

CHAPTER I

INTRODUCTION

Occupation and Occupational Health Issues

Human being is keenly desired to survive. For survival they need certain common minimum livelihood accessibilities like food, dress, shelter, education, health care facilities and many other basic amenities. In the process of human evolution, the livelihood requisites of human being had changed significantly from time to time. They had left the stage of nomadism and started a permanent settled life. With the continuous modification of technological implements the economic organization shifted from dependable subsistence type to the productive surplus pattern. It had gradually paved the way of human civilization and this process is still continuing. Survival of human being is intimately associated with the continuous demand of certain livelihood requisites. Its sustainability needs a regular availability or supply of the fundamental requisites. To accumulate different livelihood requirements a man remains associated with certain activities or work. Production of such works either directly gives him the desired requirements or it provides them the capacity to purchase the objects required for sustaining their livelihood. Such activities or works are regarded as the human occupation. Thus, human occupation is nothing but the work performed by human being for their survival and to provide themselves the basic needs or it is the economic activities which human perform to meet their various requirements (Oxford Dictionary,2013:472). People engaged in various occupations and depend on each other for the collective sustenance and it configures the economic backbone of a society and nation. Economy is an important constituent of life and plays a deciding role in the formation of cultural and social structure of a society (Vidyarthi,1976: 93). Piddington (1952) says “economic system is designated to satisfy material wants of the people to organize production, to control distribution and to determine the rights and claims of ownership within the community (cited in Dash, 2004:123).” The economic behaviour of the people lies in their own cultural terms, focusing on the substantive social and technological processes through which human interact with one another and with the environment to meet their subsistence

needs (Hunter- Whitten, 1976: 251). The study of the relations between cultural patterns and physical conditions is of the greatest importance for an understanding of human society and it is intimately co-related to the economic organization of the concerned society.

The different occupational pursuits of human being are intimately associated with the collection and utilization of different environmental resources. According to the variation of soil, topography and climate natural resources become variable from place to place. Consequently the human occupational features also become variable according to different geographical locations. All over the world there are different geographical areas or regions like ice covered mountainous region, fertile river bank, desert region, forest covered region, coastal area, plateau etc. and every one of them has their own ecological setting and diversified natural resources. It is the fact that primarily depending upon such natural resources the people of these concerned areas maintained their livelihood. Due to this fact occupational variations are found and even variations are also found in their mode of exploitation and utilization of resources. However, there are different types of occupation like hunting-gathering, pastoralism, shifting hill cultivation, terrace cultivation, settled cultivation, artisan works, handicrafts, industrial works etc. which are present among various groups of people all over the world. For example, the Pygmies of Central African forest region lives in a hot and humid climate with average rainfall. They primarily depend on hunting gathering. Semangs of Malaysia live in interior hilly and mountainous parts covered by monsoon forests. They depend on hunting gathering. The Sakais of Central Malaysia live in densely forested valleys, plains and depend on hunting, fishing. The Jarwas ,Onges, Saentinelles, Shompens of Andaman Nicobar island depend on the hunting-gathering and marine fishing. The Black foot people, a Red Indian tribe dwell in the grassland of Rocky mountain to the Gulf of Mexico depend on buffalo hunting. The Inuits of Arctic Tundra live in a frozen climate. They used to kill the seal, sea lion, walrus, polar bear for their survival and even their settlements are made up of snow. The Yukaghirs, Tungus of Northeastern Siberia are the reindeer hunters. In the southeastern parts of North America the Navajo exclusively depend on the rearing of sheep and horse. The Masais of Kenya rear the sheep and goat. The economy of Badawins of Arabian desert mostly depend on camel rearing. The Kirghiz of central Asia are the pastoral nomads of sheep,

cattle and horses. Yakuts are the herders and hunters of middle Lena river basin. The Boros of Amazon basin occupy small clearings in the forest and primarily depend on agriculture. Along with that they use to practice hunting and trapping of small forest creatures. The aboriginal groups of Melanesia, Polynesia and Micronesia depend on cultivation of coffee, cocoa and copra. Yoruba of Western Nigeria are the hoe cultivators and produces Yam, Maize, Millets etc (Hussain,2012: 411-526) . In the Indian context, the occupations of the tribal population are also varied in different regions due to diversification of natural resources. The Jarwa, Onge, Sentinelle of Andaman Island, Chenchu of Andhra Pradesh, Kadar of Kerala, Juang of Orissa are the hunter-gatherers. The tribes of Northeast India like Karbi, Garo, Khasi, Adi, Nishi, Apatani are associated with shifting hill cultivation. The Boros of Assam, Santal of West Bengal, Bihar, Gond of Bastar are associated with settled cultivation. The Drukpas of West Bengal are associated with orange cultivation primarily. The Gaddis, Bakrawal of Jammu Kashmir, Himachal Pradesh, Todas of Nilgiri Hills Tamil Nadu, Nageshia of Madhya Pradesh are associated with pastoralism. The Asur of Bihar, Agaria of Madhya Pradesh are the artisan group. The Northeast Indian tribes prepare different handicrafts made up of bamboo, cane. Further, they utilize the extract of different wild fruits to put on colour to their traditionally weaved dresses. Kolam of Maharashtra are the traditional mat weavers. Dommaras of Andhra Pradesh perform acrobats. The Kotas of Tamil Nadu, Kalbelias of Rajasthan are the snake charmer. The Warlis of Maharashtra are famous for their household painting. The Savars utilizes different natural colours of fruits and vegetables to prepare the famous Madhubani painting. The Santal, Oraon, Munda people are associated with different manual labour works like mining labour, industrial labour, tea garden labour etc (Vidyarthi, 1976: 93-144). Thus for survival, all over the world as well as in India different groups of people are associated with different occupations. To conduct different occupational pursuits people collect and utilize different natural resources to obtain the desired productions. In this regard, the following tables reflects the different occupational categories of India –

Table 1.1: Distribution of occupation per 1000 household

Distribution per 1000 households in rural areas						
State/ Country	Agriculture	Non agriculture	Regular wage/salary earners	Agricultural labour	Other labour	Others
West Bengal	273	197	139	230	132	29
India	393	119	129	200	122	37
Distribution per 1000 households in urban areas						
State/ Country	Self employed	Regular wage/salary earners		Casual labour	Others	
West Bengal	391	453		94	62	
India	356	421		156	67	

Source: Report on Employment and Unemployment Survey 2012-2013,

Anex: Table-3.1,3.2: 3-4

In India and West Bengal agriculture is the prime occupation and agricultural labourers are mostly found. Most of the working sections are associated with regular wage base or salary earning and self employment.

Table 1.2: Employment in organized sector

State/ Country	Total employed (in lakh)	Percentage of male	Percentage of female
India	281	80.1	19.9
West Bengal	19.3	87.5	12.5

Source: Selected Socio-economic statistics India 2011:57

In India and West Bengal the employment section is mostly dominated by the males. Women are mostly confined within the house hold sector and unorganized sectors.

Table 1.3: Occupational categories in different sectors

Occupational categories	Public sector	Private sectors	Total
Agricultural, hunting and forestry	463386	893893	1357279
Fishing	13570	2125	15695
Mining and quarrying	1112359	115134	1227493
Manufacturing	1060184	5197760	6257944
Electricity gas and water supply	838930	64103	903033
Construction	844771	80009	924780

Wholesale and retails trade	162059	289588	451647
Hotels and restaurants	11654	182764	194418
Transport storage	2600880	132360	2733240
Financial intermediation	1098276	333243	1431519
Real estate rented and business activities	257570	978239	1235809
Public administration	4684085	11212	4695297
Education	2676016	1654141	4330157
Helath and social work	1376880	235664	1612544
Social service activity	273424	116945	390369
Private households with employed persons	516	5027	5543
Extra-territorial organizations	143	298	441
Grand total	17474703	10292505	27767208

Source: Selected Socio-economic statistics India 2011:64

In Indian context the occupational categories are primarily divided into public and private sector. Most of the employments are associated with the public sectors in India. Among them the public administration is mostly preferred. However manufacturing and mining industry has also generated a significant employment oppurtunities both in public and private sectors.

