierarchy. It is mostly guided by the priestly category Brahmin who occupies the highest post

in both Varna and Jati systems. So, it is basically a Brahminical system. It might be overlapped with certain magical beliefs so called Magico-Brahminical system. Again, it might include a wider periphery by virtue of myths and legends mentioned in Puranas and epics like Ramayana and Mahabharata. Hence, the system converts into Brahminical-Puranic. There is also the trade-line. Buddhism contemporary to Jainism and Judaism was a landmark. The pre-Buddhist substitutes had been co-related to snake and bird symbolizing river and sea routes and natural compass. People with animistic attitude learnt to animate sacred objects and introduced idol worship and magic in order to control the nature in an extra-ordinary way. They also prayed to their ancestors, Sun and Moon, and simultaneously Earth, Fire, Water and Wind. Till now in many societies worship ape, macaque, langur, bear, wolf, fish, tortoise, boar, trees, flower, leaf, stones and such substances. They invented martial art. Ancient civilizations grew up around and beyond the Mediterranean and trade was progressed through spice and Silk Routes. Various fertility cults, both males and females, are there including the amalgamated cult of Shiva. In post-Buddhist forms, there we can mention Vaishnavism, Christianity of Axum, Christianity of Syria, Christianity of the Mediterranean people, Orthodox, Catholic, Protestant, Islam of various types (Shiite and Sunni), Syncretic versions like Sufism, etc. In Epics like Ramayana and Mahabharata, hints to cannibalism, gold and other treasures, spice and clothe were mentioned. Indeed, this change in religious organization is directly linked up with alteration in nature of the capital: from human resource to gold and thereafter cow, crop and currency. As gradually people invented agriculture, they were transformed from nomads to permanent settlers and simultaneously, there food practices altered from subsistence to surplus. And in that way, people have categorized into so many ways.

In Indian Subcontinent, the society is basically divided into pre-agrarian, agrarian and post-agrarian. Indians are basically situated in rural areas. It is the agriculture for what Hinduism and caste-hierarchy were so prevalent in South Asia. Even within other religious segments more prone to alternative economies, there are caste-like formations but basically as division of labor and not with any religious embalm. Rather, in ideal stage among these religious

organizations, ways have been illustrated on how to be rescued from caste rigidity as because trade has no need of such intensive division of labor.

On social ground, the issues could be viewed from three different angles: local, national and international. Locally, a society could be just a quasi-egalitarian community, or it might be classified into caste-like strata or there might be a strict caste hierarchy categorically distributed into three major sections: Upper Caste with maximum status (Brahmans and a few others), Dominant Caste with highest level of status mobility and Lower Caste with the lowest status. Lower Castes however have certain community like approaches and own ways of status mobilization or a sense of self-reliance. Continuum was there in-between tribes and lower castes. They did not always remain pre-state or non-state elements, but fall within the dilemma of pro-state and anti-state. They seldom formed indigenous statehoods and in a few occasions, their statehood had successfully made a distinctive position in South Asian scenario. They henceforth are addressed by prestigious clan names and designated as excluded categories of high status groups. They have been also provided with various constitutional safeguards by Indian state. Backward sections in Dominant Castes also demand for such reservations in the name of Other Backward Class (OBC). Many caste-like Muslim groups that contribute to the largest minority section in India are also demanding for OBC status. Many Lower Castes have the opportunity to utilize Scheduled Caste status, whereas many more tribes mostly pre-agrarian type are designated as Scheduled Tribes. Christian and Buddhist tribes also accompanied by those Hindu or animistic tribes. Tribes in some cases accept agriculture as their prime occupation and behave like caste: they enjoy the most prestigious rank among tribal world. Lower castes in agriculture sector often on their community line mobilize their status from excluded categories to included ones. In such a way, they like Dominant Caste undergo through Sanskritization and/or imitate any superior Reference Group asking for certain reformations on either religious or secular paradigm. They in a sense become Dominant Community. The inter-relationship among Upper Caste, Dominant Caste and Dominant Community is very crucial for the political turmoil of a State or Nation-State.

Some Other Facts in the Indian context

India currently adds 40 million people to its middle class every year. Analysts such as the founder of "Forecasting International", Marvin J. Cetron writes that an estimated 300 million Indians now belong to the middle class; one-third of them have emerged from poverty in the last ten years. At the current rate of growth, a majority of Indians will be middle-class by 2025.

Despite government initiatives, corporate social responsibility (CSR) remains low on the agenda of corporate sector.

The definition of poverty in India has been called into question by the UN World Food Programme. In its report on global hunger index, it questioned the government of India's definition of poverty saying: The fact that calorie deprivation is increasing during a period when the proportion of rural population below the poverty line is said to be declining rapidly, highlights the increasing disconnect between official poverty estimates and calorie deprivation. While total overall poverty in India has declined, the extent of poverty reduction is often debated. While there is a consensus that there has not been increase in poverty between 1993–94 and 2004–05, the picture is not so clear if one considers other non-pecuniary dimensions (such as health, education, crime and access to infrastructure). With the rapid economic growth that India is experiencing, it is likely that a significant fraction of the rural population will continue to migrate toward cities, making the issue of urban poverty more significant in the long run. India is positioned at 132nd place in the 2007-08 UN HDI index. It is the lowest rank for the country in over 10 years. In 1992, India was at 122nd place in the same index. It can even be argued that the situation has become worse on critical indicators of overall well-being such as the number of people who are undernourished (India has the highest number of malnourished people, at 230 million, and is 94th of 119 in the world hunger index), and the number of malnourished children (43% of India's children under

5 are underweight (BMI<18.5), the highest in the world) as of 2008. Nicholas Stern, vice president of the World Bank, has published defenses of the poverty reduction statistics. He argues that increasing globalization and investment opportunities have contributed significantly to the reduction of poverty in the country. India, together with China, have shown the clearest trends of globalization with the accelerated rise in per-capita income. A 2007 report by the state-run National Commission for Enterprises in the Unorganised Sector (NCEUS) found that 77% of Indians, or 836 million people, lived on less than 20 rupees per day (USD 0.50 nominal, USD 2.0 in PPP), with most working in "informal labour sector with no job or social security, living in abject poverty." However, a new report from the UN disputes this, finding that the number of people living on US\$1.25 a day is expected to go down from 435 million or 51.3 percent in 1990 to 295 million or 23.6 percent by 2015 and 268 million or 20.3 percent by 2020.

Conclusion

Community autochthonous to a given territory or living in there from time immemorial is indigenous and also regarded as being traditional. They might be pre-agricultural, agricultural, and post-agricultural affecting their production-trade relationship and property concept. In their long run; these people too close to nature have innovated so many things intentionally or unintentionally, recorded these knowledge traits in their documents and literature, and while being scriptless just used culture as a text. For systematic application of knowledge traits in order to get so many public services, people in an ecosystem develop social structure, Indigenous Knowledge System and Indigenous World View.

Knowledge in advanced, scripted, civilized, modern, urban-industrial, rational, secular, widely-impacted, fragile, post-structural and individualistic societies are more scientific and proved; whereas in indigenous communities more ethno-scientific, magic-oriented, gender-

related, trial and error based, philosophical, religious, believed, more conceptualized and less proved. So, there is always a tendency to underestimate the later by the former. But it is also a fact that when the first system fails, the second fills the gap. The advanced section could treat them in an inclusive way, and in turn get so many good services from them making the nation more educated and wiser in this era of globalization. There is always a confrontation between the two. And the highest oppression has been targeted to the indigenous communities still living with folk lives. The suppressed groups could struggle for their resources, right and justice in local, national and international grounds. The suppressed many know such things that are impossible for the so called advanced.

A development could not get a wider response, until its approach would be sustainable. An ideal development should consider the interdependence among mode of production from nature, social structure (social institutions and organizations) and super-structures (religious belief, faith and fear, culture and even World View within the cognition of a society).

So, it would be nature-friendly and human-friendly. But till then developmental processes might be hampered. The region chosen for development might be multi-ethnic and hence cross-cultural. Even it is not so, till then the community living there might be pre-agricultural, agricultural or post-agricultural. It may provide priority to credit/equity, crop share, cow, gold and even human race. Politically it might be pro-state or rural or nomads and even pre-state nation. It may incorporate magico-religious performances leading both to trade and agrarian lines with steady evolutions. In present context, a developmental issue may incorporate the civil society in addition to the state and various extra-state elements (anti-state and pro-state) and all of them are playing their roles over local society. In case of local societies in India, they are either on the community basis or caste groups. Caste and caste-like social strata are basically related to agrarian rural stratifications. Any Upper Caste or Dominant Caste could lead the unit. In urban areas, castes and communities exist but more with class systems that should have a middle class intellectual category speaking out for progress and modernization.

Such a matter of development may cross the bar of local and lead to national and international stages. In Indian context, it has crossed a long path from traditional, nationalized, mixed, macro, micro-financing and global phases. Each of these has acceptability as well as repulsion. Out of them, the global may become neo-liberal, semi-closed and closed.

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Wikipedia- the Free Encyclopedia

Rajbanshi People of northern West Bengal: Access to Micro-Credit

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Abstract: This paper is on Rajbanshi People of northern West Bengal: Access to Micro-Credit. These people are basically agriculturists, but their traditional verities, organic cultivation, livestock rearing, and handicrafts as well as various ways to utilize natural resources and food processing techniques are so important where rural banking, Self-Help Groups, micro-credit can find the way. That would be also useful in women empowerment directly improving the education and health systems at ground stage. Case studies are taken from rural Rajbanshi people of northern West Bengal plains of India. Their involvements in production systems of tobacco, betel, organic manure and vermicompost, jute, silk, silk cotton, quality rice, baby corn, vegetables like broccoli, brinjal and potato, medicinal herbs, wooden work, bamboo and cane work, flex and sitalpati, mushroom, tea, gerbera, pine apple, mango, chilli, other spices as well as handloom, pottery, ornamental plants, coloured fishes, goat, cattle and poultry can be targeted for micro-finance investment.

Introduction

In Indian perspective, the most people live in rural society segregated into various agrarian rural structures. Agriculture in India is the vertical backbone of the country and is regarded as the largest sector of the country's economic activity. The contributory share of agriculture in GDP has declined from 55.4 per cent in 1950-51 to 18.5 per cent in 2006-07. Agriculture at present provides livelihood to sixty per cent of the total population. The sector provides employment to 58.4 per cent of country's workforce. It is the single largest private enterprise. Agriculture also plays a very important role in industrial development as being the source of raw materials for many industries. India's foreign trade is deeply associated with agriculture. Agriculture accounts for about 14.7 per cent of the total export earnings. Agriculture and its related goods contribute thirty eight per cent in the total exports of the country. Expanding agricultural production increases the demand for other sectors notably fertilizers, pesticides, machinery, transportation and communication varying with the level of technology. Indian agriculture continues to be a gamble on the monsoon and still organic cum sustainable agricultural practices have a great demand. (Anonymous, 2007)

Microfinance and Self-Help Group and focus on women

Credit service delivery and savings service delivery between client and bank still favour women for their goodwill, though they suffer from various challenges, feel burdened, and demand flexibility in installment payment. In that context, microfinance is financial services to micro-entrepreneurs and small business groups who in generally fail to access to banking and related services due to the high transaction costs, other unusual terms and inflexible repayment systems (such as, weekly installments from the very beginning of receipt of the loan amount onwards). Success of microfinance is in empowerment and poverty alleviation; but it is actually regulated by macro-economy. It is a form of macro-economy through which modern economy brings into traditional economy under the credit system.

Increased wellbeing of the poor family by means of the involvement of its womenfolk in a

proper way is a very important attribute of microfinance. It includes: women's purchasing power; women's decisions about consumption; increased wellbeing of women; increased wellbeing of children and men; and access to development services such as health and education. Microfinance can facilitate both economic and political empowerment (see Figure 1).

Microfinance through co-operatives and Self-Help Group (SHG) can really helpful for the women associated with non-market or non-market household enterprises as well as such institutions serving households. Whether NGO or governmental; the SHG can turn them into profitable and market-oriented in terms of microfinance. This could be followed by rural banking and various public saving schemes.

Including womenfolk, people from rural section of India often try to access the equity, even want to invest into share market, and show interest in various chit funds. In comparison to these, microfinance in the form of SHG in association with rural banking, other small scale investments, co-operatives, entrepreneur agencies are safer places to invest.

Women are often targeted for microfinance, as they are believed to be more punctual with proper use of the loan and returning back installments and loan in time. It is the goodwill of womenfolk for which they are given first preference in microfinance; there are so many tough challenges: poor networks, low opportunity, greater domestic burden, weaker self-confidence, less education, lack of awareness, existing social norms and cultural values that do not permit them to go outside or earning money elsewhere, absolute men dominance, and finally, a restrictive legal environment.

Microfinance is not restricted within microfinance loans and deposits, but has wider socio-economic and socio-political impacts with education and health organizations. Empowerment via microfinance is a complex, multidimensional and interlinked process of change.

Women are more trusted for loans and deposits. They have some credit, purchasing power, and decision makers' role. But ultimately this gender empowerment can affect social, economic, political and cultural domains that men can try to resist or not. Here come issues like matriarchy and/or matrilineal system in front of men dominance. Marriage and kinship systems may become so crucial. Some non-economic benefits are also associated to this:

self-management, networking and entrepreneurship, respect from both men and female relatives and community members, and leadership. In SHG and co-operatives, the involvement of men should be taken care off.

Division of the total labour force in households and related institutions into paid and unpaid workers generates a generalized hierarchy inside and outside the homestead: always negative to women and children (however, child labour is itself an offence).

Again the total economic production (GDP) of the country excludes household enterprises and related institutions (non-market and for self-consumption) which are largely produced by women.

We should remember: women are not a minority but a marginalized majority; we cannot neglect their performances in agricultural, pre-agricultural and extra-agricultural activities. Gender ratio, size of the group, chairperson's post, decision-making body, skills, service from traditional knowledge, past experiences, intellectual reasoning and old experiences, market survey, market safety, and access to information are different issues playing behind success of any SHG.

The activities taken up by the SHGs include dairy, backyard poultry, vermicompost unit, tailoring unit, food processing unit, goat unit, other enterprises, consumer store, gas agency, hotel, vegetable selling, spice, fast food and noodles unit, bakery, and small machinery unit. Moving to the urban sectors, living in sub-urban areas, and working in unorganized sectors are new trends in post-1990s India. Women are not exceptions and they actively participate as wage and day labourers such as in construction sector. Microfinance and SHG can target to partially and fully poor families of unorganized sectors.

In West Bengal state of India, Self-Help Groups, each with a group of 5-20 persons of poor economic condition and of the same locality, are working as un-registered informal co-operatives [According to West Bengal Co-operative Societies Act (1983), these SHGs can be enrolled as members of Primary Agricultural Co-operative Credit Societies (PACS) under two Notifications dated 02/05/1995]. Open and voluntary membership, democratic control of members, participation of members in economic activities of SHG, autonomy and independence, education plus training and information, cooperation amongst different groups, and concern for the community — all the seven Co-operative Principles do exist in

these SHGs. Agricultural Credit Review Committee (Khusro Committee) opined that the Business Development Plan of PACS should go by investing microfinance into and providing training to individual members and Self-Help Groups. National Bank for Agriculture and Rural Development (NABARD) and so many rural banking sectors have helped these SHGs. SHGs have not only got booster dose from PACS and NABARD, but also started investing credit as savings. The economic activities undertaken by the SHGs include agricultural activities (paddy cultivation or fishery on oral lease of land or water-area, backyard poultry, duckery, piggery, goatery), agricultural processing and marketing (marketing of packaged indigenous rice, cashew nuts, spice powders, jam, jelly, pickles, lentil cakes or badi/ naksha-badi, paddy-to-rice, paddy-to-perched rice / muri etc.), cottage industries (cane and bamboo works, sewing and tailoring, embroidery, jari-work, dokra/ brass metal art-work, door mat making, jute bag and soft toy making etc.), agricultural input production (vermicompost and bio-fertilizers, nursery), hawking / vending of agricultural produces, garments, grocery etc. Loans are also provided for consumptive purposes like medical treatment, marriage or like social function, children's education etc. Combined fight against social evils, regular meetings, rotation of leadership, supplementary activities and voluntary participation in fund recovery of PACS are various other roles played by SHGs.

Table1: Impact of microfinance

Impact of Microfinance	
• Economic empowerment	• Political empowerment
• Employment for women	• Increased status and changing roles
• Income under women's control	• Ability to negotiate change relations in
• Women's micro-	

enterprise	gender
• Increased wage • Increased income • Savings and credit • Women's decision about	• Women's networks and mobility • Wider movements for social, political & legal
savings and credit use	change
• Repayment	

Table 2: Particulars of Self-Help Groups (SHG) in six districts of northern West Bengal

and total West Bengal

SL. NO.	Name of Range	Total no of SHG Formed	No of members in SHG	No of female members
1	Coochbehar	6992	62509	57000
2	Dakshin Dinajpur	2584	23502	22542
3	Darjeeling	618	5605	5006
4	Jalpaiguri	2378	23374	22719
5	Malda	12341	115487	101883
6	Uttar Dinajpur	8846	70126	63654
	Total West Bengal	158336	1280514	1152168

(Source: Department of Cooperation, Government of West Bengal, India 2009)

Discussion

In this context, the first case study is going to be taken from Rajbanshi people of North Bengal areas. Sanyal (1965) mentioned that Rajbanshis in and around the plains of northern West Bengal or North Bengal have their own history of thousands of years. They have transformed from a community to a huge complex heterogeneous social fold incorporating animism, ancient pre-Vedic versions of Hinduism, Vedic traditions, magico-religious performances and Buddhism, Kashyap-Bratya Kshatriya combination, Sufism and Vaishnavism, status mobilization, and folk practices symbolic to agriculture and trade relations. Rajbanshi people are living in agrarian pockets of North Bengal (northern part of West Bengal state, India) and they might have possessed IKS regarding agriculture and other related issues. Following Barma (2007), Hindu Rajbanshis are 129,904 in Darjeeling (also Darjiling) of total individuals 1,609,172; in Siliguri subdivision (also Shilliguri) of Darjeeling district 119,120 out of 818,581; in Jalpaiguri 811,567 out of 3,401,173; in Koch Bihar (also Cooch Behar) 972,803 out of 2,479,155; in Malda (also Maldah) 144,158 out of 3,290,468; in North Dinajpur (also Uttar Dinajpur) 405,140 out of 2,441,794 and in South Dinajpur (also Dakshin Dinajpur) 224,988 out of 1,503,178 and there of total 14,724,940 of North Bengal, Rajbanshis have a population of 2,688,560 (18.26 %). They might have good knowledge over traditional agriculture and agro-based biodiversity management of North Bengal. According to Sen and Ghosh (2008), Rajbanshis are now placed in the Schedule Caste category in West Bengal. Currently the Schedule Caste population constitutes 23 per cent of the total population of West Bengal and there are 59 notified Schedule Caste populations in the state. The Rajbanshis constitute the largest percentage and number of the Schedule Caste population in West Bengal (18.40% and nearly 3.4 million, respectively). It is conjectured that the Rajbanshis have a mixture of Austroasian/Dravidian and Mongoloid elements. In that context their indigenous knowledge is going to be studied here. Rajbanshi is a greater social fold and stratified as caste. They have tribal affiliation. They are traditionally agriculturists. Their indigenous production system can contribute into

biodiversity management and sustainable agriculture. It is also good for gathering knowledge about traditional food preservation techniques. Their knowledge on seeds and traditional varieties is still quite relevant. Their knowledge system on mode of production is linked up with social system and also the super-nature.

Mostly detached from city life and pre-agrarian economies; present-day agrarian Rajbanshis are equally good with food preservation most of which is related to rice, fruit and pulses. They are efficient with making rice cakes. Rajbanshi women are mostly associated with domestic works, handicrafts, kitchen garden, part of agriculture, and food preservation techniques. These works are generally treated as unpaid and unorganized.

Scope of microfinance and formation of small-scale organized co-operatives in terms of Self-Help Groups (SHG) are possible in this context. Women can be more trusted than men and empowered on politico-economic terms due to awareness about family and sense of duty regarding planned use of micro-credit and small savings in rural banks. The rice-rice cake relation shows the entrepreneurial capabilities of Rajbanshi womenfolk.

Rajbanshis now-a-days go to the modern fashion, but still their tradition of handloom production sustains and they are seeking help from various self-help groups and governmental organizations. The production they have to expand from only jute or flax to wool and cotton fibers; they require a good and available market for their productions in the domains of agriculture, horticulture, fishery, sericulture, production of cash crop, dairy and poultry, agro-based industry, revival and sustenance of cottage industries, ethno-medicines as well as global public service (in a nature friendly way).

The above discussion clearly shows that Rajbanshi folk life is a correct place for micro-finance through Self-Help Groups in crop cultivation, vegetable propagation, flower and fruit yield, poultry and animal husbandry, pottery, handicrafts from natural fibers and wooden works and cane, honey and wax collection, food preservation, organic manure production, fishery, and even collecting forest resources. We can also trust them for protection of flora and fauna as a part of biodiversity. Only they need proper training and easy finance at least from banking sector. Chit funds and alcoholism are rather the other instances for wastage of money. However, economic strength would provide them purchasing power and accessibility to modern market system. Here traditional economy

has to be converted into more and more into the monetary system.

Table 3: Different gender based activities by Rajbanshi people on the basis of -

Season	Month	Festival	Purpose	Gender
Grishya (Summer)	Baishakh			
	Jaishtha	1. Gochibona/ Roagara	Seed sowing (Amon paddy)	Male/ Female
Borsha (Monsoon)	Ashar			
	Shraban			
Sharat (Spring)	Bhadra			
	Ashshin	1. Dhan ke honda khawan/ dhaner ful ana	Pest control through traditional light trap	Male
Hemanta (Fall)	Kattik	1. Kheti Laxmi 2. Bhogi Dewa (last day) 3. Jatrapuja	Pest control through traditional light trap ; Formal initiation for winter crop cultivation (mustard, etc.)	Male
	Aghan	1. Dhan katar Puja 2. Naoa khoi	Harvesting and post-harvesting practices	Female
Sheet (Winter)	Poush	1. Poush parban/ Pushani/ Pushuna	Stock raising	Female

	Magh	1. Maghali sinan		
Basanta (Autumn)	Falgun	1. Dol soari 2. Muthi newa	Seeds dispersed (Aus or bitri paddy)	Male
	Chaitra	1. Baruni sinan		

From the above chart, it seems that these agrarian people have a month long harvest process in the fall and throughout winter and autumn remain busy in food processing. Actually, agriculture, fruit production and vegetable propagation along with food processing are different parts of the local livelihood. This festival calendar tells us about the demand of local products and handicrafts not only in weekly markets, but during the festive seasons from spring to autumn.

Some Suggestions for the Entrepreneurs and persons interested in SHGs-

- We cannot exploit human resource in terms of gender biasness. Microfinance and SHG can play a vital role.
- We cannot neglect the indigenous knowledge and its historicity; but would try to gain public services from this.
- We cannot trespass the realities of global market that provides both opportunities and challenges.
- We have to realize the demand of market, mould the production machinery according to the market, catch the market and expand the market.
- We have to keep in mind certain basic things that we learn from the market traditionally (for example, way of profit making).
- We have to realize the relatedness among traditional production system, social system, historicity and cultural values, religion, and the way of life. If possible, we have to gaze the cognate of economy in traditional way. That would let us aware of

how far we should proceed further and how could be achieve the maximum within the limit.

- Poor people, especially women in various production units need not just loans but also savings, insurance and money transfer services. For that SHG can be the way.
- Both public and private institutions can facilitate this microfinance and encourage women entrepreneurship. This could bring the neglected bulk into the mainstream economy (here, currency system and global market economy).
- The approach should be both economic and social-cultural. Awareness is needed.
- Short term training and input of modern machines can also play their roles.
- Microfinance should both profit and labour oriented. Jobless growth is unnecessary here. Handicraft products have always something to say about identity and tradition. They have a permanent market that with time get shaped and reshaped. They are basic in type and have the potentiality to survive during the phases of economic meltdowns. So, they also comprises of a political motif in them in a passive manner. In a developing country like India, these politico-economic aspects cannot further be neglected.

Different sectors where self help groups can play important roles are horticulture, nursery and pruned varieties, fiber, pulses, vegetables, indigenous rice varieties, pisciculture, timber, livestock and poultry followed by various production units related to medicinal plantation, honey, wax, natural dye, preserved fruit, preserved fish, preserved food, rice cakes, pickles, organic manure and pesticide, compost manure and ash, biofuel, molasses, tari (alcoholic substance), cigar, bamboo craft, cane craft, vegetable oil, lemon grass, other grasses, lime, areca, betel, mosquito repellent, tannin, natural preservatives, fast foods, handicraft and hand-loom products, coconut, poultry manure, ethno-medicines for livestock and poultry, meat and egg and skin and other animal products, mushroom, gum, natural cosmetics, spices, musical instruments, pottery, essential iron tools used in everyday life, house construction, ornament, strawberry, raw silk etc.

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Rajbanshi Indigenous Knowledge for Ecological Resource Management

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Abstract: Rajbanshi social fold of Sub-Himalayan West Bengal and its northern plains and watersheds incorporates various castes, tribes and communities. They are mostly agriculturalists and a few attached with forestry to collect minor resources.

Rajbanshis are good with ecological resource management. Their management of agricultural biodiversity, sacred groves, water bodies, watersheds and marshlands are too good. They rear cattle and poultry. Their knowledge base can be a target for microfinance. They also know about forest resource, agro-forestry, and social forestry. They in this way mitigate the demands of wood, fuel, herbal remedy and wooden plough and other implements. They can protect local seeds as well as indigenous rice, vegetable and bamboo varieties. Women play the most important role. They have developed complex agrarian systems that they provide religious assistance and make integral part of folk life.

They maintain their structures on resource management (or substructure) assisted by the superstructure.

Introduction

Indigenous Knowledge (IK) is basically local (Warren, 1991). It is actually oral and mostly undocumented (Ellen and Harris, 1996). It is more practical rather than theoretical and repeating with time. IK generates through informal experiments, intimate understanding of the environment in a given culture and accumulation of generation wise intellectual reasoning of day to day life experiences (Rajsekharan, 1993). It is generally tested in the religious labouratory of survival. So, it could be said that Indigenous Knowledge traits are oral, undocumented, simple; dependent over the values, norms and customs of the folk life (>folk culture>material apparatus), production of day to day life experience through trial and error, loosed and gained as well as asymmetrically distributed. These knowledge traits therefore form a system called on as the Indigenous knowledge System (IKS). To some portion, IKS of an indigenous community shares itself with the western and other major Knowledge Systems (and at the same time differing a lot); and integrated intensively with the foundation of Global Knowledge System.

Holistically, IKS is quite fragmentarily distributed throughout the globe that is socially clustered. But within a specific society, it looks like the actual knowledge of a given population. There it forms a systematic body of knowledge acquired by the local people. The knowledge bulk seems to be indigenous in respect to a particular geographic area. All of these farmers, landless labourers, women, rural artisans and cattle rearers are well informed about their own situations and their resources; what works and doesn't work and how one change impacts other parts of their system. Culture of such a community is mentioned as the indigenous culture where it is really hard to separate the technical part from the non-technical one and the rational domain with the non-rational sector. IKS is a multidisciplinary subject and incorporates the following dimensions: physical sciences and related technologies, social sciences and humanities (Atte, 1989). IK is also regarded by several names, such as, folk knowledge, traditional knowledge, local knowledge, indigenous technical knowledge (ITK), traditional environmental/ ecological knowledge (TEK), People's science or ethnology that often look very much confusing and overlapping. On the community basis, IKS could be divided into various domains like Agriculture and Post-

Agricultural Practices; Animal Husbandry and Poultry; Ethno-Fishery; Hunting and Gathering; Artisan; Disease Treatment, Ethno-Medicine and Folk Remedy; Traditional Economic and Political System (Banarjee, Basu, Biswas, and Goswami, 2006).

The indigenous communities are all fallen under the great umbrella of Indigenous Peoples and share the basic attributes of Indigenous Rights (ILO, 1991). Indigenous Rights encompass the domains like general policy, land, recruitment and conditions of employment, vocational training, handicrafts and rural industries, social security and health, Education and means of communication, contracts and co-operations across borders, administration, general provisions- applicable to all the indigenous communities brought under the common umbrella of Indigenous Peoples. In a more formal side, these rights are also related with other issues such as prevention of bio-piracy, check to illegal knowledge-and-technology transfer, and performance of sustainable development, protection of basic human rights, rights for the minority communities and weaker sections, intellectual property rights as well as suitable management of various capitals for instance nature capital, social capital, culture capital, human capital, intellectual capital, instructional capital, and knowledge capital (in the forms of natural resource management, human resource management, knowledge management and so on) [See: Fig.1]. In this era of globalization, the rapid developmental activities of the Western-Modern Society have caused 6 major problems as pointed out by UNDP report: Challenges of global warming, Rapid loss of biodiversity, Crisis-prone financial market, Growing international inequality, Emergence of new-drug resistant disease strains & Genetic engineering (Kaul, Grunberg and Stern, 1999). In this regard, Science, Traditional Knowledge and Sustainable Development (ICSU) in the Series on Science for Sustainable Development No. 4 have truly mentioned that the IKS of the local/rural/indigenous communities (basically under the banner of ‘underdeveloped’ or Indigenous Peoples category) could be applied so as to control these crises.

Loss of biodiversity is one of the four highest risks to natural ecology and human welfare. Biodiversity is a public policy as well as a scientific issue. It is stratified into a four-level hierarchy (i.e., genetic, species, ecosystem and landscape. It maintains ecosystem stability. It provides major cost-free Global Public Services in terms of food, fiber, industrial compounds, fuel and drugs. It has some definite anthropocentric reason so as to preserve

different IKS and related cultural diversities. It would ultimately help in the issues of genetic conservation, agriculture and fisheries, forests, wildlife and wetland management [Cairns, and Lackey1992]. The highest extinction rate of 1,000-10,000 species per annum since the mass extinction of 65 million years ago has become a serious problem and need help from IKS of the folk people living in nature for thousands of years.

IKS is good for preserving this bio-diversity. Proper networking among ethno-botanical knowledge of local people, integrated farming units, ecosystem, sustainable rural and human recourse development, existing cultural diversity and modern inputs is obviously helpful in genetic conservation of the crop plants and their wild varieties with medicinal values; broadening the genetic base of many important agricultural crops and enhancing resistance capacity against insects and pathogens as well as development of more viable crops without any genetic engineering, but in natural way in situ (CBD; Altieri et. al. 1987; Hoyt, 1988; Brush, 1989; Williams, 1991; Lamola, 1992). However, traditional agricultural knowledge system provides empirical insight into crop domestication, breeding, and management. It further acts in favor of agro-ecology, agro-forestry, crop rotation, pest and soil management and other agricultural activities. It develops guidelines of natural forest management and biodiversity management. It also delivers information about reservation of fruits and vegetables (Lal, Siddappa, and Tandon, 1986). It behaves like a good source of various fermentation processes (Battcock and Azam-Ali, 1998). It is related to application of indigenous fermented foods (Steinkraus, 1996). It deals with manufacture and use of pickles, dry foods, liquor, spices, sun-dried elements, soil preserved food, concept of fresh food and various types of food taste (Fellows, 1997). It is again involved in formulation of proper relationship between traditional knowledge and biodiversity conservation. Actually, farmers remain no longer passive consumers, but active problem solvers (Warren, 1991). So, the highest priority is going to be given upon alternative role of IKS against the high-cost modern crop production system (Davis and Ebbe, 1993). It could let a low-level external input among the resource-poor agriculturists living in nature-surrounded remote areas (Haverkort, Reijntjes and Waters-Bayer 1992). It is exclusively related to the traditional non-subsistence symbols and technologies developed without direct inputs from the formal sector (Chambers et al 1989, and Gilbert et al 1980). It involves local-level innovation and

their transmission to a wider periphery (Warren in 1991). This agriculture related IKS is exclusively related to the communication process between informal and institutional sectors (Norgaard, 1948; World Bank, 1990; Lamola, 1992; Slikkerveer, von Liebenstein, and Warren in 1993). Actually, farmers are not passive consumers, but active problem solvers and develop most of the technology they use for themselves (Warren, 1991). But the most important thing is that an anthropologist on humanitarian ground not only highlights at the biodiversity, but also penetrates into the aspects like proper utilization of IKS, protection of World View, politico-economic perspectives of a definite geography, impact of trade, state formation, migration and multiculturalism, social mobility and civilization, changes and transformation.

Several research scopes regarding the application of IKS within the production domain are as follows:

- indigenous technical practices in a specific farming system (Rajasekaran, 1993);
- indigenous way of soil and water conservation (Kerr and Sanghi, 1992);
- indigenous soil classification (Dvorak, 1988);
- role of rural women in biodiversity management (Domoto, 1994);
- the very nexus among the various aspects of indigenous knowledge, indigenous peoples and sustainable agricultural practice (Nakashima and Roué, 2002)
- availability of good quality seed important for crop production and food security (Louwaars, 2007).

Here, in this research program, Rajbanshi Social Fold of northern West Bengal in respect rich bio-diversity present in each and every segment of bio-geographical zones (like, river plains, low land, up land, forest, marsh, foothills of Duars foothill and Terai) has been selected.

Rajbanshis are so exclusive within the social structure of North Bengal. Without the Rajbanshis neither organization of social structure in North Bengal nor IKS embedded within folk life could ever be recognized. According to Census 2001, Hindu Rajbanshis are 129,904 in Darjeeling of total individual 1,609,172; in Jalpaiguri 811,567 out of 3,401,173; in CoochBehar 972,803 out of 2,479,155; in Malda 144,158 out of 3,290,468; in North Dinajpur 405,140 out of 2,441,794 and in South Dinajpur, 224,988 out of 1,503,178 and

there of total 14,724,940 of North Bengal, Rajbanshis have a population of 2,688,560 (18%). Rajbanshis are Hindus and have caste identity; they usually use specific surnames of Hindu ruling categories [such as Roy, Burman, Singha, Sarkar]. On the contrary, same Rajbanshis are quasi-egalitarians and share common clan name (Kashyapa) with other local Hindu Bengali Vaishnava categories (such as, Namasudra, Jalia Kaibartta, Kaibartta and Paliya). They all belong to Schedule Caste category but share some kind of community sentiment with other non-scheduled Vaishnava and other Bengali caste categories (Sutradhar, Pal, Nath, Ghosh, Saha and others). Converted Rajbanshis into Islam are known as Nasya Sheikh. Rajbanshis have some tribal affinity also. They have their own stratification [Koch-Rajbanshi, Desi, Dhokra and others]. In Terai-Duars, Rajbanshis are lesser in number if compared with Mongoloid tribes (Boro, Garo, Mech, Koch, Rabha, Toto, Dukpa); ethnic and caste elements originally from Nepal Himalayas; and Adivasi migrated tribes (“aboriginals” /Proto-Australoids and Dravidians from Central India). Rajbanshis in agricultural landscape are paralleled by Santhal, Oraon and some other Adivasis which is different in composition in the tea gardens where Oraons and Mundas are reluctant in number. Darjeeling and Kalimpong hills are now overpopulated by Nepali castes and ethnic groups along with elements like Tibetans, Lepchas, Limbus, Bhutias and few others.

Methodology

Muchena and Williams in 1991 cited the argument of Bennett (1980) and mentioned that human components are actually analytical equivalents to environmental components in a given socionatural system. Indeed, “every native farming practice...has back of it a definite (and to the native a sensible) reason. These reasons are based on tradition, superstition, worship of the departed dead and fear of the unknown” [Alvord (1929)]. Muchena and Williams also cited Brokensha et al., 1980, and Posey, 1983, as they had indicated to the difficulties in front of encoding in religious beliefs, rituals, ceremonies and myths highly related with the IKS. To gather the IKS of a given community, the researcher has no better option than to decode these symbols.

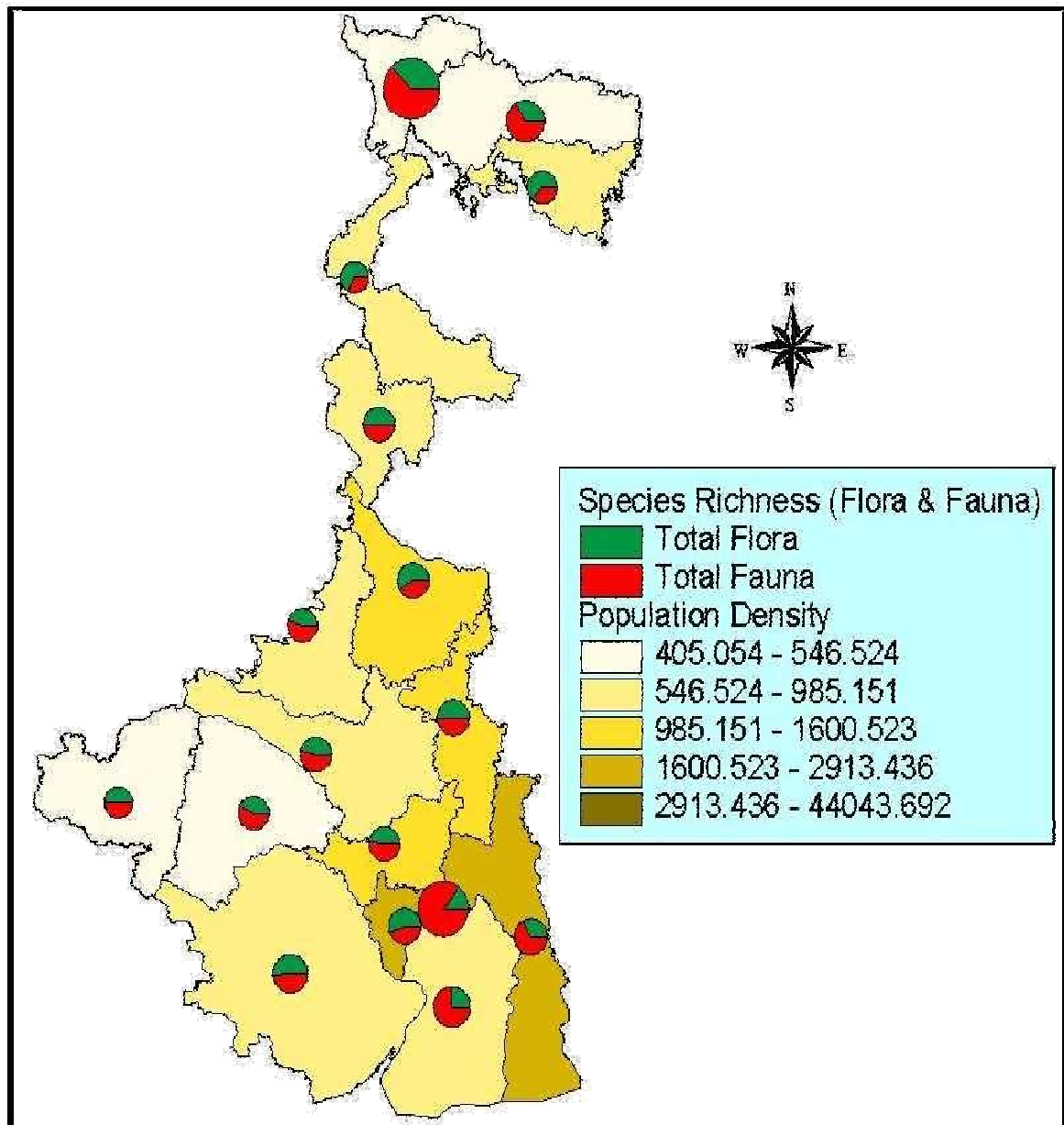
There exist several knowledge gaps in various domains of folk life; of which the major ones are as follows:

agriculture: post and pre agricultural activities;
knowledge about wild and disease resistant varieties, weed management and pest control;
bio-fertilizer and indigenous way of soil classification (Babu, Rajsekaran and Warren, 1991; Brokensha, Slikkerveer and Warren, 1993);
informal ex situ experiments of the farmers;
division of labour, barter system, reciprocity and community health; water management, ethno-fishery, animal husbandry and animal product; agro-forestry (Alcorn, 1990; Khaleque and Gold, 1992) and forest produce house construction and cottage industry;
indigenous way of classification (Sengupta, 2003);
protection of biodiversity and assure sustainable development.

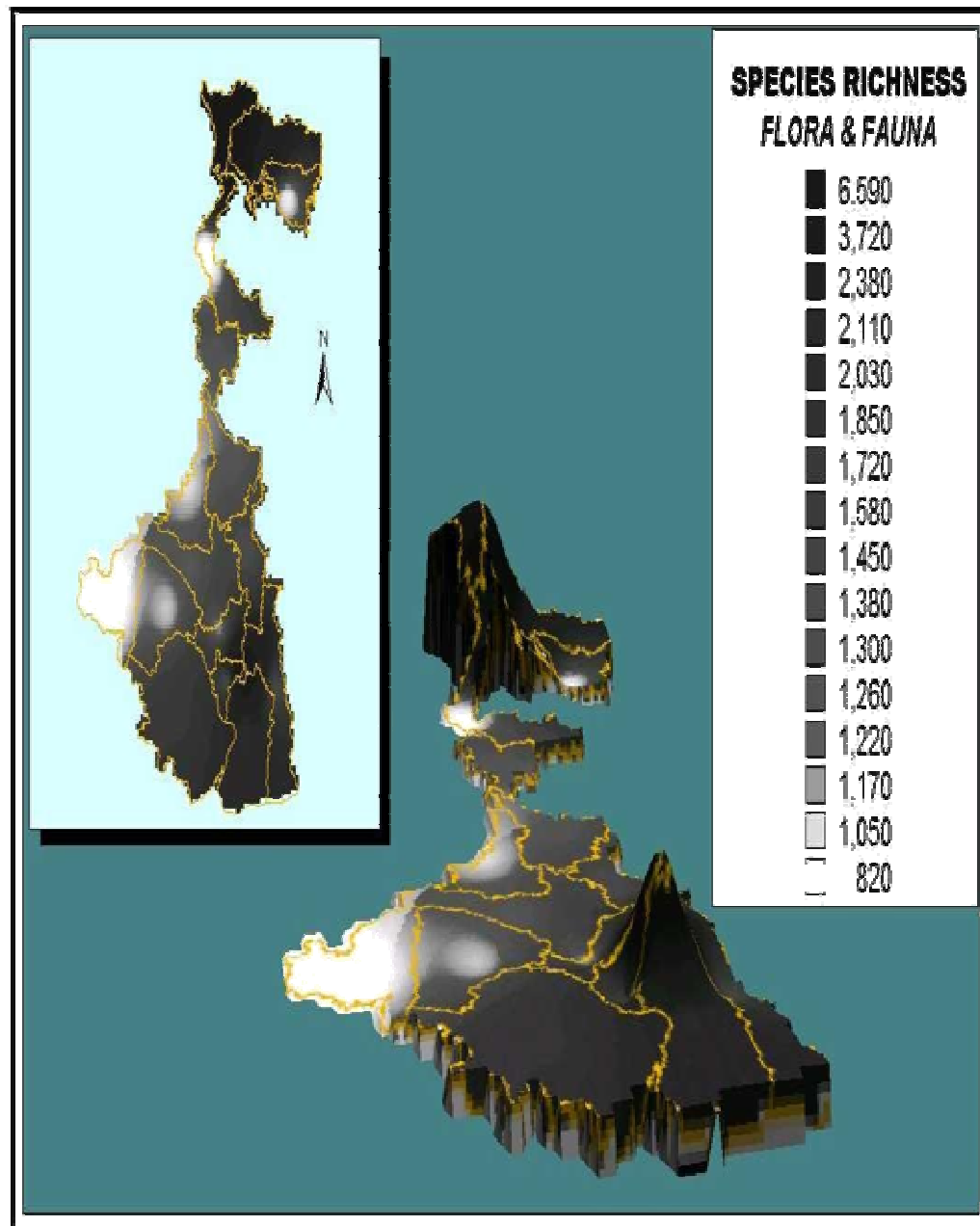
From India, North Bengal that is the northern part of West Bengal on and beneath eastern Himalayan track is one of the Earth's most important biodiversity hotspots (Alfred et al. 2003). IKS of the indigenous communities of North Bengal are all important to fight back against certain critical challenges: habitat loss, wildlife killing, illegal logging, flood, drought, crop failure, pollution, overpopulation, mining, forest and grassland fires, soil erosion, lack of information and planning, insurgency- all related to biodiversity loss (WWF-US, Asia Program, 2005).

Six districts, namely Darjeeling, Jalpaiguri, CoochBehar, North Dinajpur, South Dinajpur and Malda now constitute the geography of North Bengal. Of these Darjeeling is constituted by Darjeeling hills beneath Sikkim Himalayas and foothill Terai. According to Sanyal (1965), the Rajbanshis- a unique social fold- are the agrarian caste of this North Bengal river valleys and therefore I am selecting their IKS applicable in service of the bio-diversity, sustainable development and community welfare of North Bengal [See: Fig.2].