Apart from various region such occupational diversities are primarily due to the variation of geographical areas, climates and availability of natural resources. The occupation of the people is very much dependent on the availability of natural resources and their scope of proper utilization. If the natural resources become scarce or their scope of utilization become limited or no more, then it may create a severe challenge to the occupation of the group of people. However, there are several factors which can create an acute challenge to the stable occupational pursuit of human being and even can diminish it. It may happen due to various

reasons like deforestation, environmental degradation, political factors, displacement, migration and refugeeism, warfare, industrialization, urbanization etc. For survival people depend on various types of occupation. To maintain livelihood, many of the people work hard day long in inhuman condition in various sectors and that may be organized, unorganized or others too. It is the fact that inspite by knowing the different inconveniences people engage themselves in various hazardous occupations as the other alternative occupations or earning scopes are limited to them. It can be noted that like other various factors, occupation is also a very important factor which greatly affect the health.

In this regard Biswas (2012), stated in his study about the impact of environmental degradation including soil erosion on the occupational pursuits, livelihood security, social structure and social organization of the agricultural and fishing communities in Sagar Island of West Bengal. In his another study, he stated that deforestation and land alienation had severely told upon the traditional occupational pursuit of the Totos which is a primitive tribal group of West Bengal. Both in his studies he mentioned that the said changing situations gradually affected the health of the concerned people. Biswas (2005) stated that during the period of independence of India and Pakistan and during the freedom movement of Bangladesh, a huge section of Hindu people were forced to get displaced from earstwhile Pakistan and they became refugees and still it is going on. He mentioned that the above situation created an acute socio-economic and socio-cultural crisis for the displaced people of Bangladesh and that's why most of them were involved in new occupations for survival. Vidyarthi (1976) stated that post independent industrialization and urbanization had uprooted a huge section of tribal population from their ancestral land and traditional occupational pursuit. The Uttarayan township of North Bengal was established against the complete annihilation of livelihood, economy and settlement of poor tea garden labourers of Chandmoni tea estate (Talwar, Chakraborty and Biswas,2005:4). Thus, there are several causes like environmental degradation, soil erosion, deforestation, migration, displacement, industrialization etc. which can degenerate the occupation and economy organization of any community. Even it can create multifarious crisis over their common minimum livelihood including health and consequently it can create a severe challenge to their social structure and social organization in various forms.

Health is very much related to occupation, economic resources and ways of exploitation of the resources as well as ways of earnings. A stable occupational pursuit and regular earning can secure the quality of food, nutrition and better health care facilities. On the other hand, the economic insecurity can reduce the scope of food, nutrition and health care. For example, in North Bengal region during the last two decades total 19 tea gardens were completely closed. As a result, the concerned workers had lost their jobs and they were living in acute poverty, malnutrition and ill health condition (Talwar, Chakraborty and Biswas,2005:10-11). However, the people who have lost their occupation for different reasons and are struggling for common minimum livelihood often for survival become bound to do various occupations, where the work and the working environment are hazardous to the health and life. Such occupations are known as hazardous occupations and the ailments generated through such works are known as the occupational health hazards (Ali,2008:3). Occupational Health can be defined as “the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people and people to their jobs (ILO,1998:1). Unhealthy or unsafe working conditions are found in many places. Poor working conditions of any type have the potential to affect a worker's health and safety. Occupational hazards have harmful effects on workers, their families, and other people in the community, as well as on the physical environment around the workplace. Work plays a central role in people's lives, since most workers spend at least eight hours a day in the workplace, whether it is on a plantation, in an office, factory, mines etc. Therefore, working environment is required to be safe and healthy. But every day the workers all over the world are facing with a multitude of health hazards in their work field due to dust, gases, noise, vibration, extreme temperatures etc. The existence of diseases related to work has been documented since antiquity. Imhotep (2780 B.C.) described the cases of occupational injuries and sprain of the vertebrae among the pyramid builders (Koh and Jeyaratnam, cited in Detels et.al. 2002: 1045). Hippocrates (460-377 B.C.) emphasized the importance of environmental factors in disease causation in his treatise on air, water, places (Hunter, 1969). Both Hippocrates and Galen (AD 130-201) described the diseases of certain occupations including metallurgists, fullers, tailors, horseman,

farmhands, fishermen, miners, tanners, chemists and other craftsmen. He stated that the most hazardous and labourious jobs, for example, mining were done by the lowest strata of society such as slaves, prisoners of war and convicted criminals. Further, in the middle ages Georgius Agricola (1494-1555) wrote exclusively on the diseases of miners and smelters of gold and silver, in his book "De Re Metallica", where he described the consumptive lung disease of the miners (Koh and Jeyaratnam, see Detels et.al. 2002: 1045). Paracelsus (1493-1541) in his book "On Miners' Sickness" and other "Miners' Diseases", wrote about pulmonary diseases of miners, smelters, metallurgists where the disease was caused by mercury (Koh and Jeyaratnam, cited in Detels et.al. 2002: 1045). In this context, after industrial revolution, the work started to being carried out in the factories of the urban centres. The consequent affects were seen both within the community as well as in the individual worker. In fact, the most significant health impact of industrialization can be seen on the community. Family life started to get disrupted, with men living their families and moving to work in new industrial areas. In the industrial areas healthy and social problems emerged such as poor housing, sanitation, alcoholism, prostitution and above all poverty. The individual workers too, were the victim of the process of industrialization. Inside the factories, individuals were exposed to long hours of work and uncontrolled occupational hazards and faced the risk of accidents at work. An occupational disease is not characterized merely by the disease itself, but by a combination of a disease and an exposure, as well as an association between these two. Such diseases may be caused by different chemical agents, physical agents, biological agents and even they have target organs like occupational respiratory diseases, occupational pulmonary diseases etc. International Labour Organization report estimated that two million occupational fatalities occur across the world every year, the highest proportions of these deaths being caused by work-related cancers, circulatory and cerebro-vascular diseases, and some communicable diseases. The overall annual rate of occupational accidents, fatal and non-fatal, is estimated at 270 million. Some 160 million workers suffer from work-related diseases and about two-thirds of those are away from work for four working days or longer as a result. After work-related cancers, circulatory diseases and certain communicable diseases, accidental occupational injuries are the fourth main cause of work related fatalities (Ali,2008: 3-5).

In India and China, the rates of occupational fatalities and accidents are similar at respectively 10.4 and 10.5 per 100,000 for fatalities, 8,700 and 8,028 for accidents. In sub-Saharan Africa, the fatality rate per 100,000 workers is 21 and the accident rate 16,000. This means that each year 54,000 workers die and 42 million work-related accidents take place that cause at least three days' absence from work. In Latin America and the Caribbean, about 30,000 fatalities occur each year and 22.6 million occupational accidents cause at least three days' absence from work. It is estimated that, every year throughout the entire globe over 1 million injuries and 2.3 million cases of ill health occur, around 40 million working days are lost, over 25,000 individuals lose their jobs because of injury or ill health (Ali,2008: 3-5). The details may be observed in the following table-

Table 1.4: Incidence of occupational diseases and mortality

Region	Incidence per year	Mortality per year
Established market economies	837,400-895,500	109,800-113,400
Former socialist economies of Europe	201,000-206,700	46,800
India	924,700-1,902,300	121,000
China	88,300-2,537,900	8,600-161,500
Other Asia and islands	711,500-1,463,700	93,100
Sub-Saharan Africa	537,400-1,105,600	70,400
Latin America and Caribbean	407,400-803,000	64,200
Middle eastern crescent	533,000-1,096,600	69,800
World	4,240,700-10,010,800	583,700-704,200

Source: Leigh,1999:629

Table 1.5: Estimated annual incidence of occupational injury and disease in the world

Categories	Number of new cases per year
Injuries	100,688,000
Diseases	106,840
Pesticide poisoning	109,000
Other poisoning	122,000
Cancer	191,000
Mental disorders	318,000
Pneumoconiosis	453,000
Noise-induced hearing loss	1,628,000
Skin disorders	1,895,000
Chronic respiratory disease	2,631,000
Musculoskeletal disorders	3,337,000

Source: Leigh,1999:629

Table 1.6: Fatality related to factories

Fatality in factories			
Nation/State	2008	2009	2010
India	1369	1509	1454
West Bengal	78	65	97
Number of Hazardous factories			
Nation/State	Number of Hazardous factories		Number of workers
India	24046		1949977
West Bengal	3289		217379

Source: www.dgfasli.nic.in/info.1htm

Although the statistics for the overall incidence of the country is not available but Leigh et.al (1999) have estimated an annual incidence of occupational disease lies between 924,700 to 1,092,300 and 1, 21,000 deaths in India. The major occupational diseases in India are silicosis, musculo-skeletal injuries, coal workers, pneumoconiosis, chronic obstructive lung diseases, asbestosis, byssinosis; pesticide poisoning and noise induced hearing loss. Saiyed and Tiwari (2004) stated that the prevalence of occupational lung disease is 21 per cent in the stone quarries and 12 per cent in stone crushing. It can be represented as follows-

Table 1.7: Prevalence of some of the occupational lung diseases studies carried by National Institute of Occupational Health

Industry	Morbidity	Prevalence (%)
Slate Pencil	Silicosis	54.5
Agate Polishing	Silicosis	38
Stone Quarries	Silicosis	21
Potteries	Silicosis	15.2
Stone Crushing	Silicosis	12
Coal Mines Underground	Coal workers' pneumoconiosis	2.84
	Other respiratory morbidities	45.4
Coal Mines Open Cast	Coal workers' pneumoconiosis	2.1
	Other respiratory morbidities	42.2
Asbestos mine & mill	Asbestosis morbidities	11

Asbestos Textile workers	Asbestosis morbidities	9
Asbestos cement	Asbestosis morbidities	3-5
Textile Mills (Blow Room)	Byssinosis morbidities	30
Textile Mills (Card Room)	Byssinosis morbidities	38
Jute Mills	Byssinosis and other chronic obstructive lung diseases	48.8

Source: Saiyed and Tiwari, 2004:142

Thus, it deserves a special attention that human being search for occupation to sustain their livelihood; however, in certain cases occupation itself snatches the opportunity of survival and the concerned people become vulnerable to a number of diseases and ill health condition even its becomes fatal to them.

Review of Literature

Before the conduction of any research work a conceptual idea about the studied problem and an idea about the studied area, people is earnestly required through literary survey. It can help the researcher to find out the problems to be studied and the scope of such study. Further it helps him to conceptualize about the theoretical framework of research. To conduct this research work, a number of books, journals, national, international reports, data achieves etc. related to the study were consulted as the review of literature to conceptualize the research framework. These are stated below.

Daryll Forde (1934) mainly focused on the socio-economic life of different communities in different regions and emphasized on the interrelationship between environment and economic perspective of a society. Whellwright (1906) discussed about the significance of occupation in the livelihood of human being. He stated about the role of an individual and the role of family in the perspective of occupation. Firth (1939) conducted his study in the Polynesian society and stated about the importance of natural resources in the configuration of economic organization. Mathur (2008) in his study on the tribal communities of India

discussed about the interaction between environmental resources, technological application and its co-relation with the economic organization.

Campbell (1869), discussed about the different ethnic groups and their livelihood and culture in Darjeeling district. Hunter (1876), discussed about the different ethnic groups, their society, culture and traditional economic organization in Cooch Behar, Jalpaiguri and Darjeeling District. O' Malley (2001), had discussed in detail about the geographical ethnic and demographic aspect of the entire Darjeeling district including Siliguri and its surrounding areas. Bhanja (1941), described about the geographical and ethnic feature of Darjeeling district. Further he discussed about the different rivers of the district and livelihood of the people depending upon the natural resources in the said region. Debnath (2008), discussed about the different ethnic groups and their cultural heritage in North Bengal. He categorically mentioned about the Rajbanshis and their distribution, cultural heritage. Choudhury (2008), discussed about the ethnic and cultural diversities of the Darjeeling Himalayan region. She discussed about the significance of different natural resources in the livelihood of different ethnic groups dwelling in the said region. Barma (2008), discussed about the multi ethnicity of North Bengal. He discussed on the issues of folk cultural heritage of different ethnic groups in North Bengal. Dash (1947) gave a detail account of the entire Darjeeling district. Further, he mentioned about the locational importance of Siliguri and the contemporary socio-economic scenario of the said region and its surroundings. Dalton (1872) mentioned about the ethnology of Bengal and its different ethnic groups. Further he had stated about their traditional occupational pursuits. Sanyal (1965) stated about the ethnographic details of the Rajbanshis. He discussed about the traditional socio-economic and socio-cultural aspects of them and their origin and distribution as a whole. He focused on their several magico-religious beliefs and practices related to their health diseases and treatment. A detail ethnographic account of Indian population was given by Singh (1999). He had stated about the traditional socio-cultural and socio-economic perspective of the Rajbanshis dwelling in North Bengal. Sattar (1971) discussed about the distribution of Rajbansi population in Bangladesh. Further, he focused on the issues different socio-political instability in Bangladesh and its impact on the religious minorities. Roy Barma (1988) discuss about the origin and distribution of the Koch Rajbanshi kingdom in the historical perspective of Cooch

Behar town. Ray (2007) discussed about the social and cultural tradition of the Rajbanshi people. Mukhopadhyay (2009), discussed about the traditional socio-cultural aspects of the Rajbanshis and their factors influencing social changes among them. He also analyzed about the issues of Khastriyaization among them. Shrestha (2010), discussed about the traditional economic organization and division of labour in the traditional Rajbanshi society. Wilson (2012) discussed about the socio-cultural heritage of the Rajbanshis in Bangladesh. Further, he discussed about their issues of identity based on caste hierarchy.

Dasgupta (1988) mentioned about the Urbanization in north Bengal. In this regard he specially focused on the factors related to the rapid urban flourishment in Siliguri town. Roy (2001) described about the gradual flourishment of Siliguri town in North Bengal. Dutta (2006), discussed about the issues of rapid urban growth in the Eastern Himalayan region. She focused on the various factors related with the urban development of Siliguri and also discussed about the emerging economic opportunities of Siliguri which was a major cause of migration of people in the Siliguri and its adjacent areas related to different jobs and services. Roy (2001) described about the human rights of refugees who were resettled in Northeast Indian regions and in different parts of West Bengal. Datta (2005), discussed about the issues of migration in North Bengal particularly in Siliguri region. Khawas (2008) analyzed about the demographical changes in Darjeeling district particularly due to migration. Datta (2002) described and analyzed in detail about different causes related to the migration. He identified poverty as a major cause of migration and analyzed that the migration has emerged as a major problem in the context of North Bengal. Behera (2011) discussed about the forces and factors associated with the migration of Bangladeshis in India. Reddy (1995) had critically examined on the various forces and factors related to the displacement in Indian context. He emphasized on the changes of economic organizations due to displacement. He analyzed several issues related to the changes of social organizations due to displacement. He also discussed on the multidimensional aspects related to the changes of social organization among the displaced people. Poverty and severe economic crisis has been stated as one of the major causes of migration by Pandey (1986) in his study focused on the issues related to the caste based traditional occupational pursuits and its transition due to migration. Iyer (2004) noted on the factors which has