Map 1: Human population density (per sq.km) and species richness (flora & fauna) in West Bengal



Map 2: Grid-wise concentration of species richness in different parts of West Bengal



Discussion

An outline of Rajbanshi IKS in service of agro-based biodiversity is going to be given below:

At early days, Rajbanshis did not cultivate paddy varieties throughout the whole year, but only in a specific season; so cultivation is seasonal and not yearly. They preferred cultivation in the monsoon season. Rajbanshis of upper portion of North Bengal plains (condescended with forestry) left the cultivation ground for a season or a year or several years that they considered good for maintenance and increase of the productivity. They did not cultivate at single fixed place overtime; time to time they changed the place of crop-cultivation. They called it jhum cultivation where the bush and trees of the selected area were cut off to let them rotten or burn with fire and then they planted there the crops. In that way, the slash-and-burn type of cultivation in late winter when soil was covered with deciduous leaves of shorea and teak freed the ground full of ash and under clear sky with pleasant sunshine of spring from harmful insects. Light raining of late winter and temperature fall in night made the ash fertile and seeds were spread unevenly in summer or at the time monsoon launched the Himalayan terrains and Sub-Himalayan valleys. This system did not fit in those regions of the lower plains where both the population size and the expectation from the cultivation were larger and higher. In the present day, jhum cultivation has become quite invalid, but still ash is used as both forms of manure and pesticide. Rajbanshis have improved jhum cultivation with introduction of wooden plough and applied the technique of sowing the saplings rather than the seeds with help of a digging stick. Later, Rajbanshis have started preferring crop cultivation basically in the flood prone areas. They have generally classified the soil type into three: danga (highland), nichu (lowland) and jola (marshy land). There is complete absence of farm houses and no option of equity investment in the agriculture sector by big capitalists. Land distribution has so far progressed here and small to middle scale peasants have become the land owners and the rest in the quasi-unorganized sector of landless labours, share croppers and other agriculture oriented jobs, old to new. The earthen boundaries of these landscapes are called the aal and used by the cultivators to go into the field. Danga is preferred for vegetable cultivation, production of

wheat and marua, habitation and kitchen garden, bamboo propagation, sacred groove and grazing. The nichu land is considered appropriate for rice cultivation. In winter, the Rajbanshis at the nichu land cultivate several types of vegetable along with makoi (corn) on the sloppy landscape; whereas propagate wheat on the danga region. The lowland areas are used for production of pulses and mustered (along with other rapeseeds like rai and tisi). Pulses are of different varieties: maskalai, thakurkalai, pea, gram, moog and khesari. Jola region is good for jute, water hyacinth and arum, while the slopes for the ferns. Sandy river bed in foothill areas is good for spices, watermelon, poppy, cardamom, ginger, garlic, and tejpatha as well.

Rajbanshis used to cultivate paddy and jute. Rajbanshis prefer rice cultivation the most. Rice sowed in winter season is the boro type, whereas joli, aush and amon are propagated in marshy land, during summer-early spring and early monsoon-late spring respectively.

Kaon or Kamon, basically growing up with boro rice, is a variety of millet with smaller grain size. It is not too tasty as other improved qualities of paddy. Kaon is a suitable example of domestication and gradual improvement of a wild variety into the category of a crop. It grows reluctantly in the natural environment of North Bengal on and aside the aal the divider and pathway inside the crop field. At a time, Rajbanshis used to eat hotchpotch of boiled Kamon or Kaon. Kaon was served as hotchpotch in festivals. Later both Kaon and traditional varieties of rice were replaced by the high yielding hybrid rice varieties and other types of vegetables. Along with rice cultivation of the winter varieties, aal is often modified for the cultivation of various vegetables grown at higher landscape. It increases the profit amount of the cultivator. However, Amon varieties they have preferred the most are Kukra or Kukurjali, Kalo Nunia, Tulaipanji, Swarna, Kalam, Payejam, Mala, Dighe, Banshiraj, Aralia, Baran, Nalach, Kechardam, Harigachhi, Bayaj, Fulbete, Ropa and so on. Some aush varieties are Pakshiraj, Tepishal, Nayachur, Muktahar, Bhadma, Chapari, Kotki, Shate and so forth. Mala ripens most quickly. Rajbanshis have the concept of six seasons like summer (Greeshma), rain (Varsha), spring (Sarat), foggy (Hemanta), cold winter (Sheet) and autumn (Vasanta); each with two months out of total twelve. Rajbanshis usually cultivated rice in the season of monsoon and cut it in the season of Hemanta - a typical season between spring and winter when the dews started falling on earth. Sowed with the first monsoon rain of

June, this Mala variety blooms so fast and hence, the rice grains are found available in stalks before the annual festival of durga / bhandani that is the worship of Mother Goddess in the very next Sharat / Spring season (September-October). It could not wait till the season of Hemanta. In settled cultivation, after collection of the crops of rainy and spring seasons and their harvest throughout the month of Hemanta, crops are again cultivated in winter. Rajbanshis raise their stock throughout the first part of winter season. On the last date of first month of winter season, Poush, Rajbanshis go to the cow shade and bind a bundle of crop on the bamboo pole. Rajbanshis go on pilgrimage to their supreme deity, Jalpesh, once at the season of autumn with the prayer for good production of the winter crops, and then again in rainy season. Black cloud in north east indicates heavy storm with lashing rain. Rain started in Saturday continues for seven days, whereas in Tuesday lasts for three days. For paddy and jute cultivation, bright sunshine in day time and rain in night are highly required. In spring, breezing wind comes from the south and in winter, cold wind from north and north-west affect the common men. Raining in spring causes damage to the ripening crops in the field and if there is lashing, the effect would be more serious and deadly. Heavy rain in late autumn and/or early summer is also deleterious to the mango inflorescence. Indeed, in every step of agriculture practices, there are some exclusive folk attributes in the form of myth and festivals throughout the year that always say something about the Rajbanshis Folk Life and their IKS. Kukurjali was very sacred to them and they generally served meal with the rice from this paddy on ceremonial occasions like rite-de-passage, religious festivals and agricultural ceremonies. Black Nunia is dark in color; when the crops are full grown, the field looks black and the air is filled up with a special fragrance. Grains of Black Nunia are relatively small, but very much tasty; it is sold in market in higher price level than the hybrid varieties due to its low production. Nunia is also there, their seed coat color is golden. Rajbanshis are concerned about high nutritious value of Nunia rice. A small quantity of Nunia rice can fill the belly fully of a person for the whole day. A handful of Nunia paddy (taken for cook) could provide a higher amount of cooked rice. Swarna gives a higher yield, nearly twice than that of Kalam. Kalam is the rice with thin elongated grains and also of good taste. Rajbanshis yield another variety of paddy, Dharial, which is known for its pressed shape and therefore used exclusively in production

of the preserved rice products (muri-puffed rice; chira- bitten rice; khoi- pressed rice). The production amount is supposed to be higher in rainy season, but due to flood or irregular or untimely rain fall, the quantity could not always reach to the optimum margin. The costly irrigated cultivation process in the dry winter season with relatively low crop production often assures the Rajbanshi cultivators a fixed amount of income. In winter irrigation facilities are required. With the help of bucket and bamboo pipes, water is taken out of wells or from the canals or numerous small rivers that traverse the entire geography of northern West Bengal plains into many landscapes. In the time of ripening of crop, they have to take special cure so that cattle, birds, rat, bat or elephants could not eat it up. The ripened crop after being harvested with the help of a sickle, they lay the crop down on the field in clusters. In this way, crop becomes sun-dried. Paddy straws left are burnt off so as to produce manure and destroy the pests for the next cultivation. The remaining paddy grains on the field are eaten up by the birds and mouse; the latter brings it to its underground home and preserve in the dry soil. In home on the thrashing floor smeared with cow-dung paddy is thrashed by hand. A pair of bullocks keeps running over these cereals and in this way, the grains get separated from the straw. Then the straw and the grain are raised on separately into the store.

Rice was consumed in various ways, such as, boiled rice with salt, rice with pulses, vegetables and other non-vegetable items. They stored the rice in dry preserved condition. They first wet the rice, then fried it hot, and pressed in chham (husking machine) with gyin (leaver/handle) manually so that the rice portion came out from the seed coat; the seed coat was used both as manure and fodder; whereas the pressed rice, chura, was served with card which is till the most auspicious item for any kind of religious ceremony or festival for the Rajbanshis.

Males often performed their work on mutual understanding among the close relatives or neighbours. The same process of sharing the work could be again seen in case of child care; the villagers kept their children under the guidance of aged fellows in the village when both the genders went to the field (for serving the purpose of sowing, harvesting or thrashing). Males were also involved in preparation of wooden plough from good-quality non-degradable teak grown up reluctantly in the forest areas of North Bengal. Teak plough was

also an important item for collection of bags of rice in the weakly market. Prosperous families did not let their women to go into the field and generally involved day labours or the male members of their joint families. From the dried straw of the paddy, the Rajbanshis still prepare sitting blocks and cautions, shade their roves, produce guard rings of round-base earthen pottery and provide fodder and fuel. They use paddy straw on the fishing net with cow dung and superfluity; it helps in quick fishing in pond for an emergency. Airy hollow nature of the straw is good for controlling the home temperature in both hot summer and cold winter.

Common crops propagated by the Rajbanshi peasants are mentioned below:

Winter- Potato, yam (kham alu, penti alu, metey alu, kanta alu, bon alu, maj alu), chikri or chikni alu, sweet potato (ranga alu or misti alu), keshar alu, shakalu (yam bean), peyanj (onion), peyanjkali (spring onion), rasun (garlic), shalgom (turpin), cassava, radish, carrot, beet, ada (ginger), halud (turmeric), cauliflower, cabbage, broccoli, natishak or china kopi, olkopi (kohlrabi), jhar shim (French bean), shim, barbaty, motorshuti (pea), gaimung (cowpea), soybean, black gram (kalai), masur/ lentil, mustard, tisi (common flax or linseed), til (sesame), bua marich, tomato, cucumber, shitlau (giant carandilla), lau (pumpkin or bottle gourd), pani kumra (wax gourd), misti kumra (sweet gourd), lemon (pati lebu and kagji lebu), zambura, pepey, potol (palwal), sop/sholuk, lafa, danta, lalshak, notey, kanta notey, natoan, puin or kachapata, palang (spinach), tak palang, bothua, dhensi, pudina (mint), dhania (coriander), rai shak, sorshey shak (mustard green), lettuce, kundri, nunia, bhant, chamghash, kauni, bhutta/makoi, marua, pan (betel vein)

Winter to monsoon- Brinjal, water melon, echad, jute leaf, tarmuj or kharimunja

Monsoon- Borshali morich, potol (palwal), kanchakala, pepey, sajina, jhinga/toroi/satpudi (luffa), squash, sweet gourd, chichinga, dheros or vindi (okra or lady's finger), lau (pumpkin or bottle gourd), gera or dhundhul, dudhkushi or chichinga, uchhe and karala, kakrol, telakucha, ol, kachu, poltapata, kalkeshut, gulancha, amrul/takpata, oshni/sushni, kolmi, gima/gima kolmi, brahmi, kulekhara, shaluk, helencha/ hinche, sachi/ sache, thankuni, jalsingara, mushroom, bamboo young shoot

Common fruit plants → supari or gua, kul or buguri, khejur, narikel or dab, lichu or leusi, ankh, khajur, sofeda, pepe, anaras, aam, jam, kalojam, jamrul, kathal, tentul or tentuli, amlaki (aonla), zambura, golapjam, dalim, dumur or khoksa, amra, ata, nona ata, yagyan dumur, chalta, mosambi, kamala or komla, ghora nim, lebu or nebu, bel, kadbel, kamranga, peyara, bilati kesar/ kesar alu., jalpai, gab, tarmuj (khorimunja), kola or kela or kera, lotka/notka, pindari

Spice → tejpatha, holud, ada, peyanj, rasun, golmorich, radhuni, elach and daruchini

Table.1: Bamboo and its use:

Plant	parts	ways of use
Bamboo	Young shoot	edible; eaten up with young fern plant; used in pickle
	Stem portion	To make the bamboo stick durable, treatment is given with oil, sun heat, as well as mud and water inside the stagnant pond throughout the year. Bamboo sticks are used in balancing two baskets/ pots fixed on its both ends. It gives balance the boat in river. A house could be completely made up of bamboo that provides healthy environment and is cheap to construct. Bamboo Pulp is the raw material in preparation of paper.
		Bamboo sticks of nol variety are also used for preparation of umbrella, flute and walking stick as well as for fencing the yard.
		Muli/ makla variety of bamboo is good for construction of fence. Fences made of bamboo are used for privacy, for decoration, for livestock, storage and handlooms. Big-radius yellow bamboo shoots are used in thatching big baskets generally used for storage.
		Long bamboo variety has closer joints (gat) and named as lomba bansh. It is used in making the frame and poles of a mud house/ a bridge on

		small streams and water canals. This type of bamboo is supposed to be very strong, not easy to cut into pieces and used in manufacture of musical instruments from hoary past. Holes are made at lower end of the bamboo shoot and set on fire; in this way, the shoots are broken down

Rajbanshis believe that prune plants give good production, but have lower longevity than the plants from fertilized seeds. They store the seeds or bulbs of good varieties in dried condition for the next year growth. When available, they try to generate a new plant from a cut stem or rhizome or leaf or root or the bulb. In nursery, they generate seeds and develop saplings in refined, shrub free, dried, stone free, nourished and fine soil beneath a thatched shade or plastic. The saplings are separated from each other and each of them is placed at somewhat piled soil so that the side channels could drain off the excess water effectively. In vegetable cultivation, Rajbanshis often apply an inversed funnel of the sticks for each creeper in the kitchen garden. They also use a common lattice. In pots, they sometimes grow more than one plant, maintain a balance between them and use wooden or bamboo stick to make them erect. In the garden, an ecosystem of its own is also developed there and its proper maintenance could help in controlling the pastes and weeds there. Instead of application of ash and other bio-toxicants as a protective measure from disease as well as cow dung, bone dust, rotten leaf and water emulsion of ash as the manure; the food web in the garden has itself a potentiality in disease prevention. The heat generating from ash pile or the rotten vegetables, leaves and weed is actually helpful in incubation of grass snakes. Grass snakes are often found to warm up their body in the sun beams of summer near such culverts of the dry canals or boulder piles providing a quick passage into the darkness of hidden place rock shelter. These snakes do not harm man and help in controlling the population of frogs and rats in the garden. Rat is also good meal for cats. Birds like crow are also fond of frog and rat. Again the frogs are helpful in controlling the over increase of insects. The same work is done also by domesticated varieties of hen. Many other birds are involved in the same work; they hop upon the carpet of shed leaves; in this way, they search

the hidden insects beneath these dry leaves and eat up them. Birds are there to clean up the superfluity and other dirt. In the monsoons, the situation has been little bit altered. The birds have built their nests with the materials like leaf fibers, dry branches and leaf. Some birds weave the leaves to form their nests. Some prepare their nests inside the corner of the house. Some do it in the coconut tree with the help of paddy straw or hey and the nest looks like an inverted lamp. Birds often catch the male firefly and fix them in a small piece of cow dung in their nest that provides light in the night. Sound of cricket is a common thing in the villages of North Bengal. It increases with quietness of the dark night. The stagnant water of rains is good for rapid growth of mosquito larvae, tadpole, larvae eating small fishes and diving beetles that prefer to eat the tadpoles. These small fishes are again consumed by fish eater small birds. However, the food chain in this ecosystem inside water is chiefly originated from rotten leaves acting as a good source of tadpole and larvae food. In mud; crab, prawn and fishes with extra-respiratory organs are also found in large number. Snakes are also found in the tiny water streams. The snake number is again controlled by the domestic mongoose. Lizard, leech, green leech, fly, ant, spider, ant-like eight feet spider, big spiders without any net formation, large garden snails, apple snails, earth worm and centipede are other components of the garden. Ants are also of several types: very small red ants, small red ants, small tiny red ants, small black ants, small tiny black ants, big black ants, very big black ants and wood dwelling black-red ants (kath pipra). Size and shape of the colony, aggressiveness and action of the folic acid are different in case of these ants. Black ants often cut off green leaf and take the pieces to their holes where they use them in construction of chambers and propagate fungus. These fungus they feed some another minute delicate white insects (whom they bind up with mild fibers coming out of their mouth). From these white insects, they receive some milk like substance. Ants also act like scavengers. Small bird, honey bee, wasp and hornet are there to suck up the nectar. Wasp lays its egg inside the body of caterpillar and the wasp larvae take the nourishment from the body fluid of the latter. Butterfly larvae, living on green leaves, are also eaten up the bees as good source of protein and therefore a regulation on the huge quantity of the green leaves eaten up by these caterpillars has been restrained. Bees are again eaten up by the bee-eater birds and some spiders. Ants often eat up these larvae and insect eggs; but generally fail in

battle with ant like spider. Spiders also hunt the caterpillars and the bees. Black small ants are fond of sweet taste and often found in the dry calyx region of guava fruit. They produce a specific smell on the guava fruit. Birds like parrot often eat up the guava and other fruits. Sometimes, monkeys come down from the hills for the sake of food and fruit; they are highly attracted by the sweet smell of the bel fruit, but do not acquire the knowledge of how to break up the hard fruit coat and eat the inner portion; they detach these fruits and fall them to the ground. Snails are good reason for destruction of leaves and plants in the garden. These snails are often eaten up by birds that bring them up in the sky and from there, fall down them lower on hard ground so as to break the shell up. At night, when the snails come out of their shells; cats, night birds and porcupine eat their juicy soft muscular body parts. Green snakes are also found occasionally and they are very poisonous. Flower beds are also favorite target of the weed plants with deep and interconnected roots ranging from various types of grasses to Compositeae plants with flowers (actually inflorescence) containing numerous florets (minute flowers); the seeds are found to be gliding in the air through parachute mechanism and spread to a larger area. But of them bind weeds are the most aggressive and basically grow near the marsh land, canals and in the jungles seen from the road side, attractive for their beautiful colorful flowers, such as, violet flower of Convolvulaceae. Root Maggots, Wireworms, Cutworms and others are some harmful pests in the ground; but they could be controlled by the ants, white ants, earth worm and other ground dwellers; they make the soil soft and sun soak. Garden is always filled up with shade shifting its place with time, sweet smell of flower in breezing wind, colored flowers and decorative ornamental leaves as well as charming songs of chanting birds. Sound of crow and hen after the long dark night announces rising up of the sun. Big snail shells are found on the ground empty as their soft body part protrudes the dew-wet soft soil. Sweet smell of the night blooming white flowers immobilizes the clear air. And then the daily activity of human and the diurnal biotic elements of the garden ecosystem begin their daily work. Drip irrigation is very useful in summer to prevent the pot plants for dying from dryness. From the hole at the bottom of a hanged earthen round bottom pot, drops of filtered water are poured on the leaves, stem and soil; for filtration, a piece of cloth is generally used.

Water Management: Rajbanshis in some regions cultivate the crop in island like plots, often created artificially in the big ponds or water tanks connected with the mainland by a temporary bamboo bridge. They in the rainy season often go in paddy-cum-fishery cultivation. The small fishes in the watery paddy field sometimes eat the harmful larvae of beetles and dragon flies. These small fishes die with water evaporation and their body remains after their death rote to add manure and phosphorus to the ground. Gappi, Techokha and other fishes the farmers never harm as these are basically mosquito larvae eaters. The water grass is considered to be good fodder for the cattle. Water hyacinth grows up in the low marshy land or slow water flows and creates a different type of water ecosystem on muddy soil. This type of stagnant water is good for production of mosquito larvae and larvae-eating small techokha fish. These fishes die off due to excess of use of oxygen, maximum growth of planktons and pollution. This again gives an invitation to the insectivorous birds as well as fish eating small birds. The mud digging birds get highly affected by teniasis. The water hyacinth is often cut off and then sun dried before burying them under the soil which gives a very good quality of manure. Rajbanshis have the concept of private and public ponds in the village. Of the public ponds, they often maintain the concept of good or bad pond: pond for bathing, to wash the clothes, for religious occasion or for other or no use. The houses often contain each a ditch/pond where arum grows up reluctantly (renowned for both food and medicinal values). In the dry season, these ponds are found to be full of green or violet phyto-planktons. High edge ponds consist of big trees around. These trees with help of their strong roots check soil erosion, suck the excess pond water, and check excess water evaporation in summer by forming big shadows. These trees are placed at a safe distance, so that the shed-off leaves could not pollute the water. Grass is also used for prevention of soil erosion. Existence of separate pond for cattle is very scientific; in this way, the parasitic cycle through pond, cattle and man could be checked. Rajbanshis also use their waterbodies, river streams, and marshlands for fishing; they cultivate mud fish, crabs and prawns, sweet water fish and also preferred small fishes locally available that they call nadiali.

Livestock management: Rajbanshis often maintain large-scale poultries of duck alternative to rearing and consuming hen. Whether hen or duck, they generally make the poultry farm or the cage above some heights from the floor [so as to reduce the chances of adverse effects from water, cold, snake bite and attacks of other bird-and-blood eating animals]. They use paddy straw, especially for the chicks to protect them from cold. Domesticated hens are often helpful in controlling the beetles, other insects and excess amount of earth worms in the soil. Ducks control the excess amount of snails in the pond eco-system. Stool of the duck is very important for feeding the fishes inside the pond. Rajbanshis often consume the fresh egg yolk uncooked. Rajbanshis also rear goose. Rajbanshis are also fond of wild hens. Rajbanshis used to keep the superfluity of food substances for the small birds from the neighboring jungles and the village ecosystem comprising of so many trees or bamboo bushes. These birds were very useful in pollination, seed germination as well as controlling the insects and pests. Such superfluity is also applied in fishery for feeding the fishes. Some birds are there that collect insects and larvae from the ditches and thus helping in to maintain the eco-system of the ponds. Fish eating small birds and other migratory birds are also there that play important role in controlling the water ecosystem and many of them use the marshlands as their breeding places. Predator birds and owl help in controlling the number of rats, frogs and snakes, whereas other common birds regulate the number of insects, mosquito, fly and larvae. Bird and bat stool is one kind of natural manure. Scavenger birds are also there that eat the dead remains of domesticated animals and thus balancing the eco-system. Again, birds often eat the ripening crops and thus causing negative effect.

Rajbanshis also use rapeseed remains, paddy straw, rice emulsion, jungle leaves, various types of grass, old makoi (corn grain), leguminous plant leaf including cowpea, bad smelling marua (millet) and if available gur (solid crystallized sweet cake of cane).

Gagal leaf as fodder is collected from the creeping vegetation inside the jungle to increase the amount, quality and taste of the cow milk. Besides cow, Rajbanshis rear goat and buffalo. Cow and buffalo are also applied in ploughing and traditional transportation. Cow dung is used for dry manure, fuel cake, plaster and goat manure as manure cum pesticide. Cow dung as manure is often used along with various plant extracts, water, paddy straw and

as compost. Cattle are the source of milk, horn, bone dust manure, skin and meat also; but cow is not consumer by the Hindu rajbanshis for religious causes. However, manure is a good instance of recycling the bio-degradable products.

Conclusion

Rajbanshis actually know the best that how to reserve the bio-diversity and utilize the same without their excess exploitation. Their cultural values and sentiments are completely directed towards the maintenance of the equilibrium between population size and minimum exploitation of the resource to meet the energy requirement. They may oppose the complete hegemony of the modern market economy and their cultural values and social norms would back behind the traditional politico-economic systems and provide protection to the IKS. Culture lag may allow social change, but it looks impossible for a complete transformation towards absolute consumerism. Here the indigenous varieties of rice, jute, arum and bamboo are all utilized in various ways; therefore proper knowledge about their utility would help in their conservation, maintenance of the genetic base in biodiversity and Global Public Service.

Notes

1. Respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional life-styles relevant for the conservation and sustainable use of biological diversity. [Article 8(j) of the Convention of Biological Diversity (Rio, 1992)] "Development agencies should place greater emphasis on, and assume a stronger role in, systematizing the local knowledge base--indigenous knowledge, 'gray literature,' anecdotal information. A vast heritage of knowledge about species, ecosystems, and their use exists, but it does not appear in the world literature, being either insufficiently "scientific" or not "developmental."- U.S. National Research Council (1992: 10)
2. Dipterocarpaceae (Dipterocarpus, Shorea, Hopea); Combretaceae (Terminalia spp., Quisqualis indica, Combretum); Palmaceae, arum, rhizomatous plants and ferns are the representatives of Indo-Malayan flora in northern West Bengal. Grasslands of Sachharum (kash), Phagmites, Arundo-donax, Typha denote the affinity with the Savana vegetation of Africa. Plants are there on high altitude Himalayan valleys and slopes similar to those of Alps.
3. Rajbanshis have good knowledge about what these local birds eat, how they live, where hatch egg in wild and how rare the chicks; they believe in the presence of paradise birds: Bangoma and Bangomi (bekma and bekmi). On magico-religious to religious ground, importance has been given up on fish, snake, tortoise, rivers, bird: connectivity is there with the concepts of ancestors' spirit, soul, graveyard, megalith, Shiva Lingam, fertility cults, ghosts, angels, malevolent and benevolent entities, deities, black magic, witchcraft, music, musical instruments, song, dance, ornaments, clothing, alcoholism, sexual behavior, tantra, sacrifice, medication, mantra, Sun and fire, day and night, heaven and hell, non-violence and violence, peace and war, defensive and aggressive attitude, hunting and gathering, fishing, domestication and trade, handlooms of wood, bone, bamboo as well as jute mattress (dhokra) and clothing (dokna) prepared all manually with traditional technologies.
4. Flowering in bamboo vegetation is a threat to the peoples dependent on bamboo economy. Because, it would destroy the total bamboo variety at a time and a new variety with some

altered genetic configurations would arise from the seeds of pollinated bamboo flower. Cultivators would be also threatened at that time due to rapid intrusion of rats into the dying bamboo bushes (as being allured by the nourished fruits and seeds) and their subsequent attack over agricultural sector causing a situation of starvation. Sudden increased need of owl and snake is therefore felt to control the rat population.

5. The slopes of uplands are often found covered with ferns of numerous types, some being highly edible and nutritious. Women are involved in collection of the newly grown leaves which they cook as their daily vegetable. These Rajbanshi womenfolk have the capability to use their fingers very swiftly with the very consideration that the leaves do not have sores. Such capabilities are highly required in tea gardens so as to collect the young tea leaves with buds. But still now, no one of Rajbanshi womenfolk is interested in accepting the job of leaf collection in tea gardens. They prepare delicious dish of fern with young tips of new bamboo shoots; for the latter, they cover the outcoming shoot from subterranean rhizome under a earthen pot.
6. The maund is the anglicized name for a traditional unit of mass used in British India, and also in Afghanistan, Persia and Arabia: the same unit in the Mughal Empire was sometimes written as mun in English. In British India, the maund was first standardized in the Bengal Presidency in 1833, where it was set equal to 100 Troy pounds (82.28 lbs. av.). This standard spread throughout the British Raj. After the independence of India and Pakistan, the definition formed the basis for metrication, one maund becoming exactly 37.3242 kilograms. A similar metric definition is used in Nepal.
7. In West Bengal, the Bigha was standardized under British colonial rule at 1600 sq. yd (0.1338 hectare or 0.3306 acre); this is often interpreted as being 1/3 acre (it is precisely 40/121 acre). In Metric units, a Bigha is hence 1333.33 m^2 .

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Appendix1: Some non-agricultural plants around agro-system of North Bengal- local & scientific names:

Plants: aparajita (*Clitoria ternatea*), gulmohar (*Delonia regia*), bel (*Aegle marmelos*), aam (*Mangifera indica*), amra (*Spondias pinnata*), ashok (*Saraka asoka*), brahmi (*Bacopa monnieri*), bon tulsi/ (*Hyptis suaveolens*), babul (*Acacia nilotica*), chor kata (*Andropogon aciculate*), palas (*Butea spp.*), pipal (*Ficus religiosa*), khetraparpati (*Oldenlandia corymbosa*), pakur (*Ficus infectoria*), dumur (*Ficus benghalensis*), yagya dumur/ gular (*Ficus glomerata*), chalta (*Dillenia indica*), khoir (*Acasia catechu*), tea (*Camellia spp.*), nagkeshar (*Meusa ferrea*), sal (*Shorea robusta*), piyal (*Buchanania lanzan*), pepe (*Carica papaya*), chalta (*Dillenia indica*), jalshingara/ paniphal (*Trapa*), chalmugra (*Gynocordia*), jat neem (*Azadirachta indica*), neem (*Indigofera tinctoria*), buguri (*Zyzyphus mauritiana*), boyar (*Zyzyphus jujuba*), labanga (*Zyzyphus aromaticum*), jambura/ timbur (*Zanthoxylum spp.*), ashphal (*Dimocarpus longan*), ghas (*Aronopus compressus*), joan (*Trachysperous ammi*), jhika (*Lannea coromandelea*), dhudhul (*Luffa aegyptiaca*), amla (*Embelica officinale*), chikrasi (*Chikrassia tabularis*), muktajhajhi (*Acalypha alba*), *Acalypha indica*, tetul (*Tamarindus indica*), peyara (*Psidium guajava*), jamrool (*Syzygium samarangense*), hatishur (*Helianthus indicum*), karkatashrungi (*Rhus sp*), rudraksha (*Elaeocarpus serratus*), hartaki (*Terminalia chebula*), chilauni (*Schime wallichii*), hingul (*Balanites aegyptiaca*), *Murraya koenigii*, kamranga (*Averrhoa carambola*), nagbeli (*Lycopodium elevatuin*), akashbeli (*Cascuta sp.*), babul (*Acasia nicotina*), kolke (*Thevetia neriflora*), kash (*Saccharum spontanium*), ghas (*Melocanna baccifera*, *Thysannolaena*, *Gleichenia pectinata*), shephali (*Nyctanthus arbortristis*), gajor (*Daucus carrota*), mula (*Raphanas sativus*), bhang (*Cannabis sativa*), ganja (*Abrus precatorius*), pan (*Piper betel*), tejapata (*Cinnamomum zeylanica*), tamal (*Cinnamomum tamala*), karpur (*Cinnamomum camphora*), sajina (*Moringa obleisera*), pipal (*Ficus religiosa*), bot (*Ficus benghalensis*), *Spathodea campanulata* (rhododendron of the plains), simul (*Bombax ceiba*), kapok (*Ceiba pentandra*), bakul (*Mimusops elengi*), mahua (*Madhuca latifolia*), hathchur (*Vaicum erticuletum*), bringaraj/ kalkeshut (*Eclipta alba*), ata (*Annona reticulate*), nona (*Annona squamosa*), kadam (*Anthosephalus indicus*), kush (*Desmostachya bipinnata*), groundnut (*Arachis hypogea*), ghritakumari (*Aloe vera*), thankuni/ manboni (*Centella asiatica*), pudina (*Mentha sp.*), suryashishir/ fox-leg (*Drosera*), lajjabati (*Mimosa pudica*), bhui-champa

(Memiltonia sp), muchkundo-champa (*Pterospermum acerifolium*), kathali-champa (*Artabotrys hexapetala*), jackfruit/ kathal (*Atrocarpus heterophyllus*), mulberry/ tut (*Bombax ceiba*), (*Morus* spp.), ganda (*Tagetes erecta*), hinche (*Enhydra fluctunus*), swetindrani (*Citrullum colocanthus*), shon (*Crotilaria juncea*), methi (*Trigonella foenum-graecum*), mitha pata (*Scoparia dulcis*), spinach (*Basella alba*), dhutura (*Datura filix-mas*), black dhutura (*Datura stremonium*), amla (*Embelica officinalis*), phalsa (*Grewia subnaequalis*), jaba (*Hibiscus* spp.), pat/ jute (*Corchorus capsularis* and *C. olitorius*), china jute (*Abutilon* spp.), dumur/ fig (*Ficus glomerata*), kankrol (*Cucumia sutiua*), tal (*Borassus flabellifer*), jalpai (*Elaeocarpus serratus*), bhadali (*Paederia foetida*), jam (*Eugenia jamboline*), gamar (*Gimelina arborea*), kagaj phul (*Bougainvillea spectabilis*), dhobi phul (*Mussaenda frustiari*), kek phul (*Crinum asiaticum*), dheki (*Dryopteris ternatia*), amaltas (*Cassia fistula*), sankhapushpi (*Convolvulus microphyllus*), jatamanasi (*Nardostachys jatamansi*), paraspipul (*Thespesia populnia*), keora (*Pandanus fascicularis*), karanja (*Pongamia pinnata*), halud/ turmeric (*Adinis cordifolia*), tok-pata (*Oxalis* spp.).

Appendix2: Some animals, birds & fishes outside living in and around agro-system of North Bengal:

Animals: Makarsha/ spider/ Heteropoda spp., bichha/ scorpion/ *Buthus meroccanus*, kecho/ earth worm/ *Pheretima posthuma*, jonk/ leech/ *Hirudinaria granulosa*, kenno/ millipede/ *Julus terrestris*, telapoka or arshola/cockroach/ *Periplaneta americana*, kuno beng or vek/ common toad/ *Bufo melanostictus*, kotkoti beng/skipper frog/ *Rana cyanophlyctis*, kola beng or sona beng / *Rana tigrina*, jhi jhi poka/ cricket frog/ *Limnonectes limnocharis*, dhere indur/bandicoot rat/ *Bandicota indica*, metho indur/ Indian field mouse/ *Mus booduga*, nengti indur/ house mouse/ *Mus musculus*, gosap /monitor/ *Varanus* spp., maitta shap/ olivaceous keelback snake / *Atretium schistosum*, daras/ common rat snake/ *Ptyas mucosus*, goru or gai/ cow/ *Bovis indica*, chagal/ goat/ *Capra* species, kukur/dog/ *Canis familiaris*, janglee kukur or dhole or ram kutta/ Asiatic wild dog/ *Cuon alpinus*, pati shial or shial/Asiatic jackal/ *Canis aureus*, khek shial/Bengal fox/ *Vulpes benghalensis*, beji/ common grey mongoose/ *Herpestes edwardsii*,

biral/ cat/ *Felis domesticus*, ban-biral/ swamp cat or jungle cat/ *Felis chaus*, fishing cat/ *Rionailurus viverrinus*, chita bagh/ Indian leopard/ *Panthera pardus*, East Asian porcupine/*Hystrix brachyura*, gandha gokul or khatash or bham or bagdash/civet/*Vivma zibetha*, bhodor/common otter/*Lutra lutra*, ud biral/ oriental small-clawed otter/*Aonyx cinerea*, bon suar/ Indian wild bear/*Sus serofa*, badur / flying-fox or common bat / *Pteropus giganteus*, daini badur/ Indian false vampire/ *Megaderma lyra*, khargosh/ Indian hare/*Lepus nigricollis*, hispid hare/ *Caprolagus hispidus*, Himalayan mouse hare/ *Ochotona roylei*, kathbirali/ squirrel/ *Ratufa bicolor*, squirrel/ *Callosciurus pygerythrus*, girgity/chameleon, rokto chosa/ common garden lizard/ *Calotes versicolor*, gaur/ *Bos gaurus*, gibbon/ *Bunipithecus hoolock*, swamp deer/ *Cervus duvaucelii*, Asian elephant/ *Elephas maximus*, macaque/ *Macaca spp.*

Birds: dar kank/ large-billed crow or raven/ *Corvus macrorhynchos*, pati kank/ house crow/ *Corvus splendens*, dhanesh/ hornbill (pied hornbill/ *Anthraceroceros maladaricus*, rufous-necked hornbill/ *Aceros nepalensis*, great hornbill/*Buceros bicornis*, wreathed hornbill/*Rhyliceos undulatus*), tree pie/ *Dendrositta spp.* (grey tree pie /*D. Formosa* and hari chacha/ rufous tree-pie/ *D. vagabunda*), cheer pheasant/ *Catreus wallichii*, kaleej pheasant or black breasted kalij/ *Lophura leucomelana*, kat mayur/ peacock pheasant/ *Polyplectron bicalearats*, mayur/ Indian peafowl/ *Pavo cristesus*, peafowl/ *Pavo spp.*, green peafowl/ *Pavo muticus*, kukkut/ red jungle fowl/ *Francolinus francotinus*, bon murgi/ tragopan/ *Tragopan spp.* (Blyth's tragopan/ *Tragopan blythii*), jol kukkut/ coot/ *Falica atra*, jol murgi/ water rail or water hen/ *Rallus aquaticus*, moorhen/ *Gallinula chloropus*, purple moorhen/ *Prophyrio porphyrio*, chochoka or choka/ shelduck/ *Tadorna spp.* (*T. ferrugina* and common *T. tadorna*), rajhans/ bar headed goose/ *Anser indicus*, buno rajhans/forest bean goose/ *Anser fabilis*, lesser white-fronted goose/ *Anser erythropus*, pati hans/ spot billed duck or grey duck/ *Anas poecilorhyncha*, khunte hans/northern shoveller/ *Anas clypeata*, chhai hans/ grey leg duck/ *Anas anser*, widgeon/ *Anas penelope*, gadwall/ *Anas strepera*, khopa hans/ tufted duck/ *Aythya fuligula*, kalo hans/ common pochard/ *Aythya ferina*, ranga jhuti hans/ red crested pochard/ *Rhodonessa rufina*, bhitu hans/ Bear's pochard/ *Aythya baeri*, sada chokh bhitu hans/ (white eyed) ferruginous duck/ *Aythya nyrocha*, vadi hans/ white-winged duck/*Cairina secululala*, holde sithi hans/

Eurasian wigeon/ *Anas penelope*, nil matha hans or nilsir/ mallard or blue head wild drake/ *Anas platyrhynchos*, bacha hans/ comb duck/ *Sarkidiornis* sp., bali hans/ cotton teal or cotton pigmy-goose/ *Nettapus coromandelianus*, patari hans or peri hans/ common teal/ *Anas crecoa*, baikal teal/ *Anas formosa* , sikhajukto hans/ falcated teal/ *Anas falcate*, marbled teal/ *Marmaronetta angustirostris*, bara sarali/large whistling teal/*Dendrosygna bicolor*, chhoto sarali/lesser whistling teal/*Dendrosygna javanica*, goyar/darter/*Anhinga rufa*, pan kauri/shag/*Phalacrocorax fuscicollis*, dahuk/ white breasted waterhen /*Amaurornis phoenicurus*, chhai bok or anjan/grey heron/ *Ardea cinerea*, purple heron/ *Ardea purpuria*, kani bok/ Indian pond-heron or paddy bird/*Ardeola grayii*, white-billed heron/ *Ardea insignis*, giant white-billed heron/ *Ardea imperialis*, Chinese pond heron/ *Ardea grayii*, little green heron/ *Butorides striatus*,

Indian reef heron/ *Egretta gularis*, night heron/ *Nycticorax nycticorax*, go bok/ cattle egret/ *Bubulcus ibis*, bok /little egret/ *Egretta garzetta*, sada bok/great egret/ *Casmerodius albus*, khute bok/spoon bill/*Platelia lencorodia*, saros/ ibis/ *Pseudibis* spp. (brown and black) and *Thresciornis melanocephala* (white), saros/ crane/ *Amaurornis* spp., shamuk bhanga/ Asian open billed stork/ *Anastomus oscitatus*, hargile/ stork/ *Ciconia* spp. (oriental stork/ *Ciconia boyciana*, white stork/ *C. ciconia*, white necked stork/ *C. episcopus*, black stork/ *C. nigra*), ram shalik/ black necked stork/ *Xenorhynchus asiaticus*, sona jongha/ painted stork/ *Ibis leucocephalus*, shakun/vulture/*Gyps* spp. (white-rumped vulture: *Gyps bengalensis*), chil/black-winged kite/*Elanus caeruleus*, bhuban chil/ black kite/ *Milvus migrans*, gung chil/ tern/ *Sterna* spp., shankachil/ brahminy kite/ *Haliastur indus*, tila baz or shapkeko baz/ crested serpent eagle/ *Spilornis cheela*, greater spotted eagle/ *Aquila clanga*, imperial eagle/ *Aquila heliaca*, fish eagle/ *Haliaeetus leucoryphus*, cuckoo (*Cacomantis* spp., *Cuculus* spp. : *Cuculus varius*- papia or chokh gelo, *C. micropterus*/ bou katha kao), kokil/ koel/ *Endynamis scolopacea*, bon kokil/ large green billed malkoha/ *Rhopodytes tristis*, finge kokil/ drongo cuckoo/ *Surniculus lugubris*, finge/ drongo/ *Dicrurus* spp. (*D. adsimilis*/ black drongo, *D. aeneus*/ bronzed drongo, *D. paradiscus*/greater racket tailed dorongo, *D. aeneus*/ lesser racket tailed dorongo, *D. annectans*/ crow billed type, *D. coerebescens* /white billed, *D. hottentottus*/ hair crested), ghugu/ dove/ *Streptopelia* spp. (*S. chinensis* /spotted dove/tila ghugu, *S. orientalis*/ rufous turtle dove/ bon ghugu or ghugu, *S. tranquebarica*/ red turtle dove/ lal ghugu or jongla ghugu and *S. decaoata*

/Indian ring dove or collared dove /raj ghughu), raj ghugu/ emerald dove/ *Chalcophaps indica*, bar tail cuckoo dove/ *Macrorygia unchall*, horikol/ pigeon/ *Tyrannus* spp. (green *T. bichenoti*, orange-breasted *T. curvirostris*, yellow-footed *T. phoeniceus*, grey-fronted *T. pomatorhinus*), payra/ pigeon/ *Columba* spp. (blue rock pigeon/ *Columba livia*, purple wood or pale-capped pigeon/ *Columba punicea*, great imperial pigeon/ *Columba ducula aenea*, mountain imperial pigeon/ *Ducula badia*), shalik or bhat shalik/ common myna/ *Acridotheres tristis*, bon shalik/ jungle myna/ *Acridotheres fuscus*, gung shalik/ bank myna/ *Acridotheres ginginianus*, mynah/ hill myna (grackle)/ *Gracula religiosa*, jhuti shalik/ short crested myna/*Acridotheres javanicus*, gue shalik/ pied myna/*Sturnus contra*, bhahmini myna/ brahmini mynah/ *Sturnus pagodarum*, grey headed myna/ fat shalik/ *Sturnus malabaricus*, charui/ house sparrow/*Passer domesticus*, Eurasian tree sparrow/ *Passer montanus*, khanjan/ white wagtail/ *Motacilla alba*, grey wagtail/ *M. caspia*, yellow headed wagtail/ *M. citreola*, yellow wagtail/ *M. flava*, khanjan/ Chinese olive-backed pipit/ *Anthus hodgsoni*, khanjan/ australasian pipit or paddy field pipit/ *Anthus novaeseelandiae*, nilkantha/ broad billed tay (*Eurystomus orientalis*), Indian roller (*Coracias benghalensis*), magpie: green *Citta chinensis* and green with red *C. erythrorhynchos*, flower pecker or honey bird/moutusi/ *Dicaeum* spp., kat thukra / woodpecker/ *Dinopium bengalense*, *Celebus brachyurus*, *Dendrocopos canicapillus*, *Blythipicus pyrrhotis*, *Chrysocolaptes leucurus*, *Dendrocopos atratus*, *D. canicapillus*, *D. mabrittensis*, *D. macei*, *D. namus*, *Dinopium bengalense*, *D. javanensis*, *D. marnathensis*, *Gecinulus graueri*, *Hemicircus cancuta*, *Hypopicus hyperythrus*, *Jynx torquilla*, *Micropternus breachyurus*, *Mulleripicus pulchellus*, *Picumnus innominatus*, *Picus canus*, *P. chlorolophus*, *P. harinucha*, *P. myrmecophonus*, shui chura/ bee-eater / *Merops* spp., haldey pakhi/ black-hooded oriole or yellow bird/ *Oriolus chinensis*, nil pakhi/ *Pitta* spp., hooded pitta or green breasted pitta/ *Pitta sordida*, chhoto machranga/ common kingfisher/ *Alcedo atthis*, machranga/ blyth's kingfisher/ *Alcedo hercules*, machranga/ white throated kingfisher / *Halcyon smyrnensis*, brown-winged kingfisher/ *Pelargopsis amauropterus*, stork-billed kingfisher/ *P. Capensis*, babui/ black-breasted baya weaver/ *Ploceus benghalensis*, bulbul/ bulbul/ *Pycnonotus* spp. and *Hypsipetes* spp., pata bulbul/ golden-fronted leaf bird/ *Chloropsis aurifrons*, tuntuni/ common tailorbird or wren warbler/ *Orthotomus sutorius*, golden headed wren warbler/ *O. cucullatus*, paddy field warbler/ *Accrocephalus agricola*, spotted bush warbler/ *Bradypterus thoracicus*, bristled grass-warbler/ *Chaetornis*

striatus, large grass-warbler/ Graminicola benghalensis, booted warbler/Hippalais caligata, grasshopper warbler/ Locustella spp., striated marsh warbler/ Megalurus palustris, black-breasted warbler/ Ploceus benghalensis, leaf warbler/ Phylloscopus spp., long tailed warbler/ Prinia spp., thick billed warbler/ Phragmaticola spp., Adjutant/ Leptoptilos spp, slender-billed babbler/ Turdoides longirostris, marsh babbler/ Pellorneum palustre, rusty-throated wren babbler/ Spelaecornis badeigularis, tawny-breasted wren babbler/ Spelaecornis longicaudatus, snowy-throated babbler/ Stachyris oglei, munia/black-headed munia/ Lonchura malacca, gagan ber/ spotted billed pelican/ Pelecanus philippensis, spine/ Capella spp. (kadakhocha/ great snipe/ C. minima, bon chaha/ solitary spine/ C. solitaria), wood snipe/ Gallinago nemoricola, batan/ plover (ring plover and sand plover)/ Charadrius spp., balu batan/ sandpiper/ Tringa spp., spoon-billed sandpiper Eurynorhynchus pygmeus, titi/ lapwing/ Vanellus spp. (white tailed lapwing/ V. leucurus), bogudi/ stone curlew/ Burhinus cedicnemus, ababil/ house martin/Delichon kashmiriense, sand martin/ Riparia spp., chatak/striated swallow/ Hirundo daurica, tal chata/ larger striated swallow/ Hirundo striolata, palm swift/naknati/ Cypsiurus parvus, dark-rumped swift/Apus acuticauda, edible nest swift let/ Collocalia innominata, crested swift/ Hemiprocne longipennis, dhanja pakhi or basanta bauri/ barbet/ Megalaima (M. asiatica, M. baemacaphala, M.australis), din kana/ night jar/ Caprimulgus spp., latoa/ shrike/ Lanius spp., tia/ parakeet/ Psillacula spp. and Loriculus spp., beua/ pheasant tailed jacana/ Hydrophazianus chirurgus, jolpipi/ bronze winged jacana/ Metopidius indicus,doel/ Indian robin/ Saxicoloides fucata, pathure doel/ blue rock thrush/Monticola solitarius, laughing thrush/ Garrulax spp., flycatcher/ Muscicapa spp., futki/ grey headed flycatcher/ Culicicafa sp., fantail flycatcher/ Rhipidura spp., forktail/ Enicurus spp., bush chat/ Saxicola spp., blue chat/ Enicurus spp., hudhud/ hoope/ Upupa epopa, pencha/ spotted owlet/Athene brama, hutum pencha/brown fish owl/ Bubo zeylonensis, rock eagle owl/ Bubo benghalensis, collared scops owl/ Otus spilocephalus, lakshmi pencha/ barn owl/ Tyto alba

Fish:magur/ magur/ Clarius batrachus, shingi/ shinghi/ Heteropneustes fossilis, koi/ climbing perch/ Anabas testudineus, bain/ eel/ Macrognathus aculeatus, shol/ striped snakehead/ Channa striatus, cheng/ Asiatic snakehead/Channa orientalis, taki/ spotted snakehead/ Channa punctatus, bele/ tank gobi/ Glossogobius giuris, gutum/ pool barb/ Lepidocephalus guntea, foli/

grey featherback/*Nolopterus notopterus*, chapila/ Indian river shad/ *Gudusia chapra*, punti/
guntea loach/ *Puntius sophore*, sarpunti/ olive barb/ *Puntius sarana*, tit punti/ *Puntius ticto*, catla/
catla/ *Catla catla*, rui/ rohu/ *Labeo rohita*, mrigel/ mrigel/ *Cirrhinus mrigela*, and so forth.