forced the people of the rural areas to migrate and get involved in different wage labour based works in different urban areas particularly in North-Western parts of India. Further, he also focused on the issues and problems related to the child labour and women workers. Mishra (1985) mainly described about the economic scarcity among the people of the rural areas. She primarily emphasized on the aspects of health, nutrition which has emerged as a common social problem among the poverty stricken families of the rural areas of our country and their migration to urban areas. Gill (1994) focused on the migration of people from rural to urban areas for the sake of new occupational opportunities. He particularly highlighted on the socio-economic condition and the daily livelihood of the concerned people dwelling in the slums. He also emphasized on the interpersonal relationships between the slum dwellers and their familial relationships. Jamwal (2004) discussed about the issues of India Bangladesh border policies and the incidences of illegal trade and migration from Bangladesh to India. Hazra (2012) discussed about the continuous increase of rural to urban migration in India where economic factor is a very crucial aspect. Berry (1997) discussed about the various dimensions of acculturation and adaptation of the immigrant communities in a new settlement. Gill (2003) discussed about the issues of Nepali migration in different parts of India related with their seasonal work and its consequent socio-economic impact on their society. Piotrowski (2010) discussed about the migration of Nepalese people in different parts of India and the consequent socio-economic changes related to such migration. Prasad (1988) in her study on the Reja tribal community discussed about the issues of occupational change due to migration. In her study she focused on the role of women labourers who provided a major contribution to their familial income. However, they had to face severe economic, physical and psychological exploitation throughout their entire livelihood. Breman (2003) focused about the ignorance, exploitation and poverty which can be noticed among the poverty stricken labour class of India. He mainly focused on the socio-economic feature of the people who are engaged in hard manual labour to sustain their daily livelihood. Jhabvala and Subrahmanya (2000) analyzed in detail on the issues of basic needs and social security of the workers who are working in unorganized sectors. In this regard they highlighted on different perspectives of social insecurity of the said workers. They also focused on the issues related to different

problems for the working women and to different health problems of the workers in their concerned occupation sectors. Mandal (2005) in his study analytically discussed about the unorganized occupational sector and he focused on the women workers in the brick factories of North Bengal. He mainly stated about the socio-economic profile, daily livelihood, working atmosphere and the multifarious problems which they have to face during their works. Lister (2004) focused on different aspects of poverty and different causes related to it. He focused on the issues of inequality, discrimination, deprivation and social divisions between the two distinct categories i.e. rich and poor. He also emphasized on the violation of Human Rights of the poor people. Banerjee (1985) focused on the marginalized section of our society female folk has a major contribution in their familial income. She focused these issues among the women workers who were involved in different unorganized sectors in Kolkata. The urban poor of India had a significant affiliation with several unorganized sectors. Ramu (1989) did a significant discussion on the women who worked in different occupational sectors and also had to look after their familial courses in Delhi. In this regard within a specific schedule of time they had to work quite more than their male folk. But often their involvements in the household courses were ignored and in this regard gender discrimination of the male dominated society was quite prevailed. Kaila (2005) stated about the issues related to the working women and their role in familial discourse. Further, she focused about the hardship which the working women are facing in their working involvement as well as in their familial maintenance. He also focused on the issues of domestic violence related to the working women. She also stated about the occupational health hazards of the working women in their working environment. Karlekar (1982) stated that poverty forces the female to down their step beyond the courtyard for the sake of earning. She had discussed such a situation in case of the sweeper women in Delhi. In her study their entire socio-economic and socio-cultural aspects have stated in detail. Further, she also briefed about their different livelihood condition and its impact on their general health situation. Saradamoni (1991) stated about the occupational involvement of the female folk related to the paddy cultivation in rural India. She also described about division of labour existed in the said occupation and different co-related religious customs. She also

stated that the concerned female folk had to play a dual occupational role; both in their occupational sector and in their household.

A significant study on the socio- economic feature of the slum dwellers had been done by Rao (1990) in Mumbai. He also highlighted on the socio-cultural aspects of the concerned people with a prime focus on their social structure, social organization as well as familial and inter-personal relationships. There are several factors which are mainly responsible to force the children in several working activities. It has been clearly stated by Mohsin (2002). He also focused to the socialization and personality formation of the children in the context of their working and social environment. Singh and Pothan (1982) did an in-depth study on the formation of slums as a social problem in the context of our country. He cited about the social composition of the slums and the position of a children in a slum dwelling family. He mainly highlighted on the familial relationship of slum dwellers and its impact on socialization, psychological development, education and nourishment of their children in the concerned families.

Sujatha (2003) stated about the cultural practices and traditional knowledge related to health, disease and treatment. She focused on deep co-relation between human health and his physical environment. Banerjee and Jalota (1988) primarily focused on the importance of traditional knowledge related to the ailment of health problems. They focused on the interaction between man and environment which is related to the socio-cultural aspects of concerned people and the issues related to their health, disease and treatment. Chaudhuri (2003) focused on the issues of interaction between health and forest environment in the context of tribal societies. He stated about the magico-religious belief and practices among the tribals for the ailments of diseases which have rather become a part of their psychological support and the entire process is deeply concerned with their surrounding environmental factors. Telu Ram (1993) stated about the interaction between environment and health. Further he focused to the co-relation between cultural factors and health. He also discussed about different types of occupational health issues. Marmot and Wilkinson (2006) mainly focused about the role of social organization, livelihood environment and neighbourhood relationships related to the health issues of a people. They also stated about the importance of working environment related to the health situation of the people. Sarkar and Dasgupta (2000) stated about the impact of environment on the

livelihood and culture of the indigenous communities of India. It also focused on the significance of indigenous knowledge related to traditional health care practices. Park (2013) focused on the concept of health, disease and treatment. It provided a detail analysis about the feature of social and cultural aspects related to the health issue. Further it gave a brief account about the food, nutrition and their role in general health and also analyzed the role of environment in the aspects of health. Detels (2002) stated mainly about the scenario of public health and diseases in a world wide perspective. He also highlighted on several other social and cultural aspects related to the health and disease in a global perspective. Stellman (2011) discussed about the major occupational health hazards throughout the entire world. He also stated about the problems of the women workers and the child workers in different working sectors. In this regard he also emphasized to the relationship between working environment and concerned health issues. Alli (2008) discussed about different hazardous occupational pursuits prevailing in the world and its resulted fatality. Further, he stated about the different safety measures to prevent the occupational health hazards. World Health Organization report (2007) stated about the global burden of occupational diseases and its impact on the rights to health of the workers. Lansdown (2008) stated about the carcinogenic effect of different metals which are related to multifarious industry based occupational sectors. Saiyed and Tiwari (2004) discussed about some of the major researches on occupational health issues conducted in India. They focused on different hazardous occupation and prevalence of the fatality in Indian context. Mandal (2005) mentioned about the health hazards of the labourers working in the brick factories. Report on the 60th World Health Assembly of WHO (2007) focused on the proposed plan to secure the health aspects of industrial workers across the globe during the period of 2008-2017. Leigh (1999) discussed about the rapid increase of various disease and injuries in different occupational sectors across the globe with a special focus on the stone crushing occupation. Law (1998) focused on the inter-relationship between occupational health and well being of the people. They analyzed the health related risk factors associated with certain mining based occupation with a special reference to stone quarries. Takala (1999) focused on the issues of major accidents related to different occupational sectors. He further focused on the issues which are creating fatality and permanent physical disability caused due to



such accidents. He also focused on the stone crushing occupation in this aspect. Biswas and Bhattacharjee (2007) discussed about certain health problems of the stone crushers working on Balasan river bed. Ilyas and Rasheed (2010) stated about the health hazards generated by stone crushing occupation in Pakistan. They focused that although the said occupation provide a high rate of gross domestic production of the said country, however the common minimum livelihood requisites of the concerned workers are facing an acute challenge and there are severe respiratory and other health hazards. Nwibo (2012) focused on the issues of multifarious pulmonary problems caused due to stone crushing occupation in the African continent with a special reference to Nigeria. Kitcher (2012) analyzed the problem of hearing loss among the children and adults who are associated with the stone crushing occupation in Ghana. Saha and Padhy (2011) discussed about the role of suspended particulated matter (spm) generated through the stone crushing occupation in creating environmental pollution. They analyzed how such spm are affecting on the forest resource of Lalpahari region and its consequent impact on the livelihood of the indigenous communities. Mukhopadhyay (2011) discussed about the problem of silicosis generated through the stone crushing occupation among the concerned workers in the stone quarries of central Indian region. Further, they focused on the issues of multifarious respiratory problems prevalent among the workers associated with the stone crushing occupation. Walts et.al. (2012) discussed about the effect of quartz in the health aspects of the mining workers. Onder and Onder (2012) discussed the incidences of hearing loss among the mining workers. Tiwari et.al. (2007) discussed about the incidences of tuberculosis among the workers who are exposed to silica dust.