Indigenous Knowledge of Rajbanshi agriculturists of northern West Bengal, India

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Abstract: This paper is a small ethnographic documentation of Indigenous Knowledge of Rajbanshi agriculturists of northern West Bengal, India.

This paper is a small ethnographic documentation of Indigenous Knowledge of Rajbanshi agriculturists of northern West Bengal, India. Rajbanshi is a caste-community overlap and as a huge social fold intake various heterogeneous groups in plains and uplands of sub-Himalayan northern west Bengal state of India.

Their informal experimentation, trial and error, folk life, tradition, cultural symbols, generation-wise intellectual reasoning are equally important to gather scattered indigenous knowledge traits and their cognate Indigenous Knowledge System extending from mode of production and division of labour to their structure and super structure. This is basically a qualitative study and will highlight various services by both Rajbanshi males and females to attain organic cultivation and management of biodiversity. North Bengal jungles, mountains and agrarian lands are biodiversity hotspots and like various other indigenous communities Rajbanshis show their contribution in production and food preservation. They have developed a lifestyle that may look poor but actually fitting into local environments. Their kitchen garden, highland and lowland cultivations and use of forest and water resources and cattle hordes cum poultry develop together a complex system that can serve a wider public.

Full Text

Natural Resource Management of Dhangdhinguri

This village in Dhangdhinguri village panchâyat in Cooch Behar II block in Cooch Behar district is the Study area here. This village is completely situated in a rural area. This is a Hindu village and most of the people are belonging to Vaishnava sect; however also fertility cults and mother Goddesses and demigods are worshipped here. It is situated by the Harobhanga water way which has become a simple canal. This village is upland with neighbouring lower regions where as usual jute and paddy are cultivated. People in this village belong to different caste groups talking in Rangpuria dialect. This is a form of Rajbanshi local language but of the immigrated people from Rangpur. At a time, Koch Bihar dynasty ruled this Cooch Behar district along with Rangpur Division of Bangladesh independent country. Still Kurigram, Lalmonirhat and Nilphamari districts of Rangpur Division are bordered with this Cooch Behar district of North Bengal (northern West Bengal state of India). Many enclaves are shared by both these countries along this international border. In Dhangdhinguri, there are living both Rangpuria caste groups and Kshatriyas as well. The later are indigenous to this region and in census they are treated as Rajbanshi or Koch Rajbanshi, whereas the other caste groups as various Bengali castes. Actually, many of these caste groups could hold dual identity. Traditional Rajbanshis are settled agriculturists as against so many shifting cultivators and different tribal groups living in forest areas under Cooch Behar forest division. And the other caste groups have enriched this agricultural diversity. This system over all does a lot in favour of natural resource management. This Dhangdhinguri was at a time forest area and even leopards and tigers lived inside this place. The lower region by Harodanga River with sandy soil was grassland; kesia grass used to grow there with two peoples' height and the soil was with poor water holding capacity. However, the upland area has loamy soil. This Pundibari area is just between Torsa River system and Ghorghoria tributary towards Raidak-Kaljani river system. It lies on the way to Alipurduar town of Alipurduar subdivision of Jalpaiguri district and nearby Torsa River is from Madarihat-Falakata route of this subdivision through Jaldapara

National Park. Tribals like both forest Rabhas and jungle Rabhas are staying in this place. Further north there is the Duars tea belt at Bhutan sub-Himalayas and Hasimara-Phuntsholing gate way of Bhutan through Kalchini block. A mixed composition of Adivasi peoples and Nepali ethnic groups along with some caste people of Bengali and other origin could be found in this Duards tea garden and adjoining cultivable patches and town areas. Some ethnic minorities like Meches of Chhakamari and Toto Primitive Tribal Group of Totopara-Ballalguri are also staying within Madarihat block. Totopara is just at the foothill area and used to be famous for its orange orchard that has now been replaced by step cultivation land with bench terraces, banana and some other fruit plants; garden of areca nut plants and at the jungle side plants like teak, silk cotton and catechu. Totos also know about the use of Tobacco that yields in Torsa river basin but at Cooch Behar. They also told me about mulberry plant that is used for silk worm propagation. Lowlands at distance were used for cane and sugar cane likewise bamboo bushes in uplands. In steps generally millets like marua and kaon are grown along with monsoon rice, winter maize, wheat, barley, potato, elephant gourd, tomato, arum, cabbage, cauliflower, ginger, turmeric, bay leaf, green chillies, cardamom, clove, curry leaves, coriander, mint of hill variety, peppercorn, and even garlic. Potations are again of jungle varieties, red potatoes, brown potatoes and small sized. Yam and taro are found in the jungles. Rapeseeds like mustard and some other nuts, local tisi and til are being yield also. Hen, duck, goat, pig and mithun or p'ka are common livestock. Forest department again plans to yield rubber. Orange is generally a product of winter, but plant and its future yield generally depend on amount of raining in monsoon. Water tanks have also been built up in Totopara and Telapia fish is cultivated there. Local rivers in rainy season are considered for collection of local small and medium fish varieties. In traditional marriage ceremony, they generally slaughter two pairs of mithun (one from each side) and boar along with indigenous alcoholic beverage Eu (fermented marua millet dust with occasional addition of dust of rice and maize grains) for 1 to 3 days and then sieved it to drink the alcoholic substance). In every step of rites-de-passage, they need boar and mithun. The latter is the source of milk that a few also sold to outside market, whereas pigs are fed up with residues after Eu and boiled ling (or wild potato and laka (or wild gourd). They are fond of plum that they call buguri or gorse, jackfruit or danse, betel leaf or parai, sugar cane or mencha. Other vegetables and different types of gourds are also propagated in the region.

Settled cultivation the Totos have learnt from Nepali groups, where that for the Mech people after coming in contact with either of Rajbanshis and Nepalis. When the Totos invite outer people in their ceremonies, they offer the guests with red meat of goat, chicken, orange juice, red tea, salt tea, butter salt tea, areca nut (also known as guai) and even tura purai guai (betel leaf with areca nut or its supplement in the form of spines of young stem of silk cotton plant). Maize grains are also used as important feed for livestock if cultivated with surplus. Some irrigation might be needed in maize cultivation depending upon the weather. An average of three month is needed between seed sowing and harvesting of maize. Harvesting depends on colour of the spike and the spike leaf that whether they are green or yellow (or white). Often maize corns are tested by pressing them by nails. By rubbing two maize spikes, corn grains are collected and dried under the sun and kept in safe within a jute bag in dark. Time to time, corn grains are brought in the sunlight as the same process done in case of other cereals. These information traits I have collected from Surja Toto, Dhaniram Toto and Satyen Toto.

So, ethnic composition and mode of production suddenly change as Torsa and Raidak-Kaljani suddenly enter into Cooch Behar. At a time, not only Kesia but also Thadda, Chopsi and Malisa grasses were growing on these river beds as favourite foods for elephants and rhinos. Rabbit, fox, wolf, wild dog, monkey, so many butterflies, deer, boar, buffalo and wild bison were found at these places. Still now, many birds both local and migratory like storks are coming to Harodanga. Pundibari once was a big weekly market and North Bengal Agricultural University is also situated in this region. This Dhangdhanguri is surrounded by villages like Nageshwar Kuthi to east, Basantapur West to west, Gopalpur to north and Konamali to south and other side of the Harodanga. Villagers at Dhangdhanguri have not completely destroyed the original biodiversity like so many useful plants and bamboo bushes, but added new domesticated species of vegetable use and others. The issue is that how these villagers maintain this enriched biodiversity by using their Indigenous Knowledge and Indigenous Knowledge System. Local inhabitants of this Dhangdhanguri always do not follow the advice of agricultural university and do experiments informally on their own to improve their crop biodiversity not totally replacing the previous natural resources.

Common fruit plants are here date palm (taal), areca (supari), coconut (narikel), orange (kamala), litchi (lichu), mango (aam), jackfruit (kathal), aonla (amlaki), guava (peyara), black peach (jamun), olive (jalpai), fig (dumur), chalta (chalta), ata, nona, dalim, golapjam, and citrus plants like lebu and mosambi. This provides a sense of orchard and a sacred grove. Many of these plants have been in existence from before alongside the bamboo now reduced to a considerable amount. Bijalghanta tree is also important whose barks are sold to traditional medicine men; it is believed that the water emulsion of this bark could control high blood pressure and lowers down diabetes and chances of heart attacks. One kilogram of bijalghanti bark costs for Rs. 100/-. Kathgua is a special plum variety yielding plums of guava-size and again important for wood (similar to kadam tree). Haritaki and boira are such trees used in preparation of ethno-medicines mostly in Ayurvedic health practice. Litchi is best grown with kamranga; whereas amlaki with jalpai. Black peach and tamarind could grow well side by side. Mango, jackfruit, zambura, guava, and beal (castor apple) are the fruits of summer-monsoon. Mangoes are not however of good quality and mostly jungle variety with sour taste. Mango tree is source of wood apart from lampati, eye-khanjan, jhujhunja, jhigni, pauri, korai, akanda, etc. Charka and kakshisha are useful plants. Neem and ghoraneem are found here and there with few jiga and polash trees also. Kamini, polash, champa, togor, shefali and kanchan are different flowering plants. Wood yielding gamari and segun are planted as social forestry and have economic values. A ten year old plant could give fifteen to twenty thousand Indian rupees. Such plants could be grown up in a landscape of 15 kathas as a social forestry at upland along the homestead. So, five such plants could be dealt as any insurance for any disease treatment or good source money for any social occasion (marriage, etc.).

This is also an ideal place for bay leaf, curry leaf and ginger-turmeric mixed yield. Also, other spices like coriander (dhone), peppercorn (gol morich), clove (laung), cardamom (elach) and cinnamon (daruchini) are present within the village but not as any production unit. Besides dhone, other ingredients grown at homestead and by the roadside are known as radhuni (or phodon) as well as methi (fenugreek); minute fruits and dried leaves of all these three plants are used in dishes. Bengalis in their dishes put panch-phodon which is a mixture of several spicy ingredients (e.g., white and black cumin seeds/ sada jeera and kalo jeera, fenugreek

/methi, fennel seeds/mauri and radhuni).

Here, in Dhangdhinguri mostly methi and radhuni are used to bring taste in vegetable dishes. Four to five radhuni plants are adequate for a family of 4-5 members. A plant can continuously provide the spice for 4-5 years. Wild clove or jangli laung also grows reluctantly within the stubble divider or aal in the paddy fields. However, turmeric is yielded in many courtyards.

This highland area is also used for propagation of jute seeds. Tip of the **jute** plant of 100-120 days age ready for extracting the fibers from the stem is cut off obliquely and planted in post-monsoon time on a dry pond bed with some moisture in the soil; good manure of organic type is often applied; place is slightly shadowed by medium-big tree plants; jute twigs grow faster and yield seeds for the next season. Generally, the jute variety is locally known as mesta or sweet or sona producing long fibers.

Some water weeds like trapa or **jalsingara** are also planted in low-level local water bodies in rows as they are sowed in late autumn when **there is** little moisture in air and hot days are coming. Often power tiller and dunkel plough is applied in the pond waterbed. Jalsingara is not generally cultivated as the locally available ponds are meant for fishing. Jalsingara hydrophytes contain spine and as a result of that netting becomes much more difficult.

Onion and **garlic** yields are not so far up to the mark. These are widely cultivated in nearby Baneshwar. However, garlic of big size varieties is cultivated in such dried ditches; both garlic and onion are harvested before rain is coming. Dried stuff of kochuripana and other hydrophytes are used as manure. Actually, residue of the entire dried-up water ecosystem is involved in this. But this soil often becomes salty and hence this manure is not generally applied in the uplands.

These shallow ditches and pond sides are also the natural habitat of various **arum** species (kochu). Mainly suji kochu and mann kochu are grown here. Latter is generally consumed by common people. Kala kochu, maulavi kochu, etc. are other varieties that are not eaten here.

However, arum here is also grown in kitchen garden or courtyard or under the shadow of this groove. Here, no commercial production of arum and additional pruning are noticed at all.

Crucial summer-monsoon vegetables that are yielded till late spring are not only potol, karala, and jhinga; but okra (bhindi or dharosh), various other gourds including chalkumra or bottle gourd as well as sweet gourd or mistikumra. Among other gourds, chichinga is locally cultivated in the village. One could use lattice or simply let these gourd plants creep in the soil. Sweet gourds need special care and manure to a good quantity; plant-to-plant distance is maximum here in comparison to other gourds and size only matters in this case.

Pumpkin is common in Dhangdhinguri upland. This has now been yielded twice a year (planted in monsoon and harvested upto winter; and again planted in after spring and harvested throughout autumn and even early summer). The most widely used variety of pumpkin is Shiva. In each mound or stubble, two pumpkin could be grown by seed germination. Good manure and regular irrigation in every five days are good setps for pumpkin cultivation. From a five katha area, in every week about fifty fruits could be collected each of four to five Kg in weight. It needs four by four hand distances. Notable, well drainage system should be there. Water has to apply on the stubble or mada and not throughout the landscape. However, fruits need three months to come out. Snake gourd needs a five by five hands distance, whereas squash an eight by eight hands distance. These two are basically monsoon crops and could be cultivated along with pumpkin.

Luffa and **snake** gourd (commonly known as jhinga and karala) are such winter-autumn vegetables cultivable in the same field as mixed cropping. Jhinga needs an extra support of lattice, whereas karala or karela (snake or bitter gourd) is a simple creeper. Disease free condition and organic manure in the form of cow dung manure in adequacy could increase their yield and size.

Potol is mostly a monsoon vegetable indigenous to North Bengal and North East India; it is planted in early rains and yields could be got till pre-winter. Potol saplings are planted in winter and start yielding in late autumn, summer and maximum in the monsoons and a few also in

spring and late spring. In the last days, quality and taste decrease to a considerable amount. Now, this potol is yielded twice in a year. Many peasants propagate this potol in winter also. They sow these new seeds in monsoon at a time when the monsoon variety is giving the maximum yield. This starts giving fruit vegetable in late spring, winter and autumn with decreasing yields till end of the summer. In this way, this potol is marketed throughout the year. One meter by one meter distance is held for both the cases (special local variety known as rajirhat potol).

Monsoon chilli production becomes costly not because of any extra manure or any irrigation purpose, but due to making of the bamboo lattice. In one Bigha, about seven to eight makla stout bamboos are needed each coating about INR 70-80 with an overall manufacturing coast of around four to five thousands. Which is why, many peasants are now using strong threads instead of metal ware for netting. The profit amount varies from year to year depending upon climate and diseases. In generally, monsoon chilli can give a net profit of Rs. 40,000-50,000/-. Radish is however directly sown in the prepared main farmland by scattering the seeds for both red and white varieties. An exclusive white variety of about 2-3 Kg weight is also cultivated that is used in restaurants and seeds in per hand are sown thrice (i.e., at two-figure distance each).

Potol and monsoon chilli could be grown separately or together in the same field. Potol is a creeper and chilli is a woody bust plant. However, both of them need external support in form of a well-built lattice. One meter by one meter gap for potol could be filled up by monsoon chilli plantation. Chilli plants are perennial, but potol has to be planted again in the next season. Manuring is also needed as usual. Timely irrigation is required on time. Mixed cropping provides greater yield from the same piece of land. Twigs of potol could also be consumed in curry. Dried and dead chilli plants are often used in fuel purpose. Winter chilli does not need any lattice and it is not cultivated together with winter potol. So, we can see monsoon chilli and potol are together cultivated; whereas winter chilli and potol are cultivated separately. Sometimes, winter potol is cultivated on the same ground holding the system of monsoon potol and monsoon chilli. When the annual monsoon potol dies out, winter potol starts yielding and perennial monsoon chilli plants stay the same. However, winter chilli variety (if cultivated) is

grown on a separate land (if available). One could yield potol twice and monsoon chilli at the same land, but winter chilli needs extra land. However, that extra land could be used for any other type of mixed cropping with winter vegetables of one's own choice.

Brinjal is planted in early winter and if diseases are restricted, then a maximum seven times yield could be expected till the monsoon. Three months after sowing the seeds in early winter, a fully bloomed brinjal plant is started yielding its product. Generally, harvesting is done with a gap of 7-10 days. Like chilli plant, it is also woody shrub in texture. Brinjal fruit of both elongated and round types are cultivated here. Brinjal is generally affected by various diseases and the most severe of them is the attacks on leaf, untimely shedding off of flowering inflorescence, leaf curling, pathogen attacks in roots, and fruit borer. For procurement, ash is traditionally used. Micronutrients like boron and zinc are used here good for flowering and foliage. NPK is also applied here. Nitrogen application can be controlled. One could use cow dung and rotten leaves or the vermicompost for a better yield. Foliar spray of micronutrients would be a better option. The affected plants or plant parts are to be removed, buried under the ground and even burnt. Lime is added to the soil to maintain the acidity. Apart from different pesticides applied after consultation with agronomists, azadirechta or neem oil, its cake and even its watery emulsion with organic fertilizer can be applied here. Weeding and seed treatment are also very important. Hybrid brinjal seeds are also available in the market. Mustard cake is good for its cropping system as this is also valid in case of monsoon chilli-potol mixed cultivation.

Indophyl M 45 is a common pesticide applied at a rate of 20 ml in a 15-liter water tank and sprayed on the plants uniformly. Also Astha is applied measuring 15 gram. Rogor is sprayed on brinjal and pumpkin. In every cultivation, cow dung fertilizer is common organic manure. It is applied generally before cropping. Compost or chapam (that might be the vermicompost) is applied for minimum two times during a single cropping. Manure should be applied in a scattering manner and mostly by hands. It depends on crop, informal experiment, farmer's choice and agronomist's advice. Pesticides and herbicides are applied before cropping, during sowing and twice a month in every month. This spraying is controlled during harvesting. Cow dung and weeding are common in nursery. Organic way of seed treatment is often followed.

Costlier processes of cultivations are often met with chemical fertilizers and pesticides in farms; but this is criticized for a fertility decline of the entire cropping system.

Sosha or **cucumber** is another important monsoon vegetable, but with no fixed prediction of profit or loss and therefore many do not show any interest in cultivating it. Two types of cucumber are usually cultivated. One that is sowed for monsoon is local variety, whereas the other planted in late spring is known as malani or mico recently introduced. The local monsoon variety is actually planted in late autumn-summer or at the beginning of monsoon and provides fruits for the whole season followed by spring and late spring. Ideal weather of seed germination is when dryness of the winter season is over and there is bit moisture in weather condition. A little irrigation in hot humid summer and some mild rains of per-monsoon are essential. That would not then let the soil dry out and keep free from cluster. Cucumber needs sandy soil and at a time it is grown on the sands of river bed along with watermelon. A bed prepared by sand and paddy straw is often built up on the soil. Bright sunlight is however essential for flowering. White hairy texture of fruit is the indication that the fruit is now edible. Harvesting is generally done in very 2 days interval and initiates from monsoon. Fruits of five to seven days age are generally marketed. At the end of spring, some fruits are to grow for a month and seeds are generally collected for the next season. Like okra and monsoon chilli, this herbaceous plant also needs lattice that could be raised up to a maximum height of five feet. Local variety is capable of yielding 20-25 Kg cucumber per Bigha. Fruits are here slender and with pointed tip. It often looks brownish with yellowish leaves and yellow flowers. The late spring variety is cultivable at the same time of pea and mustard cultivations. Local variety is juicier than the introduced spring variety which is however more thicker with lesser seeds. This late spring variety is more resistant to disease spread. It could be cultivated along with mustard and spinach. This **cucumber-mustard** mixed cultivation of winter could be further diversified with side cropping of turmeric. Vermicompost and banana trunk could be applied in the form of manure. Actually, the local monsoon variety needs extra care in terms of seed treatment, saplings, attack of the beetles and manuring. Seeds are advised to treat with bavistin solution for the whole night or for five hours under shade and then sun-dried. Seeds are further advised to be planted in plastic bag of two finger diameter. Three to four seeds could be planted at the

center of the polybag, but only one creeper is selected. Unlike okra or dharosh, side branches of the plant are to be cut off regularly. These cuttings collected from both lattice and base portion could be used for vegetative propagation. This seedling could be directly transplanted in the field, or still cared off in earthen pot of medium size earthen pot (four finger diameter). In field, a well-built lattice is to be constructed. Rotten cow dung and vermicompost are to be applied in the field. In polybag and pot, such manures are also to be applied. Controlled use of ash, NPK, azadirechta cake and its watery emulsion are some other necessary things. Cucumber is not suitable for propagating in a plot with any nitrogen fixing plant like pulses. NPK should be applied in such a ration that nitrogen should be controlled (like 10:26). Azadirechta oil or its cake and other organic manure with its watery emulsion as well as ash are good for plant health. Before the cropping process begins, soil has to be treated with lime to reduce acidity best for preventing pathogen and harmful insects. Micronutrient boron is good for flowering. But such an intensive care for the monsoon variety is costly, and this capital could be applied in other cultivations. This is actually happening in Dhangdhinguri village. This place was previously a forestland and this Harodanga River was more active- lower portion held for paddy and jute were sandy grassland with clayey soil. They are the farmers who have improved this lowland by adding more clay and loam. They appointed labourers and paid enormous attention in order to improve this area into a fertile cropland for paddy and jute. Till now, a dig of one to two hands in places would bring out sandy soil ideal for cucumber local varieties if cultivated with extra effort. When the winter variety is increasingly more cultivated, the monsoon type is being less used.

Common **winter crops** are potato, radish, cabbage, cauliflower, carrot and tomato. These are cultivated together in mixed cropping and also as side cropping or even at alley cropping. Organic manure is applied. Beans including shim and borboti are also started cultivating as winter crop to the place. A few experimentally cultivate pea in winter and they are quite successful. Vegetables are grown so reluctantly that other winter crops like gram, musur pulse, maskalai pulse, maize and wheat are severe neglected and there is absolutely no trace of tobacco cultivation at Dhangdhinguri. However, using shallow pumps and power tillers and at the riverside lowland (dola jomi) of Harodanga water system, bodo winter paddy variety is cultivated yielding in autumn-summer (depending on weather temperature and day duration in

winter).

Actually, monsoon vegetables are followed by **radish** which is then by potato and finally by winter chilli. It is one kind of crop rotation in vegetable cultivation.

Potatoes are of brown (badami), white (sada), red (lal), kupri (or chupra), and lalgolap varieties. These all are cultivable and propagated mostly in winter. White and red varieties are the most profound in use. The brown variety is actually local. Agriculturists store the potato or buy then from market and then cut them into such pieces so that one should contain 2-3 buds in order to develop into a full bloom plant. In a 15 katha land piece for potato yield, about two kilogram of NPK fertilizer is to be added.

Interesting to see this that the peasants of Dhangdhinguri generally choose one hand by 1.5 hand distance for **cabbage** (also one hand by two hands), one hand by one hand for **cauliflower** (also 1.5 hand by 1.5 hand in addition to extra 2-3 Kg organic manure), one hand by two fingers for turmeric and 1.5 hand by 1.5 hand for winter sown chilli or bua morich or birili morich (as against one hand by one hand for monsoon chilli or borshali morich with an extra support of bamboo lattice). Before transplanting the sapling, care is taken well in the nursery bed where seeds could be unevenly scattered or sown with a one finger tip distance (in latter case, stems are well-built). Monsoon chilli is planted in winter with continuous yield in summer-monsoon-spring-late spring. Similarly, winter chilli sapling is planted in monsoon and provides its yield in late spring-winter-autumn-summer. Dhani, akashi and siti variety are unusual to Dhangdhinguri. First one is of small size, second one of medium size and directed erectly upwards and third one is actually hot red chilli of big size. The last one is exclusive to Dinajpur Indo-Bangladesh region whose western part has been fallen in North Bengal but on the western side of Barindland-Dinajpur ridge-cum-watershed (continuous with Rajshahi-Malda marshland-plain area). This variety of chilli is grown in Uttar Dinajpur and Dakshin Dinajpur cum some pockets of Malda districts of North Bengal directed towards Mahananda-Ganges river system as against Teesta-Torsa-Raidak water system of Jalpaiguri-Cooch Behar on the other side of the ridge-cum-watershed. Ol or elephant big foot yam is an important element and quite natural to this groove. Ol is mostly held for side cropping. However, few years earlier this

crop was tried on commercial basis. Now, this is mostly practiced in foothill regions and also some pockets in Siliguri-Jalpaiguri watershed areas incorporating Mekhliganj block and few other parts of Cooch Behar. Arum and this **OI** are also tried by Adivasi people. It is generally cultivated by planting its eyes (buds) at three hands by three hands distance, Once, sugarcane was also grown reluctantly in the region.

In all the cases, organic manure of dried cow dung, ash, rotten leaf manure, and water emulsion of **ghoraneem** (other variety of neem) are used along with locally manufactured vermicompost. Potato and elephant foot yam also need NPK. The buds are generally directly sowed and not much hamper is till date noticed as a result of any pathogenic attack. Most of the peasants involved in potato cultivation do not follow seed treatment. They say that seeds (or potato eyes) with and without effective treatment could not resist much the pathogens. Trichoderma viride, dithane and carbendazim are often used. dithane is generally used for quick seed treatment within 15-20 minutes. In one liter water, one gram carbendazim is to be added and then in this solution, these seeds are to be soaked in shade. This is fully a scientific process. This is the main problem for these peasants as there are measurement problem and no clear idea about the quantity of eyes to be treated at a time.

A minimum of 5-10 katha land can be used for **mustard** cultivation, but for self-consumption. It might be cultivated in lowland before paddy or afterwards. So, another crop rotation of monsoon paddy-mustard-other product-monsoon paddy exists as well (that 'other product' might be winter paddy or jute; some other alternatives are tobacco, pulse, cashew, wheat, winter maize, potato and winter vegetable). This mustard is the source of unrefined oil used by local people. It costs INR 6.00 per liter and even it is often sold outside @ INR 25.00. A few also propagate mustard in 2-3 bigha size of land during winter season for commercial purpose.

Many others rather prefer to cultivate **peas** in post-spring which is similarly in a crop rotation system between monsoon paddy and winter paddy. Peas and mustard increase the nitrogen in the soil as they naturally fix up nitrogen to the soil.

Tomato is not grown here as much as radish and potato. Some tomatoes are being yielded in full winter as the seeds are sown at the beginning of winter. This could be grown up with some winter vegetables in mixed condition. It is of the same botanical family in which brinjal and potato belong to. Like cabbage seed bed- dhensi, an important practice of dhensi and tomato mixed propagation is often practiced. This could at least refund the ploughing cost as many marginal cultivators could not manage their own plough and bullock besides other agricultural expenditures like pump-set, power tiller, transportation and even fertilizer cum pesticide. Tomato cultivation on commercial basis is much costlier. For one Bigha tomato cultivation, it needs about eight Kg potash (murate of potash), five Kg urea and 20-25 Kg single super phosphate along with one van cow dung. This cow dung has to be well fermented for 10-15 days. Often good soil and micronutrients like sohaga or boron are applied into this cropping system. Plant to plant distance has to be managed as two hands by two hands. Tomato could be cultivated with local leafy vegetables as well as radish and bitter melon. Lattice could be constructed near about and pumpkin and beans could also be yielded. In some cases, the distance is managed as 1.5 by 1.5 hands and it is believed that in this way fruits could be made juicier. Pana or kelna of the pond (compost of marshland weeds and other hydrophytes) is often added to tomato yielding system once in a week. Fruits are generally collected in green condition and then by using formalin in liquid form are ripened. Artificially ripening tomatoes in the courtyard are to be placed under direct sunlight. Time to time they could be marketed. Tomato is sown in late spring and it could provide good yield throughout winter and autumn. Abinash and Jhapa are good varieties of it. Local varieties are not too juicy and small in size. Less fertilizer should definitely hamper in yield, size, taste and quality of the crop. Tomato unlike brinjal is less affected by pathogens. Furan is often applied on tomato.

Nowadays, **squash** is propagated along with pumpkin. Squash is previously yielded on hilly areas of Sikkim, Darjeeling and Bhutan areas. But here in Dhangdhinguri, it is now successfully growing by two non-Rajbanshi Bengali families. They are using the same lattice they have constructed so far for their pumpkin. Squash has to be sown at around eight by eight hands distance. The land held for squash cultivation could be also used for radish and dhensi. It needs organic manure in successive amounts. Fruits are given maximum yield in monsoon. It could be

also yielded with summer-monsoon gourds like bitter gourd that requires a five by five hands distance. Bitter gourd-squash mixed monsoon cropland needs weeding at an interval of four days.

Coriander, spinach, bathua, lafa, danta and dhemsia are important and the most common leafy vegetables of winter. Oshni or sushni and thankuni or manboni are also grown in this upland without any preconditions and special care. Oshni is also curative in body pain and bitter thankuni in stomach problems. Bathua grown reluctantly in cropland without any sowing and it is both consumed and marketed after collecting them from land prepared for potato or radish. Potato-bathua mixed cultivation is economically profitable. Bathua shares water and organic manure with potato, but that is not so much harmful for this potato plantation. Rather than bathua with its broad leaves cover up the soil and do not let other useless and harmful weeds to grow up in the soil. Similarly, mustard is often cultivated in a mixture with broad leaved vegetable (palong or spinach). In comparison to bathua or bothua, lafa cultivation is much costlier and needs more fertilizer, water and special care. Lafa is of two types- broad and small leaved. It grows best in the cow dung manure. Lafa can reason for getting cold and body automatically gives resistance to the dust during the thrashing of harvested paddy in late-spring. Dhemsia and takpata (oxalis) are completely different weeds, but used as leafy vegetables with sour taste. Dhemsia is generally grown up in fertile patches of cabbage nursery beds with close intensity with the saplings. Cabbage saplings grow up within 20 days and are then transplanted into the main field. So, dhemsia is a product of only one month. It is a by-product of seed bed and do not cause any harm to the seedlings growing into the saplings. Along with cabbage in the mainland, brinjal is planted. Similarly with radish, danta leafy vegetable is cultivated in mixture. These two are the most common examples of mixed vegetable cultivation of Cooch Behar district.

If we include rice and jute, the cropping system at Dhangdhinguri can be illustrated as winter rice-radish-brinjal-potato-cabbage and cauliflower-maximum yield of winter chilli and potol-various beans and leafy vegetables like coriander and lafa-mustard along with spinach-tomato-turmeric and ginger-garlic and arum-winter paddy and jute-maximum yield of monsoon chilli and potol-pumpkin and other gourd. Within only a landscape of 8-10 Bighas, all these cultivations could be possible for both self-consumption and some marketing. More intensive

agriculture is also possible that I have seen by some Bengali families there. Those who have less land for vegetable cultivation can produce radish, cabbage, cauliflower, a few mustard, spinach and brinjal in winter; but at summer various types of gourds and cucumber. If they could manage a small size lattice, beans of many types can be propagated in winter. If they possess a medium size landscape, they could construct a bigger lattice and additional cultivations of pumpkin in monsoon and winter, greater number of gourds, squash, potol and monsoon chilli could be yielded. Similarly, there would be a place for winter chilli and another yield of potol. In certain case, pumpkin for both the seasons may be the main crop along with additional radish in winter and chilli-potol system twice for whole of the year. Considering this as the core of the vegetable cultivation, many other vegetables for whole of the year and/or specific season plus leafy varieties could be propagated. For example, along with radish and local vegetable like lalshak or danta, two other winter systems like cabbage-brinjal and mustard-spinach could be developed.

Previously, **betel** leaf is also cultivated in this region but not under any boroj but within a charkathi system. A stout bamboo is broken into four halves each known as a fali. Such four halves are used to construct a cone like structure. At the center of that structure, a hip of good soil from a fallow land or paddy land is set up. This is called building up of a pala or dhip. The spread or kodal is used here is generally known as mati katar kursi. More and more fertile soil is added to this mada or central hip as a climbing herb of betel is growing up there. As a plant grows, it circulates the cone which is the charkathi- a structure built up on four sticks. Distance of mada to mada (the center point of one charkathi to another) would be of minimum 1.5 hands. Again, the distance from one another row would be 1.5 hands or a bit more. As the plant increases in length, it would circulate around the charkathi structure. New leaves are collected from the plant climbing over this charkathi. To save, these plants from direct heat, tips of the charkathis are joined by a single large bamboo or more than one tied up one after another. This bamboo may not be entire but halved into two shafts. When all the tips are connected by these elongated bamboo shafts, a rectangular structure is in form. This structure is then shaded with other bamboo strips and dry long grasses like kashia and elu grown on local riverbed sandy soil. Brown patches and strips could be found of betel leaves with the beginning

of pre-monsoon rains. One percent bordo mixture is to be applied on the plants. *Trichoderma veridii* and *Pseudomonas fluorescents* of 5 gram are advised to apply with cow dung and water emulsion of azadirachta cake (neem cake) for two days with a fifteen interval. Neem oil is also to be sprayed after consulting with the agronomists. Fruit trap is also used to control over insects. But application of neem and its products often with organic manure are the best ways of pest control and provide the plant more resistance power. Weeds inside and surrounding areas are to be cleaned up. Light and air to be passed in through the grass shade. Leaf extract of tobacco leaf extract can also be applied. Lime is often applied to control the soil acidity. But that is a pre-plantation process. Even the soil with lime and cow dung manure can be wrapped with a plastic sheet. In this way, soil treatment is done without direct contact with air. The sheet may be opened in every weekend and soaked with a little water and then again covered in the similar manner. This could continue for a month. Often paddy straws are added during this soil processing. Other pesticides could also be applied, but after but only ten days after the neem oil application. Now-a-days, betel leaf propagation in Dhandhinguri has been completely lost. In a few neighbouring villages, this is done but within boroj made up either of bamboo and concrete poles with similar shade including jute sticks.

An exclusive climbing gourd is garya or **dhundhul** that in young condition is sweet to eat. In later stage, this fruit internally becomes very much fibrous and used as alternative to sponge during bathing. It is a roadside by product but very important.

Cow dung and vermicompost are two important modes of manuring. In addition NPK is added in the soil. Ash and neem oil are important pesticides. Ash is locally produced. Potash and urea are added to the plants. In paddy cultivation, what are mostly applied to this area are 10:26 and potash. Jute is sowed in late autumn and within four months (120 days), it become prepared for fiber extract in early monsoon. Water of the early monsoon ponds are used to dip these fibrous stems and then in clean water flow of Haodanga is used to extract the inner fibers from the stem that turns it into a hollow stick or patkathi. Mancozeb, bavistine and microorganism *Trichoderma viride* water emulsion are used as pesticides and in order to fertile the soil.

Besides jute and paddy along with various types of vegetables in upland and dried pond bed, a

garden of **citrus** plants can be managed there by the side cow shade and social forestry of fruit-bamboo-medicine-wood yielding plants. A citrus plant generally starts yielding fruits from the second year, but fruits should be collected from the third year. If it is from a good cutting, fruits would come in the first year and that could be marketed from beginning. It could be a good source of income however varying on the basis of its quality, age, season, infection, number of plants in the garden, etc.

A seven Bigha of land could be utilized like this: three Bighas cabbage-brinjal, cauliflower-radish-leafy vegetable along with monsoon chilli and jhinga-karala system apart from ginger-turmeric-banana as upland; and at the same time, paddy and jute along with pluses in lowland on rest four Bighas. As the monsoon variety any hybrid swarna paddy along with local strains are cultivable followed by pulses like musur or kalai in late spring-winter-autumn and then jute for autumn to early monsoons completing the cropping year of the lowland overall. Monsoon chilli could provide a maximum profit of Rs 180/- per kilogram, whereas from four Bigha lowland rice and jute could give the yield of 40-50 maund and 10-12 maunnds respectively. If additional to this, further four Bighas are granted that would be best for bamboo and areca nut propagation. If the land amount is less than four Bighas, then paddy is better for cultivation along with half to one Bigha held for potato and ally cropping of ginger-turmeric. If the person goes to other work or leases seasonally his land to big landholder cultivating there as share cropper or even serves as an agricultural labourer, he can fallow his land or make it in use for alternative cultivation of mustard rather than costly pluses, wheat, etc. the person can also grow winter vegetables rather than winter paddy depending upon the nature of the soil. Traditionally, carrot and beat are commercially cultivated along with leafy vegetables like spinach, bathua and lafa in winter now followed by radish, cabbage, cauliflower, winter chilli and seedlings of brinjal. In the monsoon, this brinjal yields regularly apart from monsoon chilli, okra, arum and potol. Before that summer-monsoon crops mean only jute and monsoon paddy (amon). Masuri, paijam and chikon are some indigenous monsoon variety of paddies. Jaldhepa, buchi, pakri, dudhkolom and dharial are some other paddy variety. Winter paddy or boro is locally known as china rice. Gourd, potol and occasionally cucumber could be yielded twice a year and therefore yielding the crops throughout the year. In case of these twice

yielding crops and vegetables for the entire year, seeds are not chosen from the immediate harvest, but of the earlier season. This is a common thought that if the seeds are kept in storage for long, which would deteriorate the entire cropping system in successive periods. This is mostly applicable on radish and cabbage. Generally, a minimum of two to three times irrigation is needed each month for a crop in dry season.

More intensive cropping is also quite possible. Four types of potato could be grown along with dhensi and mustard-spinach set up. Again, mustard could be cultivated as side cropping with potol and citrus. Radish could be intercropped with alternative rows of potol. In that case, radish is to be planted at very closer distance (less than half hand gap) and radish row has to be raised high to avoid any type of rotting in the stem portion. Potol with a plant-to-plant distance of five hands forms the alternate row in-between two upraised radish rows. This row of potol also serves as the irrigation canal. Areca could be cultivated along with papaya and coconut. Similar alternative cultivation could also be applied to patches of cabbage, brinjal, coriander, spinach, fenugreek, dhensi and spinach (both cultivable also with mustard), radish and lafa, and potato cum other leafy vegetables. Pondsides are good for bananas, yam, ginger, turmeric, arum and types of bean plants on lattice even constructed on pond-side water. Cucumber in lowland could be cultivated with alternative patches of onion and garlic. This could be further accompanied with lafa alternative with other vegetables like red amaranth and amaranth (lalshak and dantashak). In riverside areas, jute and paddy are good for winter along with winter maize and wheat at the mid-height region and potato along with mustard and other leafy vegetables at the upland zone. Again lowland areas filled up with wastage compost of local hydrophytes of larger water bodies could be used for winter pumpkin singularly with regular weeding and support of a lattice.

People of Dhangdhinguri are really good in using their natural resources in terms of the grove and agriculture in different seasons.

Σ IK is the information gathered by local people close to nature and as a generationwise process that they could further improve by trial and error methods during their informal experiments outside the lab. That would be a kind of ethno-science and facts so far found on the basis of assumption are not scientifically proved but widely believed. They are preserved by adding them with fear, faith and belief system (cultural values and social norms). In this way, IK traits become non-functional and therefore stable. Often a phrase like religious laboratory of survival or the unwritten book of culture is used in this.

Σ The cognate of IK in response to social, economic, political and religious matters could be coined as the IKS.

Rajbanshis in Agriculture: Pilot study in Lachka-Baunibhuta

Baunibhita-Lachka is a fully rural area; it is an overlap of Naxalbari and Matigara developmental blocks. Lachka River is flowing in this area. The land is an upland region and origin of some local water flows. It is absolutely sub-Himalayan Terai region. Naxalbari and Matigara along with Kharibari and Phansidewa are the four blocks of Siliguri subdivision. This subdivision is also known as the Siliguri Terai and located within Mechi-Mahananda basin. Naxalbari and Kharibari blocks are adjacent with Mechi River along the Indo-Nepal international borderline. On the other hand, Matigara and Phansidewa blocks are associated with Mahananda-Balasan waterways. Matigara is associated with Siliguri Municipal Corporation (SMC) and neighbouring Jalpaiguri district (Rajganj block). Phansidewa has further shared international border with Panchagarh district of Bangladesh; this particular Indo-Bangladesh border is demarked by Mahananda River.

Balasan, Mechi and Mahananda are originated further north from Kurseong subdivision. This subdivision along with Darjeeling Sadar and Kalimpong subdivision are part of the Himalayas. These three Himalayan subdivisions are commonly treated as the Darjeeling hill. The latter along with Siliguri Terai subdivision together are treated as the Darjeeling district.

Darjeeling hill is actually the lower portion of Sikkim Himalaya where the Sikkim state is located. From north to south, we can have Sikkim Himalaya, Darjeeling hill, and Siliguri Terai. This is therefore a north-south continuation of Sikkim state and Darjeeling district of today.

Mechi-Mahananda basin of Siliguri Terai is extended further south in Thakurganj district of Bihar state of India. Both Siliguri subdivision and Thakurganj district share international border with Jhapa district of Nepal. These three regions at a time were known as the Morang. So, we could imagine a continuation of Sikkim and Morang.

So, this Baunibhita-Lachka pocket on Lachla Rivulet falls under the continuation of Sikkim Himalayas-Darjeeling hills-Siliguri Terai-Thakurganj (or Sikkim state-Morang). This Siliguri subdivision or Siliguri Terai or ancient Morang containing Baunibhita-Lachka pocket is situated within Nepal and Bangladesh as two independent countries westwards and eastwards respectively. Again, Siliguri subdivision and Jalpaiguri district also serve as the only link between mainland India and North East India. Siliguri subdivision is also crucial for road connectivity with Himalayan state Sikkim and Himalayan country of Bhutan with mainland India. There were many such roadways between mainland India and the set of North East India plus Bhutan. But, these all are now fallen into Bangladesh. So, extra emphasis has been given to one and only connectivity through Siliguri subdivision. It is also important for the connectivity with Sikkim. It is also on the way to reach Chumbi valley surrounded by Kalimpong , Sikkim, Bhutan and Tibet. Chumbi valley now falling under Tibet Autonomous Territory of China therefore further increases the importance of Siliguri subdivision. It is a crucial geo-political region. It is also a prime trade route. It is also connected directly with Bihar and Nepal. Phulbari is a land port for Indo-Bangladesh trade and situated at Rajganj block area of neighbouring Jalpaiguri. Many government establishments, military and paramilitary divisions, forest department, tea estates, Teesta canal and small scale power houses, peri-urban belt of SMC, new townships like Bairatishal and Upper Bagdogra, rururban areas, factories, rail stations, Bagdogra airport, university, hospital, colleges, schools and various private institutions are located in this area. Entire Siliguri subdivision falls under Siliguri Jalpaiguri Development Authority (SJDA). Which is why, this multiple connectivity provides various alternative opportunities to the local people and serves as the main cause of in-migration of so many people from within and outside the state. Many immigrants and emigrants are also akin to the place.

Till now there are peoples attached with settled agriculture and using indigenous knowledge (IK) stored inside the indigenous knowledge system (IKS) as their culture and cognate. IK is developed through generationwise accumulation of knowledge, informal experimentation, trial and error method, intimate understanding of nature. IKS is related to religious laboratory of survival, folk life and oral traditions. IKS illustrates how the traditional mode(s) of production organizes social, economic, political and religious institutions. Baunibhita-Lachka is not any exception to this.

Mech and Dhimal are two important indigenous communities of Siliguri subdivision with a concentration in Naxalbari block. Rajbanshis are also indigenous, but fall under Hindu caste groups. They are the traditional settled cultivators of this entire subdivision. Some sections of this Rajbanshis have converted into Islam and they are often treated as Nashya Seikh.