However, all of the above studied works did not focused the issues that how certain socio-political factors can create land alienation, displacement and further involvement in hazardous occupation of a community or ethnic group or people like the Rajbanshis in general. Further, the above mentioned works did not focus the issue that how displacement can snatched the traditional occupational opportunities of a group of people and even force them to get involved in a hazardous occupation in the unorganized sector. In this context, the present study has been done on a section of migrant Rajbanshi people who are associated with the stone based occupation and primarily stone crushing work on Balasan river

bed which is adjacent to the Siliguri urban centre of Darjeeling district. Through an initial study during my M.Sc. dissertation course in 2003-2004, it was known that earlier most of them were settled in Bangladesh and were associated with agricultural occupation. They came here with roofless and any resourceless in condition and they were illegal migrants. However, due to certain factors they were forced to get displaced and later they came to the Balasan river bed and got a scope of resettlement on the vested land. They became involved in the collection of natural resources from the Balasan river like the stones, sand and boulders which were supplied for urban constructions in different areas and in this way they maintain their livelihood anyhow. Such issues attracted me to know about their socio-economic condition and co-related livelihood factors more elaborately. During the above mentioned study it seemed to me that the process of entire work may be quite arduous. The working environment appeared to be moist, dusty and polluted. However if they were migrant and came there with roofless and any resourceless in condition then what factors were responsible for their migration, when they came there and made the settlement? Was that their socio-economic situation which forced them to get involved in the stone crushing and related works? The working environment was moist, dusty and polluted, but still they were working and dwelling there- why? Was it any way related to their poor income or they had not other better alternative earning scope? If their income is little then how they were fulfilling their daily requirements and in this regard did they face any problem related with the same? Earlier they were involved in agricultural work in Bangladesh but during the study they were living in the Balasan river bed and engaged themselves in stone crushing works. Do such changes anyway affected their socio-cultural life, if yes then to what extent? They earned little, thus for survival who of the family members worked their and how long and what were their nature of works? They worked in the stone filed and primarily associated with stone crushing work in a dusty and polluted working atmosphere. Against the arduous labour what was their income? If it was poor whether it any way prevented to get required nutritious food? Do the people faced any sort of health problem as they were engaged in a hazardous occupation? Further if the working environment was polluted then do they suffer from various diseases, if yes then what types of diseases or injuries they were suffering from and what sort of treatment they availed? Such issues attracted me to observe and

analyze in detail about their situation including cause of migration, their further involvement in the stone based occupation, socio-economic situation etc and the impact of the said work as well as working environment on their health and so on.

Scope of the study

The above mentioned Rajbanshi people were all migrants and during the period of study they were living in the Balasan river bed which is very nearer to the Siliguri town of Darjeeling district in West Bengal. Most of them came from Bangladesh illegally with roofless and resourceless in condition primarily for survival. The Rajbanshis are one of the early settlers in this region and particularly living in North Bengal, Assam and its adjacent areas of the districts of Bangladesh. In India they are belonging to Scheduled Caste category and they are numerically dominant Scheduled Caste group of North Bengal and second largest Scheduled caste group of West Bengal. Traditionally they were agriculturist and folk based society. They had own socio-cultural norms, values and customs as well as their cultural heritage was rich. However the studied section of Rajbanshi population who were living on Balasan river bed were all migrants and came here with a very poor in condition. They came here from Bangladesh due to socio-political turmoil or some other reasons, a few of them came from other districts of North Bengal and adjacent areas adjusted their primarily due to poverty. That means the situations like socio-political unrest, poverty or other reasons forced them to come to the studied area for a scope of settlement and to opt the stone based work. The migrant Rajbansi people became affiliated with the stone crushing work after their displacement. It may raise a very pertinent query that whether the stone crushing work and the scope of resettlement have secured their socio-economic and socio-cultural aspects of livelihood or still they are suffering from common minimum requirements. Primarily for survival they engaged themselves in this hazardous type of occupation. To adjust with this new environment, socio-cultural system, economy, administration the said people may had faced several problems. Due to several factors they got migrated and were exposed to a new physical and social environment. However, their issues of social and administrative identity became a matter of concern. Although, they got the scope of resettlement on Balasan river bed but a major issue lied to the fact that whether it was an authorized or documented settlement or not. Again whether they had the right to citizenship of

India or they were the undocumented migrant; whether they had the right to claim over different Governmental beneficiary schemes or they were deprived of it. They were involved in a new occupational pursuit and new working atmosphere. However, a few issues became very pertinent to study like the pattern of work organization associated with this occupation; whether the occupation had any age and gender based division of labour; whether the occupation was very arduous; do they earned adequate amount of remuneration against their work and how far it could meet up with their livelihood requirements. Again, whether the issues of displacement and new occupational involvement had created any alternation to their family type or family structure; whether the alternation of occupation and settlement initiated any change over their religious performances either at the individual or community level. It is to be mentioned here that the studied area was located at the Sub Himalayan foot-hills with plentiful of natural resources like stones, sand and boulders. It was a region of heavy showers. As a result, the Balasan river had waist deep water throughout the entire year and the concerned level raised a lot during the rainy season. Due to continuous work related to the natural resources like stone, sand the river bed was quite dusty as well as it was very much moist in condition. Thus, it may be predicted that the studied people had to conduct the said occupation in a moist, dusty and polluted atmosphere. In this consequence, the concerned people might have a probability to become quite vulnerable to a number of occupational injuries and other diseases related to their working schedule, working involvement, working atmosphere as well as daily livelihood circumstances. However, with their income could they afford proper treatment to redress their ailments and ill health condition; what were the options left for them related to health, disease and treatment; during the work do they used any sort of safety devices to avoid injuries and occupational hazards. Meanwhile do they had the scope to get some legal beneficiaries against their occupational injuries or other vulnerabilities. Their socio-economic condition might be considered with prime importance as it was related to working environment and their daily livelihood condition as a whole. In this concern, there was a scope to examine the social structure and role of their social organization, social institutions as well as cultural aspects and their contemporary situation. The impact of their working and surrounding environment on daily livelihood condition might be an important area of study. Apart from this, the impact of

migration on the socio-economic and socio-cultural factors and its overall impact on the health situation of the concerned people is a very important aspect. Thus there were so many scopes of study as mentioned above and among them the major area of study was their social structure and social organization, migration, overall socio-cultural situation of the migrated Rajbansis, their economy and in particular stone based as well as stone crushing work, health situation, human securities and human rights issues and various changing situations etc.

Aims and objectives of the present study

In any research of social science certain general goals, academic goals, theoretical goals and the pragmatic goals are associated with their aims and objectives. The aims of a social science research is primarily to understand the functioning of society, to study the individual behaviour and social action, to evaluate social problems, their effects on society and to find out possible solutions, to explore social reality, to explain social life and to develop theories. In the context of present study the socio-economic and the health issues of the stone crushers will be examined from multidimensional perspectives. However, being a scientific research in the field of Anthropology, the present study has a number of relevant objectives which are stated below-

1. To know about the society and cultural tradition of the Rajbanshi people.
2. To know about the causes that influenced the studied people to choose the stone based occupation.
3. To know about the stone crushing work, organization of the work and working atmosphere in detail. In this regard special emphasis has been given to-
 - a) The inter-personal relationship between the workers with their work organizers and their neighbourhood.
 - b) Different perspectives of the stone based work, daily working schedule and the working involvement of the concerned people.
4. To know the socio-economic condition of the studied people in respect of their level of earning and the remuneration paid against their work.

5. To know about their social structure, social organization, their function and cultural practices related to daily livelihood in present context.
6. To know about the overall health situation of the stone crushing people. It has specially emphasized on-
 - a) Their socio-economic condition and its impact on the health situation.
 - b) Their socio-cultural practices related to daily livelihood, basic livelihood amenities and its consequent impact on their health situation.
 - c) Different diseases, occupational injuries of the studied people in their daily livelihood and working involvement as well as its probable mode of treatment and difficulties.
 - d) The impact of working atmosphere and social life on their overall health situation.

Hypothesis

A hypothesis is an assumption about relations between variables. It is tentative explanation of the research problem or a guess about the research outcome. According to Theodorson and Theodorson (1969), “a hypothesis is a tentative statement asserting a relationship between certain facts.” This statement is intended to be tested empirically and is either verified or rejected. Test here means either to prove it wrong or to confirm it (Ahuja, 2001:71). The major criteria of a hypothesis is, it should be empirically testable, it should be specific and precise, it should specify variables between which the relationship is to be established, it should describe one issue only.

Hypotheses are important as tools of scientific enquiry because they are derived from theory or lead to theory. It helps the social scientists to suggest a theory that may explain and predict events, and it performs a descriptive function. In the context of present study the following hypothesis can be formulated-

1. Any socio-political unrest or turmoil may generate the displacement of people and it can consequently alter their traditional occupation and economy.
2. Displacement and the consequent loss of traditional occupation may degenerate the economic backbone of the concerned people.

3. Displacement may cause a major alternation in the social structure and social organization of a concerned society and it may alter a number of traditional cultural practices among them.
4. Poverty and fragile economic condition may result an adverse impact upon education, social life and health situation of a community.
5. In a community the prevalence of poor socio-economic condition can be responsible for poor health condition of the concerned people. Further it is not merely an individual matter rather all the community members may be affected due to such adverse condition.
6. Economic scarcity and consequent struggle for daily livelihood may generate distress in social life which may tell upon their health situation.
7. Health situation of an individual mostly depend on the socio-economic condition and allied factors like categories of work, working environment, working schedule, remuneration against work, quality of daily feeding and social situation of the concerned people.

Research methodology

Methodology refers to the structure of procedures and transformational rules whereby the scientists shifts information up and down this ladder of abstraction in order to produce and organize increased knowledge. Methodology denotes the logic-in-use involved in selecting particular observational techniques, assessing their yield of data and relating these data to the theoretical propositions (Pelto and Pelto, 1978:2-3). According to Theodorson and Theodorson (1969), “it is a systematic and objective attempt to study a problem for the purpose of deriving general principles.” Russell Bernard (1998) describes it as a systematic investigation to find solutions to a problem. The investigation is guided by previously collected information. The researches in the field of social-cultural anthropology are an empirical one which involves observation of facts or interaction with people. The concerned researches focus on the study of human groups or the process of social interaction and the knowledge is build through the collection of empirically verifiable facts.

To conduct the present study both primary and secondary sources were used to collect data and other required information. The primary data were collected

through intensive and empirical field work. However, the secondary sources of data collection was done from books, journals, periodicals, district gazetteers, census, data archive, infibnet and various internet sites, different Government reports as well as various national and international reports etc. District Statistical Handbook; and various published and unpublished official records of the Government of India, Government of West Bengal and so on were also consulted.

To do this research work the primary data was collected by me through field study. In this regard to conduct the present study I have selected a village namely Balasan colony which is in the Matigara block under the Siliguri sub division in Darjeeling district of West Bengal. All the studied people belonged to the Rajbanshi community and they were under the category of Scheduled Caste. They were numerically dominant in North Bengal. At first a pilot survey was done in the studied area during January 2006. The concerned study was exclusively done on the stone crushing people. In this regard the Balasan colony was selected for study as it was the largest and oldest settlement on the Balasan river bed where the people associated with stone based occupation were dwelling. The studied area used to supply huge quantity of raw materials to the different parts of the country and neighbouring areas. Based on those two major criteria, i.e. the settlement of migrant Rajbanshi population and stone based occupation the studied area Balasan colony was selected. In the Balasan Colony there were total 347 families and among them 325 were associated with the stone crushing occupation and rest of the 22 families were associated with different other occupations in the said area. Meanwhile all of the 347 families belonged to the Rajbanshi caste group. The study has been conducted among 325 families, where all the members were primarily or secondarily involved in the stone based occupation. The studied people could easily communicate through Bengali and their written language was also Bengali. The researcher's knowledge of Bengali enabled him to have a free interaction with the studied people. The concerned field work was conducted in different time span. It was started from January 2006 and extended upto December, 2013. The major period of data collection extended between 2008 to 2013. However, during the period of analysis and report writing for the verification of data the field study was required to be conducted for a number of times during the period of 2013. To collect the primary data from the

field the field work was done in three different times: i) From January 2006 to June 2010; ii) July 2010 to December 2011;

iii) January 2012 to December 2013. However to conduct the research work the total field work was done in seven stages which are discussed below.

Stage I: Initially a pilot survey was conducted to select the studied area. During this period the primary occupational feature of the concerned people was revealed. Rapport establishment was gradually built up with them to inform about the forthcoming study and its importance.

Stage II: Along with continuous observation, Preliminary Census Schedule (PCS) were used to collect the family level data covering all the stone crushing families of the studied village, Balasan colony. The details of that form are discussed in the forthcoming sections.

Stage III: Case studies were taken on the migrated families; on the occupational change of the concerned people; on the people related to the stone crushing occupation and about their views related to the same; on the educational constraints of the children. The concerned case studies were taken on the basis of sample.

Stage IV: Further, case studies were also taken on the persons suffering from different diseases and health hazards, as well as their method of treatment. In this study, the person who were suffering from different diseases since the last two years were considered for evaluation. The concerned case studies were taken on the basis of sample.

Stage V: Detailed open structured and structured interviews were taken from the medical personal including the traditional healers and western medical practitioners (quack, doctor, private doctor, health officer and health assistant of sub centres, PHC's, Sub divisional hospital and medical college.

Stage VI: Evaluation of different global and Central Government schemes related to rural development, social security of unorganized occupational sector; different global and national health schemes and projects were also evaluated. In this concern, the interviews of different administrative personal, village Panchayat were taken. The interviews of workers and helpers related to Government schemes and projects were also taken during this period of study.

Stage VII: The daily livelihood of the studied people, their working condition, the actual situation and infrastructure of sub centres, PHC's, sub divisional hospital and medical college were observed under this division and relevant data were collected during this period. The visit in each medical institution during this period also provided adequate information. The availability of medicine and the social awareness of the adjacent medical shop owners were also observed by the researcher during that phase of field work.

During these different phases the qualitative and quantitative data were collected from the field through the following ways –

Stage I: During this stage the pilot survey was conducted and interaction was established with the local people. During this stage the total studied families were selected and the area map was prepared. Along with that the local administrative set up of the studied area and the status of settlement of the studied people was verified from the concerned Government official sectors.

Stage II Preliminary Census Schedules (PCS): There are eight sub sections in this form. At the first phase of field work the data were collected through it from every family of the studied area. The major contents of the form were-

1. General information at the family level : It provided the information of – (i) house hold number; (ii) date of survey; (iii) name of the informant; (iv) total members of the family; (v) relationship of the members with their head of the family.
2. Demographic information at the individual level : It provided the information about the individual members of the studied families related to their (i) name; (ii) age; (iii) sex; (iv) marital status; (v) age at marriage; (vi) age at first child; (vii) occupational pursuit; (viii) educational status; (ix) cause of educational drop out.
3. Information about migration and resettlement: It provided the information related to their- (i) period of migration; (ii) major cause of migration and (iii) place of migration. It also stated about their (iv) previous land holding pattern. It also focused on their issue of (v) resettlement; (vi) contemporary land holding pattern and (vii) administrative affiliation.
4. Information about present occupational pursuit: It highlighted on their- (i) generation wise occupation; (ii) present occupational involvement of the family members; (iii) technological implements applied in the work; (iv) type of work;

(v) daily working schedule; (vi) mode of payment; (vii) monthly income and expenditure; (viii) any sort of loan or indebtedness.