People here in Baunibhita-Lachka belong to different ethnic groups. They are Rajbanshis, Nepalis, Bengalis and Adivasis. Among the Adivasis, the most crucial are Munda, Oraon and Santhal (also Santals). People here could talk and understand one another languages and dialects. They can also talk in Hindi to some amount. Bengalis converse in Rajbanshi dialect and Rajbanshis also talk in Bengali. There is army camp in Lachka village. Baunibhita is close to Panthabari forest where again several factories, tea estates and army camps are situated nearby. This area has a sandy loamy texture and also an upland nature. Within Baunibhita, there fall Tarabari and Dhemal. Few Dhemals are still living in Dhemal who are traditionally pastoralists and staying in and around jungles of Terai region. Dhimals though have severely marginalized and Nepalis have growing number in Tarabari-Dhemal region, but the pastoral mode of production still exists in the region. Baunibhita falling under Naxalbari block put emphasis on this pastoralism. People belonging to any community wish to maintain cow. Adivasis used to raise piggery. Hens and ducks are available in this village area. As much as ten to twelve cows could be raised in a family. Cows are fed with grasses available in local ground. Also they are served with paddy straw and other nutrients. Cattle are however raised here for subsistence. Indigenous varieties are mostly available here and kept inside traditional cowsheds. One to two liter of milk is generally collected from each cow, which is very low in comparison to a jersey cross. Basically, the cow dung is tried into fuel cakes as there is only one supply

center of fuelwood in Baunibhita. Cattle are also raised by the army camps where each cow gives seven to ten liter of milk. Special grass is also propagated in the marshland used by the camps. Outsiders are not allowed to go inside the army areas; however army knows well about the local herdsmen.

University of North Bengal campus is very nearer to this Lachka. Local villagers often take lessons on how to cultivate mushroom, ornamental fishes, tea plantation, rubber plantation, social forestry, floriculture and medicinal plants.

High tension electric lines are passed through the Baunibhita-Lachka paddy fields. Local peasants are of opinion that the places around the electric posts could not yield much crop and even it could deliver some bad effects on the health of human and cattle. Which is why, the price value of such landscapes is bit lower than other areas. This electricity from Teesta water canal project is supplied to the factories situated at further interior region. Factories are mostly tea factory, trunk factory and hosiery factory.

Many people work as day labour in others' agricultural field and also as wage labour. Wage labourers are appointed by contractors. From road construction to building construction are different works where these labourers are deployed with different wage scale that might vary from Rs. 100-300/-.

Baunibhita has a primary healthcare center and also a primary school. School education is in Bengali medium. Pupils go to Upper Bagdogra and Bairatishal for high school education. In Tarabari, a junior secondary school up to class VIII has been built so far. There are other primary schools in Lachka. Missionaries have established schools next to the university campus. Some send their children in Army schools also. Pitch road has been so far constructed in this countryside that was not so good a decade ago. At that time, roads were built up of stone chips. Villagers used to go to their agricultural fields with traditional large hats that protected them from rains and heat waves. Herdsmen at that time spent whole of the day in the field with their cattle. They took rest in the shadow of bamboo bush and eat potatoes and yams.

Other alternative income sources are bamboo, wood yielding plants and areca. Bamboo is of two types. Bamboo with lesser diameter is used for fencing. Makla bamboo is thicker and used

in thatching purpose. Fences are also made up of dry areca leaves, dry sticks and jute sticks in a bamboo frame. At a time, there were big patches of bamboo bushes. Wood of kadam tree is used for domestic purposes. Some however raise teak plantation that are far more valuable. Logging of such plants needs letter from the village panchayet (local village-level governing body) and forest department.

Agricultural production is here low; therefore people have to go outside in search of job. Many are in carpentry and again involved in other factory works and construction business. Land is an important property here and sold to the outsiders as well as hand to hand among the localities. People are demanding for infrastructure in their villages and work in the sectors under various government schemes. There are constructions inside the army camps also (such as housing and water tanks). Land selling is another source of income here. A small scale tea plantation can be seen in New Lachka.

Baunibhita-Lachka region yields paddy at a time in the year. This is the monsoon paddy locally called as the Amon. Basically, Swarna variety is yielded here. Traditional variety like bhogdhan is seldom cultivated for self consumption. For a land of one bigha rise yield, two katha size of land is taken for seedlings. Seed amount varies from seven to eight Kg. It is better if the seeds are treated and set free from fungus. Carbendazim two grams are mixed up with one Kg paddy seed in 1.5 liter water for about ten to twelve hours. Seed treatment can also be done through Trichoderma viride. About four to five gram mold of this TV has to be added in 1.5 liter water for one Kg seed. The riverside zone or marshland with sandy-clayey soil is generally preferred for paddy seedlings. This is first ploughed well and weeding is done properly. It is leveled well by using a ladder and good if organic manure is added to this. In one katha land, three to four Kg vermicompost is good enough. Seeds are spread unevenly in the muddy soil of first monsoon. Seedlings come out quickly. Weeding is necessary here. Water should not stay in the nursery. Softness in the soil is necessary. If for any reason soil becomes dry, it would need regular drenching by water irrigation. Two to three inches level of water has to be maintained. Regular weeding is needed. Weeds are to be uprooted and burnt before flowers appear. Grasses have also to be removed or pasted by foot. NPK and organic manure are necessary here. For

seven to eight Kg paddy seeds in two katha nursery; what are needed to apply about 15 days before are four Kg single super phosphate and 1.5 Kg urea and one Kg murate of potash (along with six to eight Kg organic manure). In this case, brown spots or blight could appear on leaf. For procurement of this, neem cake could be applied. This is called khoira disease. Neem oil can also be sprayed on the leaves. If cow dung manure is added to the soil, then that should be nearly ten times higher than the vermicompost. Generally 50-60 Kg dung manure could be applied five days before as an alternative of vermicompost and NPK. Cow dung manure could cause rotting of the plant base. Two Kg Trichoderma viride could be again applied to this seed bed to get rid of this rotting due to this fungal infection. With growth, paddy seedlings are to be transplanted to new soil till they become saplings. Saplings are to be again transplanted in the main cropping land. Through sprayer Carbendazim could be applied one gram in one liter water solution on affected saplings a week ago before transplantation. Generally, SRI method of cultivation is followed here. Here, paddy seedlings are to be planted with 15 cm by 15 cm distance. In every point, two to three plants are generally sowed. After every eight to ten rows, there should be one row gap. That would permit the peasant to enter into his land and perform weeding easily. In this case also organic manure and NPK are more preferred now. Prior to this, dung manure was applied only. During preparation and leveling of the land, 25 Kg of Single Super Phosphate (SSP) along with half of half of nine Kg urea and 90 percent of total six Kg potash is to be applied. Saplings of a month age are then sowed in rows. Chemical herbicides within one week of sowing could be drenched to check the unnecessary weeds. Their range varies from 100-500 ml in 100 liter water solution for the whole one bigha land. Within 15 days after sowing, half of the 50 Kg vermicompost are to be added. After 30 days from sowing, rest half of the 50 Kg vermicompost along with rest half of nine Kg urea and ten percent of six Kg potash should be added. However, one Kg more potash could be applied here. For procurement from insect attack, one should apply neem cake here during application of urea and potash. Neem oil can also be sprayed on leaves. Neem oil could be applied in order to prevent the attacks of harmful insects. It is a good insecticide also. There are other insecticides also available in the market. Some other herbicides could also be applied in later stage.

Once, ash is used to check the insects. A rotten fruit like bel (ageal) is used as a fruit trap in the

ground. Sand from the riverside is used to control the growth of herbs in main cropping system. If still herbs appear, then they could be perished by foot and converted into organic substances. Paddy witting machine or single plough could be applied along the 15 inches gap in-between two rows. In paddy field or the footway stubbles (aal), medicinal herbs like thankuni or manboni often grow. In vest land, dandakalash and surjasisir grow here reluctantly. White variety of thankuni is too costly here and rare. Paddy-cum-fishing is however absent in Lachka-Baunibhita area.

In spring when the side growth or ears appears in paddy, blight causes sclerosis in hot humid climate. Affected paddy looks like straw. Here also Carbendazim or other recommended pesticides should be applied. Otherwise, the microbe would stop the side growth and reduce the production to about 25 to 30 percent. And this is the main problem in Lachka-Baunibhita pocket. Maximum production of Swarna per Bigha rises up to 10-14 Mounds against 16-18 Mound in Jalpaiguri and Cooch Behar.

Harvesting is done within late-Spring followed by thrashing, winnowing, sun treatment under clear winter sky, and storage in jute bags. These things are mainly performed within the courtyard and by women.

It is a general tendency here in Lachka-Baunibhita that the paddy land is fallowed for entire winter season. They do not cultivate any maize or wheat or pulses or potato or winter paddy that is usually known as boro. In this way, they destroy the lifecycle of the pests. Fallowing is here considered as a process of pest control and restoration of soil fertility. In this way, a peasant without much using Carbendazim can get an average of ten Maund of monsoon paddy as the net yield. The paddy straws are equally important. Dried paddy straws are treated as khor which is an important cattle fodder. Therefore the cropping system is here as such: monsoon paddy-fallowing cum cattle raring.

The paddy is for self consumption and sometimes the surplus amount is marketed. Bhogdhan is also cultivated in a patch and it is used during special occasion. This paddy grains may be golden or black in colour. The black bhogdhan is treated as kalo nunia or black nunia. Seldom, this bhogdhan is cultivated for commercial purpose and sold in the market at a higher price.

This price values depends on market. Bhogdhan is basically famous for its sweet essence.

Rajbanshis now go to rice mills to decoat this harvested paddy. The rice they get from the mill is without the nutritious cotyledon part. This is the khud and the decoated seed coat is known as bhusi. Both of these items are used in cattle fodder. Some Rajbanshis still prefer rice grains to be decoated in their traditional husking machine. That might be a wooden log or a foot-driven wooden paddle. By this wooden beam or paddle, paddy grains are beaten in an earthen hole and in this way through a controlled process, rice is husked. This type of husking process needs two persons- one involved in husking or paddling, whereas other putting in paddy and removing out rice from the hole. Many still prefer to pray to the husking machine and other agricultural tools before taking any initiative. During yearly worship Kali or Laxmi, both being Mother Goddesses and fertility cults, not only the Rajbanshis but all the Hindu and Adivasi community members used to pray to their cattle, cattle shed and agricultural implements. This is an annual occasion is late-Spring and within the winter thrashing and stock raising are made completed. Production of paddy in this way still remains the core of the Rajbanshi agrarian society and such annual festivals as the symbols of this production unit and cognate as well.

In Cooch Behar, I have found a specific custom where the peasants used to go in the paddy field at night during the Spring season. The male head of the family cuts a bunch of paddy and takes back this into home. They collect the paddy grains and make rice of it and consume the same. This is a tasting process. In case of indigenous varieties, they keep these grains in form of seeds. They do this before side growth in the form of ears initiates. They call it as Lokhir Dak. It is also worship to the Mother Goddess Laxmi. Laxmi is the Goddess of paddy. Laxmi is associated with the animate of owl that is called Laxmipencha or Pencha (owl) of Mother Laxmi. This bird is nocturnal and hunts rats that could cause harm to the ripen paddy grains. After harvesting, the remaining paddy grains fallen here and there as wastage is however collected by these rats and mice in their subterranean holes. Rat soil is a good preservative of paddy, however in these days this has no use. Paddy stock is usually kept in jute bags. In earlier days, these are stored in a huge basket made up of Makla bamboo thatches plastered with cow dung. Dry leaves of neem (margosa), mango, chilli pepper, tobacco, bel (ageal) and/or erenda

(life plant) are used as natural preservatives inside this dhaner gola or traditional storage system of paddy. Here in Lachka such storage systems used to be there, but now-a-days people with small pieces of lands and even nuclear families (separate hearth) are more using the jute bags.

In winter season, local Rajbanshis of Lachka-Baunibhita cultivate various vegetables but in their kitchen garden. They do not go to the crop field. They let the land for fallowing and grazing. In this way, they unintentionally and informally do pest control. This is a cost free technique of pest control. They get another benefit from doing so. Cattle in grazing land do not enter into the kitchen garden and in this way; the cost of fencing is reduced to a considerable amount. Rajbanshis also use joma or mukhuri to cover the mouth of their cattle. This is a small pocket that is tied up in the mouth of the cow. In this way, cattle could not destroy their kitchen garden. This mukhuri is basically made of bamboo strips and tied in the mouth with strong ropes. Animal loving organizations could protest against this type of behaviour with the cattle, but there are no other alternative ways. Cattle are not domesticated for commercial purpose only. They are treated as wealth and this consideration of cattle as one of the prime wealth is an indigenous concept of subsistent economy. Cattle breeding are performed at local level. Calves are not starved for extra income, rather considered as future assets. Various Vaishnava organizations are active in Lachka and Vaishnava sect in Hinduism is best known for cattle raring. This is directly linked up with the value for what the majority of Hindus avoid beef consumption. The cattle shed and feeding bowl are kept neat and clean. A cattle shed is situated just next to the house and close to hearth. Some Maithili Brahman families and other Bihari castes also live in nearby Bairatishal. These families used to raise buffalo, but this tendency is now lowering down. Cattle are bathed well with hose pipes. For that purpose, many use their tube wells at homestead. Cattle sheds are kept intact and constructed in such a manner so as to provide free passage for air and sunlight.

Both winter and monsoon vegetables are cultivated in due course. Along the winter vegetables, they take initiative steps for cultivation of monsoon vegetables. Similarly in spring when monsoon vegetables are showing a declining production, peasants take initiatives for winter production.

Jogesh Chandra Roy of Chhoto Lachla Jote in Lachka propagates this cabbage in completely

organic ways. He applies vermicompost that he used to produce on his own. He has two vermicompost chambers in his court guard. He has told me that if one applies only cow dung manure, it would be about ten times than the vermicompost. So, he prefers to apply vermicompost more. In vermiconpost, he has to add cow dung along with ashes of the dry weeds, rotten organic matters, paddy straws, food waste, dry leaves and so many things. There these things are converted into compost by using earthworms. He has further compared this organic cultivation with the slow but steady process and too indigenous and natural to be compared with Gandhism. He belongs to the Rajbanshi community. Jogesh (43) and his father Manindra Nath Roy (62) are renowned for small-scale farming. He has own many prizes at block level and subdivision stage in agriculture oriented quiz competitions. He has worked in medicinal plantation of the university also. His family is also invited in Jalpaiguri division for agricultural meet. He has told me that one can increase the size of the cabbage to a maximum of ten Kg, but for that special care is to be taken. The gap between plants has proportionately linked up with the size of the bud. A cabbage of 5 Kg size may have demand in hotels, hospitals and even jail. But, depending on market demand where most of the buyers now belong to nuclear families, they are producing cabbage of the size varying from 800 gram to one kilogram. He showed me that the leaves within the bud are much thicker than the hybrid quality. It takes more than seventy days, whereas in this time span one could deliver the vegetables to the market. He generally prefers the Bagdorga Haat (vegetable mart) twice in every week (Sunday and Thursday). Till the cabbage is not fully grown, he would sell palong (spinach) and lafa (lafa) regularly in the market. The reason he has told me behind the thicker leaves of the cabbage bud is only due to use organic manure. I have seen that local peasants feed their cows with these thicker leaves that usual buyer asks to remove them out. But this peasant of New Lachka is so close to nature that he further explains the reason to me. It is like a cell drum of a battery that has secured all the energy within the carbon. Bud leaves are green and can do photosynthesis and store the energy inside the food they prepare and store within the cells. This is the main cause for what the leaves look thicker; its food value and nutrients are much higher than the cheap hybrid cabbage cultivated by using chemical fertilizers only. A poor battery can not run long and extracts its acid. A mosquito can suck up the blood in a much easier way if the skin is comparatively thinner. A bladder can be used as an outer shield and

prevent external attacks. It is the stored food for the future plant. It is also like the medicine. Chemical fertilizers with excessive use and provide much yield, cheaper crop and attractive look. But eventually soil fertility here gets reduced. Such foods are not so natural and nutritious. Even they might contain any non-biodegradable toxic substance. It is like any express bus or train that could meet with an accident. He also yields gourd in summer-monsoon season. The inner portion of the gourd behaves like a womb and the moisture and nutritious portion there provides food to the seeds. So, concept of storage is a natural phenomenon (whether it is cabbage, gourd, coconut, fruits or the rat house).

Peasantry is probably the sector where on direct tax is held in India. One has just to pay the land revenue. Therefore, a rich man can also invest into this sector. Often a marginal peasant leases his land to a big farmer or plantation owner and can work as a wage labour or share cropper there. Inflation and price rise are creating such situations. Peasants are more emphasizing on alternative production systems. And among these, vegetable cultivation is the primmest associated with intercropping and mixed cropping. Jogesh Chandra Roy further states that there is another alternative of agricultural cooperative that could be run as a Self-Help Group (SHG). Even he gathers some youths of Baunibhita and Chhoto Lachka to build up a agro-based SHG. Such schemes can get fund under various government schemes like Swarnajayanti Swarojgar Yojna (SSY) that encourages unemployed youths to set up any self-employment organization. It is not like any public club. Wastage of money is strictly prohibited here. A person or a group has to open a bank account and deposit six thousand rupees and on the basis of that could get a lone of twenty four thousand rupees with lower interest rate. One could utilize this money in agriculture or a small piggery. This loan is however just an initiative. A loan of average one lakh rupees is good for set up of a poultry or piggery in a scientific way. Rajbanshis however do not rare rig here. Rather they are solely advocate for cattle like cow and poultry of duck. Duck could be raised in local ponds and ditches further useable for mud catfishes. Often trapa or jalsingara grows automatically in the pond. Thorn of trapa could however create wounds on the fishes. Ducks are also raised on Lachka rivulet looking just like a stream at Baunibhita area. SSY is good for the landless people. Wasting of money would make them defaulter and they could not access any further loan from any nationalized bank. The main problem here is of

irrigation. Here are small concrete embankments on the stream Lachka and there are some side canals also. But local peasants used to cut by-pass of these one fit embankments and which is why these have become quite useless. However, individual pump sets or in rent are available in this area. Electricity has also arrived in the village. A pump house is set inside the cropland of Jogesh and through tiny canals water could be supplied to a larger area.

Jogesh has further defined me the difference among some local terms defining the peasants. These terms are chasha, chashi and krishak. The first one is held for the entire peasant section. This chasa according to his own definition stands for the entire livelihood composed of nature, human and supernature. His statement is as follows “Ei Bishwabrahmander jatosob keetpatangadi evam pranadi jader upor kore asha tarai chasha”. It means that all the creatures of the universe expect on whom is the chasa. It is like a hymn that indicates to the entire creation whose integral part is the peasant, and on this peasantry depend a huge portion of this biodiversity. An agrarian system protects its ecosystem by virtue of feedbacks. This ecosystem indeed includes various microorganisms and insects coined by the term keetpatangadi. This also incorporates the entire flora and fauna of the nature and for them the term pranadi has been used so far. That biome also encompasses human beings irrespective of pre-agricultural, agricultural and post-agricultural performances. Therefore an ecosystem serves as a key factor for the entire social system.

Similarly, Jogesh defines me the meaning of Chashi. The latter is a person who is the key reason of the entire humanity and there lies another hymn “jader jonno amra benche aachhi tarai chashi”. A human society comprises of social, economic, political and religious institutions. From the aborigines to the westernized people all depend on these food growers who may be still using traditional mode of production or the modern one or even overlap of these two. Here, we can find out the application of the outcomes of informal practices by an agriculturist, his traditional knowledge accumulated generationwise, understanding of nature and some scientific explanation plus applications. But everyone has hope on these food growers. Still agriculture is based on the hope. That may be hope for disease free condition, hope for regular seasonal activities, hope for good yield, hope for overcoming pathogen attacks

and natural calamities. In this way, such proverbs or hymns automatically emerge out. These are also reflection of the cognate of Rajbanshi peasants where culture and religious beliefs are simultaneously involved. The month of November when the spring season ends and late-spring begins, dew is falling as a result of sudden fall of temperature but with humidity. That was the time of paddy harvest and sowing season of winter vegetables at nursery. Insects, rats and owls show increase in number. This is also the mating season of the insects. Fruit traps and other insecticides could not control this huge amount of insects. Many of these insects later cause harm to the vegetables like tomato and brinjal. Fruit borers are most harmful among these. Fire is set to attract these insects and destroy them to some extent. It is an indigenous way of pest control. This has been developed through informal experiment. This knowledge trait has attached to religious performances. During the worships of Laxmi and Kali in late spring, family head goes into the field and set fire at night. This religious sanction to that particular ethno-scientific practice keeps it a permanent practice at a particular time of yearly seasonal cycle. This is not only associated with worship of earliest paddy, paddy tasting, wishing of side growth or ears of the paddy, checking of the infection, and seed collection. This fire control of insects is practiced by many indigenous agricultural communities. It does not involve any insecticide. Again during the weather changing from winter to autumn, local Rajbanshis started collecting dry leaves and stems of deciduous trees. This region of Baunibhita and Lachka was too closer to Panthabari forest and there were patches of shorea forestry along with catechu plants. That was a mixed deciduous forest and therefore lots of dry leaves and stems were collected and either burnt into ashes or stored in a huge dig to convert into compost. Cow dung, vegetable waste and poultry by products used to add in the dig. This compost has sun dried throughout the winter, autumn and summer. Often this compost was developed in multilayer with inner sub-layers of paddy straws. Heat treatment is often given by setting fire to these paddy straws.

Then comes the monsoon season and this compost of is started applying into seed beds and agricultural fields for paddy, monsoon vegetables and sequential vegetables of the spring-winter. Bad smell therefore comes out from this compost heap. At that time, in every home Rajbanshis organizes worship to Satyanarayan. At that time, every house set fire on dhuna that they buy from the market. A sweet smell moves around the entire atmosphere. This is a

traditional fragrant and its burning produces the aroma. This also repels the pungent smell produced by microorganisms. However, the dumping of year wise organic waste and its compost are the best example of microbial activities by the people close to nature. This is also a good example of how the Rajbanshis could protect their indigenous knowledge by attaching these with folk life and religious beliefs. Jogesh again defines the meaning of krishok as the big farm owners who can be a non-cultivating owner, never directly participating in agricultural performances, might have involved in other works and hence possessing alternative ways of earning. There is another proverb like a hymn and that is “jader ache shokh tarai krishok”. Those who have enough surplus and the scope to perform for various informal experiments rather than just producing food and other agricultural products for self-consumption are falling under this category. These people have ambition, alternatives, surplus and thinking capability for certain new things. They are the best examples of country-town nexus, providing employments to the other people, initiating an entrepreneurial organization, applying scientific cultivation, investing equity in the agrarian production system and foremost, enough capital to overcome the loss in a much simpler way than a marginal peasant or tenant who depends more on others, more closer to nature and produces mostly for self-consumption rather providing opportunities to the other people. A krishok must be a well-established person and not a marginal or landless like a serf. He can depend on agriculture alone. He could do other non-agricultural works and perform white collar jobs. He should not be too marginal to search for other jobs. He could depend on himself and go by his own will. The situation should not be of subsistence type to say “nun ante panta furay”. It is a folk proverb that indicates to such a situation when the person has no excess capital and unable to even buy any other essential commodities like the salt; to buy a pinch of salt he has to go to sell his own food and as a result he could not cook the food with salt and when he succeeds to manage the salt he has no food to cook. It indicates to an extremely marginal condition. It is a necessity for the peasant to have at least some capital in hand and that is expressed by this phrase “poketey poisa thake”. It means when you have some money in your pocket. A krishok can raise a livestock at own cost. The situation would not be for any subsistence. Here, the peasant has some capital from his surplus production to raise these cattle. He could invest hundred rupees per day on a cattle to get a sixty rupees back with forty rupees net loss. He could feed five kilogram of good quality grasses and

paddy straw costing for twenty five rupees to a cattle in morning along with other nutrients and granules costing for twenty rupees more. Then the cattle is fed with similar meal at afternoon. So, the total cost for ninety rupees. Other additional cost can be calculated for ten rupees raising the total expenditure to hundred rupees. From that cattle he could get two liter milk on daily basis. If milk costs for thirty rupees per liter, then he could earn a sum total of sixty rupees from the cattle at end of the day. So, he has a forty rupees loss. But a krishok would still prefer to raise the cattle and spend his surplus gained from his agricultural production on this livestock. Folk peasants know so many phrases, myths and chants. They know these things with intimate understanding of nature and informal experiments by virtue of trial and error. They compile these information traits generation wise. In order to preserve these, they add them with their cultural values, religious beliefs and folk life. They make them integral part of their social system. These indigenous knowledge traits eventually become integral part of their cognition (indigenous knowledge system). This tradition has been continuing since the period of non-Brahmanism. Rajbanshis are now caste people in the agrarian rural structure. They have accessed to Brahmanism and also aware of scientific application, cash system, crop and cattle, pre-agrarian condition, biodiversity, ethno-medicines, Gandhism, post-independent India and alternatives like quasi-egalitarian Vaishnavism parallel with Islam and Christianity. Another proverb could be applied here and that would be “chena bamuner poitar dorkar hoi na”. There is no such need of Brahmanism in folk religion protecting a large portion of the traditional agrarian system. It is a say to alternative Brahmanism for the so called excluded categories in agrarian and other production units as these people are suffering from identity crises and so many oppressions in terms of social exclusion, stratification, and religious sanctions. Actually, in every stages of monsoon paddy cultivation, Rajbanshis organize folk religious performances: during sowing performance in monsoon, they participate in gochibuna; in spring season they perform the festivals like dhaner ful ana with expectation of good side growth in the form of ear; then lokhir dak associated with worship of Goddess Laxmi and setting fire or light trap for controlling the insects during the weather changing from spring to late-spring; dhan katar puja during the paddy harvest in post-spring; and finally, naya khoi indicating to processing of this paddy that is husked and eventually processed into siddha chal (rice), atop chal (rice), muri (puffed rice), chira (beaten rice), khoi (rice flakes), khud (rice dust), kuro (cotyledon), bhushi

(seed coat by product), and vapa pitha or vakka pitha (rice cake on steam by rice dust). Chira with card (dahi) is a local delicacy and served in every religious occasion as dahi-chura. In this post-spring Rajbanshis also organize khet-uthani festival symbolic to the paddy land fallowing throughout the entire winter, autumn and summer. They treat their land under direct sunbeam, dryness of winter, light raining of autumn and hot-humid weather of summer. This post-spring and winter seasons are crucial as major deities like Debi, Borodebi, Bishahari, Bhandanimata, Kali, Laxmi and Shiva are worshipped. Winter season is too cold here and people used to burn a small portion of forestland at a time getting piles of ashes. Ash is a good insecticide and again manure. This slash-and-burn type of performance as a part of shifting cultivation has now lost. But still now the Rajbanshis set fire in the widespread vegetation of bhait vegetation which is of the woody broadleaf bhait shrubs. That prevents their further spread in fallow land from the waste land. Burning of grasses and shrubs in this way destroys the eggs of insects and insects in dormancy in the ecosystem. It is a good way of pest control. Heat is generated also at night. In the first month of winter, Rajbanshis finally raise their stalks in the forms of paddy, processed items and paddy straw fodder. When it is completed, a feast is organized in the homestead where boiled rice (bhat) and rice cake (vapa pitha) are served to all with newly grown winter vegetables and local fishes. This is called pushuna similar to bihu festival in Assam and nabanna in Bengal. In autumn, Rajbanshis start preparing the compost manure for monsoon and next winter. They cultivate vegetables in upland kitchen garden and let their cattle to graze in the wide crop field. In that off season, they used to manufacture wooden plough from shorea wood. They used to pray to the shorea forestry or shalbon. This Panthabari forest is basically a dry mixed deciduous type of shorea forestry. There are patches of shalbon within university campus. In the Matigara block on the other side of River Balason, there is a Sukna forest under the Mahananda Wildlife Sanctuary. This forest is also composed of shorea plantation and a Shorea Park has been built up there for the tourists. The Bhujibani pocket where the Bagdogra airport is now located was also a shorea forestry. Many still now practice social forestry of shorea and teak. This natural worship with the cognate of keeping this shorea vegetation intact is known as worship of Shaleshwari Thakur. There is another occasion of worshipping the symbol of the herdsmen and that festival is best known as worshipping the cult of Rakhal Thakur. People also went at a time in this autumn within these forests in search of

edible foods that might be mushroom, plum, jungle berries, yam, green jackfruit, kamranga, leafy vegetables and ethno-medicines as well as small game like jungle fowl, rabbit and porcupine. Leopard, rhinoceros, elephants, deer, wild buffalo, bison and wild boars often come out of the forest and attack the forest villages or villages settled in river islands. These practices have now completely banned. However, people during this winter and autumn go to picnic spots that are spread throughout the Bangdogra-Naxalbari. Dhemaal or Panighatta or Doodhie surrounding Balasan River each is an excellent example of that. Near Doodhie or Dhdhia, there is the Himul co-operative dairy plant assisted by the state government. It falls in the Matigara block and on the other side of Balasan River. Many picnic parties go to the Himul area by Balasan River. This river is also a good source of boulders and sand used in construction purpose. This hunting-and-gathering festival was treated as bisau. Autumn is the season of fair and Rajbanshis pray to Shiva during Chorok, Vishnu in Gamira and Gorakhnath within the Nath sect. They also pray to Satyanarayan or Laxminarayan besides that in the monsoons. This is a pollution control technique. They keep their homestead clean, spread ash on kitchen garden, burn dhuna to check the pungent smell coming out from their decomposing manure plant. In this way they also pray to their homestead deities or Dham.

In the Lachka jote under Lachka (Matigara block) I have met with Kofur Chandra Singha indigenous to this land and belonging to this Rajbanshi people. He with his wife raised a Vishnu temple with cults of Jagannath, Radhakrishna and Shiva. The idols and their painting have been done by this aged couple. They at a time also involved in cultivation. Their son, Bireshwar Singha, is now at a job in neighbouring military services.

Father of Kofur Chandra was a renowned Vaishnava Wiseman. He was known as Sukur Chandra Brajabasi. However, Kofur is not a guru like his father and follows his master who has the main temple at Phulbari area of Rajganj block that was once covered under Baikunthapur forest. Baikunthapur literally means a place where Lord Vishnu resides and it is linked with the concept of heaven. This guru is known as Boydeb Brajabasi. This is similar to the name of Joydeb who in South Bengal was a famous poet and wrote several poems on Vaishnavism. Kofur Chandra has equal interest in Hindu sacred texts and the epics of Ramayana and Mahabharata. Jagannath is the symbol when Lord Krishna (one of the nine Avatars of Vishnu) went into the

jungle and forest dwellers started praying Him after making his wooden figurine). Those jungles were actually hidden transnational trade routes. Here, Jagannath is symbol for a social system beyond the caste with a cognate extended further from the agrarian social structure. Here are the indications of alternative economies like cattle and trade. Krishna was Himself from a herdsmen community known as Yadu. Local waterways are served as trade routes of orange fruits, silk, wool and ethno-medicines of high altitude Himalayas and Sino-Tibet plateau. Rivers are also worshipped and on specific days people go there and bathe there. Kafur has set up this Jagannatha temple inside a sacred bamboo groove. At a time, bamboo was needed for every instance of the folk life. The tradition of Jurabandha is clearly seen in that groove. Plants are worn up with Sari the traditional piece of cloth. Sari is worn up by women in various ways. In this way, people express their solidarity with nature and convey their gratitude to the living nature. This is absolutely a symbol of love and affection between an individual and the tree. This is a rather summer time festival. Kofur again organizes Rathjatra at local level within the village in the season of monsoon. This worship of Jagannath and Laxminarayan continues throughout the year, especially during autumn and summer-monsoon when villagers are involved in small scale production, repairing of homestead, carpentry, pastoralism, compost manufacture and social forestry.

Bhindi, jhinga, dhundhul and mukhi kochu are the monsoon vegetables, whereas cabbage and leafy vegetables are of the winter. The peasants here are primarily in favour of intercropping. For instance, if a peasant cultivates cabbage in one year, then in the next year he could try on tomato. Brinjal and cabbage mixed cropping is a common thing here.

Brinjal is gapped for 30 cm by 30 cm, whereas in the same field cabbage is propagated with a distance of two hands. Chilli pepper is not cultivated here in Naxalbari-Matigara zone with economic prospects. Cauliflower is also an important product here, but not as much as cabbage. Cabbage could be kept in kitchen garden for a longer period and harvested willfully by the producer. But, cauliflower one could not keep for a much longer period in the field and often it has to be harvested unwillingly. Cauliflower is like a ripened banana inflorescence; once it gets the maturity, it has to be collected and marketed. Its harvest does not depend on will of the peasant. Therefore, peasant has to market it at the current market price. But cabbage can be

harvested on the will of the peasant and he can market his product when there is a good pricing value in the market. Cabbage-brinjal mixed cropping could be further joined with the ally cropping of bathua or bethu. It is like a simple weed and grows reluctantly on the fertile soil of the kitchen garden. Locals believe that it is full of iron. They consume it and also sell in the market at an average price values of twenty rupees per kilogram. Cabbage is rather a long time product that could not be harvested on every week. Cabbage is the largest bud among the entire flora. Rajbanshis are more likely cultivate this using organic manure to increase its food value, whereas many others are targeting towards hybrid quality. Bay leaves could be grown in sandy soil near the embankments of the Balason River. Potato, radish and tomato are other important winter crops here in Lachka. In many homesteads often shim, bean and lau are cultivated on lattice. Similarly, kumra and chalkumra or panikumra also propagated in this region. Palm, plum, banana, mango and jackfruit are common plants here besides the bamboo grove. Dhenki or edible fern is collected from moist shadowed places. Arum bulbs are planted in rows and land is prepared by using spade. Bulbs are sowed maintaining half to one hand distance. Distance is maintained on the expected size. In-between two rows, there is a canal. The land is prepared in the first two weeks of autumn and harvesting could be done in monsoons. It depends on peasants' will. Women and children in off-time participate in this arum land preparation. Traditionally, they simply burn the grasses to prepare the land and destroy the germs in the soil. Soil treatment is necessary, as the cultivation ground so far selected is generally lowland, marshland or even seasonal water flow getting water in winter.

Jute is cultivated in nearby Rupsing jote; there at a time a huge water body was there that was used for both softening of jute fibers and fishing in traditional ways. Jute is yielded about seven maund from one bigha. Torsa or tita variety with shorter fibers is more common here. Its seeds could be preserved well in respect to proper manuring. Sona variety of jute is with longer fiber length and it is costly and expected more. Now, jute cultivation is suffering from land encroachment. Further south in Rajajhar-Saibhita area bordered with Turibari-Tarbandha region of Phansidewa block of the same Siliguri subdivision is better known for vegetable cultivation besides paddy and jute throughout the year. Here, many new things have been incorporated in the agrarian social structure. In these areas, the river is not Lachka but Buri Balasan initiated from the Panthabari forest. Quantity of vegetable yield is much higher here with moderate

livestock. Cabbage, mustered, different types of gourds, tomato, pea, beans, shim, potato, cauliflower, brinjal, pumpkin, mustard, lafa, bathua, bitter gourd, bottle gourd, toria, lady finger, arum, fern, methi, different amaranths, luffa, dhundhul, peas, yam and elephant foot are generally propagated in this zone. Maize is also planted along with traditional pulses like thakurlakai and common gram. Local variety of kaon is grown on its own. This is one type of millet and the grains could be consumed in the form of hotchpotch. Winter paddy and wheat are usually avoided. Chilli pepper is also grown at local stage. Land preparation for jute also begins in the autumn. Tea plantations are more prevalent in pockets of Rangapani-Siabhita. Organic manure preparation and areca nut propagation are more common in this Turibari-Tarbandha region. Rangapani-Saibhita is famous for vegetables and Rupsingh for paddy and jute. Vegetable diversity is rather more than Lachka-Baunibhita region where the actual mode of crop cultivation by the Rajbanshi peasants could be better noticed.

Informal Experiment on Tulaipanji Paddy Propagation in Mechi-Bataria river system

Tulaipanji is a local rice variety with great flavour and good taste. This paddy is indigenous to the Raiganj subdivision of Uttar Dinajpur district of North Bengal (administrative zone at northern portion of the state West Bengal). So, it is mostly propagated in fertile landscape on Mahananda-Tangan basin incorporating Kulik and Gamor tributaries also.

This river system of Raiganj subdivision is lower to the Bengal-Bihar borderland formed by Mahananda-Nagar basin. Of this basin, the Islampur subdivision has fallen into Uttar Dinajpur district and had a borderline with Bangladesh. The other side of Mahananda-Nagor basin has been fallen into Bihar and formed the Kishanganj district. This district and the Islampur subdivision together were parts of greater Purnea at pre-British times. Purnea still exists in as a district in Bihar. In this Mahananda-Nagor basin also Tulaipanji is used to be propagated, but it is also famous for other indigenous paddy variety namely the Bhogdhan along with banana,

jute, winter and monsoon vegetables, maize and wheat.

Upper to the Mahananda-Nagor is another basin area namely Mechi-Mahananda. This is shared by Jhapa district of Nepal Terai, Thakurganj district of Bihar and Siliguri subdivision. This foothill subdivision along with other three hilly subdivisions (so far included from Himalayan system like Sikkim and Bhutan) constitute Darjeeling district.

This entire system of Mahananda is separated from Teesta-Torsa river system by a ridge. Teesta-Torsa water bodies include Tibet plateau, Sikkim Himalayas and Kalimpong hills, Bhutan Himalayas, Bhutan foothills or Duars, Jalpaiguri and Cooch Behar of North Bengal, and eastern portion of Rangpur division of Bangladesh.

The ridge is constituted by Rajganj block of Jalpaiguri subdivision of Jalpaiguri district of North India (India), Haldibari block of Mekhliganj subdivision of Cooch Behar district of North India (India), western portion of Rangpur Division (Panchagarh, Nilphamari and Thakurgaon districts of Bangladesh), Chopra block and Goalpokhar block of Islampur subdivision of Uttar Dinajpur district (India). This entire region was commonly known as Varendrabhoom or Barindland. This ridge is further followed by Dinajpur highland that contains Dinajpur district of Rangpur division (Bangladesh), and few pockets of ancient Gaurvanga (collectively Uttar Dinajpur, Dakshin Dinajpur and Malda Dinajpur districts on Indian side). The rest portion of Gaurvanga-Rajshahi basically represents the marshland area.

So, to the east of this ridge of Barindland-Dinajpur, there are regions like above mentioned Teesta-Torsa and to the further east there are Assam, Meghalaya plateau, Brahmaputra valley, Brahmaputra-Jamuna mouth, entire Barak-Surma-Meghna river system and Indo-Bangladesh-Myanmar territories or Arakan hills. Tulaipanji is not propagated in these eastern and further eastern regions. It is exclusive to the Mahananda-Tangon and Mahananda-Nagor basins west to the Barindland-Dinajpur ridge. These basins are not so much flood prone in comparison to the marshland river-and-canal webbing at Malda (the Mahananda-Ganges basin). Atrai-Purnabhada river system of Dakshin Dinajpur is not connected to Mahananda River and Tulaipanji is not a crop of that place. Tulaipanji is neither cultivated in marshland areas of Rajshahi nor the

Gangetic delta further south. It is not any upland variety to be cultivated in Barindland or Dinajpur uplands. Nunia, Paijam and so many other varieties could rather be propagated there. Now the question is whether Tulaipanji paddy of Mahananda mid section could be yielded in Mechi-Mahananda region of Indo-Nepal portion! Krishna Roy belonging to the Rajbanshi community there in Mechi river area experimentally tries to cultivate this paddy variety. He is of 65 years old and stays in Kutia jote. This area belongs to Mechi River that is the natural boundary of India and Nepal. It is within the Dhakna jote of Naxalbari block area of Siliguri subdivision under Darjeeling district and watered by Bataria tributary of Mechi River. Other side of Mechi River is the Jhapa district of Nepal. Siliguri subdivision and Jhapa district at a time belonged to ancient Morang. Tharu and Dhimal were traditional residents of this land alongwith the agrarian Rajbanshis. Krishna told me that this region was less propagative in comparison to the lower Kharibari block where Mechi River meets with many more local streams like this Bataria. There the river expands and then enters into Thakurganj district of Bihar where it meets with the Mahananda from the other side. In Siliguri subdivision, Mechi and Mahananda are separated by an upland region which is mostly covered with forest and acts like the origin all the rivulets either falling into Mechi or Mahananda-Balasan. Important rivulets are Bataria and Khemchi (Naxalbari proper), Manjha (Hatighisha), Chenga (Atal), Tepu (Hetmuri-Singijhora), Hulia and Buri Balasan (Bagdogra) and Lachka (Gossainpur). Dumaria, Dul Dul and Mone are some other rivers so far originated. Bataria is originated from Suraj Bar forest and flows into Maniram and Dhakna jote. The small irrigation program on this river have caused higher yield of crop in the region. This is the actual foothill territory of Mirik area of Darjeeling-Kurseong hills of Darjeeling district. And at this region, Krishna Roy is trying to yield the Tulaipanji which is obviously an informal experiment and subject of trial and error. He has intimate understanding of nature and natural resources of the region. Once the place was densely covered up with bamboo bushes and agriculture was not profoundly practiced. Tribal groups raised their cattle and used the local grassland as pasture land. The landscape in tilt and therefore the water catching capability is too poor here. Still bamboo grooves are segmentarily scattered here and there. Betel nut and sugar cane can also be propagated in this area. Various leafy vegetables like lafa and spinach are reluctantly yielded in winter-autumn season. Pluses like kala dal or thakur kalai could be cultivated in this area but it would take a longer time and

yield is not so good all the time. Basically, monsoon paddy variety or amon was yielded yearly and harvested in late-spring with a winter stalk raising. Now, besides the amon the winter boro variety is grown up in a good amount on the basis of small scale irrigation projects. Maniram-Dhakna jote was once a corridor of elephant passage from India to Nepal by crossing the Mechi River. Now, such incidents no more take place. But, peasants here cultivate rapeseeds in winter and these are mustard, local mustard and rai. Jute is also cultivated where it is possible. About thirty years earlier, jute was cultivated in autumn-summer, but now alternative vegetables are more emphasized. Monsoon and winter rice varieties are namely swarna and china respectively. Pressure on land is increasing and local people are moving towards alternative jobs. Share cropping and day labour are two different aspects of peasantry. People are also associated with livestock like cattle and gottery. Small scale social forestry or “banashrijan” is also a character of this area and neighbourhood. In this situation, propagation of tulaipanji is a good experiment. Tulaipanji seeds are brought in from Raiganj. Along with swarna and bhogdhan, its seedbed is prepared and sowed in the same landscape into patches. Paddy rows are prepared by transplanting the paddy saplings with two to three plants in each point. Monsoon rains are good for this and no excess water stands on the soil. Within spring, side growth in form of ears comes out and ensures extra yield. Cow dung and NPK are the common manure here. Weeding is necessary here. No other special management is taken over here without pest control or seed treatment as usual. So, it is clear that Bataria-Mechi foothill is capable of yielding Tulaipanji. Krishna Roy is an agriculturist and he has no other business to do. He and his wife have in their family one daughter and a son-in-law and four grandsons- one going to the college, another three in class IX, XI and VII. He has spent around Rs. 65,000/- in Gayaganga Hospital. Tulaipanji has a good demand in outside market. It is of export quality. This could add some new impetus in local agrarian economy and provide the local people some more expanding capability. I would like to mention the situation of some other agriculturists. Sharat Roy and his wife have only two cows, marginal crop land where they yield monsoon paddy and winter vegetables, go for share cropping and even day labour, catch local fishes occasionally, store paddy straw and raise the stalk. In such a situation this couple grow up their two children- younger daughter is in class X and elder son at college I year. Bhobesh Singh and his wife Phulmani have four daughters and the youngest son. They educate their children, despite of the

fact that they have no such landholding. They are marginal peasants and lease their small paddy land where they could pay their labour on share cropper besides day labour. Cattle are raised in share. Marshland, lowland, canal side regions and river side areas are good for any type of paddy. From ten katha land, about four to five mounds of swarna paddy could be yielded. Those who have moderate amount of land has less than ten Bighas and on average possesses four to five Bighas. These people could sell their excess amount of paddy and go for mixed and sequential vegetable cultivation with ally cropping. Cow dung is the main manure here. In one Bigha, it is expected that the yield of swarna would be ten to twelve mound. But natural calamities, untimely raining, pest attack and other reasons can result into crop failure with a lower yield of six maunds. Similarly, Parashuram Roy and his wife have a joint family with their son and daughter-in-law and two granddaughters and one grandson. This family has also turned into marginal farming. They besides other agricultural activities yield ginger and turmeric that has a good market. They rather use this for homely use. This family is also favouring alternative economic earning sources. Dobulal Singh is an aged person and has four sons. Krishna Prasad Singh is a mechanic and deal with various types of batteries. Sushil Singh is a driver of police jeep. Biswajeet Singh is now working in Nepal's capital Katmandu. Purna Singh rather takes care of his father Dobulal Singh and respects him so much. Purna Singh is an agriculturist and has four children. Of these four, the elder daughter has given married and the younger one is in class XII; whereas younger son is again in class XII and elder son has a shop with other additional works. Dobulal in this way has a grand granddaughter who is just in primary school. It is a myth that Rajbanshis are in a general sense trusty and truthful. They do not usually cheat others and this is one of the reason to feel proud in countryside area with traditional values intact. But they now understand the necessity of trade and commerce. Monsoon paddy of swarna type and winter paddy in irrigated land could be simultaneously yielded along with indigenous paddy varieties like Bhogdhan and the foremost Tulaipanji.