5. Allied familial issues: It focused on the issues related to (i) addictions of the male in the studied families. It also helped to collect data about the major issues related to the (ii) familial conflicts.

6. Information of the health situation at the individual level: It provided the information related to their- (i) general health awareness; (ii) place of birth; (iii) who attended during that period (doctor/quack, nurse, midwife); (iv) quality of daily food and nutrition; (v) information about the food and nutrition of pregnant women; (vi) issue of child mortality. Further, it also focused about their (vii) different types of diseases and (viii) its causes; (ix) duration of the diseases; (x) procedure of treatment (traditional, modern), different food taboos related to the diseases; (xi) about its ailment during the study; (xii) economic expenditure for the purpose; (xiii) status of immunization of the reproductive women and children; (xiv) pulse polio vaccination; (xv) attendance to ICDS (for pregnant mother and children only); (xvi) consensus about family planning (for married adult only); (xvii) feature of addictions at the individual level.

7. Information about their house: It focused on their (i) number of room; (ii) position of kitchen; (iii) condition of it – (a) kuchha or (b) pucca; (iv) drainage system; (v) presence of electricity in the houses.

8. Information on health situation at the family level: It provides the information related to the (i) source of drinking water and water for other household courses; (ii) purification of drinking water; (iii) daily food habit; (iv) practices of daily bathing and cleanliness of cloth; (v) means of sanitation in the houses.

Stage III and IV Case Studies: According to the analysis of PCS the sample of the detailed case study on different aspect were chosen from the studied village. The major categories of selection were distinctive from each other according to the cases. These are discussed below-

In the case study on migration, the first migrant family and the last migrant family (till the study) were considered. Along with that, in the period of every five years, the case study of a family has been selected. Those concerned families were the first migrant one during that time span. In such a way, total ten case studies were taken. in the cases of generation wise occupation two case studies were taken.

One of them belonged to the first group of migrant people involved in agricultural work and the other was earlier involved in priesthood.

Regarding the case studies on present occupational pursuit, it was distinguished into three criterion viz. the elderly most people, the people working for the longest duration and the youngest child working group. From each of this category a male and a female individual was selected. Case studies were also taken on the educational constraints of the children. In this regard, the children belonged to the eldest and the youngest age group of child population was considered. From each category case studies of both the sexes were taken, which revealed distinctive criterion. In this section total four case studies were discussed. Meanwhile case studies were also taken on the issue of familial conflict and its impact particularly on the children. Here total three cases were taken depending upon their distinctive cause and severity of the issue. Further, the case studies were taken on the people suffering from various diseases. In this regard, the criterion which had been considered are sex, type of disease, duration of suffering, mode of treatment. For each distinctive disease and their mode of treatment, the case studies of a male and female were taken who were suffering for the longest duration. All the case studies were taken according to the availability of the respondents. These were taken through the structured (open and close) interview schedule.

Stage V: To collect data on the traditional healing practices, the author had to face some problems at the beginning of this work. At the initial stage the traditional healers thought that the author might have some ill motive to know all about the secrets of the services, techniques, practices and so on. But on clarification of the nature and objective of the present study, the author became successful in winning their confidence as well as faithfulness. Soon the informants (traditional healers) became friendlier and rapport was established. Although there was an open structured interview schedule but the author met with them for several times in their own healing places to collect adequate data. A different open structured interview schedule was used for taking data from western medical practitioners. As they were quite well aware about this work so the interviews were so formal and friendly. It is remarkable that some suggestion of them regarding this work was an added achievement. Along with the above formal method and technique the authors observation regarding various aspects

was quite mentionable in this study. Along with the natural causes for different diseases, the studied people had a strong belief about different super natural forces like evil spirit, ghost etc. which could cause several diseases. For the ailment of the same, they had a psychological faith on different magico-religious practices. In this regard, the combination of modern medical practices and traditional medical practices could be easily noticed in the studied area.

Stage VI: During the study, the author had communicated for several times with Block Development Officer, Panchayat Pradhan, local village Panchayat, other official staffs of the Panchayat and block office, official staffs related to different government sponsored projects and medical institutions. They were fully aware of the present study. During these conversations, a wide range of diversified aspects had been covered related to their different aspects of livelihood. The active participation and wide range of help of the concerned people enlightened the knowledge of the author, regarding various aspects, which include different governmental schemes, its scope of implementation and majors constraints related to it.

The villagers gathered after evening at the local market to gossip as well as to exchange their news and views. It was a conducive time for the researcher to collect data directly from them. Focus group interviews were also taken during the said period. In many cases there were different types of opinion among the villagers and it was taken from one, in front of other; that's why in the same time crosschecking of different data could be possible. The researcher did participant observation of magico-religious healing practices, rites and rituals which were held to ward off evil spirit and diseases. During the study researcher also took some herbal medicine given by a traditional healer for coping with severe eye swelling due to dust. Remedy from the sudden eye swelling was a memorable fact during the period of field work.

Stage VII: Anthropological research in human community is inevitably complex and personalized. It is carried through intensive study in one or few communities. It is committed to study all the culture known to the mankind. Anthropological research design lie in the structure of primary data which were actually gathered through field research operations. The anthropological investigations aim to descriptive integration with determination of cause of phenomena. The present

study includes research design on descriptive analysis. Primary source of this study are confined on the data collected through preliminary census schedule, case studies, open structured interview of traditional and modern medical practitioners, health officials of different medical institutions, Integrated Child Developmental Scheme (ICDS), malaria, tuberculosis, leprosy and polio eradication project officers, general health worker, and observation during the field study.

The collected data were of two types viz. qualitative and quantitative. All the data were classified and the tables were prepared manually and analyzed. Maps illustrating the location of the concerned study areas was included where ever needed. The researcher went through library works in different academic institutes to collect relevant information from different books, journals, encyclopedias, dictionaries, scientific papers, articles and Ph.D. thesis etc.

Organization of the Thesis

The thesis is comprised of following seven chapters-

Chapter I- Introduction: In this chapter major discussion has been done on the different perspectives of human occupation. In this context the significance of environmental resources in different economic organization has been analyzed particularly among the indigenous people. Further, the issues of different occupational health hazards and its correlated fatality as well as the incidences of permanent disability have been analyzed. In this connection a brief note about the present study and research methodology has been discussed.

Chapter II- Urbanization in Siliguri and the Issue of Migration: This chapter primarily emphasized on the gradual urban development of Siliguri and the major causes responsible for its proliferation as the largest urban centre of North Bengal. Here the discussion is done on diversified working opportunities in this region particularly in the sector of manual labour works. Further, the issues related to the migration of people mainly from Bangladesh to North Bengal has been discussed. In this regard the significance of the studied area has been revealed.

Chapter III- The Studied Area and People: In this chapter the researcher has discussed about the present studied area as well as its geographical and administrative set up. Then the discussion has been done on the brief historical background of the concerned people particularly on their traditional socio-

economic and socio-cultural practices. Next, in this chapter a major emphasis has been given on the issues of migration and re settlement of the studied people.

Chapter IV- Occupation of the Studied People: This chapter is a very crucial one from the perspective of the present study. Here a detail analysis of the stone crushing occupation had been done. In this regard, the involvement of the concerned people in this occupation and its relevance to their livelihood has been discussed. Reader could easily have an in depth idea about the working atmosphere, working schedule, rate of stones, work organization and division of labour related to the said occupation from this chapter. Further, the detail about their issues of monthly income and its impact on the common minimum livelihood of the concerned people have been discussed.

Chapter V- Social Life of the Stone Crushers: Here discussion has been done on the issue of social structure, social organization, daily cultural practices as well as religious and political organization of the studied people. Reader can also have a brief idea about United Nation's and Central Governments Social Development goals and contemporary situation of the studied people as well as different emerging social problems of the studied area.