This upland region between Mechi and Mahananda is shared by the four developmental blocks of the Siliguri subdivision. This is a good destination of establishing tea estate and silk cultivation. Besides Suraj bar, there are other forests like Panthabari and Dalkajhar forests under Naxalbari forestry and Tukriajhar forest within Phansidewa. Taipu or Tepu River is

initiated from Dalkajhar forest which then directly enters into the Sanyasithan-Mahideb as a part of Phansidewa block. This is a tea garden area and known for certain monk agitation about more than two hundred years ago. It then enters into Kestopur and Choupukuria where some vegetable and rice is yielded in a tea garden surrounding situation. This is close to Singijhora and Tepu tea garden areas as well as Panaulla-Halal hamlet. Next is Gangaram which is continuous with Hetmuri and falling under tea belt region. In Madhabbhita and Farabari area there this Tepu River comes out from jungle and tea gardens to meet into Chenga River where Rajbanshi and non-Rajbanshis are found again in doing agriculture. This Chenga River moves then into Haribhita which shows a bit wavy landscape and maize could be grown up there. In Haribhita region, Chenga again meets with Manjha River.

Manjha River is again famous for another reason and that is the betel leaves. Manjha is originated from Huchai Mallick, Pataram and Chhoto Ganj. This is just lower to Mir Jungle areas. Traditional Dhimals used to stay in this region, graze their cattle, conduct slash-and-burn cultivation and collect forest produce. Dhimals use Mallick as their surname. Singha Rajbanshis in this region cultivate paddy using traditional bullock-plough and traditional implements. Non-Rajbanshis and Bihari milkmen are concentrated in this region. High quality of cow dung compost is produced here that have the use in betel cultivation. Here, Manjha River is spread throughout the Fakna, Sebdala and Budhkaran on one hand as well as Bir Singh, Maha Singh and Maghal Singh on the other.

Tea gardens are also there with Adivasi and Nepali populations. Hatighisha is the next place where these cow dung compost is used in betel leaf production. Many Bengali people also involved in this betel production and actually they have taken this industry under their control. After crossing the tea gardens, bamboo bushes, local crop fields and betel propagation units; this Manjha enters into Tharubhita that belongs to Kharibari block. In Hatighisha-Tharubhita area, still few Tharus are living. Thereafter the river again breaks down producing an inland like area and enters into Phansidewa block. This inland formed by Manjha proper and Choeati distributary falls under Fakirdwip-Kuchia areas further expanding into Tentulguri-Haribhita and Dandarjhar-Kadubhita respectively. Manjha proper at this Haribhita region falls into Changa River which is from Madhabbhita-Farabari where it has already met with Taipu River. This

joint flow of Manjha proper, Changa and Taipu rivers from Haribhita spreads lower into Faudigachh, Ambari, Dhambhita, Bhattagachh and Dhaknagachh. Choeati as the other distributary from Manjha River from Dandarjhar-Kadubhita flows similarly into Bhattagachh and Dhaknagachh and meets there with Manjha-Chenga-Taipu common flow. In this way, the inland formed in Fakirdwip completes into way and eventually enters into Bihar state. This Bengal-Bihar checkpoint is less famous and known as the Ambari border.

Here, in this inland area we could found Bihari speaking people, many Adivasi communities, few Bengalis and Nepalis among the non-Rajbanshis. Bananas are grown here in reluctantly. Land becomes suddenly flat here after the Haribhita region. This is a real paddy field and pond side region. Ponds are used for fishing and agriculture is the economic backbone here. Dry banana fruit flakes were once used as substitute of salt. Temperature is suddenly increased and sun beams are direct here; this could be felt easily. This is in a true sense the Mechi-Mahananda basin. Otherwise, the upper portion of this inland of Manjha-Chenga-Taipu and Choeati is also known for arum, other yams, potato, tomato, brinjal, leafy vegetables, spinach, cabbage, cauliflower, rapeseeds, chilli, onion, beet, carrot, pumpkin, ginger, turmeric, garlic, beans, gourd, bottle gourd, bitter gourd, snake gourd, toria, lady's finger, potol, common fruits, papaya, areca, lemon and even pulses. Slope areas are good for maize or bhutta or makoi and in winter if cultivated properly wheat could also be grown here. This entire set of rivers from Dalkajhar forest and Mir Jungle-Huchai Mallick area is again separated with Bataria River from Suraj bar forest. They are separated by the Tukria Jhar forest which is a small hillock and a common vegetation of shorea plants. Forest department supplies various types of saplings from there. It is again associated with a silk cultivation centre. It is watered by locally originated Dumria, Dul Dul and Khemchi rivers. Budaganj is situated on this upland and get into there from Naxalbari proper, one has to cross all the three rivers. From Buraganj, one could also reach into Uttam Chander Hat (Naxalbari block), Tharubhita (Naxalbari block), Haribhita (Phansidewa block), Kharibari (Kharibari block) and Phulbari (Kharibari block). Kharibari, Phulbari and Buraganj again form a fertile triangle aside of tea estates and small scale tea gardens. All types of vegetables, gourds, pumpkin, cabbage and cauliflower, berry fruits, paddy, mustard and to some amount jute, pulses, maize, cane, yam, fruit plants, bananas,

ginger-turmeric and beans are grown here. A side branch out of Khemchi serves water here. Bagha is the most fertile place of this region that however once also known for bamboo grooves, cane plantation, grasses, indigenous millets, livestock and khari stick. Bagha is therefore situated within two branches of Khemchi River surrounding Kharibari proper. A place named as Sonachandi or Sonachalani is also there. It is also a border with Bihar. It is believed that like Balasan-Mahananda, this Khemchi mouth once brought fine gold with its sand. But this is now only a myth and nothing more than that. In this way, Tukrijhar forest and Khemchi river isolates Bataria with Chenga and its tributaries. Bataria-Mechi, Khemchi and Chenga all give rise to fertile landscape in Kharibari block. Bataria-Mechi in Kharibari block is definitely more fertile than that in the Maniram-Dhakna jote area of Naxalbari block directly at the foothills. The successful experimentation of Tulaipanji rice propagation there by Krishna Roy along with Bhogdhan and Swarna is a definite proof that the entire region is cultivable for this new variety.

Notably, this Naxalbari-Kharibari area along the Jhapa district of Nepal was commonly treated as the eastern Morang at a time. Increase in banana plantation for commercial purpose is a growing tendency among the peasants in Bataria-Mechi system in the Kharibari block as it approaches towards Debiganj border with Bihar. Soil at upside is sandy-loamy and at this lower portion clayey and black. In Bihar, it is has rather a grayish texture and dry in nature. Banana plantation is common in Bihar similar to the Litchi at sub-Himalayan Bihar, mangoes in Malda and dwarf guava varieties at vegetable grounds in Uttar Pradesh. However, Rajbanshis along with Mech, Tharu and Dhimal once have a larger concentration in Jhapa. Rajbanshis of Jhapa are commonly known as the Jhapali Rajbanshis. Now, they are dominated by Nepalis coming down from the high latitudes of Nepal Himalayas. Two different gateways are there to enter into the Jhapa district from Kharibari block and these are Panitanki-Kakarbhitta and Birtamore-Bhadrapur. Like Siliguri Municipal Corporation and Bagdorga airport at Siliguri subdivision, there are Chandraguri district town in Jhapa and a airport at Bhadrapur. About twenty Kg goods can be carried out by a person in the flight to Katmandu. Nepal domestic airlines provide this service. Jhapa people generally treat Bhadrapur as being too Indian. Electricity problem is a major issue there. In joint venture, a garment factory was established in Bhadrapur few years

back by a South Indian, but this plant providing jobs to many has now been shut down. Bhadrapur is a calm and quiet place. Nepal has now been converted from a Hindu Kingdom to democratic country. Identity is a major issue there. A few years ago ultra-left movement was a serious issue there. Indian goods are expensive than any Chinese good. It happens because of taxation. Rajbanshis there in Jhapa do cultivate chilli, areca, gram, other pulses and turmeric. Power cut is a serious problem there and therefore no major industry could develop in the region. Rice mills and grinding factories are however spread over there. This is quite common with the situation of Dakshin Dinajpur district of North Bengal. Marwaris and Biharis are staying there as business communities. Maithilis are also spread over there as they cultivate and raise livestock. Rajbiraj is another important town over there. Besides Jhapa, there are Biratnagar and Morang districts where Mech and Tharu have higher concentration in respect to Jhapa. In Nepal also, the Rajbanshis are aware of their identity as they have established there an organization of “Rajbanshi Bhasha Prachar Samiti”. Rajbanshi films are also being made. Poonam Rajbanshi is a Rajbanshi actress over there and her father Purna Singha Rajbanshi is the president of the Rajbanshi organization. A few Bengalis are also living there. Most of them are with surnames like Ghosh, Pal, Mondal and Das. People of Jhapa come to Siliguri to avail Indian goods, modern medical facilities and for going into different parts of Indian territories. Ghosh is amongst the earliest Bengali Hindu caste reaching Morang of either side of the border. They are basically Vaishnavas and raise their cattle which is similar to many of the Rajbanshis, Dhimals and even Tharus. Tharus might have any link to the Subbas or Limbus of the Himalayas specialist of Cinchona plantation used to cure malaria. This region was a malaria prone zone and crows and other birds died out of epidemic. Nitai Rajbanshi of Maheshpur is a ethno-medicine practitioner which is commonly known as Hathkuta. It is his indigenous knowledge traits of hidden type that he would only transfer to his eldest son. Females used to make traditional clothes from jute fibers. Jute ropes prepared by the local Rajbanshis have a great demand in entire Jhapa and their areca nuts are also supplied in India. Jhapali Rajbanshi males paint their homestead with natural dyes. Creepers, climbers, leaf and flower, peacock and goose are various figurines. They keep their homestead very neat and clean. They time to time plaster their earthen houses with cow dung emulsion. They believe in establishing “meet” or close friend between two boys or two girls who could share all the information between them.

They serve tea, betel and areca to their invitees. Restaurants and pubs are available everywhere in Nepal and their number is more than fast food stations. Nepal is surrounded by lands from all the sides without any direct inland railway facility and there is no possibility of having a sea port. Therefore, this country on transnational trade route has to depend on other countries like India and China. Poor transportation is another problem. People pray to cow, but to meet energy requirements could eat meat of goat, sheep, fowl, duck, goru (gaur or mithun) and pork. Chicken items and meat are mostly favored there in Nepal. Rajbanshis however traditionally foothill dwellers and they in non-vegetable items eat fish, duck, sheep and goat. In that they often show reciprocity. They believe in traditional political system on village level by the elders and self-sufficiency of the villages. They have now got citizenship of Nepal and could access various government facilities. Rich persons also keen to keep their culture however intact. At a time, these people in joint extended families possessed immense wealth and eat and drink in silver utensils. They domesticated elephants and behave like horse riders. The situation has been changed, but these able bodied people are trying hard to get alternative and step into the present politico-economic situation. Women seldom go into the field for cultivation purpose. They never do any job like servant or housemaid to outside people. They go to the grinding mills for vakka or paddy dust, pulse dust and turmeric dust. They eat food with home made turmeric and never buy it from outside market. In every kitchen garden, they cultivate this turmeric and ginger. Like card and beaten rice favoured in North Bengal, Rajbanshis of Jhapa rather are fond of pulses and ghugni made of steamed pulses and turmeric powder. Ghugni is served with puri-a kind of pancake made of wheat. Here, the Rajbanshis rather cremated their dead and take vegetable diet for thirteen days and within this time period; they could not participate in any other socio-religious ceremonies of whatever be the type. Rajbanshis in Jhapa are best known for their honesty, bravery and labourous work. To many people however Rajbanshis are too lazy. In Naxalbari-Kharibari areas, the Rajbanshis fought against Sikkim, Bhutan and Nepal who invaded into the Morang or tried to do so. They provided their waste and fallow lands to other people who were basically immigrants or emigrants from East Bengal, East Pakistan, and Bangladesh. Those in-migrants by virtue of advanced agricultural techniques, have introduced crop diversity to this region rather depending only on some radish, potato, rice, pulses, jute and few vegetables. Elephant foot yam, elephant foot potato, air potato, sweet potato and such other

things also grow in Naxalbari. Floriculture of Gerbera is reported here in Naxalbari. Many raise various nurseries. Many Rajbanshis have become landless and they have to choose alternative jobs. Naxalbari movement has also altered their traditional mode of production on joint-extended families and jote system. Polygene was a character of wealthy Rajbanshis. Rajbanshis are merciful and friendly in nature. At a time they do not much believe in formal education. Students from big farmers' families learn upto the primary section. Students belonging to Jotdar families stay at hostel in Naxalbari Nandprasad High School established on a land given by Bihari person of this name. Primary school was at the Murgihati near the chicken market. They are fond of sweet items especially made from the cane and date juice cakes. These are supplied from other parts of Bengal. Local mode of transportation was bullock cart and small boats. This region has been connected with Purnea and Katihar since Darjeeling-Katihar Himalayan train service. Connection with Kolkata was kept intact through Siliguri, Jalpaiguri, Barindland, Dinajpur, Harding bridge and railways in the South Bengal delta. Many Adivasis from tea garden areas were also introduced by the Rajbanshis. Many Rajbanshis have found alternative jobs and some of them are rather too prestigious. Land selling and construction business are emerging economy in Naxalbari. It is a mixed society and that could be clearly seen in every weekly market at Naxalbari proper. There was a flood in 1968 that was highly devastating. Till then embankments and canals have been developed in Naxalbari areas. Emphases have been put on agriculture. Land reformation programme attracted the people in 1970s and '80s. A rural hospital is there in Naxalbari proper and it is the main center for malarial treatment and controlling other epidemics. Many people are still associated with social organizations. Such persons are Nathuram Biswas whose grandfather came from Chuadanga of then Nadia district. Panighatta tea estate was often the shelter of Englishmen and their native collaborators who conducted big and small game hunting in forests. Dipak Roy Choudhury at his age of thirty has established tea garden, maintains agrarian land, does business, and is a pharmacist and also a director of Rajbanshi songs and cinemas. He belongs to the former jotdar family of Hatidoba-Buraganj. His other relatives are in police, intelligence, banking, railways and teaching. Still local people admire this family. They have relatives in Haidarpara area in Siliguri town. It is after the name of Haidar who was also of his community. Rajbanshis belong to the Scheduled Caste by Indian constitution. There are demands of special protection to these indigenous

peoples and establishment of small scale industries and social forestry more in Naxalbari block for alternative job opportunities. In such a case, Tulaipanji is a good approach in this part of Morang.

Untimely Tobacco Cultivation- an example of informal experiment by the farmer

Tobacco is cultivated in Dinhata and Mathabhanga subdivisions of Cooch Behar district. Four types of tobacco varieties are there and these are Tongua, Motihari, Velengi, Godhra and Virgin. Latter is used in cigarette. Godhra is also known as Bihari leaf. It is used in making native form of chewing tobacco and this is known as khaini. Motihari is known as the best quality. Many new varieties are there developed by the tobacco research institute in the district. Tobacco is generally propagated by Rajbanshi and non-Rajbanshi people there in Cooch Behar. What is under experiment is that the vegetable oil could be extracted from this tobacco. Tobacco is basically planted in late spring. Excess fog can harm this plant and therefore in Duars or nearby region in direct sub-Himalayan region this is now experimentally planted and propagated in autumn. Seed bed is prepared in the last month of winter. That could be the first week of the last month of the winter. Within fifteen days, the seedlings are ready to be planted in the mainland. In two bigha land, a total of 8000-10000 plants could be planted. To have this number of seedlings, one need about one decimal land where one could sow the seeds. In seedbed, plants are propagated in a dense condition. Adequate organic manure is to be added in the seedbed that could be vermicompost or cow dung manure. Seed treatment is necessary. It is basically done with **Trichoderma viride** that is available in granular form in the market. Black granules of one to two grams in one to 1.5 liter water are adequate to treat these seeds. The seedbed is not to be shaded; as this is not monsoon. But often banana leaves are used to cover the seedbed. Seedbed would be devoid of any weed. Margosa oil could be sprayed in this to save the seedbed from pest attack. Pest free, weed free and fungus free conditions are to be maintained here with accuracy. The mainland soil is to be made up with one truck of cow dung that equals to 10 vans for two bighas. 250 Kg organic manure is also to be added that equals to

five and a half maunds. The soil is to be leveled. The soil should be very fine. Weeds are to be removed out of the mainland. With the manure, about four to six Kg of *Trichoderma viride* (TV) is to be added in the soil. That would then resist all the growth of fungus. Margosa oil solution, sand and ash could be applied to resist the pests and weeds. Irrigation is necessary here. Three times in a day water is to be given into the land. Water should not stand on the land. In the meantime, organic manure with a mixture of margosa cake solution could be applied to each plant. Cakes could be alternatively of any rapeseeds or other plant even tobacco itself. These plants have patricidal quality (-ies). Basically, upland areas are chosen for this cultivation. Prabhat Debnath has brought in seeds from Mathabhanga of CoochBehar to the water ridge upland of Rajganj block of Jalpaiguri. He is a Bengali caste, basically from Rangpur (the other side of Koch Bihar state now fallen ion Bangladesh). He is a van puller here and of age 61. He could fluently talk in local Rajbanshi language. He sends a longer time in agricultural work. He is tough labourious person and gives his labour to the crop field for a longer time. He is the permanent resident of Jomidarpara in Belacoba that is situated on precious Talma River. He also propagates different vegetables throughout the year in addition to rapeseeds, yams and lowland paddy also. This is an experiment here on whether this tobacco plant could be propagated in post-winter fog-free late-season of the sub-Himalayan region. He hopes that the yield would be moderately high, but could not say much about the profit margin. This is because of the reason that the leaves are ready within three months. And from these leaves, tobacco is prepared. When his plant is only 15 days old in the first month of autumn, in other places where cultivation is initiated in late-spring the leaves have been so far collected and processed to be marketed. So, when his product would be ready, there might be no market at all. He might on his own contact with the tobacco companies that again deploy contractual labours to make country cigar or biri. Once the broad leaves are collected, they are placed one after one in layers and stretched out. They are sun dried to little amount. Immediately, they are rolled in which is commonly known as *ati bandha* (verb). One roll or *ati* contains therefore many leaves. The moisture is still present in the leaves along with nutrients. Many rolls are in this way raised into a pile in dark. This is called the *gadi*. Before this *ati* and *gadi*, leaves are to be treated with available medicines in the market to set them free from insect attack. In this way, for two to three months this *gadi* is to be maintained in dark. In *gadi*, leaves get a brown

texture. Dark condition is necessary because light can make the leaves fragile and deteriorative. Water or moisture could not be applied. So, off season processing can cause some alternative problems also like a moist condition of summer and wet situation during the monsoon days. 100 grams of Tongva tobacco costs for 10-12 rupees in local market, but in off-season this price margin could be further lower down. Maximum labour has to be put on weeding and timely irrigation. Tobacco producers are not aware of applying micronutrients that they call in as the “vitamin”.

This informal experiment is done in a potato farm and in a season when in Rajganj block people are involved in producing bean, shim, hilly shim, potato, sweet red potato (ranga alu), papaya, pumpkin, turmeric, cabbage, olkopi, cauliflower, broccoli, radish, carrot, beat, ginger, mankochu (big arum), elephant foot potato (matia alu), and so forth. Panikouri-Belakoba region of Rajgunj block shows more crop diversity than Shikarpur and Mantadari. Shikarpur is by the Teesta River but on the right hand and good for tea gardens. This is close to the jungle area and by the side of Teesta water canal that has however increased the crop intensity in places like Mantadari and Shimurali there. Similarly, Kamarbhita of Binnaguri by Korotoa and Jugibhita by Panchanoi-Phuleshwari have a higher cropping intensity than other parts of Binnaguri a rururban extension of Siliguri Township. Both the rivers from Binnaguri make Mahjiali very fertile like Badalgachh-Mahanbhita and Mehendigachh-Balaigachh. Other places of this block are along the Indo-Bangladesh border are beautiful side seeing with good number of paddy fields, dry uplands, tea gardens, lowland jute fields, vegetable and potato yielding pockets. Canal side and rivers are good for local fishing. Women-self help groups and colour fish projects are there in this region. Kukurjan is an indigenous paddy to this region. Ditches are filled up by verenda, Nol and uplands with woody shrub phutki. Both are good quality fuel and phuki is often raised into dried piles as an alternative source to the fire wood and cow dung dry cakes. Bamboo bushes and palm trees are present here. Many social forestry and fruit plants are there. Some are also involved in floriculture. Some have taken initiative steps of farming instead of peasantry. Jute is also propagated in large amount in Teesta river areas. This block is also a destination place for the migratory birds from Eastern Europe, Russia, Siberia, western China, Central Asia, Kashmir and the Himalayas. Varieties of kingfishers, water birds, parrot,

woodpeckers and dove are common to this place. Farmers are also aware of cane cultivation as well as aware of using of modern machinery such as pump set, tractor, power tillage, zero tillage machine, drum seeder, paddy ripper, cone weeder, etc. In the monsoons, chilli and potol could be yielded; but main crops here are as usual jhinga and dherosh. Jackal, fox, wild cats, water cats, bham, wild dogs, wolf, bear, leopard, elephant, bison, wild boar, rhino, water buffalo, wild buffalo, rabbit, grass land, porcupine, snakes and local beji were fauna there whose number have now been severely decreased. Besides cow and hen, there are cultivated ducks and goats. Goats are fed up with jackfruit leaves and dried-up pond base weeds. That increase the milk amount besides gandal leaves for all cattle. Goat dung and urine are strong manure. Sheep variety of Garol could be raised here. This place is also good in local rapeseeds and pulses, but not for winter rice, wheat, burly and maize. The reasons are low level in canal water and less knowledge about the micronutrients like boron, zinc, copper, magnesium, manganese and sulfurs here. Rajganj block could be an ideal place for citrus planted that could be expected for vegetative growth. This type of propagation is performed with proper cutting. On a stem portion of the shrub, a place is cut off partially and that cut mark is plastered with cow dung and tightly tied up with a jute piece and regularly watered. When roots come out of the cut vegetative mark; from some lower portion less than one finger length, the twig is cut off and planted. Cutting would increase yielding of citrus fruit. However, citrus cancer is a disease of the plant where unusual shedding of fruits is common. Copper and chloride in the form of copper oxy chloride could be sprayed as an immediate cure. Tomato and Brinjal are other two important vegetables of winter. Cow dung manure, boron spray with margosa oil (agronim solution), NPK of 10:26 type, adhesive manuring, organic manure like vermicompost, water weeds, neem or mustard cakes could be applied especially in the case of tomato planted in the main land with a one by one hand distance. Fruit trap and light trap are often suggested to apply to naturally regulate the fruit boarders in cases of brinjal and tomato. Boron spray could give similar size five or more tomatoes from each cluster. Lime could also be applied as that could prevent cracks in the fruit in summertime. Dry pondside and pond bases are used in winter to planr arum bulbs. Floriculture is also interest of many. Margosa cake, boiled tea leaves, bone dust, mustard cake and tobacco cakes are essential in floriculture. Tobacco dust with kerosin is good for bitter gourd that should not be cultivated along with the other gourds. Flower plants

yield well when tobacco is applied on this. Using cow dung and organic manure proportionate to land size, the main land (weed free) is prepared. Saplings are planted in a frame of one hand by one hand distance. Bone dust, ash and different cakes are then applied. In this, tobacco cake prepared from its leaves and stem water emulsion. Winter season is the time for rose and many such flowers. Moisture free condition with cold atmosphere between late spring and the autumn season with moderate temperature are good for this. Irrigation is needed in every week with proper system of drainage. Weeding and control of the pests are main challenges. Often hormones are sprayed along with micro nutrients for extra yield. Good yield could provide four times profit in comparison to the invested amount. Other yams are also common to the region. Fine bamboo, nol bamboo, makla bamboo, cane and sugar cane were once covered the place that again served as a common residence of snakes, rats and numerous small birds. However, if this untimely tobacco propagation gets success in Rajganj, that would be added into the local agrarian economy and also provide some additional assistance through alternative ways.

Strawberry Cultivation

Strawberry cultivation is not common in plains of North Bengal. Some households are propagating this plant experimentally in garden pots. Such incident I have met with in an agricultural workshop during the Jalpesh autumn festival in Mainaguri block and the sample was from Pantapara Seshbati. Obviously, that was an informal experiment by trial and error method. The plant bore blue and white flowers with very small strawberry fruits. I have also met with such fruits yielded in bushes of Siliguri suburb in foothill region of Darjeeling region. Strawberry is not too tasty here but sour in taste. It is generally grown in upland areas where water could not stand for long. It definitely needs irrigation and water drainage system. It definitely needs further manuring. This may be application of vermicompost, cow dung and margosa cake. Organic control of diseases during seed treatment and manure application are important. In Hamiltonganj area of Kalchini block in Duars region of Jalpaiguri district, there I

have also met with frequent cultivation of this strawberry during October-December that is going to be continued till March. Many people from Jalpaiguri, especially Duars region go for job in Maharashtra state of Deccan India which is the core area for strawberry (besides Himalayan pockets). Strawberry should be grown in rows with equal plant-to-plant distance maintaining some height. Therefore, in-between two rows, there is a canal used for irrigation and drainage purpose. In each point, maximum three plants could be planted. Besides organic manure, chemical fertilizers could also be applied in controlled way. Regular ploughing, irrigations and manuring are done. Weeding is essential and for that ploughing is usually done as much as ten times. First irrigation is to be done within 10 days of sowing. Vermicompost as organic manure is to be applied after 15 days and again after one month. From the second month, it is to be applied in every week. Multiple harvesting is possible here. Gradually, the yields decrease in quantity and give lower market value. There is lot to do for strawberry cultivation in North Bengal. How much fertilizer, how many times irrigation, and what amount of yield are different questions related to this strawberry cultivation. These are to be sorted out. Rajbanshis could also take it experimentally. But one thing is definite that without proper care, fruit quality and size are not going to be increased. Recently, from a local newspaper, I have come to know that strawberry in small pots are being cultivated in the homestead by Animesh Mitra of Sirishtala at Jalpaiguri Town where the seeds have been brought in from Kalyani (Nadia district of southern West Bengal) in 2009 and mosquito net is used to prevent attacks of termites and other pests (Uttar Bbanga Sambad, a local news daily, dated 19-03-2013). In this way, I can guess that probably, in various pockets of southern West Bengal, strawberry is being grown up by peasants. It has good demand in Hotels and Restaurants. North Bengal, especially Terai and Duars are two other tourists' destinations besides the hill stations. So, Tourism and Hotel industry have a role to play in local economy. Strawberry can be a subsidiary to this. Rajbanshis can also take this opportunity.

Tomato cultivation in North Haldibari

Entire Haldibari block under Mekhliganj subdivision of Cooch Behar district is famous for tomato propagation. Tomato is now growing throughout the whole year. Tomato is basically a upland crop. It has grown reluctantly by the roadside of Haldibari-Boalmari extended upto Teesta river bank. After paddy harvesting and other post-harvesting processes of Spring-Late Spring (Fall season); along with many Late Spring and Winter vegetables and mustard, tomato is grown reluctantly throughout the season of Autumn and Summer. It needs timely irrigation, but not heavy rains causing rotten fruits. Peasants here use organic manure and micro-nutrients, which yields four to six tomatoes in each bunch. At a time, a plant can bear thirty or more tomatoes. Besides cow dung manure and vermiconpost, peasants here apply NPK (10:26:26) and spray boron directly or agroneem (margosa solution) in recommended dose. Regular weeding is necessary. Plant to plant distance is about one hand and they are propagated in rows. Rows are at some height than the drains in-between. Drains serve for both irrigation and drainage. Fruit borers cause lot of harm to the fruits. Flowers often shed off untimely and as the summer comes, they started to breaking down. These are the main problems of tomato cultivation. Otherwise, there are no such problems in this cropping. Hybrid varieties, proper land preparation by ploughing and tilling, timely irrigation, and regular manuring with boron, planofix and agronim are essential in this. Saplings could be produced in nursery or seeds could be directly planted in the main crop land. Plants are tied up with a bamboo stick for an extra support when fruits are coming into. Often the entire row is tied up with ropes together.

Some modern techniques that have been absorbed by the agricultural knowledge system regarding mode of production of vegetables: lime application to reduce the acidity in soil; application of carbendazim fungicide and Trichoderma viride for seed treatment against fungal infection; land preparation by ploughing followed by tilling and leveling with ladder; application of manure with Trichoderma viride along with other organic substances like Pseudomonas and other fluorescence micro-organisms; cultivation in rows, drains for both irrigation and drainage; application of mancozeb for chemical weeding, application of planofix (NAA) (15 ml in a 15 litre water tank) to reduce uneven shedding off of flowers, application of boron or zinc one gram and half gram respectively in one litre warm water applied after cooling down for the same purpose;

application of fungicides like bavistin, captan, carbendazim and rogor; application of ash and agronim to prevent fruit borers; application fruit trap and pheromone trap to resist flies that would hatch their eggs on the fruits and maggot from there boring into the ripening fruits (otherwise usage of various recommended pesticides for helicoverpa and spodoptera and their eggs, which is costly); removal and subsequent burning of the ripen crop and its part; application urea and murate of potash along with agronim to sort out the problems due to nitrogen and potash deficiency that cause browning and yellowing of the leaves respectively; regular irrigation; if necessary, timely pruning; hand weeding and additional hand ploughing along the rows, and multiple harvesting.

Sacred Bathing in Autumn - A Short Note

I was at Patharghata Gram Panchyate GP (village governing body) under Matigara Police Station in Siliguri subdivision of Darjeeling district (08-04-2013). The entire region is located in Terai region (Himalaya foothill) and close to Sukna forest. It is well communicated with Dagapur-Sukna national Highway NH 55 through Baroghoria; NH 31 from Matigara; and Himul-Pamkhabari-Kurseong road by Khopalasi-Khaprail. The region has three important locations namely, Patharghata, Rajpura, Dhukuria commonly known as Gaucharan. Throughout the entire winter-summer season, there is no boro or aush cultivation; only a few amon is cultivated in monsoon. Vegetables like Panikumra, pumpkin, bottle guard, some leafy vegetables and cabbage/cauliflower are cultivated along with some monsoon vegetables in kitchen-garden. People are using these connectivities for alternative jobs. major water stream is Chamta with its tributaries that remain dry in winter season. However, Chamta bears water for whole of the year and flows south-east in direction. In Mota jote area, very much in proximity to Baroghoria bridge, it for a while changes its direction northwards. Local Rajbanshis in late autumn go there and worship the stream for about two days and perform bathing that they call Baruni Sinan This is frequently practiced in villages of Jalpaiguri-CoochBehar, but only the single case for Siliguri subdivision. Whatever the other religious causes, this worship is

connected with hope of early showers in April happening in North east India and North Bengal. Peasants there cultivate their crops in monsoon and fallow the land in rest part of the year. This practice is an indicator that this time for early raining and monsoon would soon come after the humid summer. People here rare cattle, duck and even hens. Nichintipur TE is also there causing settlement of Adivasis, a few Nepalis and others. Bengali speaking people are also here. Animal husbandry is an alternative economy to the place. People often depend on ponds, though facilities like drinking water, rural electrification, schooling, rural roadways and health centers have reached to the place. Another interesting feature here is the brick industry here which is singular in the entire Siliguri subdivision. Six chimneys I have found there. Of these, one is still functioning and trucks carrying them to other places. People still are attached to their traditional beliefs like praying at thans, worship of Kali Mother cult, stones, trees, and Shiva. The latter is commonly prayed and the praying ground is generally fenced. Cult of Shiva, Baruni Sinan, cattle, brick industry and tea garden are feature of this Patharghata GP. New establishments like Buddhist Gompha, Buddhist colonies, reserve force battalion, residential schools and hostels besides dairy, food processing unit, automobile showrooms, real estate, construction business, law institute, Gyanjyoti college, engineering and management college could be noticed. In smaller number over there, off-shops of local liquor piggery, local fishing, weekly markets, sub-ways fast food centers, church, and bamboo bushes are other alternative features. Bamboo bushes in each village location are like bird sanctuaries. Small water bodies are the places of water spouts. No extra curative measures are taken for the animal husbandry however. Female based self-help group are there also but for food processing mostly. Local ice cream factory is there nearby. Brick factory is similarly important as compared to stone crushing in Balason bed and pottery at Palpara (potter hamlet). Haphazard and systematic urbanizations are both rapidly spreading there in this Siliguri suburb.

Some homestead could be still found with mud walls. In such a situation, consistency over winter land fallowing and monsoon-spring cultivation is still remarkable.....women could be seen in fast food center and this is a good expose for them. You could also see women more involved in raring their cattle and cleaning up of the small sized local fishes from the mud that the male and boys catch in the day time in local Chamta. In that context, Baruni Sinan is a good

instance with larger participation of the womenfolk along with children and male members of the families. These people are living in village hamlets and some of these pockets have become rururbanized often looking like the slums physically, but mentally they hold in traditional values with them intact. Vaishnava sect is also predominant in this area and many of the Rajbanshis belong to this.

Remarkable, this sacred bathing is not performed in winter- the winter bathing is called as Maghali Sinan.....The Baruni Sinan is sacred, but the bathing place is not away from river pollution and post-winter dust. Baruni means "of the Varuna" and Varuna is definitely an Aryan deity of rains. This is also a symbol of Aryan impact upon the local people most of which belong to the indigenous agrarian cum pastoral Rajbanshis. This ceremony has been being organized regularly since 1986 including a small rural fair at every last week of the last month of autumn according to the local calendar (April of English calendar). Folk people do not want to shed off their indigenous knowledge and notion of weather forecast deeply penetrated within their way of living. Early raining in the last month of autumn (local calendar) is a special feature absent in other parts of West Bengal. This moisture once helped the bio-degradable and organic manure and ash mound of the shed trees and bushes being absorbed in the local fields. This raining also helps the vegetation to survive as well as resulting into various pests attacking the plants. Tea gardens apply pesticides there to control them. However, heavy monsoon rains later destroy these pests into the wet soil. Baruni Sinan is also compared to bathing in Ganges performed by the Hindu pilgrims in special occasions for themselves as well as their departed ancestors (Ganga Tarpan). I have also heard that the organizing committee arrange health camps during this period. This year in late Autumn, it rains. But such raining has become quite untimely and irregular- a sure indication of changing weather. In close observation, I have noticed that the weather there in West Bengal along with humidity and monsoon rains have just altered by a month and fifteen days. rain might be a month early or a month and 15-days back!!!!

SILKWORM CULTIVATION IN MAINAGURI REGION OF JALPAIGURI DISTRICT IN

International Science Congress Association

SUB-HIMALAYAN INDIA- some local perspectives

Silkworm cultivation is an important aspect in all the regions falling on ancient silk routes that also included Himalayan and sub-Himalayan regions. North Bengal that is constituted by North Western Bangladesh and northern districts of West Bengal state of India was renowned for Silk Production and Trading. Till now silkworms are cultivated in these districts and this specific cultivation extends further to Mid Bengal and greater Midnapore (Medinipur) in West Bengal. Neighbouring districts like Assam, Andhra Pradesh, Uttar Pradesh, Bihar and Jharkhand are renowned for handloom industry and traditional textile cottage industry. To some extent, silk has its contribution to a great extent.

Silkworm involves mulberry plantation. Silk is the fibrous protein of animal origin. It is produced by larva of silkworm to create the cocoon. These larvae eat only the mulberry leaves to produce the cocoons. These leaves are full of chlorophyll and protein content. So, pure silk production needs regular supply of fresh mulberry leaves. About 20 Kg leaves are required for production of one Kg cocoon. Mulberry (*Morus indica*) plant cultivation is therefore another side of silk production. Land preparation is essential and organic manure is advised to apply in adequate amount (eight ton per acre) along with nitrogen and chemical fertilizers (NPK) based on soil report. Nitrogen compound like urea has to be again added before the monsoon rains. This is called chapan manure. Rich organic manure makes the soil colour black. Growers are advised to stay constantly in contact with the agronomists and silk board office. Plants are subjected for vegetative propagation by cuttings from disease free mulberry plants preferably of 10 months old. Each cutting of 10 mm diameter and 15-20 cm length is a twig of woody shrub containing three to four buds. It could be reared in a bed and then transplanted into the mainland. Irrigation, regular weeding and pre-agricultural practices like ploughing-cum-tilling are necessary. This plant can be also reared in an earthen pot. Leaves are broad, green and heart-like in shape. Leaves are basically affected by powdery mildew of winter season and rotting of leaves in the monsoons. Both are caused by fungi attack. Diseased plants or plant parts are to be removed from the plantation area, buried down or burnt off. There are chemical

pesticides and bio-pesticides available in the market. Farmyard manure preparation, mulberry plantation, vegetative propagation and supply of twigs, and collection of mulberry leaves are additional domains related to silkworm cultivation. Sub-Himalayan temperature, and rainfall precipitation are good for this type of yield. Nitrogen and farm yard manure are to be applied in higher quantities if the land receives water through irrigation and as a result of this some portion is drained off.

Silkworm larvae or polu are fully domestic in nature. For their domestication, a well built room (polu-ghar) with trays to keep in larvae and pupae has to be constructed and for that silk board is giving monetary assistance. In that home, larvae of *Bombyx mori* are reared and fed with mulberry leaves. In a frame, there are four to five racks built up of bamboo strips where six instars of silkworms are placed and fed with green leaves.

The frames are kept clean and stools of silkworms are to be cleared regularly. Bleaching powder and lime are used to keep the room and its surrounding germ free. These silkworms like cool places and therefore, if needed, exhaust fan can be used in polu-ghar. The fifth and sixth stages are much bigger than the first stage and this last stage turns into the cocoon or guti. These cocoons are collected and kept in the bamboo strip coil on a bamboo tray. This type of structure (rotary mountage) with variable size is treated as chandraki. The latter and rack are made up of bamboo and therefore could be prepared locally as a source of some additional income.

Silkworm is here of both local and Japanese varieties. Their cocoon colour is in either case in white. The cocoon of local variety is known as the nistari type and it is multi-voltine. Japanese variety is bivoltine in nature. Both cocoons look like white capsule and the Japanese type has a very good texture. Cocoons are sold to the regional silk board offices who then extract silk fibers from these cocoons and spindle them. Local people do not have adequate infrastructure to extract fibers.

Actually, muga, tasar and endi (or eri) are three indigenous varieties of silkworms here in Jalpaiguri district and these are cultivated in Mainaguri and Alipurduar regions. There, in Tekatuli a silk grower unit is there of the Mainaguri block similar to Matigara block and Nakshalbari block of Siliguri subdivision of Darjeeling district. Hill people of Darjeeling district are also involved in cultivating silkworm, especially the pure silk of Japanese variety.

The cocoon of tasar (*Artheraea mylitta* and *A. proylei*) is brown, fine and capsular; this is basically a wild variety. Cocoon of endi (*Philosamea recini*) looks red in colour and like a valve or balloon. It is also wild, but could produce semi-domestic strain. This semi-domestic endi is preferred in Jalpaiguri and its cocoon is whitish and like a ruptured capsule. It also needs the rearing home with adequate measures.

The wild varieties are directly reared in plants where there is no need of rearing house. Eggs are to be collected from the office in packet and these packets are to be clipped in healthy plants. From one packet, two to three hundred larvae come out and start eating young leaves and twigs. These larvae eat leaves for the whole day and stage by stage increase in size. They could be thoroughly observed and should be transferred from one to another plant along with the bearing branch. Often these wild silkworms are attacked by microorganisms in their first, second and third stages. Bleaching powder is to be applied in the soil before clipping of envelop. Pruning is necessary and trees should be within three to four feet in height. Pruning helps in growth of new twigs and foliage. These rearing plants are supplied from the office and perennial. Net system is necessary so that during the rains, wild variety larvae do not fall out from the tree into the ground and waste. Pupae are collected from the trees and supplied to the office.

Mainstream peasants (Rajbanshis and non-Rajbanshis) are not much interested in these silkworms and only consider as a subsidiary occupation. However, there are scopes and some peasants are now taking interest and attend various workshops. Tribal and other forest dwelling people are more interested and at a time they were involved in silkworm cultivation, silk fiber extraction and making of silk clothing. Such clothing are still being produced by indigenous and ethnic communities in Assam and they mostly prefer tasar and muga besides mulberry and endi. During my long stay in North Bengal, I often see the endi and tasar flies in common gardens and parks. Sub-Himalayan biodiversity here in North Bengal includes so many types of moths and butterflies and any observer could find out different types of cocoons on the branches of various plants.

Micro-nutrients are added to the soil or could be sprayed on the foliage. After the third moulting, entire branch with young leaves are supplied to the larvae. In later stages, the nutritious upper portion is supplied for uniform feeding. Auxiliary buds are preferred more so as to allow more and more availability of leafy branches. There are other diseases also affecting the leaves, stem

and root; but those are not so common in comparison to powdery mildew, blight and spots in leaves during the rains. Maintenance of leaf quality, regular feeding, cleanliness of the rearing house and germ-free conditions are essential in silkworm propagation. Exotic plant varieties with better quality leaves could be grown up by the grafting method on the local plant variety. Endi half domesticated cultivation along with mulberry pure silk is the part of silk related IKS of the Mainaguri block of Jalpaiguri district. Monsoon raining, local vegetation, rivers, climate and everything are good for cultivation of these in upland areas there. However, it needs more awareness in favour of this propagation. Endi or eri favours leaves of erenda that is castor plant (*Ricinni communis*). Tasar needs plants like Arjuna or Ajan. Both these plants are available in Mainaguri block. Mal, Matiali and Mainaguri have the common vegetation of castor. Seed from erenda plant is important source of lubricant and there is planning to grow up an erenda plantation in Mainaguri area. Improved varieties and hybrids can increase the yield of half domesticated variety twice. Three feeds are necessary on daily basis and soiled or mature leaves are to be avoided. Powdery medicines are there to keep these larvae disease-free. Wastes are not to put on the floor of rearing home. Hands and feet are to be washed before and after working in that home. Air should be in and out in the room and for that exhaust fan could be used. Special care is to taken during each moulding. When the larvae in final stage stop feeding leaves and twigs, they are to be transferred into the coils of the chandraki so that they could form cocoons. Greenish blue zebra and yellowish zebra strains of eri silkworm are more common than greenish blue spotted and yellowish spotted varieties. There are various hybrids of silkworms and good quality of raring plants. Scientist are involved in their experiments to improve this silkworm cultivation which is a type of insect-plant cultivation. There are however some additional scopes for the local people and government assistance for every stage with a fixed market. Market value of eri is however less than pure silk. People should be encouraged to cultivate this eri or endi type of silk, its half-domesticated hybrid and the erenda plant.

Remarks

What steps are to be needed in agriculture from the domain of social-cultural anthropological fieldworks?

This is the era of global market economy and there are some suggestions in generalized form that might be taken care off in favour of different agrarian rural structures that I have felt during my fieldworks.

Direct Experience from Fieldwork should be appreciated as an extension of the main study. What steps are to be needed in agriculture? Indigenous knowledge regarding the following aspects could be better observed.

1. Soil testing
2. Seed treatment
3. Seed testing
4. Preparation of organic manure and Vermicompost in units
5. Stepwise application NPK
6. Application of margosa oil of different ppm
7. Application of different cakes with manure
8. Quick destruction of diseased plants
9. Controlled application of pesticides and fungicides
10. Weeding
11. Separate preparation of seed bed/nursery and agricultural field

12. Application of micro-nutrients
13. Application of Shed tree (if needed)
14. Fallowing and grazing in off-season
15. Learning of how to apply ash from shifting/Swedish/slash-and-burn cultivation
16. Improvement in bush-fallow cultivations
17. Excess importance on vegetable cultivation
18. Nitrogen control (if needed)
19. Application of lime (to decrease salinity supporting various pests)
20. Use of Light trap/ Fruit trap, etc.
21. Mixed cropping
22. Selective weeding in concern of Nitrogen fixing algae
23. Crop rotation
24. Side or alley cropping
25. Alternative cropping
26. Cropping in row

27. Use of modern techniques like Zero Tillage
29. Floriculture/Fruit propagation/ Piciculture/ Agro-forestry/alternative cropping
30. Bio-gas plant
31. Solar lamp and such other equipments
32. Wind Mill and other instruments including post-harvesting processes
33. Easy loan, Self-Help Groups, Credit card
34. Cereals and rapeseed cultivation together
35. Irrigation and drainage system
36. Complex cultivation systems
37. Food processing techniques, proper packaging and other additional work opportunities within agrarian sector
38. Cultivation on fencing, lattice and pots in kitchen garden
39. Proper pest control in stem, leaf, root, tuber, fruit, etc.
40. Use of good quality and hybrid varieties
41. Protection to traditional varieties and sacred grooves (biodiversity)
42. Propagation of honey bee collection and nectar yielding plants
43. Traditional grain and seed storing system

44. Proper understanding of Nature-Human-Supernature system (sounds extra-scientific) in order to get weather forecast and other precaution to mitigate natural disasters
45. Involvement of womenfolk in agriculture and documentation of women-oriented various techniques
46. Understanding of the agrarian rural structure on the basis of mode of production and supported by traditional faith-fear-belief system
47. Alternative cultivation of medicinal plants, mushrooms, rubber, catechu, tobacco, fiber-yielding plants, areca, betel, banana, guava, orange, tea, coffee, sugarcane, cane, bamboo, wood-yielding plants, strawberry, mango, mulberry, livestock feeds, and various bi-products
48. Rural entrepreneurship followed by food processing units on PPP model or private nature
49. Unidirectional approaches turning into sustainable process considering nature and local peoples' interest
50. In order to reduce pressure on agriculture, economic growth in other sectors and meeting the fuel crisis are needed
51. Clear cut concept of situations in countryside, urban and global sectors and not quick but thorough integration among these domains
52. Macro and micro level studies both and proper generalization
53. Understanding the peasant life with both plus and minus points though agricultural extension, RRA, PRA, Observation, Case study, etc. with methodologies like qualitative in-depth post-modern approaches
54. Decoding of hidden information of the folk life, cognate and symbols
55. Cultural lag between material culture and traditional values: role of Media
56. Implementation of Government policy

57. Sentiments within the Youths
58. Using NREGS in construction of rural infrastructure, water storage and communication cum transportation
59. Protection of Indigenous Rights, involvement of scientific labs, Intellectual Property Rights and patent law
60. Relationship of agrarian system with pre and post-agrarian systems
61. Realizing the fact that social, economic, political, religious institutions and division of labour such as caste are still very much dependent on the agrarian system no way to be completely neglected

Conclusion

These measures are some primary steps fully taken care off. Sudden input from global market from a power section could be opposed by people on social, economic, political and religious sentiments. Other power sectors would also interpret in this. This could even cause fall of a government in either of democratic line or violence. Economists and policy makers should aware of this fact. It is a fact that villages are nearly self-sufficient in South Asia and still maintain alternative economy. Again any pressure on the production system could strongly hamper the traditional rural life and be reason for any social movement. Indians maintain various party systems, different politico-religious and socio-economic aspects, historicity and mindset reflected through concerned culture, etc. Still multicultural India maintain unity in diversity. Various cultural areas are here in India acculturating each other such as on the basis of natural resources, mode of exploitation/production and food habit with concept of nutrition. They often overlap and sometimes partially assimilated by the other.

These aspects are often underestimated and which is why, projects are being opposed and delayed. A multi-level approach is needed for peasantry, peasants and their economy. If you really want to know the peasantry here of south Asia, you have to understand the South Asia which is a wonder in it and only then you can be successful in getting benefit from the agrarian production system. Otherwise, peasants would not fully support the global market initiatives like direct cash transfer and foreign investment. Various strata in different agrarian systems have vested interests horizontally as well as vertically.

Whatever I have mentioned above I have felt on my own during my fieldwork and realize how much minute is an individual in respect to this whole system. If one does not go to the field and only thinks off double digit growth, I am afraid to say that this might not be permanent.

Seasonal-Agricultural practices performed by Rajbanshis

Season	Month	Festival	Purpose	Performed and participated by
Basanta (Autumn)	Falgun	Muthi newa	Seeds dispersion festival in crop field (Aus paddy)	Male
		Shibratri	Worship of male fertility cult on day before new moon Hope for water supply in crop field (mild precipitation, etc.) Day long fasting without water Overnight worship	General
	Chaitra	Madan kam (or) Bans jagano	1) Bamboo (bans) worship → Bansful being oldest Aus paddy variety Bamboo (long and slender poles) worship from full moon to full moon Bamboo poles representing different deities and male sex organs Sex magic but no sexual intercourse by the participants: religious begging, restricted life, night stay outside homestead and showing gymnastics at day time 2) Rain offering by bamboo poles directed towards moon and starry sky Associated with religious begging and sex songs (jager gan) Imitation of agricultural practice at every courtyard (mati kada kora/ creating mud floor with water) (might take place in Falgul and Boishakh also)	Male

	Penti khela	Sex magic for raining Involvement of bamboo poles or cow sticks (seemingly male sex organs) (might take place in Falgun)	Male/ shepherd
	Hudum deo	Sex magic for raining at dark night in open field Nude rain dance Imitation of agricultural activities in the field (might take place in Falgun)	Female
	Dol	Worship and merry making on full moon (Dol Prnima) continuous for next few days; Praying to Madanmohan (male deity) standing for Cattle herd Sacred Palanquin from the Temple and within eight days its returning back (might take place in Falgun)	General
	Bherar ghor chhuba	Sheep released to grazing land One day before full moon (might take place in Falgun)	Male
	Baruni sinan	River worship and sacred bathing; hope for continuous water supply to the field (purpose of irrigation); 12 days after full moon (Ashokastami) Festival for making lifelong friends	General
	Kali Thakurani	Praying to female fertility cults on Ashokastami after baruni sinana Fair and market for domestic utensils, agricultural implements, etc.	General
	Jolua Mashan	Praying to Water Demigod to assure water supply Fair and market for domestic utensils, agricultural implements, etc. (might be in Falgun as well)	General
	Rakhal Thakur	Praying to Shepherd/ Ploughboy Demigod; Grazing and cattle rearing being primary occupation in off season	Male oriented
	Sanyasi Thakur / Geram Thakur	Praying to Forest deity Rescuing cattle herd from tiger attacks Elephant worship (might take place in Falgun and Boishakh)	Male oriented
	Shaleshwa ri Thakur	Praying to Forest deity Rescuing cattle herd from tiger attacks (might take place in Falgun and Boishakh)	Male oriented
	Bura Thakur	Praying to Forest deity Rescuing cattle herd from tiger attacks (might take place in Falgun and Boishakh)	Male oriented
	Dharmo Thakur	Praying to Forest deity Rescuing cattle herd from tiger attacks (might take place in Falgun and Boishakh)	Male oriented
	Gorakh nath	Hope for excess cattle breeding, increase milk quantity; Cleaning up of cattle shed, precautions for cattle diseases;	Male oriented

			involvement of Nath Jugi community Nathism as a sub-Himalayan religion (Tennath or trinath cult symbolically representing three mentors and at the same time Shiva, Buddha and Dharmo/Bura/Sanyasi) spreading throughout Bengal and North East India (might take place in Falgun and Boishakh; even any time of the year to save the cattle herd)	
		Dham	Worship of homestead or village sacred ground No idol, only than or pat or scared seats of around 16 surrounding the central seat in rectangle fashion Connected with cultivation of winter-autumn vegetables, Aus paddy, cattle raring, pulses, rapeseeds and cattle raring leading to overall prosperity (important for whole of the year)	Male and female
		Gajon, Gachh Jagano and Chorok	Worshipping male fertility cult in pre-Vedic ways Religious begging, tree worship (gachh jagano), life and death magic (shoshan moshan), disease procurement, nature-man- spirit Self healing and gymnastics Last day of month (Bishub shankranti)	Male dominated
		Bishuma	Hunting practice generally for small games, (alternatively) fishing, staying outside homestead and preparing meal on one's own Last day of month (Bishub shankranti) Food habit to make body self-resistant against diseases NB. Small games like rabbit, boar, porcupine, bat, small birds, etc. in excess could attack on vegetables and kitchen garden	Male
		Basanti	Fertility cult and disease procurement during weather changing (might be in first of Boishakh)	General
Grishya (Summer)	Boishakh	Ganga Puja/ Tista buri/ Mechheni khela	River worship serving for yearlong water source and ancient trade routes Kind of appeal for flood control (in next monsoon)	Female
		Tulsi Thakur	Whole month Kind of drop irrigation Protecting the sacred basil plant in courtyard against hot humid weather that might lead into drought	Female
		Thakur	Sanyasi, Geram, Bura, Shaleshwari, Dharmo/Dhommo, Gorakhnath, etc. local protectors and saviors for cattle herds and	Male

			herdsmen	
		Madan Kam	Sex magic, bamboo worship (sex organ) and rain wishes for crops and successful fishing throughout monsoon and spring seasons	Male
	Jaishtha	Gochibona /Roagara	Seed sowing in rows (Amon paddy) and not just dispersing by hands Seed→ seedbed→sapling nursery→ cropland Few river worships might be organized in due course like previous months	Male
Borsha (Monsoon)	Ashar	Amti	Worship of dham, nature, snake deity and rain → Fertility worship leading to good yield	Widow
		Bipodtarini	Last dates of this month being too important for safety and protection from natural calamities, snake bites, crop failure and other crises	Female
		Hudum deo	In severe drought like situation, this performance could be repeated	Female
			Banger biao or frog marriage another such performance	General
	Shraban	Bishahari	Snake Goddess worship Jute harvesting in mudland, marshland and flooded lowland initiated Safety from water snakes Last date of this month very important	Female
		Othai pothai	Safety in the muddy pathways in countryside for going to crop field, submerged grazing land, jute harvesting, local ponds and streams for jute processing, collection of monsoon vegetables, fishing, water vegetables and paddy-cum-fish systems Harvesting of Aus and Binni (also spelt as Banya) paddy Cultivation of some fast growing lowland local varieties (jolidhan) encouraged as they rarely getting submerged	Shepherd and female
		Rath jatra	Yearly Vaishnava festival Sacred chariot carried out from Temple and within eight days returning back of it Monsoon vegetables largely produced Also predicting precipitation	General
		Shiva	People going to Shiva temples and worshipping the fertility cult	General
Sharat (Spring)	Bhadra	Bishahari	Same as month of Shraban (previous month) Last day of the month too important	Female
		Jitau	Stealing of vegetables at night on a particular date Huge supply of monsoon vegetables assured	Youth
		Janmasta mi	Festival related to celebration of birthday of Lord Krishna seemingly the Ploughboy Related to crop cultivation and cattle domestication	Youth

			Dodhi Kado being played where youths in groups competed to get the sacred coconut placed at the center of a mud floor (like playing rugby)	
	Assin	Durgapuja Borodebi Bhandani	Worships of major female cults Blessings for good yield Weather forecasting (flood, natural calamity, crop failure or good weather assuring prosperity) Blood sacrifice (occasional) Peoples gathering → deploying labour for harvest Durgapuja for five days Bhandani for subsequent three days Borodebi alternative to Chondi or Kondi (These might take place in first of Kattik month)	General
		Jatra puja	Pray to arum and local riverine fishes (punti, sati, sarika, etc.) in homestead: Changes in dietary chart Pray to agricultural implements: Making of mud floor in courtyard and imitation of agricultural practices Official initiation of cultivation of pulses and rapeseeds Last day of Durgapuja (This might take place in first of Kattik month)	Male dominated and associated by other family members
	Assin	Kheti Laxmi/ Lokhir dak	Pray to the blooming paddy field for good yield Collection of bunch of paddy grains, bringing them to the home and quality testing of the ears At night during full moon (This might take place in first of Kattik month)	Male
		Dhan ke honda khawan	Treating paddy field just like pregnant women Hope for full blooming within subsequent Fall season Pest control through traditional light trap	Female
Hemanta (Fall)	Kattik	Kalipuja	Worship of Mother Goddess Kali Light traps to control pests and insects Blood sacrifice Overnight during new moon	General
		Goru Chumani	Worship of the cattle, cattle shed, agricultural implements, offering them early grown pulses, praising the herdsmen	Female and youth
		Dhaner ful ana	Praying to the crop field for full blossom of late growing paddy (last week of the month) NB. Raining often continues till Assin and even mid Kattik; only after that blossoms	Female

			could come out	
		Bhogi Dewa	Praying to the crop field for late growing paddy Pest control through traditional light trap burnt overnight (last day of the month)	Female
		Katipuja	Offering by womenfolk to the male fertility cult Kartick (also forest deity) before crop harvesting Giving protection to fragrant paddy ripening in the field followed by attracts of elephants and jungle fowls (last day of this month and any time in subsequent months) NB. Kati, kartik, kattik, kathal, katari, kalo, kukra, kathi, kolom, dudh kolom, kattik shali, etc. being good quality local paddy with once great demand (flavoured and tasty paddy that could attract elephants and jungle fowls)	Female
		Niamseba and Ras	Worship of Lord Krishna or Vishnu (another fertility cult), vegetable diet for believers for whole month, Kirtan group song overnight and parade in early morning for whole month, devotion: also mentioning about sun, tree, cattle, river, womenfolk and clothing Worship to the rashchakra depicting seasonal cyclical and crop rotation, maximum female participation (last day of the month) Local trade in fairs continued to the next month Initiation of cultivation of winter vegetables and potato Oranges started coming into market	Female dominated
	Aghan	Dhan Katar Puja	Beginning of paddy harvest (first date) Harvesting continues for whole month parallel to Ras fair and Katipuja NB. First harvesting always by womenfolk (any season and any variety) Women use poshni/ sickle holding it on the left hand NB. Often dhan katar puja is performed in Kattik; then offshoots or pashkathi or polan come out of the harvested bunches, again blossoms come in (dhaner ful ana) and final harvest is performed	Female
		Naoa khoi / Naoa kawa	Offering of cooked rice of the new paddy to dham, deity, elderly person, nature and priest Also known as Nabanna	Female
		Khet uthani	Bringing all the paddy from field to home where on kholan or thrashing floor grains being collected A bamboo pole set in the field and at its tip	Female

			broom and winnowing tray (kula) tied up Horn of cattle smeared with vermilion	
Sheet (Winter)	Poush	Poush parban/ Pushani/ Pushuna	Completion of stock raising and post-harvest practices Processed rice of several types manufactured (chira, muri, khoi and atop chal) Rice husked, seed coats collected, paddy straws gathered, rice again husked into rice dust, from rice dust vakka rice cakes prepared and offered to the stock and elderly persons An imaginary boundary drawn surrounding golaghor (stock chamber) or entire homestead (last day of the month) NB. Chorchunni palagan is an important feature of whole of this month NB. I have also heard about Nishkalanka brata performed by womenfolk to prove/ regain their chastity after all the magico-religious, agricultural and post-agricultural practices	Female
	Magh	Maghali sinan	River worship and sacred bathing Preparation for slash-and-burn cultivation/bush fallow cultivation/shifting cultivation Production of winter vegetables Cattle raising Palanquin	General
		Satya Narayan	Preparation of compost manure throughout winter from rotten cow dung, paddy straw, ash and dry leaf heap from mixed deciduous forest/social forest Reduction of bad smell by burning off of fragrant objects during Satya Narayan worship (sustained upto Falgun and Chaitra)	General

**Agricultural Management to the Landslide Problem of Kalimpong
Himalayan
Subdivision in Darjeeling District, West Bengal State,
India**

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Abstract: Landslide is a major problem in the Himalayas that can be caused due to deforestation, illegal mining, unplanned transportation and big dam construction. Step cultivation is the right choice for mountain production system that could reduce scope for natural hazard. Kalimpong Himalayas is that pocket that exists in vicinity of Nepal, Darjeeling, Bhutan and its foothill Duars, Sikkim and Chumbi valley of Tibetan Autonomous Territory, Barindland-Boikunthopur watershed (containing an Aryan Diaspora from Kashmir-Tibet region), and transnational Teesta River towards Rajshahi Division of North West Bangladesh.

This transnational territory still favours orange orchard instead of tea estates as in other places. Illegal coal mining on Damuna-Daling rock series, road construction and excess logging in Kalimpong has exerted lethal impacts on entire ecosystem. But step cultivation in terms of contour trenches and bench terraces, and special systems of water holding have proved positive in resisting soil erosion. Choice of crop and classification of soil are also important. Remote villages using solar energy are another important characteristic.

Introduction

Environment can be defined energy, mineral nutrients, air and water. A mountain environment, while similar in many respects, has some unique characteristics as it constitutes high and sloping lands, low laying valleys, forests and vegetations of various types as well

as river beds and meadows. These unique features of mountain environments tend to be quite sensitive to disturbance and disruption by external factors. Therefore, environmental degradation is an adverse alteration of natural system's integrity, diversity and productivity. In an ordinary sense, an environmental degradation is a process of degeneration of elements and factors pertaining to the conditions and circumstances of life on the planet earth.

Area and People

Here, the study is not area specific or community specific. It is an in general study on the rural agriculturists staying on the Kalimpong Himalayan subdivision of Darjeeling district of West Bengal, India. Emphasis has been put on irrigation techniques by the local peasants basically included under Nepali community. The three hill subdivisions of Darjeeling district, Kalimpong, Kurseong and Darjeeling sadar consisting of eight developmental blocks and occupying an area of 2417 km² comprise the Darjeeling Himalaya- the beginning point of the eastern Himalayas eastwards the Central/Nepal Himalayas. The altitudinal range of this hilly region varies from 130 to 3660 m. Due to their great variation, a wide array of climatic zones are available, which favor the luxuriant growth of diversified and rich vegetation. This region is also the abode of many endemic elements and a number of species which have become rare, threatened or endangered. People living in villages and far-flung areas depend completely on forest resources for maintaining their day-to-day needs like medicine, food, fuel and household articles. Unlike tea estates in Darjeeling-Kurseong region; the subdivision of Kalimpong is covered with dense forestry, some agricultural land and orange gardens along with sericulture.

Some basic reasons for landslide in Kalimpong hill

Exploitation of Forest Resources: The richness and variety of vegetation is another characteristic feature of this region. Due to result of physiographic, climatic and biotic factors; this region till now contains a very rich variety of vegetation. The configuration of mountain and the impact of strong moisture-laden monsoon winds greatly influence the characters of vegetation. The forest areas are heterogeneous but mainly intercepted by terraced cultivation land. Hill forests cover approximately 28% of the North Bengal forests. Over 1000 species of flowering plants have enriched the beauty of hilly region of Darjeeling district. The fauna of this region is varied. This forest area can be further divided into 3 sub-categories (according to altitude). There is a good scope for community specific study on ethno-medicinal use and forest/biodiversity management of local people that indirectly help in protection of the Himalayan geo-morphology and reduce the scope of landslide. Use of alternative energy resources such as solar energy systems despite fuelwood collection and/or settlement of small-scale hydroelectric dams here and there may also reduce harmful effect of soil erosion. Illegal logging and establishment of plantations are responsible for deforestation and subsequent soil erosion turning into severe landslide.

Illegal mining: Daling rocks of Pre-cambrian age are lying above the Lower Gondwana rocks of Permian age. This thin bed Lower Gondwana rocks consists of quartzitic and carbonaceous sandstone. This is sandwiched between Daling rocks and Siwalik rocks of Tertiary. As a result of thrusting and tectonic events during the post-Permian upliftment of Himalayas, these Lower Gondwana carbonaceous rocks in Damuda series have been greatly crushed as seen in the forms of coal and shale. Illegal mining in this Damuda-daling series is also responsible for soil erosion in some pockets. This problem is also related to energy crisis and economic profile of the locals inhabiting nearby this exposures of coal seams.

Road Construction: The construction of a hill road involves felling existing vegetation, cutting and blasting stable slopes, and rolling down of resultant debris that in turn destroys

vegetation and causes severe erosion resulting landslides. Here, road construction could not be held responsible for landslide.

Cropping: Unscientific coal excavation, deforestation, excess pressure in the road transport, rapid urbanization and plastic pollution are the five main reasons of soil degradation and landslides in Darjeeling Himalayas. But degradation of soil cover in somewhat interior region is subjected to crop cultivation and mainly due to loss of top soil by water erosion. Soil on the steep hill slope is shallow in depth with poor water retention capacity and excessively drained with high potential for erosion. The soil of the foothill slope and valleys are moderately deep and well drained with moderate erosion hazards.

Review on Agricultural Management

- Kelkar in 2004 has mentioned Inge Kaul, Isabelle Grunberg and Marc Stern (1999) who viewed the rapid developmental activities of the Western-Modern Society in search of a wider global market economy as the root cause of six major problems as pointed out in UNDP report: Challenges of global warming, Rapid loss of biodiversity, Crisis-prone financial market, Growing international inequality, Emergence of new-drug resistant disease strains & Genetic engineering. Folk communities with their traditional knowledge regarding intimate understanding of nature in respect to pre-agricultural, agricultural and post-agriculture performances can do a lot to check these problems including natural disasters like soil erosion.
- Mondal in 2009 has discussed on the link between biodiversity management and sustainable development with reference to the issues of Indigenous Knowledge and Indigenous Rights in the context of North Eastern Himalayas of India. Indigenous communities may be the tribal elements and again the folk, peasant and marginal communities at rural areas. Indigenous or aboriginal are associated to colonial

perception: these are actually excluded folk people but now in a process of inclusion and their so far neglected knowledge is becoming more and more essential to solve problems created and unsolved by modernity.

- Dvorak, 1988, has addressed a note on the importance of Indigenous Soil Classification which he has conducted in Semi-Arid Tropical India. Actually, knowledge about indigenous soil classification is very essential for microorganisms living within the soil, soil fertility, grassland, conservation of soil, cultivable crops, animal husbandry and poultry, water nature, water sources, fishery, forest- agricultural land ration, nutrition level and ecology.
- Warren in 1991 has stated the fact that farmers have remained no longer passive consumers, but active solvers of so many geo-environmental problems followed by other socio-cultural and politico-economic anomalies. It involves local-level innovation and their transmission to a wider periphery.

Here I would also address the The Rio Declaration on Environment and Development, often shortened to Rio Declaration, was a short document produced at the 1992 United Nations "Conference on Environment and Development" (UNCED), informally known as the Earth Summit.

The 27 Principles of the Rio Declaration are as follows-

Principle 1. The role of humans.

Human beings are at the centre of concern for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 2. State sovereignty

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 3. The Right to development

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4. Environmental Protection in the Development Process

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process chain and cannot be considered in isolation from it.

Principle 5. Eradication of Poverty

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

Principle 6. Priority for the Least Developed

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

Principle 7. State Cooperation to Protect Ecosystem

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

Principle 8. Reduction of Unsustainable Patterns of Production and Consumption

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Principle 9. Capacity Building for Sustainable Development

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and

technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Principle 10. Public participation

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 11. National Environmental Legislation

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

Principle 12. Supportive and Open International Economic System

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address

the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

Principle 13. Compensation for Victims of Pollution and other Environmental Damage

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Principle 14. State Cooperation to Prevent environmental dumping

States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

Principle 15. Precautionary principle

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible

damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Principle 16. Internalization of Environmental Costs

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

Principle 17. Environmental Impact Assessments

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Principle 18. Notification of Natural Disaster

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

Principle 19. Prior and Timely Notification

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

Principle 20. Women have a Vital Role

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

Principle 21. Youth Mobilization

The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

Principle 22. Indigenous Peoples have a Vital Role

Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Principle 23. People under Oppression

The environment and natural resources of people under oppression, domination and occupation shall be protected.

Principle 24. Warfare

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Principle 25. Peace, Development and Environmental Protection

Peace, development and environmental protection are interdependent and indivisible.

Principle 26. Resolution of Environmental Disputes

States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

Principle 27. Cooperation between State and People

States and people shall cooperate in good faith and in a spirit of partnership in the fulfillment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

Agricultural Management to reduce the Landslide Problem

- Agriculture is the main occupation of the traditional rural communities in contemporary time and the paddy and maize are their main crops. Of course those who have no land or have small piece of land to cultivate, are earn their livelihood mainly by agricultural labor. In agriculture they follow the terrace cultivation.
- In the hills three types of soils are generally recognized-black, white and red. Black soil is most fertile of the three, red is of intermediary type and white the poorest among them. Red soil requires a good amount of manuring to produce a yield equal to that of black soil and it is suitable for dry crops, such as, maize and millet, on account of the rich vegetable mould.
- Hard worker hilly agriculturists cultivate chaul (paddy), mookai (maize), kodo (millet), Adrak (ginger), phapar (buckwheat), eilachi (cardamom) as their main crops. Besides these local hill people produce a large variety of Sabji (vegetables) like Raisak, Torisak (mustard leaves), Squash, Golbhera (tomato), Farsi(pumpkin), Kuvindo (cucumber), Aalu (Potato), Kobi (cauliflower), Bandakobi (Cabbage), Gaajor (carrot), Mula (radish), Beet (beet), Booigun

(brinjal), Koirala (bitter gourd), Boori (bean), Painjj (onion), Loosun (garlic), Khursani (chilli) etc.

- The major source of water supply in agricultural sector is springs or small rivulets locally known as Jhoras with only limited discharge available during post monsoon period. The irrigation facilities exist only in 8 - 10% of the cultivated land predominantly from perennial jhoras and river lift irrigation in the foothills. Altogether, the cropping intensity in Darjeeling district is as low as 10%. To improve the present level of cropping intensity and productivity in the hills; there have introduced various soil moisture conservation treatments for hill watersheds, such as, bench terraces in lower hill areas and contour hill trenches on steep slopes. Bench terraces and contour trenches are well sufficient for stability of sloppy lands.
- Besides these, Small Water Harvesting Tanks with hand pack retaining walls are increasingly becoming popular in this region. This system is very useful water harvesting structure on the inherent topographic features and steep slopes of the mountains. These tanks are generally filled with water from the nearby springs using siphon pipes. For providing stability to the Small Water Harvesting Tanks, hand-packed rough walls are usually made with locally available stones/boulders from the foundation level and also soling of pond base. The stored water is utilized for giving life saving irrigation to Maize, Cardamom and Vegetables, which are grown extensively in the region.
- Hilly communities at villages or village cluster with sometimes scattered settlement in Darjeeling Himalayas have made their land into terraced fields, which generally prevents sliding of mud (though it does lead to erosion of soil). On the other hand construction of irrigation system and

avoidance of slope area for any developmental activity have considerably reduced the occurrence of landslides.

We can classify agricultural land on the basis of irrigation to the agricultural field:

(i) irrigated in whole year:

situated comparatively lower part of the villages in valley areas or near the river/stream. That type of land is suitable for cultivating paddy seedlings;

(ii) irrigated in near about 6 months:

contains a small patch in opposite side of the hill in the hilly slope. Generally paddy, squash, green chilli, tomato, raisak, zinger etc. are produce in this type of land;

(iii) irrigated only rainy season:

grows the crops not need much more water, like maize, millet and also some tomato, zinger, green chilli, cauliflower, cabbage etc. along with a little bit of paddy;

iv) fully non-irrigated:

land located at the top portion of the hill, cultivated the crops which need a very less amount of water, like millet, maize etc.

Conclusion

- Local people, including farmers, landless laborers, women, rural artisans, and cattle rearers, are the custodians of traditional knowledge. Moreover, these people are well informed about their own situations, their resources; what works and doesn't work; and how one change impacts other parts of their system. It should not be forgotten that Indigenous knowledge is a very sensitive issue, related with cultural identity and ethnicity.
- It reflects the dignity of the local community and puts its members on an equal footing with the outsiders involved in the process of technology development (Haverkort and Zeeuw, 1989). Truly, the Article 8(j) of the Convention of Biological Diversity (Rio, 1992) has indicated the importance of the noble deed of: "respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity".
- The simple and controlled life of local hilly community is one type of management for preventing landslide that may not be found in tea gardens, deforested landscapes, illegal unscientific mines and unplanned urbanization in other parts of the same Darjeeling Himalayas. And hill people of Darjeeling are still progressing in their economy and modern education, show affinity towards modernity with controlled use of vehicles for transportation, and despite all socio-economic and environmental hardships combine with one another through social bondage/ sense of solidarity.
- But their knowledge is local, practical, empirical and scattered in nature. Or it is embedded within pre-existing partial systems, tradition and culture;

therefore justified and static but value-loaded, symbolic, subjective, ethno-scientific, humanitarian and biased. Often technical and rational parts are highly overlapped with non-technical and non-rational parts. Researcher has to conduct anthropological study at in-depth, micro level and qualitative way. Even he/she has to encode symbols, trace Worldview, be post-structural, conduct Ethnography and analyze logic behind the phenomenon. Here, however the study is concentrated on technical aspects.

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Could Urban Development in North Bengal influence an Identity Movement?

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ABSTRACT

This paper actually deals with the query: Could Urban Development in North Bengal influence an Identity Movement? North Bengal is a part of India and borderland among Bangladesh, Nepal, Sikkim, Bhutan, Brahmaputra valley, Gangetic Plain and Delta, and Sino-Tibet.

Indians are basically rural agrarians and they have innovated unique division of labour that caste or Jati system that the Indo-Aryans have conceptualised through Varna 4-fold system or Estate. On the other hand, there are evidences that how community life, trade, state formation, urbanization and supporting religions have also developed in India.

In British India, low hills and foothills along with watersheds from Sikkim and Bhutan Himalayan states have been incorporated. Eventually, there were developed districts like Darjeeling and Jalpaiguri.

British laid down Tea Estates and some townships like Siliguri in Darjeeling foothill (Siliguri Terai) and Darjeeling district town on the hills parallel to Kalimpong and Kurseong-Mirik region. These hill stations are now basically tourist destinations and heaven for hill takers.

British and post-independent India allowed Nepali speaking ethnic groups who immigrated from neighbouring country of Nepal on Central Himalayas. They have become majority in Darjeeling hills,

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behaved like Human Shield, and also joined Gorkha Regiment of both Indian and British Army. For these Nepali with Gorkha identity and sustained demand of Gorkhaland over these incorporated lands (New Foundland or El Dorado for them), consider these townships (especially Darjeeling) as the Safe Heaven or Utopia. Comparatively higher progress in foothill Siliguri has been contributed equally by these hilly communities.

Introduction

In this paper I am going to test my hypothesis that urbanization could increase the scope of separatism and at the same time proper information to the local people could decrease this trend especially when development happens in a sustainable way.

I should rather highlight on the city of Siliguri at Darjeeling district located in West Bengal state, India. The country consists of so many groups of people and they could be distributed on the basis of ethnicity, religion, regionalism, racism, economy and social structures. India is a country with 29 states and 6 Union Territories. Out of these, West Bengal is an important state with 19 districts; and of these, 6 northern ones compose here the northern part of the state, namely North Bengal. Darjeeling district in this administrative area of North Bengal (northern West Bengal) is in the focus of this discussion. West Bengal in South Asia was a part of ancient Bengal region that has been due to certain historical reasons now broken down into western and eastern parts: the western part being West Bengal state of India and the eastern part the independent country of Bangladesh. And Siliguri City at Siliguri subdivision in Darjeeling district is not only bordered with Bangladesh, but also countries like Bhutan and Nepal as well as Indian states like Bihar and Sikkim. It is in close proximity with North East India, South East Asia and Sino-Tibet region.

Emergence of Urbanization in India

Urbanization is common phenomenon today. With globalization, things are changing rapidly. But it is true that urbanization is not new in Indian Sub-Continent. From the time of Indus Valley Civilization 5000 years back. Even we can see urbanization in the form of religious center or army cantonments or surrounding a fort or in the shape of an administrative center or even a trade zone. Indians have communicated with the outside in the form of trade and also religions like Buddhism and Islam. In post-Indus Valley civilization, urban settlements were generally found surrounded by high walls and therefore with population increase, they became more densely populated without any proper planning in most of the time. Urban centers and sub centers were communicated through the networks of social bondage, political ties, business and religious pilgrimage. After the establishment of British control over India (1757-1947 AD); the urbanization in India became more heterogeneous, westernized, modernized and global.

Diachronic Study on North Bengal Region in Indian Context

Who were the earliest inhabitants in India and initiates urbanization? Autochthones of Indian subcontinent could not be guessed properly; but archaeological evidences were there on existence of Homo cultures during Old Stone Age, Middle Stone Age, New Stone Age; Paleolithic stage, Mesolithic Stage, Neolithic Stage and Neolithic-Chalcolithic Stage. Peoples with Megaliths, Pre-Harappan stage and Harappan Civilization in Indus valley region (contemporary to Mediterranean, Chinese and Mesopotamian civilizations), usage of Ochre Colored Pottery, Trade, River and Sea routes, Spice route and Silk route, and myth of Gold City and Golden Temple were certain Pre-Historic/Proto-Historic facts. Aryan Innovation and Vedic Period, Iron Age, usage of Gray Ware Pottery, Pre-agricultural groups to agricultural communities, presence of democratic republics, Buddhism and Jainism

(contemporary to Judaism), Persian and Greek innovations were happened during 1500-200 BCE.

Mauryan Period and Black Polished Pottery; Vaishnavism and Aryanization of Buddhist-Jain heritage, urbanization, Brahmi inscription and Pali language at the place of Sanskrit, concept of Dhamma; certain new concepts like equal justice, syncretism, unity in diversity, Welfare state from autocracy; innovations from Asian Greek colonies and Vaishnavism, and spread of Christianity from Near East to Sind through Axum were the matter of 4th to 1st Century BCE.

Dominance of Central Asian elements like Scythians followed by Kushanas holding Buddhism, return back from Buddhism-Jainism to the cult of Shiva, Gupta rule and Brahminic-Vaishnava upheaval (3rd – 6th century AD), trade with Rome, Hun innovations and formation of neo-Kshatriya groups, Buddhist versus anti-Buddhist groups, Tibeto-Kashmiri interference, and Arab innovation in Sind and trade areas were taken place between 1st century BCE to first half of 8th century AD. Scythian Satraps of Gujarat (approx. 1st century BCE to 4th century AD) and Satavahanas of Deccan Andhra region (2nd/1st century BCE to 3rd /4th/5th century AD) were followed by Gupta-Vakataka alliance (3rd/4th to 6th century AD) and Chalukya-Rashtrakuta (6th to 13th century AD). Tripartite competition among Rashtrakuta of Deccan (8th – 10th century AD) with Gujjar-Pratihars of Gujarat-Malwa-Rajputana region (8th – 10th century AD) and Pala of Eastern India plus Bengal (8th –12th century AD) was organized on the occupancy over North India (8th – 10th century AD). The triangular competition for the occupancy over north (8th-10th century AD) was ended up with win of Gujjar-Pratihara in 10th century AD and formation of so many Rajput small feudal estates and regional provinces in Gujarat-Malwa, Rajputna-Delhi and North-Central India (10th-11th century AD onwards).

Pallava rulers of extreme south (3rd century BCE to 9th century AD) had been worked under Mauryas (4th-2nd century BCE), influenced by Pali user Satavahanas (2nd/1st century BCE-3rd /4th /5th century AD) as well as Sanskrit user Guptas (3rd/4th – 6th century AD); but behaved independently during 6th -9th century AD (300 years) and followed by Cholas (9th – 11th century AD) and Chola-Chalukya combination (11th – 13th century AD). Immediately after the end of tripartite competition on North India (8th-10th century AD), Cholas attacked the Palas of Bengal in first half of 11th Century AD and Chola-Chalukyas thereafter made the same a collaborator in the later half of 11th Century AD. They did that in order to establish their full control over Bay of Bengal and sea routes to South East Asia and Far East breaking the Buddhist-Arab nexus. Cholas (9th-13th century AD) during 11th-12th century AD passively protected the Palas (8th-12th century AD) in two ways: (a) from attacks of Rajputs (11th centuries AD onwards) of North Central India in post-tripartite situation; (b) from factional groups in North Bihar, North Bengal, North East India, and East Bengal attached to Nepal, Bhutan and Sikkim Himalayas and Arakan-Meghalaya region within Tibet-Myanmar belt.

Kidarite Kushanas from Kapisha since 3rd Century AD spread their influence into Jaguda/Jabul/Kabul and Bamiyan of Afghanistan and remained Turk-Kushan Shahi under the Sassanian Dynasty (Shahanoshahi) of Iran. They were the evidence of Gupta period (3rd-6th Century AD), Hun immigration in India, Buddhist Thanessar of 7th Century AD, Islamic occupancy over Iran from 7th Century AD onwards, expansion of pro-Buddhist Kashmir as well as Arabs in Sind from 8th century AD onwards, and 200-year long tripartite competition on North India (8th-10th century AD) until Arab occupancy and birth of Ashwakas/Afghans in Afghanistan (10th century AD). The newly formed Turk- Afghan Shahi occupied Hindu Rajput Shahi at Tank province (ancient Taxila) and exerted influence throughout Indus valley in 10th century AD and attacked Rajput states throughout 11th and

12th centuries AD that resulted into formation of Turk-Afghan Shahi at Delhi (India) in 13th century AD. The latter exhibited special interest in Eastern India, Bengal, and cis-Himalayan regions like North Bengal and North East India as Pala rule (8th-12th century AD) had met final ending within 12th century AD.

Fall of Palas in 12th Century AD, establishment of Hayasala dynasty in Deccan in 12th century AD, and beginning of Turk-Afghan Sultanate at Delhi and its extension on to Bengal in 13th century AD were quite sequential with fall of Later Chalukyas, and replacement of Chola-Chalukyas by Pandyas of extreme south in the same 13th century AD. Rajput states and Gujarat were mostly collapsed within 14th century AD when Delhi Sultanate moved inside Central India, Narmada valley, Deccan, Hayasalas, and Arabs who had ruled out the Pandyas in extreme south. That resulted into initiation of Hindu Vijayanagara Empire (14th-16th Century AD) in extreme south likewise previous Chola-Chalukya model; that was contemporary to Muslim Bahamani kingdom in Deccan (14th-16th Century AD). Deccan had always warfare with extreme south over issues like Andhra coast and Raichur basin (6th-16th century AD). Odisha and Mysore always tried to remain autonomous exclusively to Indian peninsula likewise Malabar Coast as far as island of Sri Lanka. Five Shiite states were generated from Bahamani Empire that maintained good terms with Arabs, the west (Portuguese), Iran and Central Asia; together broke down Vijayanagara in battle of Talikota (1565 AD). Vijayanagara was highly involved into the trades in Bay of Bengal and Bengal under Muslim rule.

In the meantime, through the battles of Panipat (1526 and 1556 AD), Moguls or Turk Mongol descendants established Mogul Shahi at Delhi-Agra region replacing previous Turk-Afghans (13th-16th century AD). Moguls grouped in with Rajputs to form Mogul-Rajput Shahi, improved agricultural system, put forward One India policy, and during 16-17th century AD, progressed into Central India, Malwa-Gujarat-Rajputna, Narmada valley

and Deccan, Bengal and Shiite states in south. In 17th Century AD, Mogul Prince Shah Suja along with His Iranian associates managed to unite Eastern India, Odisha, entire Bengal (including North Bengal), and North East India by eradicating all the semi-autonomous feudal lords and Turk-Afghan warlords.

Dispute over the Mogul/ Mughal Throne caused Shah Suja fleeing into Arakan coast of Myanmar where He was brutally killed. Arakan was a trade center likewise other coastal regions like that of Bengal, Odisha, Andhra, extreme south and Sri Lanka on Bay of Bengal. Arakan was a dumping ground for traders doing business with South East Asia, Indonesia and Malaysia, Far East and beyond in one hand; and also with the ports of Malabar, Konkan, Gujarat, Sind, Persian Gulf, Arab World, Red Sea, Mediterranean and Eastern African coast so far. Islam reached to the place along with the Arabs and the coast was controlled by Arabian descendants mixed up with local inhabitants. Portuguese Armadas also arrived at that place while establishing colony in port areas of Gujarat and Bengal as well as Indian Peninsula and Indonesia (16-17th Century AD). Many other trading companies reached into India following the Portuguese. Mogul Empire faced off economic slowdown and acted communal. Throughout 18th century AD, the Empire received strong protest from emerging Hindu Shahi in Deccan under the Marathas, came into compromise with the latter, lost much of Malwa-Rajputna-Gujarat trade route to Maratha lords collecting tax throughout a wider region, met with Jat agitation at Delhi-Agra region and so in Central Indian Hindu states, decentralized power among the Nabobs in various provinces, enhanced Shiite Nabob at Lucknow, left Bengal Presidency to South Indian converted Brahmin family, defeated by Irano-Afghan forces twice, failed to control lawlessness situation and semi-independent attitude in so many pockets of the subcontinent, could not rule out spread of Lahore on Indus valley region and Kashmir, challenged by the growing influence of Rohila Afghans at Rampur in the foothill of Uttaranchal Gaharwal Himalayas, was aware of Gorkha Shahi formation in Nepal Himalayas with a notion of Pan Himalayan state formation, saw an increased Arab control in Mysore and handover of Odisha from Bengal Presidency to the Marathas, and kept mum during hegemony of Hyderabad Nizam over all the Mogul provinces in Deccan applying own policies regarding the Nabob of Arkot- Arabs in Mysore-

Maratha lords. Moguls could get nearly nothing from business routes of Deccan, Narmada valley, and Malwa-Rajputana-Gujarat that then went under the Maratha lords and their private forces. They failed to resist Myanmar's interest over North East India and East Bengal. They had already lost Afghanistan and Baluchistan to Iran that could rather make a deal with Napoleon of France and/or Russia approaching into Central Asia thus raising questions on the security of Tibet and Afghanistan. Those were the obstacles against formation of One Nation or the Nation State. British East Indian Company had closer connectivity with the Mogul Padshahi and Hyderabad Nizam: it got legal authority on Bengal Presidency and Andhra coast during 18th century AD. The British gradually occupied the whole subcontinent and on the other hand gradually colonized East Africa and Egypt, lots of Oceanic islands and isles, Myanmar and Malaysia, Chinese ports, Rhodesia and Okavango delta, South Africa and Namib desert, Orange River and Cape of Good Hope, African horn of Somalia and Nile river, Niger River and Gold Coast, Sierra Leone and Gambia, Equatorial Guinean and Gibraltar, Great Rift Valleys and lakes, Caribbean islands and British Guiana, Dominion of Canada and New Foundland, Australia and New Zealand, Ceylon (Sri Lanka) and exerted influence on entire Himalayas and Lhasa (Tibet). Taipei Rebellion (1853 AD), Santal Rebellion (1855 AD) and Sepoi Mutiny (1857 AD) were enough for ending up of the British East India Company. But the power instead of handing over to Mogul Padshahi was totally shifted into the hands of British Throne (British Raj) controlling the entire Commonwealth and closely linked up with United States of America in New World.

British East India Company in Bengal Presidency (Bengal region and East India) during its tenure of 1757-1857 AD made Calcutta the head of all the British Presidencies in India, monopolized all the business, formed a Native collaborator group and intellectual middle class, replaced old feudal lords by new ones, issued Permanent Settlement System, pressurized cash crop cultivation rather the food crops, collected tax in money rather crop share, caused indebtedness and famine, created intermediates and black marketer money lenders, and also destroyed handloom industry of Bengal by favoring its own raw material and materials produced in modern machinery mostly in England and partly in India. British Raj (1857-1947 AD) in 20th century AD shifted its capital from

Calcutta (Kolkata) to Delhi/New Delhi; disassociated Bihar and Orissa (Bihar, Jharkhand and Odisha) from Bengal region; provided autonomy to the marginal and excluded territories; separated Burma (Myanmar) and Malaysia from South Asia hence slicing up the Bay of Bengal region; and even opined to divided Bengal into eastern and western parts so as to fix North East India to East Bengal. British established railways throughout India. The British in North Bengal created two new districts Jalpaiguri and Darjeeling while dealing with Bhutan, Sikkim, Gorkha Shahi of Nepal and Lhasa, Tibet.

In 1947 AD when Indian Subcontinent was freed from British Raj, the former was partitioned into Pakistan and India. Several princely states were there who could remain independent or go by their choice. Bengal region was also parted into East Bengal and West Bengal; and those portions accordingly went to Pakistan and Indian Federation respectively. Simultaneously, North Bengal as a whole was fractioned into two. Part in West Bengal state comprises of six districts and constitutes North Bengal. Part in East Bengal (now Bangladesh) has a set of sixteen districts forming the north-western part (Dinajpur- Rajshahi region or Rajshahi Division). Six districts of North Bengal are Darjeeling, Jalpaiguri, Koch Bihar, North Dinajpur (Uttar Dinajpur), South Dinajpur (Dakshin Dinajpur), and Malda/Maldah. Sixteen districts in North West Bangladesh or Rajshahi Division are Panchagarh, Thakurgaon, Dinajpur, Nilphamari, Rangpur, Gaibandha, Lalmonirhat, Kurigram, Joypur, Bogra, Sirajganj, Naogaon, Nawanganj, Rajshahi, Natore and Pabna. Whole of North Bengal once kept connectivity to North East India from rest part of India. As a wider part of that North Bengal went into Bangladesh (an independent country since 1971 AD), the pressure was all over Siliguri corporation (now municipality) in Darjeeling district.

Specific Highlight upon North Bengal

A myth is there that from Poundrik Basudeva originated five different states of Eastern India and Bengal region: Pundra, Vanga, Anga, Kalinga and Sumbhra. Of those,

Anga was included within 16 major settlements of India during 600 BCE. Those places were also mentioned in great Epics. Pundra, Vanga and Anga had actually provided the shape of Bengal region. Pundranagara or the city of Pundrabardhana was probably a pre-Aryan settlement. Later the place became a Buddhist center and knot of transnational trade. Pundra was once regarded as North Bengal. Purnabhaba and Karatoya were considered sacred rivers by the Aryan people. Aryan settlement in North East India was famous by the name of Pragyotishpur that probably intermixed with local elements to form Bhagadatta dynasty of Kampur statehood. Aryan settlements like Mithila, Kapilavastu, Lichhabi, Videha, Briji, Vaishali were all democratic republics in Indo-Nepal border not far from North Bengal. During Maurya and Gupta period (4th century BCE-6th century AD interruptedly), North Bengal was probably a part of those Empires: evidences are there in Mahasthangarh or Pundrabardhana at Bogra, Dinajpur-Rajshahi region. Folk people used to sing Kushana song; and like other parts of East India and port areas of Bengal, it is believed that Kushana impact was there on Mid Bengal, Rajmahal area, Gauda and Pundrabardhana. Within the gap of Gupta and Pala (6-8th century AD); Bengal was ruled by independent rulers, Sino- Tibetans, dynasties like Bhadra (both Brahmin and Buddhist) and Kharga and Nag (snake dynasty); whereas Gour/Gauda (consisting of North Bengal and Mid Bengal) was governed by Later Guptas, newly formed Chalukyas of Deccan, anti-Buddhist Emperor Sasanka, Shaila dynasty at Barindland, Buddhist alliance of Thanessar and North East India (Kamrup under Bhagadatta Dynasty), Kashmir Empire moving into Bengal through Thanessar-North India and henceforth. Of those, Khargas in East Bengal were from Himalayas, of Buddhist origin, using Bhatta surname (viz., Raj Raj- Bhatta), and settled their capital at Boro Kamta in Tripura-Comilla area closer to Arakan-Meghalaya region. Chandra dynasty at Barindland was again of Nepal. The place North Bengal was allegedly innovated by Kamboja groups from Kidarite kingdom at Kapisha in Afghanistan (during tripartite warfare for control over Kanauj, North India, 8-10th century AD). Kambojas in North Bengal associated with Chandra dynasty in East Bengal, established Kamboja-Pala rule there for a certain period. After end of post-tripartite battle for 200 years, Rajput states of North Central India as well as Chola-Chalukya elements from extreme south had attacked and/or

increased influence on North Bengal during 11-12th century AD followed by Kaivarta Revolt occurred in late 11th Century AD at Barind region, North Bengal. In the gap between Palas and Sultanate rule (12th -13th century AD), various power houses were so active: Sen of Bengal, Barman of East Bengal, Trihut or Mithila in North Bihar, Brahmaputra valley of North East India, Mech community in Mahananda valley of North Bengal, Barendri Brahmin groups at Barindland-Dinajpur-Rajshahi region, and Bodo groups in North Bengal-Brahmaputra region. During Turk-Afghan Shahi (13-16th Century AD) and Mogul-Rajput Shahi (16th-18th century AD) in mainland India; North East India besides tribal pockets at Eastern Himalayas and Arakan-Meghalaya region was occupied by Chetia and Ahom people respectively who of Thai origin settled down in Brahmaputra valley. Teesta-Torsa river system of Sikkim-Bhutan region of Eastern Himalayas is the westernmost part of Brahmaputra Valley but included in North Bengal. States like Kamtapur of the Khen group and Koch Bihar (Cooch Bihar) by the Koch-Rajbansi people were dually formed during that phase. The latter continued for 400 years (16-20th century AD). During Turk-Afghan rule at Delhi, Mongols had tried to enter into India (13th century AD) and so the Turks (end of 14th century AD) that got success in beginning of 16th century AD in the form of Turko-Mongols (Moguls). Turk Afghan rule was in one hand theocracy, Shahi and self-sufficient Indian rural system: syncretism was highly practiced. Bogra in North Bengal was named after Bogra Shah in 13th century AD and people were highly influenced by Islam through Sufism as well as quasi-egalitarian version of Hinduism, viz., Vaishnavism. Koch Bihar always kept good relation with Mogul Rajputs as well as the British.

Evidences of Urban Settlements in North Bengal

Remnants of Kamtapur fort and Koch Bihar town were developed by the rulers of Kamtapur and Koch Bihar. Palas in late 11th century AD settled their capital at Ramavati,

Dinajpur. Sompuri at Paharpur in Dinajpur-Rajshahi was again an important Buddhist center. Sen Kings settled Lakshmanavati during 11-12th century in North Bengal. Turk-Afghans ruled Bengal from Lucknowti, Bogra, Gauda and Pandua that were all settled in North Bengal. Moguls also put importance on places closer to North Bengal and Mid Bengal. Murshidabad, Rajmahal, Munger, Tanda and Dhaka were such placers located at Mid Bengal, middle area of Bengal Presidency and Brahmaputra mouth. During the British Period, townships like Darjeeling and Siliguri were established in Darjeeling district. In Bengal Duars towns were developed apart from the tea gardens and forest beat offices. Under direction of both Koch Bihar dynasty and British government in Indian subcontinent throughout 18th, 19th and 20th century AD, Jalpaiguri and Koch Bihar towns flourished rapidly apart from various other settlements in the agrarian plains of Jalpaiguri- Koch Bihar region. Numerous settlements were there throughout Barindland and Dinajpur Rajshahi region. In Barindland region, generally those places were each named with the suffix ‘-gachh’ or ‘-ganj’ meaning in a sense market area or small township. Malda and Ingraj Bazar became the heartland of Malda district so formed by the side of Ganges-Mahananda basin in Gauda. British settled down Behrampore or Baharampur as the twin town of Murshidabad the capital of Bengal Suba (Bengal Presidency) during most part of Mogul era. For all the Turk-Afghan Sultanates, Mogul Rajput Shahi and British in South Asia, Sikkim and Darjeeling district have attained special attention. The place was related to Barind revolt or Kaivarta revolt in 11th century AD that was a major blow to the Pala kingdom in Bengal and Eastern India falling down within 12th century AD despite of all supports from Chola-Chalukya groups from extreme south and Deccan. During the tripartite battle for getting control over North India also (8th-10th century AD), Kamboja groups had entered the place and formed a parallel Kamboja-Pala governance. It is said that long before Sikkim state incorporated Siliguri and Islampur up to Purnia. They were the British who established several semi-urban and urban settlements in Jalpaiguri and Darjeeling districts and of them Siliguri has now become the second largest city of West Bengal state (just after its capital Kolkata, formerly Calcutta).

Why the British have formed Darjeeling and Jalpaiguri districts?

British tried to be involved in Sikkim that shared a Chumbi valley with Tibet to its north and Bhutan to its east. Amu Chu or Amo River from Chumbi valley entering into Bhutan became Torsa/ Torsha in Bhutan foothills (Duars), Jalpaiguri plains and Koch Bihar. Again Teesta from Sikkim crossed Kalimpong subdivision, then a buffer between Sikkim and Bhutan, to enter into Jalpaiguri plains by the margin of Boikunthopur-Bengal Duars; and rather moving into Jalpaiguri-Koch Bihar plain like Torsha, moved into the route of Lalmonirhat, Kurigram, Nilphamari, Rangpur and Gaibandha further south. When Teesta-Jamuneshwari (Older Karatoya) joint flow was there, the water course further incorporated Joypur, Bogra, Sirajgunj and even Pabna. So, that Teesta-Torsa water system meeting into western side of Brahmaputra mouth owed its origin to Chumbi-Sikkim-Bhutan region. However, Chumbi is now part of the Tibet Autonomous Territory of China and Sikkim included inside India leaving only Bhutan an independent kingdom.

Sikkim is situated on Himalayan range that divides South Asia from Tibet plateau. The state was at a place where Central Himalayas ended up in Nepal and from the very Kanchenjunga-Singalila zone initiated Eastern Himalayas. The latter spread into Sikkim and Bhutan eastwards up to Indo-Myanmar– Tibet border, from where another north-south prolonging Arakan Range is originated and expands through the Indo-Myanmar border, Myanmar-Bangladesh border and Arakan coast of Myanmar. Arakan actually separates South East Asia from South Asia and therefore a Tibeto-Myanmar belt is formed enveloping Himalayan and Arakan ranges. So, geo-strategically Sikkim is a very important place.

Gorkha Shahi of Nepal had keen interest over Sikkim as several rivers from Sikkim-Nepal Himalayas flew down southwards and created Mahananda River system in Purnia region, Bihar. Such a river was Mechi that determined Sikkim-Nepal border line. Mechi and Mahananda (originated from southern part of then Sikkim) formed the Mechi-Mahananda

basin. The basin by the western side of Boikunthopur (Barindland) in foothill or Terai region was distributed among Siliguri subdivision, parts of Islampur subdivision and Purnia region. Nepal-Siliguri Terai (containing Mechi-Mahananda basin and other tributaries) was mentioned as Morang by the native folk at earlier days. The way from Nepal-Siliguri Terai into Teesta-Torsa water system and Duars (Bhutan foothills) was through Boikunthopur forest (Barindland watershed).

British in 18th century AD intervened into the Sikkim-Nepal clash and protected Sikkim. In return of that British got southern Sikkim in the form of Darjeeling and Kurseong subdivisions that they merged with Siliguri subdivision to give into the shape of Darjeeling district. They later added Kalimpong subdivision after making that free from the kingdom of Bhutan.

JelepLa was that mountain pass which connected Chumbi valley to the Jalpesh in Jalpaiguri- Mainaguri region of Jalpaiguri plains through Kalimpong subdivision. Local people say that the name Jalpaiguri has appeared from JelepLa (La meaning mountain pass). Unlike Darjeeling-Kurseong and the rivers from there into Terai; Teesta and other tributaries all opened on the other side of Boikunthopur towards Bhutan foothills (Duars) and Jalpaiguri plains. Teesta and Mahananda were such rivers from Himalayas that not only demarked the eastern and western sides of Boikunthopur forest; but also the westernmost tributary of Brahmaputra and easternmost one Ganges respectively.

British added Bhutan foothills both to Assam of North East India and Koch Bihar princely state of North Bengal. Bengal Duars (Alipurduar) merged up with Jalpaiguri plains of northern Koch Bihar state developed into a new district called Jalpaiguri. However, the forest areas of Jalpaiguri were fallen under Koch Bihar district range office.

British authority in South Asia induced in-migration of labor categories from different parts of South Asia into the tea gardens so as to highly marginalize the local people there living in Terai-Duars- Hill areas. They tried to grasp those people who happened to be basically forest-dwellers, probably in order to maintain the rules and regulations of forest department so far established. Agricultural communities were also settled down in those

newly recovered and incorporated landscapes. That for sure was a drastic change in local demography, initiation of multiculturalism, and replacement of previous jungle-and trade oriented subsistent economy by agrarian and other surplus economies. Hill people from Nepal Himalayas with the notion of Gorkhahood were also placed in the Tea garden areas and from there to the neighboring places. Those people were traded as Nepalis and concentrated in Darjeeling-Kurseong region for a maximum amount followed by Kalimpong and Siliguri. British were not interested in settling up of tea gardens in Kalimpong hills rather treating the area as a transnational trade route among Sino-Tibet, Sikkim, Bhutan and Jalpaiguri-Koch Bihar up to Dinajpur- Rajshahi followed by Brahmaputra Mouth and Bengal Delta reaching ultimately in Bay of Bengal.

In Kalimpong, the slash-and-burn type of cultivation has been being gradually replaced by step cultivations on contoured trenches and bench terraces, horticulture of orange and various spice and vegetable cultivation. Forest resources and bad quality coal are also there. Medicinal plants and certain fiber yielding plants were of great importance. In the Kalimpong subdivision, Chinese Diaspora is over there and simultaneously in the Darjeeling area. Tibeto-Bhutanese groups like Monpa, Drukpa, Denzongpa and Sherpa associated with Buddhist Nepali elements like Tamang and various other Tibetan emigrants have noticed their significant presence in both Kalimpong and Darjeeling-Karsiyang regions. Presence of Kashmiri and other Muslim Diaspora could be noticed there.

Post-Colonial Political Frame for North Bengal

When discussing on separatism and mere urbanization, we could not neglect putting a glance on polity from international to local level. After independence, India took the specific policy of Non-Alliance and was in favor of Third World. Five pillars taken on account were India, Indonesia, Yugoslavia, China and Egypt: socialism and nationalization were at high tide. Sino-Indian war over Tibet and Indo-Tibet borderline, Naxalite movement initiated from

Naxalbari of Siliguri Terai and its spread throughout a wider region hampered the policy. Tibet, Israel, Albania, East Timor and Taiwan were alternatives to those five pillars. Pakistan was out of this, ruled by Muslim League and kept closer ties with Arab and Western countries. India was under the rule of Indian National Congress and decided to follow mixed economy. Majority of princely states were merged into India including Kashmir, Hyderabad Deccan, Mysore, Koch Bihar, Patiala and Kashmir. However, tribal dominated parts of Kashmir like Baltistan and Hunza were occupied by Pakistan and in this way Kashmir was partitioned just like Bengal and Punjab between India and Pakistan. At that time, medical institution under the banner of Bengal Congress was at the center of power in West Bengal state (Indian part of Bengal). That however faced strong opposition by the common people demanding for food security. Population concentration was too high in the state and land reformation was just a demand of time. Naxalite movement caused an anarchic situation and many intellectuals expressed strong support to it. Many leftist fractions actively or passively supported Chinese demands over Indo-Tibet territories controlled by India. China occupied Tibet and indulged in border disputes with India. Bhutan, Sikkim, Nepal, North East India and North Bengal were all going to be affected by that approach. Tibet was a Buddhist territory and kept its friendly ties with India. Many Tibetans fled to India, took shelter over here and set up government in exile. China was under communist party rule and people there actually followed various philosophies like animism, pre-Buddhist religious ideologies, Buddhism, Christianity and even Islam. Tea gardens in majority come into the hands of Indian business houses and communities (mostly Marwari traders). Demand of Gorkhaland was always there and from pre-independent period, All India Gorkha League was in local politics. Leftists supported the demand of Gorkhaland and own the Parliamentary seats from Frontier Bengal. Gorkha regiment was part of Indian army and the demand of Gorkhaland was obviously a kind of support towards Indian sovereignty against Chinese aggression. In state politics, leftist wings and Gorkha League made ties with Bengal Congress and formed coalition government, which was a major political development for 1960s. Mother Teresa in Kolkata (then Calcutta) and Indo-Tibetan leader Dalai Lama were notable personalities of the time. Portuguese colonies in South Asia were merged into Indian federal structure.

During 1970s and '80s, India moved into macroeconomic approach, tied up with Iran as the core of Shahanoshahi and origin of all the Shahis, signed pacts with Moscow at the center of Second World and helped in Bangladesh Independence War of 1971 AD where Gorkha Regiment of Indian army showed off great bravery in the battle of Bogra against Pakistani Army and allied groups against independence of East Pakistan (East Bengal) in the form of Bangladesh. India assimilated rest of Sikkim and merged it in its federal structure as the Sikkim state- that was a major development in Indo-Tibet polity. Actually, the entire Indo-Tibet region and the Himalayas are on Eurasian belt. India also experienced the Cold War between Second and First World. Arabs and China gradually moved in favour of First World as to them Second World under Moscow like previous non-alignment movement, Slav Nationalism, Nazi Germany, Austro-Hungary and the Eurasian cum Indo-European Turkic elements and French Revolutions could lead upto ultra-imperialism. So, was that all about a battle between ultra-imperialism and colonialism/neo-colonialism in different paradigm? So many indicators we could mention: Afghan war, Iran-Iraq war, Shimla agreement, Army rule and bi-party system in both Pakistan and newly formed Bangladesh, separatist movement in North East India, Jehadi movement, political turmoil in Kashmir, Khalistan movement, Sikh Riot, approach towards a political alternative, Mughal-Rajput Shahi model versus Lucknow Shahi model, Lucknow-Bangalore nexus in national polity, Janata Party and regional forces dominating over the Afro-Asian belt, Gorkhas and Deccan elements however supporting Mughal-Rajput Shahi, strengthening of Dinajpur-Rajshahi in Bangladesh and Turk-Afghan Kushan shahi in Pakistan, Islamic organizations in Pakistan and Hindu institutions in India, weakening in century old Mughal-Rajput alliance, initial approach towards a bi-party system in Indian polity, Green Revolution, land reformation, decentralizing of power at village level, revival to the cattle herd model of economy, micro-financing, returning back to gold, bureaucracy versus mass-criminalization, politics on reservation and so fore. Here, we could add the incident of separatist movement at Darjeeling Hills of Darjeeling district in the name of Gorkhaland (initial step towards Pan-Himalayan Gorkha Statehood) during 1980s. That was happened under the banner of Gorkha National Liberation Front (GNLF). West Bengal at that time became stronghold of the Leftists and State Congress remained only in existence in some pockets. Leftists keep closer

ties with the Janata party movement against Indian National Congress. Bengal Congress, Socialist Party and pro-Congress leftist wings became parts of the Left Front in the state. State Congress, GNLFF, ultra-lefts and Naxals however remained outside the front. There was no vital opposition in state politics.

In 1990s and 2000s, the empty place has been filled up by BRICS. Similarly, neo-colonialism is spreading altogether on its own tracks. A question of approval and rejection exists in peoples' mind. Religious institutions on their own are behaving like human shields. Ethnic, minority and regional forces are again playing crucial roles. Civil society movement in the place of separatism, terrorism, jehad, ultra-leftism, religious warfare, mass-criminalization, mafia and private army are getting in shape. Afro-Asian and Eurasian lobbies are both valid and they are seen in both cooperating and accommodating gesture. Nationalism and politics on reservation are still valid, but there are new approaches at regional levels. Bi-party System has become a reality in Indian polity. Previous parties like the so called leftists, socialists and older regionals join together to form the Third Front that is again much fragile. On the question of subsequent approval and rejection, political vacuum is often created and therefore subalternism is getting stronghold. China, Arab and the Westerns with their allies are still very powerful. Pan-Pacific is also an emerging area along with Eurasia and Afro-Asia. Petroleum and power sectors have power of decision making. Central Asia, Africa, Arab, Mediterranean, India, China and Latin America are therefore new targets. Party restrictions, banking and neo-liberal criteria are valid and could be experienced by a common man.

In post-USSR times, we experienced impact of globalization in Indian market, success in Indo-USA relation, fall of USSR, demolition of Gorkha Power House in Nepal by ultra-left activities and democracy, formation of several new states and autonomous territories in India, growing middle class and Real Estate business, Global Recession, food inflation, Foreign Direct Investment, peace talks with separatist groups, IT and Telecommunication sector, and so forth. On that context, Urbanization in a newer form at Siliguri-Matigara region of Siliguri subdivision, Darjeeling district is very relevant, when

already there is a bulk of Gorkha people living in both hill and foothill areas of the district.

Outline of Gorkhaland Movement

Hill people have a special aspiration of separate statehood in the name of Gorkhaland. This is mainly demanded by the Nepali population spread throughout the tea garden belt of Doors-Terai-Hill. The Nepali people are mostly concentrated in the hill areas and have other alternatives like Gorkha Regiment and various other jobs in Global Economy. Many of them are in dignified positions also. The people have shown highest level of solidarity and self respect in the name of Gorkhahood that has within it a notion of incorporating all the tribes and ethnic groups irrespective of being Buddhist or animists or Hindu or else. Like Mogul-Rajput alliance in 16-18/19th century AD; the Gorkha Shahi took the policy of Pan-Himalayan statehood. But it could not get into Bhutan, Sikkim, Tibet or Western Himalayan and also failed to innovate into the Terai areas of Bihar and Utter Pradesh, India. Gorkha Shahi kept good relation with the British in India and out-migrated a lot from Nepal in the newly formed Darjeeling and Jalpaiguri tea zone. Their maximum concentration is now in hill areas of Darjeeling district along with several pockets in Terai and Doors (especially the Kalchini-Hamiltongunj-Jaigaon under Kalchini constituency, i.e. the gateway to Bhutan). Gorkhaland for the past one century has remained a relevant political issue in the Hills and like GNLf in 1980s, Gorkha Jana Mukti Morcha (GJMM) there in changed situation has become the most dominated power in Darjeeling in 2011 AD.

The Adivasis from Central India-Deccan and Nagpur-ChhotoNagpur regions have their common language Sadri like the Nepalis people have developed their common Gorkhali or Nepali.. They could include some other Hilly groups but there is no clear decision on the foothill communities. The foothill communities have not been so much blessed like the Gorkha/Nepali who has had a separate regiment in Indian Army or opportunity for easy access to the global directly or via Nepal as a tourist destination. Nepal and India have no passport or VISA system but good degree of culture and politico-economic tie up. Nepalese

could also join the Indian army. A major bulk of foothill people under banners of various organizations rather protested incorporation of their places within the extended Gorkhaland Territory including Siliguri Terai and Bengal Duars. The plain and foothill people are more agro-oriented groups on much more arable land as compared with the hilly landscape. They are keener to land reformation program, rural banking and micro-finance, self-help groups and regular elections: they have not yet fully polarized their votes in a unidirectional way.

Adivasis have again divided into Christians and the animists. So, they could only say that the land is a Tribal Land and not too much eager to ask for a separate statehood till now. Separatism in many ways is associated with riot, revenge and exclusion of other people from their resources and property.

Other Separatist Activities

Demand for separate statehood of Kamtapur by the local people in Jalpaiguri-barindland-Siliguri is there. Kamtapur was a state under the Khens during the Chetia occupancy over Brahmaputra.

Greater Coochbehar movement is in favor of wider Koch Bihar- the land of Koch-Rajbansis. It asks for the dignity of Rajbansi community to a level of Kshatriya Rajput under the Hindu fold. Both the movements grew up during 1990s and 2000s.

Siliguri in Progress

Like all other cities and towns in West Bengal and India; Siliguri- a rapidly increasing Municipal Corporation in the northern West Bengal and the second largest populated city in West Bengal- is becoming corporate-prone. Siliguri has a huge hinterland

behind and day by day importance of Siliguri as well as that of Darjeeling district of North Bengal where it is now situated is increasing. Urbanization like Siliguri during the British colonial period was very much significant in the foothill subdivision of Darjeeling district composed of other three hilly subdivisions of Kurseong, Kalimpong and Darjeeling Sadar on the Himalayan range. The latter three now included in northern West Bengal were once issues for clash among Himalayan states like Sikkim, Bhutan and Nepal besides Tibet. All the rivers and mountain springs out of Darjeeling and Kurseong regions form the Mechi-Mahananda basin just west to Boikunthopur forest land and Barind-Dinajpur highland. Mahananda is the last Himalayan tributary than meets to River Ganges in east. Dinajpur-Rajshahi region actually cuts off Mahananda waterways from Teesta-Torsa water bodies again from the Himalayan range but meeting into Brahmaputra valley from North East India into Bangladesh. However, in Bangladesh the Brahmaputra mouth along with Barak valley from North East India-Myanmar borderline meet into Bengal delta formed by distributaries of Ganges. The Mechi-Mahananda basin in earlier times fell under Purnia region of Bengal-Bihar continuity. Now it is divided into subdivisions of Siliguri, Islampur and Thakurganj: the former two are subdivisions of Darjeeling and North Dinajpur (Uttar Dinajpur) districts here in northern West Bengal (North Bengal); whereas the latter is a district in present day Bihar state. The Mechi-Mahananda basin cuts off Jhapa district of Nepal foothills (Morang/Terai) from Barindland prevailing in Chopra block of same Islampur subdivision, Boikunthopur forest of Jalpaiguri district, Mekhliganj-Haldibari region of Koch Bihar district plus highland districts of Bangladesh (Panchagarh, Thakurgaon and Dinajpur mainland) under Rajshahi division. So, the basin is like a chicken neck communicating Indian mainland with North East India, Bhutan and Sikkim.

Valleys of Mechi-Mahananda basin are agricultural ground where Rajbansis, caste communities and agrarian tribes preferably living in. The hillocks within it are considered as extension of Nepal Terai foothills. Most of the places had been jungle areas that later were later converted into Tea Estates established by the British and their collaborators. Adivasi, Nepal's hill people (Nepali), Gorkha designated folks as well as caste communities of Barindland (especially Borendri Brahmin community) added to Indo-Nepal

foothill people speaking Abadhi, Bhojpur and Maithili plus several minorities (ethnic, linguistic and religious) are situated in various village hamlets and villages in these highlands.

Highlanders are prone to pre-agricultural activities, medicinal practices and disease treatment (Shamans and Medicine Man), small game hunting and gathering of fruits and nuts, leopard and python hunting, bird hunting, collection of firewood and minor forest produce, conflict and cooperation with forest department, fishing in local rivulets and digs, pastoralism and poultry, brick-cum-wooden houses, alcoholism, lime production from snail and tortilla shells, domestication of pig, maize and yam cultivation, honey collection and propagation of potato, kitchen gardening and fencing, consumption of mushrooms and lichen soups, semi-nomadic attitude of people living in both hills and foothills, yielding of cash crops and silk, and so forth. They are residing in jungles, practicing slash-and-burn type of cultivation, servicing in Tea Estates, attached to horticulture, jobs in defense sector, affiliated to urban life, much stressing on race, giving much priority to womenfolk, having a notion of slavery (in disguise), class struggle, labor movement, community approach in the most viable condition, dignity of highlander, trade connectivity, and finally clear-cut tendencies towards anti-feudalism.

These people are very much fond of gold, silver and ornaments. A tributary Balason in Mechi- Mahananda basin is said to be carrying gold sand with it, however now it along with so many river coming down from Bhutan-Sikkim track are good sources of boulders. People in highland were aware of harsh livelihood and believed gold being much more valuable than paddy crop. People remembered their early livelihood in tree-houses, wood industry, heavy rains and malaria, migrated birds and endangered species in their biodiversity hotspot, self-sacrifice and other sacrifices in various occasions, blood as supplementary to salt, conceptualities regarding bio-geo cycle, beef eating for high energy, indigenous ways of food reservations and use of soil in that, burying the dead instead of burning the corps, placing the dead in subterranean chambers with gold or other precious goods, concepts regarding afterlife, Buddhism and pre-Buddhist traditions, trans-national trade with Tibet, astronomy and astrology, concepts of Raksha- Yaksha-Naga-Gaduda-Deva-Daitya-Damava-Manava-Sura-Asura-Gandharva-Kinnara-Apsara- Vanara, wealth of

Kuvera, Mon-Khmer affiliations, cult of Shiva, pre-state community life, female malevolent and benevolent deities, two soul concept, spirit and ghost, Mashan, magico-religious activities, worship of Wiseman, worship of animated objects, animism, worship of rivers-trees-stones- birds-animals, worship of snakes and birds, worship human ancestors and own ancestors, worship of Mountain Peak of Ghang Chhen-m Zod Nga (or Khangchenzonga, i.e., Kanchenzonga: world's 3rd highest peak situated in Sikkim-Nepal border) and various cultural activities like Khon Song, Chor- Chunni drama, Kushan Song etc.

Parallel to the growth of Siliguri in Mechi-Mahananda chicken neck, Siliguri division is also known as various highland movements. Borendri Movement in 10th Century AD brought the end of 400 years long Pala Dynasty in Bengal-Bihar region that survived for the next few decades with life-saving support of the Cholas of extreme south of Indian peninsula making the entire Bay of Bengal just as a lake for them against Buddhist-Arab nexus over the sea trading. In 18th century, Sanyasi agitation was there against the British hegemony. The Hindu monks along with Muslim Fakirs spread over whole of North Bengal and Rangpur with Rajshahi divisions. Borendri king Bhim was from the highland of Bhimbar (>Bhim Pahar/ the hillock of Bhim) near Sonapur (>Swarnapuri/ the City of Gold: El Dorado).

Similarly, the major concentration point of Sanyasis was in Sanyasithan forest which is now a Tea Estate within Sinchula forest land. The largest army cantonment of North Bengal is Bangdubi situated in the same place. The one and only domestic airport of North Bengal is in Bagdogra Air Base out of many as used by the army. it is also used by Bhutan for International service. Bagdogra is a small township beside Sanyasithan. People still go inside Sanyasithan forest to pray to Shiva cult (Jangli Baba) there. So many male and female cults are hidden inside the Sub-Himalayan forests of Siliguri subdivision and Duars region (Jalpaiguri district). In post-independence scenario, labor movements are always remembered throughout the tea belt of this Siliguri Terai and the Jalpaiguri Duars (foothills of Bhutan included in Jalpaiguri district, India).

Naxalite movement of 1960s has also its origin in Siliguri subdivision: Naxalbari is there a rururban area by the Indian side of Mechi River that is also the international border of Siliguri subdivision and Jhapa district of Nepal. Naxalbari has jungles and Tea Estates. Naxalbari means for a temperate region. It ends with initiation of agrarian lowlands of Mechi-Mahananda basin that continues into Kharibari of the same Siliguri subdivision of Darjeeling district (northern West Bengal) and Thakurganj district of Purnia region (Bihar) where Mechi actually meets into Mahananda.

Bhimbar-Sonapur, Sanyasithan-Bangdubi-Bagdogra, and Naxalbari are three major uplands within Mechi Mahananda basin; they seem to be the last traces of Sub-Himalayan Terai in this Indo- Siliguri borderline.

Matigara is a place situated near the bank of Balason. This semi-urban place is famous for its pottery industry and once the place was treated as one of the biggest weekly market of entire North Bengal-Purnia-Rajshahi. In close proximity to this Matigara region the British established Siliguri Township on the bank of Mahananda. Siliguri has fully grown into a City as well as trade center but with its town like appearances still alive. Matigara has become a sub-urban of Siliguri. Matigara contains only medical college of North Bengal and it is also a place for higher education with no such agricultural activities. In this period of globalization, wastelands of Matigara are being used for extension of Siliguri. Phansidewa (Bandergachh) and Chaterhat on bank of the same Mahananda River are two river ports, trade centers, jute hub and pre- Siliguri British power center again in Siliguri subdivision with historical significance. A place by the name of Mahipal asks for reminiscence of Pala rule to the place. Settlements in lowland of Mechi- Mahananda basin are as such that they either show affinity to Vaishnavism or Islam exceeding over Buddhism and pre-Buddhist activities. But for instances, Buddhist centers still exist there and are increasing their number. In each of home, certain religious traces are not hard to get speaking out for pre-Buddhist traditions. Places in highland are names with suffix with ‘-danga’ meaning upland and ‘- guri’ or ‘-gachh’ meaning urban or semi-urban settlements. A fort like construct has been found in Lohagarh (“fort made up of Iron”) near Naxalbari. So, it is not all about gold of Balason, but also the iron shield of Lohagarh.

Siliguri on the other side is also attached to Boikunthapur forest region which is a part of Barindland watershed. Placed in Jalpaiguri district, this forest region has places like Rajganj, Fulbari and Dabgram that are considered as extensions of Siliguri provided with railway division, army cantonments, Indo-Bangladesh trade points, river barrage and power station on Mahananda, industrial hub and rapidly growing urban offshoots. Talma in Rajganj is a historical place. Teesta canal project has traversed this Boikunthapur-Rajganj area connecting Testa and Mahananda two completely different waterways.

The people of Siliguri subdivision have therefore experienced trade and agriculture, Barindland and lowland, basin and sub-Himalayas, forest and Tea Estates, as well as rural and urban. Rural cosmopolitanism and multiculturalism exist to the place. But for the three hilly subdivisions in the Darjeeling districts, included from Sikkim during British times, are more dominated by the Nepalis or the Gorkhas overwhelmingly existing over Lepchas, Bhutias, Tibetans, Kashmiri Muslims and Chinese. However, Subbas of Nepali social fold were originally the Limbus of the place. Lepchas were of two types: of Nepal and of Sikkim. Bhutias of Bhutan are mostly known as Drukpa and that in Arunachal Pradesh as Monpa; but in Tibeto-Nepal border and Tibeto- Sikkim borderline they are known as Sherpa and Denzongpa respectively. Mongor of Nepal and Yalmo plus Kagatiya might have some affinities with this. Sonowar of Nepal are goldsmiths; Baun plus Chhettri plus Thakuri being of Upper Caste descendants (Tagadhari); Karki plus Kami plus Damai being Scheduled Caste; like the Bhutias and Tibetans few Nepali groups are also Buddhist associated with few Christians and Hill Muslims. There are so many ethnic groups of Nepali descendants working and living in forest departments, tea estates, plantation sectors, gardens of fruits and flowers, terraced cultivation grounds on hilly slopes, and urban centers on the mountains. These majority sections of Hill people, mostly in-migrated along with autochthons, are united together with a Gorkha Nationalism. In Nepal this is the main reason of establishment of Nepal as a country governed from mountain and not the foothills. This is also prime reason behind the demand of Gorkhaland state out of northern West Bengal. Different opinions are there: autonomous territory, separate state, Union Territory, and pan-Himalayan nationhood. For a separate statehood demands have been raised for only three

hilly subdivisions, that plus portion from Siliguri subdivision and Siliguri City, entire Darjeeling district, and Darjeeling district plus Boikunthopur cum Bengal Duars from Jalpaiguri district. In tea gardens, tea garden based urban centers and villages of Duars and Siliguri Terai plus forests like Boikunthopur, Nepalis have settlements but in a multicultural circumstance. The emigrants of Nepali origin out of Bhutan are known as Bhupalis are they are placed in Terai-Duars of North Bengal as well as refugee camps of Nepal. In past decade, Royal Dynasty of Nepal (symbol of Gorkha Shahi) fell down; Maoist insurgency was in a hike; strong demand for democracy was there; the foothill dwellers there united themselves under various political and apolitical groups; anti-Indian sentiment and pro-ethnic motivations were also experienced; but still date demand for Gorkhaland has survived in Darjeeling district and this becomes an issue of Nepali speaking groups of India.

Siliguri is in the knot of National Highway 31, NH 31A, NH 52, and a number of major state highways (SH-2, 12A). It is rightly the Gateway of the North-Eastern States. The entire road & train traffic to the North East India is passing through the narrow corridor of Siliguri Terai of Darjeeling district which links it to the rest of India. Its proximity to the international borders of Nepal, Bhutan, Bangladesh and China further increases its strategic and economic importance. It is now considered the second capital of West Bengal. The advantageous location of Siliguri makes it an ideal Centre for trade, commerce and transit tourist traffic. Major trade and commerce exists in the three most northerly districts of Darjeeling, Jalpaiguri and Koch Bihar. Historically, Siliguri lies on the traditional trade route to Sikkim, Nepal, Bhutan and Tibet, and is situated on a vast hinterlands as far as Bihar, Jharkhand, eastern fringes of Uttar Pradesh, Bangladesh and North East India. It has the nearby Bagdogra Airport and NJP rail junction thus being communicated with all major cities in India and even through Druk Airlines of Bhutan with Singapore. All the three types of railway links viz. broad gauge, meter gauge and narrow gauge connect. Siliguri and its surroundings has surplus power served by 4 substations. Further two substations are already under commissioning to meet the future demand of this area. Comparatively less equipped bulk from neighboring rururban and suburban areas and slums of the same heterogeneous urban economy have thrived in for search of mostly blue

collar jobs. Medical college, nursing homes, engineering college, polytechnic college, government college, six colleges, university, law college, army camps, Indian army, Border Security Force (BSF), Central Reserve Police Force (CRPF), Shashastra Seema Bal (SSB), Assam Rifles, Indian Air Force (IAF) cantonment area, Indian Oil Corporation Ltd. (IOC) oil depot, dairy farms, industrial hubs, ITI, transport terminuses, rail stations, schools and libraries, clubs and swimming pools, welfare organizations, open and deemed universities, study centers, foreign language study centers, subdivision hospital, nursing homes, cinema halls, open air theatres, market complexes and malls, recreational parks, public schools, good hotels and restaurants, FCI, housings, roads and bridges, culture centers, fair brigade, banks and manufacturing industries, factories and mills, auction centers and regulated market, markets of so many types, major administrative set ups, offices and so many private institutes are there.

Siliguri has experienced a huge surge in population in recent times. Based on Census data of 2011, the city had an approximate population of 17,72,374. Males constitute 52% of the population and females 48%. In Siliguri, 12% of the population is under six years of age. Siliguri has a majority Bengali population along with other minority communities like Nepali (Gorkha), Bihari, Marwari and so on. Various languages are now spoken here: Bengali, Hindi, English, Nepali, Marwari, Bihari, Bhojpuri, Assamese, Punjabi, Gujarati, Tibetan and even the local dialects.

New Urbanization

Opening of Nathu La pass in Sikkim has made China and Tibet autonomy linked up with the region through lower Sikkim area (Dajeeling-Kurseong) already included in the district. Siliguri has therefore become an important trade center for not only northern West Bengal. Siliguri is the headquarters of FOCIN (Federation of Chamber of Commerce and

Industry of North Bengal). Opening of shopping and entertainment malls like COSMOS, ORBIT & City Centre has affected a change in lifestyle. The city recently also witnessed the arrival of its first set of multiplexes - CINEMAX, INOX at ORBIT and Big Cinemas. The rapidly growing city also has showrooms of numerous automobile companies such as Maruti Suzuki, Honda Sael, Toyota Kirloskar, Ford, Tata, JCB, Mahindra & Mahindra, Hyundai, Skoda, General Motors, Fiat, Mahindra Renault, Chevroutlet, Eicher, Ashok Leyland, Sonalika etc. There are numerous two wheeler showrooms also of companies: Hero Honda, Kinetic, Honda scooters, Yamaha, Tvs, Suzuki, Bajaj, LML. A large number of retail jewelers has opened showrooms in Siliguri: Tanisq, P.C. Chandra, M. P. Jewellers, Senco Gold, Damas etc. With the growing commercial transactions there have opened up some major banks in the city namely Standard Chartered, HDFC, ICICI, Allahabad, State Bank of India, Axis Bank, UCO, Vijaya, IDBI and UBKG bank. There are also some other banks such as Bank of Maharashtra, Bank of Baroda, Canara Bank, Andhra Bank, PNB, Indusind Bank, Sonali Bank etc. In a recent gesture of international co-operation and friendliness the road network of Siliguri is being used by the government of Nepal and Bangladesh so as to facilitate easy transportation of essential and urgent commodities (like rice etc.). The Silk Route of India i.e. trade route between India and China is accessible only after crossing Siliguri (Nathula and Jelepah); thus making it important for international trade between India and other countries and also among other countries. There also are business routes to Bhutan and security manned border with Bangladesh. Siliguri is experiencing a rapid expansion of its population.

Rapid urbanization has been witnessed in Matigara block in the past one decade because of its proximity to Siliguri. The adjoining Matigara block is spread over five panchayats (rural governing bodies), covering an area of 128.09sqkm. According to the 2001 census, the population in the block was 1, 19,408 and the growth witnessed in the previous decade was 40.90 per cent against the state's 17.84 per cent. The block has also the North Bengal Science Centre, Savin Kingdom — an entertainment park — Paribahan Nagar, where several state and central government offices are located and the electronic manufacturing unit of Videocon, besides top schools, offices of the state secondary education board and the

higher secondary council, dairy plant, a government science college, a small industrial park and the Himanchal Bihar, a composite residential area followed by Uttorayon township. From North Bengal University and the North Bengal Medical College and Hospital (NBMCH) to Uttorayon Township and the North Bengal Frontier headquarters of the BSF, all are located in Matigara block. Demands have been made to upgrade certain areas of the block into a municipality.

If we keep aside the matter of Global Economic Recession from our mind for a while; like all other cities and towns in West Bengal and India, Siliguri has a potential amount of corporate-prone people. These people in and around the city have been previously attached to white collar jobs and now are ready to spend their wealth whatever they have earned through generations in order to become a part and parcel of the Corporate World.

Now the bulk is realizing that once you become the corporate, you fall into a cycle of consumerism- you are earning to spend within a nearly closed structure which is something different from traditional Indian market and has a global fragrance. But this Corporate World has lastly failed to remain unharmed and got over-loaded with huge economic burden. People are being aware and becoming conscious of the fact of money-saving which is a typical Indian character. Impulse is there to set up new townships with certain ultra-modern facilities near Siliguri; so that the corporate bulk spread throughout the country and the globe could return back to their homeland, invest safely and wish feedback despite of only outflow. At the same time, the Global Market would try to pierce into the local market and expand itself so as to revive from the recession scar. In absence of global marketing system, inflation could create steep price rise. In the opposite condition, prices in local markets might be a bit controlled; consumer and producer would be benefited; but the local shop owners would fail to get the expected profit margin. Already, fruit and food processing companies have entered into local farmlands enhancing local farmers for organic farming on contract basis and privatized small tea gardens are also there in chain system up to the factory.

The economy of tea, timber and tourism (3T) was once established in Darjeeling hills to compensate the trans-national trade economy stopped since Sino-Indian war, 1961 AD. But at this time of Global Market Economy with a phase of recession right now, this 3T model can not fulfill all the requirements for all the people, especially those are residing outside this global economic system. For all the people, it is not easy to realize all the tactics of global commerce: whether to be all liberal or semi- closed or highly self-controlled. So, one kind of disappointment is getting higher entropy within the tough livelihood as found among the hill people as compared to foothill dwellers of Darjeeling district. And the people there cannot remain satisfied with just any Hill Council and so a demand of Sixth Schedule or Autonomy or Administrative body or Union Territory and even a call for separate State with wider geographical jurisdiction including the entire Sub-Himalayan tea belt in the name of Gorkhaland could be made. Incorporation and/or construction of investment friendly new townships would be the hidden goals. So, a separatist movement could be revived with a new pace due to the crises in economy and social fear of loosing and misery. Full or partial satisfaction of these demands can cause a temporary way back from the demand of separate statehood, but that always remain vital for being identity issue and meaningful cultural survival. Hamper to agricultural sector on the other hand due to rapid urbanization might also reason for separatist movement: in that case it would be rather local and anti-global.

Conclusion

There is a myth that gold was flowing with sand and gravel from Darjeeling-Kurseong terrain into the Mechi-Mahananda basin of Siliguri Terai by a tributary called Balason: Matigara was from Balason to Mahananda. The place then become famous for a weekly market that used to supply wooden implements throughout the Barindland and neighboring agrarian lowlands, liquor manufacture and now pottery. People lived there who buried their dead in subterranean chambers along with gold ornaments. So, pre-agricultural communities might be there who reached up to making up of or conceptualizing so many

things that could only be possible by trading communities. Actually business was there of indigo, spice, forest produce, drug and medicine, fibers, tobacco, betel nut, and so many things. Those Khmer or Koch or Khen or Kirata type of people later overlapped with agricultural communities forming the Kaivarta category involved in agriculture-cum-fishery.

In British period, tea gardens and urban centers were set up throughout Bengal and Assam Duars, Darjeeling-Kurseong region and also Terai. Matigara was not outside that and initially contained 3 tea estates before independence. Later on, Matigara and Chandmani TE remained there. British built up Siliguri Township on the bank of Mahananda. Siliguri was the auction house of tea and timber. Siliguri was situated very close to Matigara and communicated with Kurseong and Darjeeling via Hill Cart Road and narrow-gauge Toy Train. Siliguri is situated by the western side of Barindland or Boikunthopur. Siliguri is accompanied by Dabgram region at Rajganj block in Boikunthopur region of Jalpaiguri district. Dabgram is considered as under added area of Siliguri municipality. Interestingly, the Koch Bihar dynasty had primarily tried to develop Dabgram as the center of Boikunthopur, but later shifted to Jalpaiguri on the other side of the forest and eventually Jalpaiguri township by Teesta River turned on into the controlling unit for entire Bengal Duars, Jalpaiguri agrarian plains on Teesta-Torsa, and the said forest area.

Urbanization in a disproportional way or economic growth with unequal sharing system could cause a separatist movement or at least influence the same. In present day context we could believe that the global economy with its boom and simultaneous meltdowns locally or nationally or internationally could influence the society in the forms of majority versus minority, secularism versus fundamentalism, ethnic versus pleural, localization versus globalization and such things. Increased Gross Domestic Product, inflation, black-marketing and money lending, price rise in local marker, privatization, money outflow and inflow at global level, distribution of market into strata, shortage of currency in local market, price fall, producer-seller-consumer direct chain, government intensives, social disparity, global economy, taxation, welfare state, stagflation, crisis in global economy, searching for new markets, conservative attitude and unemployment in local and/or global sectors anything could happen. But that would be more on economic discussion.

Only economic reforms in a sustainable all-acceptable manner and proper awareness among the people could solve such problems. State should maintain its duty properly or as far it can do. Politicians, policy makers and investors have to re-decide what to do and how to do! The issue is not just between peoples of Hilly Terrain or Plains, or of different cognitions, but for conduct urbanization process in the friendliest manner by knowing nearly all the facts of all kinds. Urban center does not mean some pile up of concrete and cement on bricks; but it is rather a social reality linked up with people's emotions, memories and historicity. Cognition of a forest dweller, that of an agriculturist, of a highlander, a lowlander, a treasure hunter, a day laborer, or an urban fellow is to be interrogated. So, this paper is just a beginning, and nonetheless coming to any conclusion.

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Identity Movement and Urbanization

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Abstract: If urbanisation and identity movement can influence each other is the main theme of this paper. Case study has been taken from northern West Bengal state of India and target group is Nepali speaking Himalayan people in respect to Siliguri township of sub-Himalayas.

Nepali-speaking hill people are basically from Central Himalayan country of Nepal where the concept of pan-Himalayan integrity in the name of Gorkha identity was emerged.

In British India and in post-independent times, many people of them have served Gorkha regiment and socio-politically formed a human shield in borderlands. They serve as the backbone alternatives like tea estates, forest departments, tourism, and settled agriculture: on the basis of that, several urban pockets were developed by the British in included Himalayan pockets and Terai-Duars foothills along with local watersheds from influences of Sikkim and Bhutan.

Gorkha people know very well the Shahi notion in Indian politics and the goodwill between Shahi and British Commonwealth needed for safety in South Asia.

Gorkhas always demand a separate statehood in the name of Gorkhaland over these territories once included in Bengal Presidency (now West Bengal state of India).

They keep good terms with country India. For the last hundred years, this demand of Gorkhaland was raised, whenever in British India or India with First, Second and First Worlds in critical stages: to some the demand was of separatism and to many for inclusiveness.

Globalization, disparities and urban growth in Siliguri sub-Himalayas are accompanied by Gorkhaland movement.

Introduction

My paper is on if urbanization could increase separatist movement. I would not go through any holistic approach rather taking a specific way. India is a country with 29 states and 6 Union Territories. Out of these, West Bengal is an important state with 19 districts and of these 6 northern ones (Darjeeling, Jalpaiguri, Koch Bihar, Malda, North Dinajpur and South Dinajpur) here compose the northern part of the state, namely North Bengal. The Ganges River and its numerous distributaries have resulted in some of the most fertile regions in the world.

The second largest city of the state after Kolkata (Calcutta) is Siliguri that is located here in North Bengal. Due to population increase on regular basis, it has no option rather than to expand outwards. The two major townships under construction are Kawakhali-Porajhar by river Mahananda and Uttorayon (meaning Destination North) replacing the Chandmani Tea Estate. In this paper I am going to test the statement that urbanization could increase the scope of separatism and at the same time proper information to the local people could decrease this trend especially when development happens in a sustainable way.

Urbanization is common phenomenon today. With globalization, things are changing rapidly. But it is true that urbanization is not new in Indian Sub-Continent. From the time of Indus Valley Civilization 5000 years back; urbanization is a common trend here. But with the abolition of that civilization at about 2000-1500 BC, in most parts of India agriculture and cottage industries under the peasantry became the backbone of Indian economy: though urbanization proceeded on its own way as trade being the other major pillar of Indian society. Even we can see urbanization in the form of religious center or army cantonments or surrounding a fort or in the shape of an administrative center. Indians have communicated with the outside in the form of trade and also religion like Buddhism and Islam. Urban settlements were at a time surrounded by high walls and therefore with population increase, they became more densely populated without any proper planning in most of the time. They even behaved

like certain centers and sub centers communicated through the networks of social bondage, political ties, business and religious pilgrimage. Towns and motels were there in ancient trade routes and the authorities often constructed roadways and took care of the safety of the caravans. Priest, robbers, police-administration and army were all there. Even, religious policies and relation with the traders were changed from time to time; but mostly there were no need of slavery as the labour resource, estate system as production machinery on business purpose and thirdly, rationalism in the entire society: major bulk of Indian population resided in their respective agrarian systems and created certain extra-caste, extra-class, extra-power complex sub-systems that maintained certain level nexus with urban settlements. But people in rural areas on the ground of strong solidarity (both horizontal and vertical) and factionalism provided self-sufficient characteristics to their village or village clusters. But they were not at all isolated groups and hence, networked with other such clusters providing a look of spider net. But in general, people in rural set up maintained a concept that urban life might be more luxurious but not like as pious as the countryside. Property concept also changed from rural to urban:

joint to fragmented family structure, technology input, community property sentiment, replacement of ascribed division of labour through achieved ones, social mobility, change in views, socio-cultural values and norms, and even structural transformations- everything being much affected. Wealth is also valued differently from place to place: crop, animal husbandry, gold and currency system. Even rural people staying with their folk lives within the triangle of Human-Nature-SuperNature have experienced certain levels of cosmopolitanism. After the establishment of British control over India (1757-1947 AD); the urbanization in India became more heterogeneous, westernized, modernized and global.

They came out from the stagnation of elite and rich groups apart from the slum dwellers and strongly convinced by formation of intelligentsia, middle class, labour class, youth, gender consciousness, human right activities and pro-industrial mindset. Political science even agrees with the role of civil society. Every urban center has its own network system, own hinterland and own historicity. An urban center could never be restricted within its circumference or a specific location. So, apart from synchronic aspects; a diachronic discussion is always needed to properly understand the clauses behind formation of the urban center along with

its hinterland- otherwise proper planning for its better future, good impact of its on the society and further development on a sustainable line could not be met with. There would generate a situation devoid of proper information system and clear cut policy. That could cause or even be misused to anti-development activities, social disruption and environmental protests; and under a heterogeneous condition lead to the ground of ethnic clashes/manifestation for all peoples' share and sustainability/urge for separatism. So, urbanization or economic growth with unequal share of distribution due to discrimination or lack of proper management causes a separatist movement or at least influence it. Various points could be made available in justification or against such pattern of separatism. But behind the whole issue at least in present day context we could believe that the global economy with its boom, clashes and recession could influence the society for majority versus minority, secularism versus fundamentalism, ethnic versus pleural, localization versus globalization and such things. Here, Siliguri the emerging urban center in northern West Bengal under Indian Federation has taken under consideration. The notion of separatism and its link to various separatist movements in North Bengal demands a proper discussion on formation of North Bengal which is itself a result of so many geo-political separations.

Darjeeling in its very historical time has shifted from one power to another. Initially Darjeeling was a part of Sikkim. In 1780 it came under Nepal and in 1816 British restored it to Sikkim. It was 1835, when the British again acquired Darjeeling. The Terai portion was annexed in 1850. Duars (also Doors) and Kalimpong were included in 1865 and 1866 respectively from Bhutan. The district attained its present dimension in 1866; even the partition of 1947 left this district intact and as a part of West Bengal. Now-a-days the district has three hill subdivision viz. Darjeeling, Kalimpong, Kurseong and a plain one-Siliguri (O'Malley 1907).

However, the Darjeeling district is therefore has 4 subdivisions and only Siliguri is in the Terai region and the rest three (Kalimpong, Darjeeling and Karsiyang/ Kurseong are the hill regions). Today the district expands its area to 3,149 square kilometers with a total population of 1,609,172 souls within more or less same latitude and longitude-26°27'10"and 27°13'5" north latitude and between 87°59'30" and 88°53'0" east longitude (Census of India 2001).The district head is Darjeeling town situated in Darjeeling subdivision, but the main trade center is here Siliguri which is the only way to North Eastern states and Bhutan from mainland India.

Root causes of Identity Movement in Darjeeling District

- British authorities despite the Kalimpong subdivision of Darjeeling district established or encouraged establishment of tea gardens. Tea estates were set up in formerly Lower Sikkim areas (Darjeeling and Karsiyang subdivisions) and Terai extension (Siliguri subdivision). British also established similar tea estates throughout the Duars. Further they brought people from Deccan Shahi and Gorkha Shahi there as the labor category. Those people were tribes, Matoalis and Adivasis. Higher categories also came to those places from those Shahi extensions for other employments. Later higher category of Nepali speaking communities treated as Tagadharis entered to the place along with more and more Matoalis having lower status. They together and also incorporating some others like Lepcha, Limbu, etc. constituted the Gurkha identity. Many of other groups like Bhutia, Tibertan, Kashmiri Muslim and Chinese diaspora, and mainland Indians made collaboration with this Gurkha common identity and established in this frontire region. Nepalis or Gurkhas flourished mostly in Darjeeling hills, Kurseong hills and also Kalimpong hills. They were also sporadically existing in Siliguri Terai and entire Duars. But there they had no numerical strength except a few mountainous Indo-Bhutan borderland areas. In these foothills, Adivasis were much more in number. Both Gurkha or Nepali speaking elements and Adivasis were primarily working at tea garden estates and therefrom started settled cultivation in tiny river patches where Bengalis and Rajbanshis could not reach. Oraon, Munda and Santhals among the Adivasis preferred settled cultivation the most. Santhals are many other places in North Bengal. Santhals, Mundas and Oraons are also staying at Dinajpur and Malda watershed areas. Nepali, Adivasi, Rajbanshi and Bengali communities introduced settled cultivation in the plains, watersheds, uplands, forest-torned regions, foothills and hills to overcome slash-and-burn, shifting, bush fallow and agro-forestry type of cultivations practiced by communities indigenous to these lands in real sense. Transnational trade was also faced challenges from tea, timber, tourism, and transportation based economies. British settled new townships in Duars and ensured their connectivity with Siliguri Town at Siliguri Terai by means of bridges, roadways and rail

tracks. Nepali speaking people could demand on entire Darjeeling district and Bengal Duars of Jalpaiguri district, but they had the numerical strength in three hilly subdivisions of Darjeeling districts like Kalimpong, Kurseong and Darjeeling Sadar. These three subdivisions in the post-independent period have been enjoying autonomy in the name of Darjeeling Gorkha Hill Council and Gorkhaland Territorial Administration. Proposals were also there for implementation of Sixth Schedule of Indian Constitution. Many ask for creation of separate district, unification with Sikkim and even pan-Himalayan expansion of Gorkhahood. Gorkha or Gurkha people are also there in many pockets of North East India and they are the numerical majority in Sikkim state also.

- Actually, in pre-colonial times, the most influential powerhouse was the Mughal Padshahi that in combination with Rajput Shahis decided to unify entire region. They were assisted by so many princely states of Sub-Shahi types. There were other minor Shahis like Turk-Afghan Shahi in Indus valley and Afghanistan that previously spread over a huge part of India. Kushanas ruled that Shahi since ancient historical times through Buddhist, Hindu and Islamic times. Dinajpur-Rajshahi was another Shahi in Indo-Bangladesh region that is now shared by North Bengal and North Western part of Bangladesh (Rangpur and Rajshahi Divisions). This is actually a watershed with various rain fed rivers separating Gangetic plain and Brahmaputra valley. This is geographically too closer to mouth of Brahmaputra and Gangetic Delta (Bengal Delta). Other rivers from Chhotonagpur plateau and so many watersheds and plateaus and hills and eastern part of Himalayas within the Tibeto-Burmese conclave also make their ways to this river network formed by ultimate union of Brahmaputra mouth and Bengal Delta upon Bay of Bengal. Koch Bihar was an indigenous state in North Bengal of India that maintained good terms with Mughal Padshahi and Rajput estates. The entire Indo-Nepal borderline which is actually a foothill region or Terai above the Gangetic plain of Uttar Pradesh and Bihar heartland is linked up closely with ancient Epics like Ramayana and Mahabharata, Little Republics, origins of Buddhism and Jainism and Nathism as well as colonization of Indo-Greeks and Turk- Afghans. This also has some Shahi attitude and known as Lucknow Shahi too closer to Delhi as the center of Turk-Afghan Sultanate in South Asia, Agra as that of the Mughals, and Mathura that of Kushana Shahs in India and center of Vaishnavism- a quasi-egalitarian sect in Hinduism.

Along these Shahis like Lucknow and Dinajpur as well as Mughal, Rajput, Turk-Afghans, Kushanas, Indo-Greeks, Little Republics, followers of Parasurama, that of Kashyapa, Vedics, Pre-Vedics, pre-agriculturists, agrarian castes, offshoots of transnational trade and indigenous communities often broadly categorized into Kirata, Mon, Bodo and Bhati in several names; during the British rule in India so many Gurkhas (Gorkha) of Nepal and Adivasis (aborigines) from Deccan entered into North Bengal and their maximum concentration was found in included parts from Sikkim and Bhutan. Bhutan is still a kingdom but with friendly ties with India. Sikkim is now a part of Indian federation. Bangladesh is a separate country covering major parts of Dinajpur-Rajshahi, Bengal Delta, Brahmaputra mouth, Barak-Surma-Meghna-Feni water body, and minor part from Arakan-Myanmar coast by the name of Chittagong. Pakistan is another country mainly covering Turk-Afghan Shahi on Indus valley just next to Kashmir, Afghanistan and Iran. Pakistan opens at Arabian Sea and Bangladesh at Bay of Bengal. Nepal is also an independent country. India today is composed of Mughal, Rajput, Lucknow, and Deccan Shahis along with pockets of Dinajpur-Rajshahi, Gorkha habitation in Indian Himalayas and foothills, sub-Shahis or formerly Princely States that joined into Indian Federation and also other pockets that might once be kind of Nation States with their own economy and relationship with transnational business routes. Island of Sri Lanka and isles of Maldives are two and only the two such examples that are influenced by magical, Buddhist and Arab notions with a few Christian populations also. Tibet was also a Nation State now under China. Sub-Himalayan republics are shared by India and Nepal. Bengal is now an Indo-Bangladesh territory. Punjab is an Indo-Pakistan region. Kashmir is not beyond controversial claims and counter claims. India as a country believes in democracy and unity in diversity. And from grievances, a sense of separatism often emerges out that the State handle according to its policies towards the reasons responsible. Darjeeling district and Bengal Duars in Jalpaiguri district of North Bengal are basically included territories. From their formation, Gorkhas (Gurkhas) and Adivasis acted like human barricade in these territories in favour of India. Even in Indian Army from the time of the British, there has been the Gurkha regiment. So, this is very simple to understand that these people would definitely agitate if they feel that their interest according to them is violated. That protest may not lead to the level of

separatism. Odisha, Bihar and Jharkhand states of India today were once within the Bengal Presidency during British rule in India. In 1911 AD, these places along with princely states there and tribal pockets were out of Bengal. During 1930s, Myanmar or Burma under British Commonwealth was isolated from India officially. During independence of India and Pakistan in 1947, Bengal was partitioned.

West Bengal state was formed in India. Its northern part or North Bengal including Darjeeling and Jalpaiguri districts remained as only communication to North East India-the Indian parts of Brahmaputra, Barak and Feni along with hills, eastern part of Himalayas, watersheds, plateaus, forests, mines, croplands and tribal pockets. Tribal dominated pockets of Kashmir were captured by pro-Pakistan groups immediately after independence. China occupied Tibet and Dalai Lama took shelter into India in 1960s. Sikkim was incorporated into India and Bangladesh as an independent country was formed in 1970s. East Bengal was previously controlled by Pakistan since 1947. In this long history from 1911 to 1971, there was a demand of autonomy for or separation of the Gurkha dominated pockets from Bengal and then from West Bengal. Gurkhas unlike the Adivasis were more concentrated in hill portions of Himalayan range falling in Darjeeling and Bengal Duars. Adivasis also agitate from time to time but in foothill Duars and Siliguri subdivision and yet now they have not demanded a separation. Gurkhas demanded from Pranta Parshad or frontier province and later name as Gorkhaland. This demand of Gorkhaland got a new pace in 1980s.

Rajbanshis, Koch-Rajbanshis, Bengali caste groups and Muslim folks from different parts of Bengal Presidency and other peoples from South Asia are following Gurkhas and divasi people and as a result of this, indigenous communities like Dhimal, Toto, Drukpa, Lepcha, Limbu, Garo, Bodo, Mech, Rabha and Koch have become highly marginalized. Rajbanshi is rather a caste group, greater social fold to incorporate other social fractions, agriculturists, and time to time formed indigenous statehoods on ancient transnational routes collaborating to mainland Indian polity and bridging it with Tibeto-Myanmar belt. Rajbanshis as sub-Shahi and pro-British elements are believers in India. They are the third human shield after Gurkha and Adivasi. North Bengal pockets were also origin of so many agitations with historical references. So, in a sense, demands of Gorkhaland by Nepali-speaking Gurkhas as well as Kamtapur or

Koch Bihar by the Rajbanshis are separatist approach. And at the same time, that could be agitation by the people there against the state machinery of West Bengal government that could again be in favour or against the National interest. But going against national interest would not be so easy in such a geo-strategically important territory, especially by the Gorkhas having a regiment in Indian army. Sometimes, separatist movement can be due to failure of the previous policy and transmission into a newer one. We cannot forget that since independence, India has gone through mixed economy, macro-economy, microfinance, and global market economy that again could be fully or partially controlled or on neo-liberal lines. The concepts may be of human resources, gold, cattle, crop, cash and credit. The basis of these all is generally Swadeshi or Gandhian way of living very much successful in countering Great Depression of 1930s and World Wars. India politically passes on Third and Second World to reach into the First World. North Bengal is such a cross road where different sentiments may work in favor of the Western World, Muslim World and even Buddhist World. Indians believe in Shrine and non-Shrine gold and have conceptuality regarding Roman gold, El Dorado, Buddhist gold and Arab gold from historicity. And gold is the symbol of globalization for all pre-Vedics, Vedics and post-Vedics. So, demand for separation may be multidirectional.

Importance of Tea Economy in Darjeeling

Tea estates not only provides alternative to transnational routes, forests and mines, but competed to Chinese monopoly in tea trade and first step towards making the frontier human shields and multicultural.

The people entered in Darjeeling district but not directly participated in tea gardens have used tea based economy (auction center, etc.) as their platform before they could further spread here and there in tourism and timber industries. That gradually increased importance of the Siliguri urban center in Siliguri subdivision that is a foothill area and not on the steep Himalayas, thus easy for communication. Later on, this region has become a major trade zone, cosmopolitan in nature and the Gateway to North East India besides Bhutan, Sikkim and Chumbi valley of

Tibetan Autonomous Territory. Chumbi valley has an average elevation of 9,500 feet (2,900 metres), forested slopes, and a pleasant climate most of the year.

Information on Land of Tea Gardens(in acres)- Darjeeling District

Total no of Tea Gardens	144 (Drajeeling, Kurseong and Siliguri subdivisions + Kalimpong Subdivision comprising of only 4: Samabeong Tea Estate, Ambik Tea Estate, Mission Hill Tea Estate and Kumai Tea Estate)
Retained Area	141056.02 Acres
Area Under Tea	74843.82 Acres
Area Under Housing, etc.	12499.98 Acres
Unuse Area	16308.93 Acres
Area under Forest	17217.27 Acres
Doubtful Area	20186.02 Acres

(Ref: <http://www.darjeeling.gov.in/tea-garden.html>)

- Besides tea; timber and tourism are other economies for the Darjeeling hills. The tea economy in 19th Century became a challenge to Chinese monopoly over tea trade. China until anti-opium movement in 1853 AD had been economically undergone into the hands of British Company. Along that revolt in China we could simultaneously see tribal revolts in Chhotonagpur plateau of Deccan Shahi especially at the Rajmahal areas of ChhotoNagpur followed by Sepoi Mutiny of 1857 AD initiated from Bengal. These revolts in India resulted into complete end of Mughal Padshahi and Company's role in Indian politics in practical. The Gorkha Shahi from Nepal-Darjeeling area along with the

Sikh and Rajput Regiments were found assisting the British that in post 1857 became the British Raj in context of the Commonwealth; whereas the free trade zones of extreme south of Indian peninsula also remained more or less unaffected. In Nilgiri Hills of that extreme south and Sri Lanka; British also established tea estates followed by Kenya hills in Africa.

- However, the vacuum in Indian polity was compensated by British Raj for another 90 years (1857-1947 AD) and in the meantime, more tea estates were flourished in entire Terai, Doors, Meghalaya hills (Upper Assam) and various other pockets of Assam. In this way Tea industry has been globalized. Darjeeling tea has a world wide reputation. The interesting thing is that during phases, the Doors and Terai regions have become truly multicultural.

Gorkha Regiment

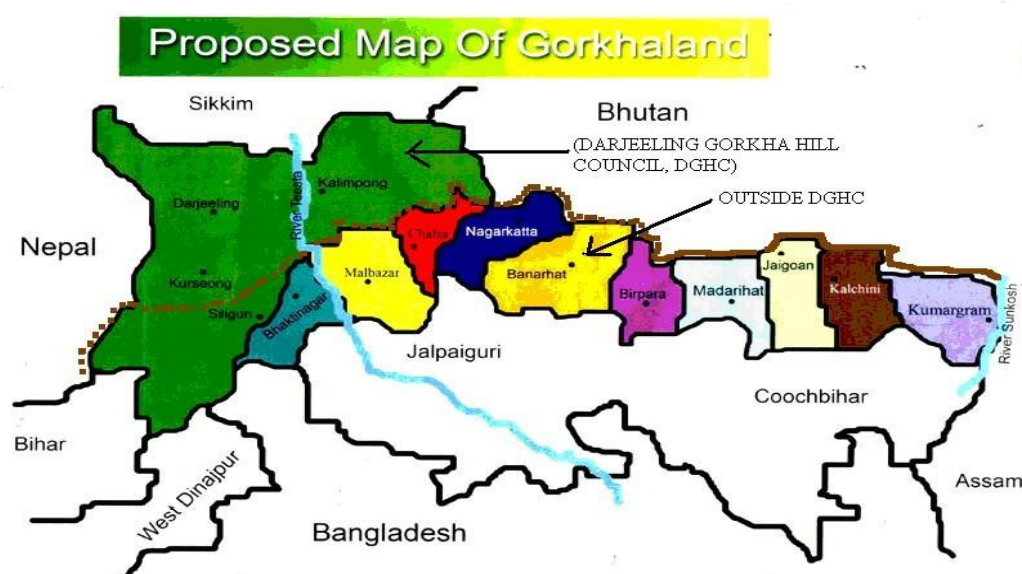
The Gorkha people of Darjeeling-Karsiyang region (upper valley of Mahananda-Mechi river system) are also found joining in the Indian Army (Gorkha Regiment) and often behaving like a part of global market economy even as a toiling class over there. And therefore the hill people despite of all the harmony with the cosmopolitan plain people seldom could negotiate with the state economy. The later is basically considered as one kind of micro-economy going well in highly concentrated areas. The state under a Leftist Government since 1977 AD uninterruptedly left only some macroeconomic pockets including the Darjeeling-Karsiyang hill area.

Kalimpong

On the other hand; lacking of tea gardens in Kalimpong (formerly of Bhutan) has its own significance. Nearby Jelep-La pass has made Kalimpong accessible to Tibet geographically through Chumbi valley. Kalimpong is basically an agro zone. Here, the slash-and-burn type of cultivation has been being gradually replaced by step cultivations on contoured trenches and

bench terraces, horticulture of orange and various spice and vegetable cultivation. Forest resources and bad quality coal are also there.

The economy of Duars-Siliguri Terai-Darjeeling Hill is based on tea, timber and tourism (3T) that are definitely related with Global Economy or at last macro-economy. Both the communities Adivasi and Nepali in Tea Estates are dealing with trade union movements; but in hill areas that would be more ethnocentric (on Gorkhahood) as compared to that in cosmopolitan foothill region. Ethnocentrism is countered in foothills by multiculturalism, lesser access to global market economy and its harsh recession and overlap between macro and micro economy.



The proposed map of Gorkhaland includes not only the three hill subdivisions of Darjeeling districts but the entire Terai and Doors area including Siliguri municipality is rapidly growing these days and hence, a kind of destination for construction business (out of many) than any other urban setup in the entire region.

No doubt, the economic progress in a comparatively higher pace in Siliguri would attract the

hill people before they become completely starved and feel poor. Hill people all over the world had to struggle for existence against cold, malnutrition and remoteness. Always such a demand for separation might not be either a whole conspiracy against the Nation or an easy way to be rich and richer for certain individuals in leadership.

Volatile political condition in North East India; slowing down in the policy of a unified trade block considering China, India, Bangladesh and Myanmar; failure (?) in the Look East Policy of Government of India in increasing trade with the ASEAN countries followed by initiating transnational trade routes are also depressing.

Siliguri in Progress

Siliguri stands on the verge of Terai and at the foothills of Himalayas and situated in Darjeeling district, West Bengal. Because of its strategic location straddling NH31, it is the most important town in West Bengal and is rightly called Gateway of the North-Eastern States. The entire road & train traffic to the north-east passes through the narrow corridor that is North Bengal which links it to the rest of India. Its proximity to the international borders of Nepal, Bhutan, Bangladesh and China further increases its importance and is evident in the explosive growth seen in recent years and is now considered the second capital of West Bengal.

The advantageous location of Siliguri makes it an ideal centre for trade, commerce and transit tourist traffic. Major trade and commerce infrastructure exists in the three most northerly districts of Darjeeling, Jalpaiguri and Koch Bihar with Siliguri as the main hub. Historically, Siliguri lies on the traditional trade route to Sikkim, Nepal, Bhutan and Tibet, and even in its initial growth period, it attracted people from its vast hinterlands stretching as far as Bihar, eastern fringes of Uttar Pradesh and Assam. As a result Siliguri has acquired a cosmopolitan character.

Some Basic Data about Siliguri Municipal Corporation:

Name of the Corporation	Siliguri Municipal Corporation.
Address	Bagha Jatin Road, P.O. – Siliguri. Pin – 7334401.
District	Darjeeling.
State	West Bengal
Area	41.90 Sq. Km.
Number of Wards	47
Number of Councillors	47
Number of Male Councillors	29
Number of Female Councillors	18
Population as per Census of India - 2001	4,72,374
Average Annual Growth Rate	8.09 %
Decadal Growth Rate (1991-2001)	118 %
Population Density	11,224 persons per sq. km.
Literacy rate	79.31 %
Male Literacy rate	84.03 %
Female Literacy rate	73.86 %
Slum Population	1,68,217
Slum Population	35 %
BPL Population	22.4 %
Number of Slums	151
Major Rivers	Mahananda, Fuleswari, Jorapani

Seismic vulnerability	High (Zone – IV)
Administrative Units	47 wards, 5 Boroughs.

Siliguri of Siliguri subdivision of Darjeeling district is a city with 47 wards under Siliguri Municipal Corporation and of these 15 are falling in neighbouring Jalpaiguri district. The Indian army, Border Security Force (BSF), Central Reserve Police Force (CRPF), Shashastra Seema Bal (SSB) and the Assam Rifles have bases around the city. The Bagdogra Airport is located within the Indian Air Force (IAF) cantonment area. Siliguri has an Indian Oil Corporation Ltd. (IOC) oil depot near the southern edge of the town.

The main water source for the perennial rivers of the district is the snowmelt from the Himalayas and hence, there is plenty of water on their beds throughout the year. Main water channels in this area are Teesta, Jaldhaka and Mahananda. Other important rivers include Leesh, Geesh and Chel to the east of Teesta and Mahananda, Balason and Mechi to the West of it. This river network provides sufficient surface water all over the district. Underground water in huge quantities is also readily available within a maximum depth of 10-15 ft. in the plains. As far as quality of water is concerned river water is soft but underground water has little hardness.

Siliguri is well connected by road, rail and air. Siliguri has developed as an important node for all surface communication systems of this region. Siliguri is linked to the other parts of India and the neighboring Himalayan Kingdoms by NH-31, NH 31A, NH-55, Lateral Road and a number of major state highways (SH-2, 12A). All the three types of railway links viz. broad gauge, meter gauge and narrow gauge connect

Siliguri is hence connected with the national Capital and a large number of other state Capitals and the Darjeeling District Hill Stations. Important trains such as the prestigious Rajdhani Express and Darjeeling Mail touch its major railhead at New Jalpaiguri (NJP). Siliguri is also connected by Air-links from Bagdogra with the national capital and a number of other state capitals by daily services and plans are afoot to connect it with Nepal and Bhutan too. A helicopter service also flies regularly to Gangtok, Sikkim.

Siliguri and its surroundings has surplus power served by (at least) one 132/33/11 KV substation, one 132/33 KV substation, six 33/11KV substation and one 66/11 KV substation.

Further two 132/33 KV and one 220/132/33 KV substation are already under commissioning to meet the future demand of this area.

However a summary of various facilities available in Siliguri subdivision:

Medical College-1
Engineering College-1
Polytechnic-1
Subdivision Hospital-1
Nursing Homes, Cinema Halls
Open Air Theatres, Market Complexes
Recreational Parks, Public Schools Good
Hotels and Restaurants Suggested

Industries:

Food Grade Potato Flour and Flakes
Bottles & Mineral Water
Canned Juice / Jam /Jellies
Fruit Concentrates & Dehydrated
Vegetables
Freeze-dried Fruit Slices
Blended Spices
Whole Peeled / Diced / Tomato Puree Modern Integrated Rice Mill
Jute Composites/Bags/Laminated bags PVC Bags & Speciality Polymers
Alcoholic Products
Floriculture
Hotels / Motels
Eco-Tourism / Resort Complex
Cement / Paper
Clocks & Watch Assembly
IT & Knowledge based industries Plastic Water Storage Tanks Digital Press
Multi-speciality Hospitals
Disposable Syringes and Needles

Wooden Furniture

Rubber-based Industries

Sericulture

Timber-based Industries

Bio-Fertilizers

Amusement Park

Adventure Tourism

Tea Bags

People are coming from everywhere in Siliguri not just because it is the gateway to North East and Bhutan or a business center; but for the very fact that it has become the power center of North Bengal keeping close eyes on Mid Bengal, Dinajpur, Jharkhand, Bihar, Nepal, Uttar Pradesh, Punjab, DTH, Sikkim, Bhutan, Jalpaiguri and Koch Bihar, Bangladesh, Assam, Meghalaya, Surma-Meghna region, Myanmar and China.

Parallel to this, comparatively less equipped bulk from neighboring rururban and suburban areas and slums of the same heterogeneous urban economy have thrived in for search of mostly blue collar jobs.

If we keep aside the matter of Global Economic Recession from our mind for a while; like all other cities and towns in West Bengal and India, Siliguri has a potential amount of corporate-prone people. These people in and around the city have been previously attached to white collar jobs and now are ready to spend their wealth whatever they have earned through generations in order to become a part and parcel of the Corporate World. No doubt the area has a historical significance and in just little mile distance from the present city, Matigara was an important trade center regulated by Purnea since the pre-British time. The location of Matigara is on the Mahananda-Balason basin. It is world famous for its pottery industry and in past, the place was known for its timber industry, especially for the wooden plough made from teak of local forest areas. Wooden plough was cottage industry here and had a great demand throughout Purnea, North Bengal and northern Bangladesh. British established Siliguri nearby Matigara on the bank of Mahananda again close to Dinajpur highland extensions at Rajgunj Block now in Jalpaiguri district. The Dabgram area now grown up as an industrial sector in Rajgunj Block

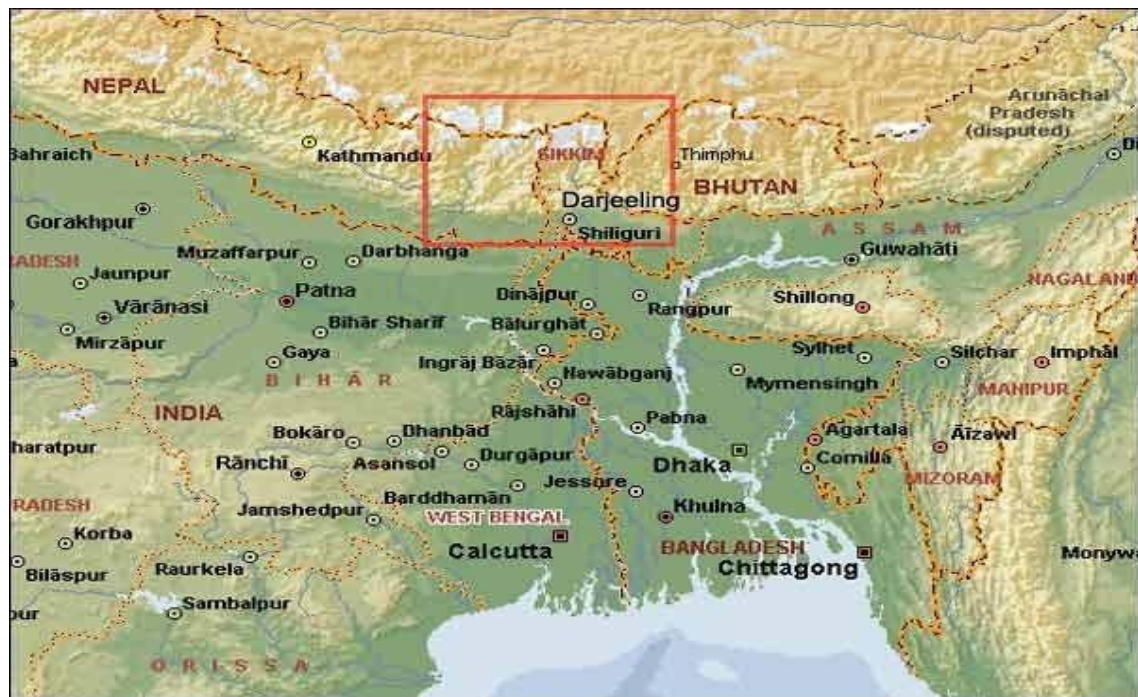
was said to be once an important power center by the Mech(e) there and also fell under the Baikunthapur estate of Jalpaiguri-CoochBehar formation in pre-British time.

Siliguri after partition of India and Bengal in 1947 AD have remained the only way to get into the North Esat India and Bhutan from the mainland. The inclusion of Sikkim in India as a democratic set up instead of being a separate country till 1975 AD has increased Siliguri's importance. Due to the international boundary with Bangladesh, Siliguri has got more priority (especially after the opening of Fulbari trade route and a dry port there just 30 Km. away from Siliguri). Nepal is directly connected with the subdivision likewise Purnea district of Bihar.

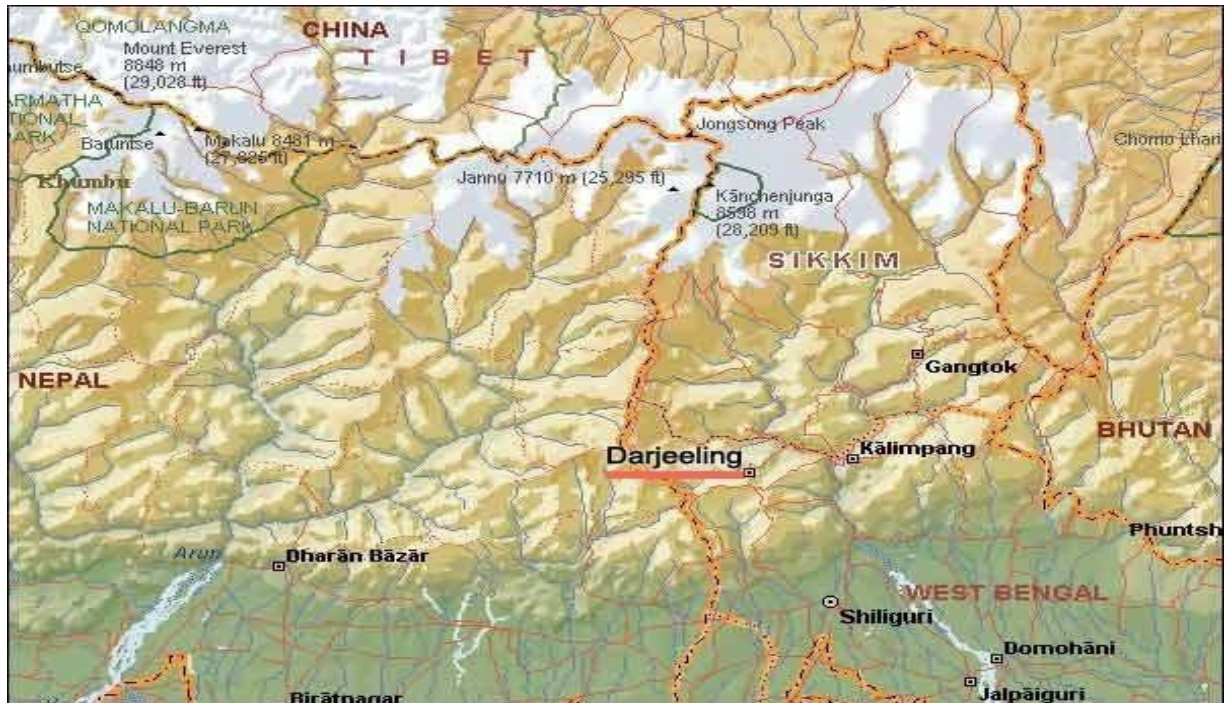
MAP A: Location of Siliguri



Map of India and South Asia shows Eastern India in the box. See the map below for an enlargement of Eastern India.



This map shows the Eastern Himalayan region around Darjeeling. Darjeeling and the Sikkim region are shown in the red box.



Siliguri (Shiliguri) is shown near the center of the map



Siliguri and Matigara (new township area) beside Baikunthapur forest

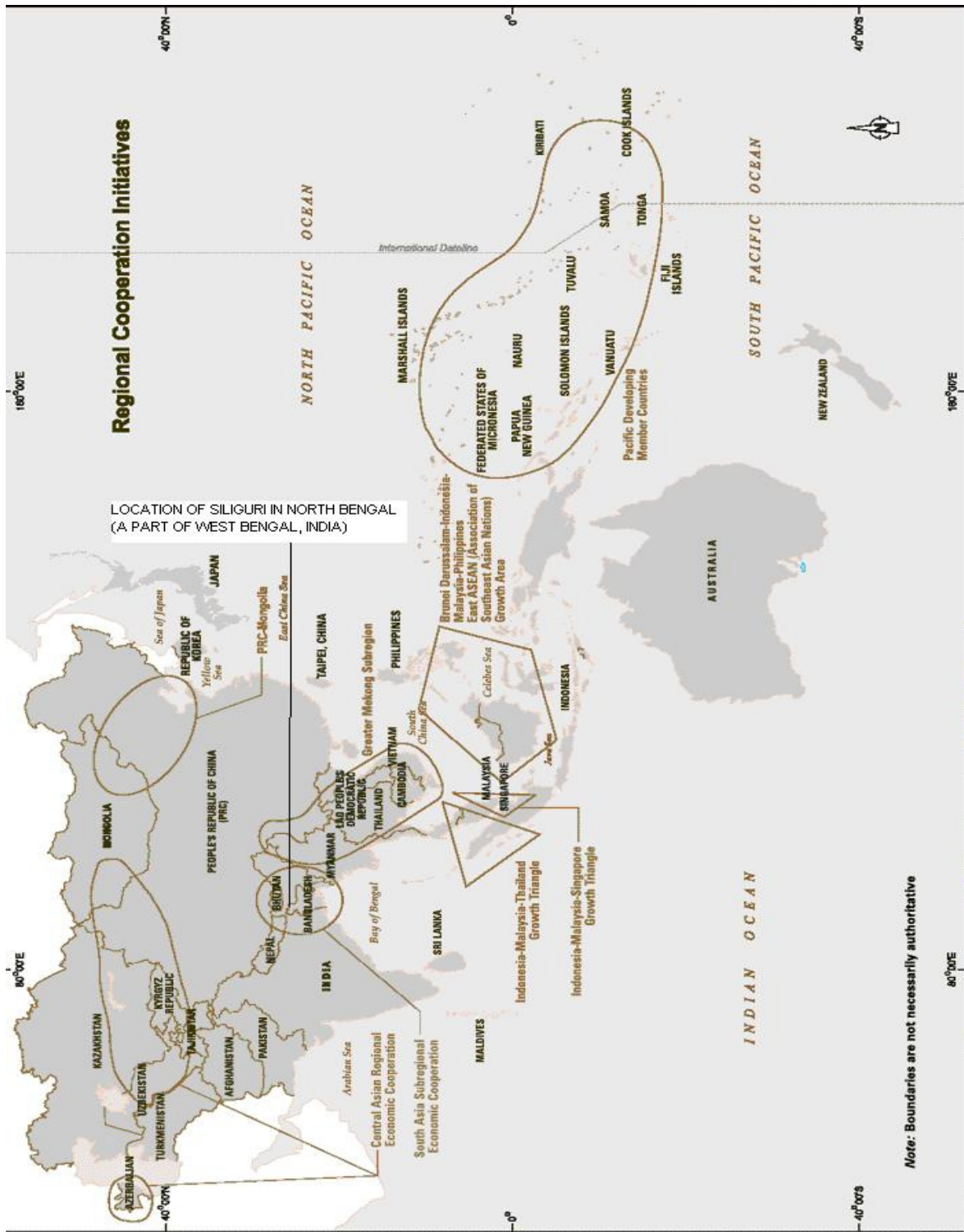
4 "T" s - Tea, Timber, Tourism and Transport are the main businesses of Siliguri. Opening of Nathu La pass in Sikkim has made China and Tibet autonomy linked up with the region through lower Sikkim area (Dajeeling-Kurseong) already included in the district. Siliguri has therefore become an important trade center for not only northern West Bengal but for the whole Sub-Continent included by South Asia Subcontinental Economic Cooperation (crucial among various Regional Cooperation Initiatives in globalized Asia). Siliguri is the headquarters of FOCIN (Federation of Chamber of Commerce and Industry of North Bengal). Opening of shopping and entertainment malls like COSMOS, ORBIT & City Centre has affected a change in lifestyle. The city recently also witnessed the arrival of its first set of multiplexes - CINEMAX, INOX at ORBIT and Big Cinemas. The rapidly growing city also has showrooms of numerous automobile companies such as Maruti Suzuki, Honda Sael, Toyota Kirloskar, Ford, Tata, JCB, Mahindra & Mahindra, Hyundai, Skoda, General Motors, Fiat, Mahindra Renault, Chevroutlet, Eicher, Ashok Leyland, Sonalika etc. There are numerous two wheeler showrooms also of companies: Hero Honda, Kinetic, Honda scooters, Yamaha, Tvs, Suzuki, Bajaj, LML. A large number of retail jewellers have opened showrooms in Siliguri: Tanisq, P.C. Chandra, M. P. Jewellers, Senco Gold, Damas etc. With the growing commercial transactions there has opened up some major banks in the city namely Standard Chartered, HDFC, ICICI, Allahabad, State Bank of India, Axis Bank, UCO, Vijaya, IDBI and UBKG bank. There are also some other banks such as Bank of Maharashtra, Bank of Baroda, Canara Bank, Andhra Bank, PNB, Indusind Bank, Sonali Bank etc. In a recent gesture of international co-operation and friendliness the road network of Siliguri is being used by the government of Nepal and Bangladesh so as to facilitate easy transportation of essential and urgent commodities (like rice etc.). The Silk Route of India i.e. trade route between India and China is accessible only after crossing Siliguri (Nathula and Jelep); thus making it important for international trade between India and other countries and also among other countries. There also are business routes to Bhutan and security manned border with Bangladesh. Siliguri is experiencing a rapid expansion of its population. According to estimates for 2008, 1,559,275 people live in the city. Siliguri is predominantly a Bengali- speaking city, minorities include Nepali, Marwaris and Biharis (mainly migrant labourers). Siliguri has seen waves of massive immigration over the years [the

most prominent being the migrants from Nepal and Bihar]. In addition, people from Jharkhand and other parts of India have also come to the city in search of livelihood.

Rapid urbanization witnessed in Matigara block in the past one decade because of its proximity to Siliguri has prompted the residents to demand municipal status for the area. The adjoining Matigara block is spread over five panchayats (rural governing bodies), covering an area of 128.09sqkm. According to the 2001 census, the population in the block was 1, 19,408 and the growth witnessed in the previous decade was 40.90 per cent against the state's 17.84 per cent. Many think that the recorded number of people will go up once the ongoing census is completed and the data collected are collated and published. The block has also the North Bengal Science Centre, Savin Kingdom — an entertainment park, Paribahan Nagar, where several state and central government offices are located and the electronic manufacturing unit of Videocon, besides top schools, offices of the state secondary education board and the higher secondary council, Himul plant, a government science college, a small industrial park and the Himanchal Bihar, a composite residential area followed by Uttorayon township. From North Bengal University and the North Bengal Medical College and Hospital (NBMCH) to Uttorayon Township and the North Bengal Frontier headquarters of the BSF, all are located in Matigara block. Demands have been made to upgrade certain areas of the block into a municipality.

Like other urban centers worldwide, this region has also a global exposure. The urban bulk in Siliguri is realizing that once you become the corporate, you fall into a cycle of consumerism-you are earning to spend within a nearly closed structure which is something different from traditional Indian market and has a global fragrance. But this Corporate World has lastly failed to remain unharmed and got over-loaded with huge economic burden. People are being aware and becoming conscious of the fact of money-saving which is a typical Indian character. Impulse is there to set up new townships with certain ultra-modern facilities near Siliguri; so that the corporate bulk spread throughout the country and the globe could return back to their homeland, invest safely and wish feedback despite of only outflow. At the same time, the Global Market would try to pierce into the local market and expand itself so as to revive from the recession scar. But chief question remains the same that if such neo-urbanization with both advantages and disadvantages can become a cause of separatist movement?

MAP B: Regional Cooperation Initiatives in Asia and location of Siliguri



The economy of tea, timber, transport and tourism (4T) was once established in Darjeeling hills to compensate the trans-national trade economy. But at this time of Global Market Economy with a phase of recession, this 3T model can not fulfill all the requirements of such an exposed hill community. So, one kind of disappointment is getting higher entropy within the tough hilly livelihood. And the people there cannot remain satisfied with just any Hill Council and so a demand of Sixth Schedule or Autonomous Territory and even a call for separate State with wider geographical jurisdiction including the entire Sub-Himalayan tea belt have been made. But the main target remains always the demand for incorporation of Siliguri foothills plus investment friendly new townships (real estates and construction business). It is therefore evident that how a separatist movement could be revived with a new pace due to the crisis in macro economy and also from the fear that they would be underestimated and thrown into the misery with no voice for Gorkhaland and Gorkha identity.

Remarks

Sociologically saying, these identity movements in the name of common way of expression (such as, language) and secondly, by means of common historical background (rather than class interests) and even racial features have expressed solidarity. They might hypothetically bring many under a common umbrella, urge to stop exploitation, ensure human resource development and capacity building, set free from underestimated situation by more privileged condition and assure human rights. With time the aim has radically changed so as to become the majority over other minor groups and to ensure the biggest piece of development cake. That may take the shape of demand for separate statehood on ethnicity. The main problem is here that this kind of absolute dependence on global market economy can reversibly hamper the system built upon the common sentiment of cultural identity and nothing else. Culture itself is like a book where each page says something about the knowledge system and experiments on trial and error through generations as written in the scripts of symbol and value-loaded experience. So, any hamper to the culture, especially the

non-subsistent portion could exert a lethal effect on the community. One type of fundamentalism from the sense of isolation followed by separatist movement automatically originates. The problem becomes more complex if temporary ups and downs in the market further extend into global economic recession. People may get more and more frustrated, exclusively when in such a situation they have found themselves helpless to revive their traditional institutions which they have neglected long and considered less- profitable. In such a situation, social anarchy may arise and rebel groups fighting for justice can transform into terrorists and accept terrorism as the crudest and the worst path of earning money. Absolutely, this system belongs to macro-economy rather micro- economy. Only economic reforms in a sustainable all-acceptable manner and proper awareness among the people could solve such problems.

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Photo 1: Nunia Paddy exclusive to North Bengal sub-Himalayas

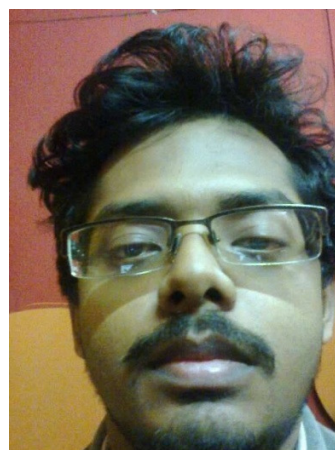


Photo 1: Tea Garden in Darjeeling Himalayas

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