Chapter VI- Health Situation of the Stone Crushers: In this chapter researcher has focused on the interaction between socio- cultural practices related to health, disease and treatment. Different national health policies and health rights of human being have also been discussed. From this chapter, reader can get an elaborate idea about traditional concept of health, disease and treatment of the studied people. Case studies of those patients who availed the traditional medical treatment in different circumstances is a vital portion of this chapter. Several super natural beliefs of the studied people are also discussed here. Idea about community participation of different religious festival to prevent several ill health conditions is a major area of emphasis. Role and activities of the traditional healers and the psychological faith of the studied people upon them is one of the crucial part of this chapter.

The reader can find a detailed discussion about different western medical health care facilities as well as programmes of the Central Government and its contemporary scenario in the studied area. In this regard, actual condition of the western medical institutions deserved a special attention in this chapter. Role and activities of western medical practitioners could focus on a number of

contemporary issues related to the western health care facilities of the studied area. Case studies of the concerned patients who availed western medical facilities in different circumstances were also a vital portion of this chapter. Hygienic condition related to daily livelihood practices has also been discussed in detail. Further, an illustrative description about the overall physical, mental and social health condition of the studied people and the concerned society has been done.

Chapter VII: General Observation- An overall discussion of all the above raised issues were the main portion of this chapter and a general observation about the whole work was also given along with the suggestive measures.

REFERENCES

- Alli, B O 2008 Fundamental Principles of Occupational Health And Safety. International Labour Organization, Geneva: International Labour Office.
- Banerjee, B.G. and R. Jalota 1988 Folk illness and ethno medicine. New Delhi: Northern Book centre.
- Banerjee, N 1985 Women workers in the unorganized sector: The Calcutta experience. Hyderabad: Sangam books.
- Barma, S. 2008 North Bengal and its people. *In* Economy and Society of North Bengal. P.K. Debnath and S. Bhattacharjee, eds. Pp25-38. Kolkata: Progressive publishers.
- Behera, S 2011 Trans border identities: A study on the impact of Bangladeshi and Nepali Migration to India, May 2011, No. 1. ICRIER policy Series.
- Berry, J W 1997 Immigration, Acculturation, and Adaptation. *Applied Psychology: An International Review*.46 (1): 5-68.
- Bhanja, K.C 1941 Darjeeling at a glance. Calcutta: Modern India Press.
- Biswas, S K 2005 Asantosh Karon (in Bengali). *In* Bisay: Santras. G. Roy, ed. Pp 81-93. Siliguri: Baitanik Patrika Gosthi.
- Biswas, S.K. and S.Bhattacharjee 2007 Health Situation Among the Stone Crushers of Balasan River Bed in Siliguri, West Bengal, India. *In* Health Environment Development and Other Essays : Anthropological Perspectives. B. Chaudhuri and S. Chaudhuri, eds. Pp. 182-202. New Delhi: Inter India Publication.
- Biswas, S.K. ed. 2012 Suicide: An Anthropological Study at Sagar Block, West Bengal. New Delhi: Cosmo publishers.

- B. Chaudhuri and S. Chaudhuri, eds. Pp. 182-202. New Delhi: Inter India Publication.
- Breman, J 2003 *The Laboring Poor In India: Patterns Of Exploitation, Subordination And Exclusion*. New York: Oxford University Press.
- Campbell, A 1869 *On the Tribes around Darjeeling*, Royal Anthropological Institute of Great Britain.
- Chaudhuri, B 2003 *Health, forest and development: the tribal situation*. New Delhi: Inter-India Publication.
- Choudhury, M 2008 *Himalayan studies in India*. New Delhi: Mittal publication.
- Dalton, E T 1872 *Descriptive ethnology of Bengal*. Calcutta: Asiatic Society of Bengal.
- Dasgupta, M. 1988 *Urbanization in North Bengal*. *In* *Urbanization, Migration and Rural change: A study of West Bengal*. B Dasgupta, ed. Pp. 318-331. Kolkata: A Mukherjee &co. Pvt. Ltd.
- Dash, A J 1947 *Bengal District Gazetteers, Darjeeling*. Alipore: Bengal Government Press.
- Dash, K.N 2004 *Invitation to Social and Cultural Anthropology*. New Delhi: Atlantic Publishers.
- Datta, P. 2002 *Nepali migration to India*. Paper presented at the IUSSP Conference on Southeast Asia's Population in a changing Asian context, Bangkok, Thailand, 10-13 June 2002.
- Datta, P. 2005 *Undocumented migration from Bangladesh to West Bengal*. *In* *Dimension of research in Indian Anthropology*. Vijoy S. Sahay, Pradip K. Singh and Gautam K. Bera, eds. Pp. 147-159. New Delhi: Serials Publication.
- Debnath, S 2008 *Essays on Cultural history of North Bengal*. Siliguri: N.L. Publishers.
- Detels, R, J. MacEwen, R. Beaglehole and H. Tanaka 2002 *Oxford Textbook of Public Health*. London: Oxford University Press.
- Dutta, K 2006. *Urbanization in the eastern Himalayas, Emergence and Issues*. New Delhi: Serials publications.
- Firth, R 1939. *Primitive Polynesian Economy*. London: Watts.
- Forde, C D 1934 *Habitat, Economy And Society: A Geographical Introduction To Ethnology*. Tarrold and sons.

- Gill, G J 2003 Seasonal Labour Migration in Rural Nepal: A Preliminary Overview. London: Overseas Development Institute.
- Gill, R 1994. Sums as urban villages. Jaipur: Rawat publications.
- Habibullah N Saiyed and Rajnarayan R Tiwari 2004 Occupational Health Research In India. *Industrial Health* 42: 141–148
- Hazra, A 2012 Rural India: Still Floating Towards Cities. *Kurukhestra* 60(4): 3-6.
- Hunter, D.E. and P. Whitten 1976 *The Study of Anthropology*. New York: Harper and Row Publishers.
- Hunter, W W 1876 *A statistical account of Bengal, District of Darjiling, Jalpaiguri and State of Kuch Behar*. London: Treubner and Co.
- Hussain, M 2012 *Human Geography*. Jaipur: Rawat Publications.
- Ilyas, M. and Farooq Rasheed, June 2010. Health And Environment Related Issues In Stone Crushing In Pakistan. Islamabad : South Asia Network of Economic Research Institutes.
- International Labour Organization. 1998 *Encyclopaedia of occupational health and safety*, 4th ed, Vol 4, Geneva.
- International Statistical Classification of Diseases and Related Health Problems 1999 *Occupational Health*. Geneva : World Health Organization.
- Iyer, K.G. 2004. *Distressed Migrant Labour In India: Key Human Rights Issues*, New Delhi: Kanishka publishers.
- Jamwal, N S Jan-Mar 2004. Border Management: Dilemma Of Guarding The India-Bangladesh Border. *Strategic Analysis*. 28(1): 5-36.
- Jhabvala, R. and R K A Subrahmanya 2000 *The unorganized sector: Work Security And Social Protection*. New Delhi: Sage publications.
- Kaila, H L 2005 *Women, work and family*, Jaipur: Rawat publication.
- Karlekar, M 1982 *Poverty and women's work: A study of sweeper women in Delhi*. New Delhi: Vikas publishing house.
- Khawas, Vimal 2008 *Demography of Darjeeling Hills*. Global Demography Project. Electronic document, <http://beacononline.wordpress.com>, accessed March 14, 2008.
- Kitcher, E.D 2012 *Early Occupational Hearing Loss Of Workers In A Stone Crushing Industry: Our Experience In A Developing Country*.

- Lansdown, R. 2008 The Relationship between Blood Lead Concentrations, Intelligence and Attainment in a School Population: a Pilot Study. *Developmental Medicine & Child Neurology*. 23 (6):567–576.
- Law, M 1998 Occupational Health And Well Being, *Canadian Journal Of Occupational Therapy*, 65(2): 81-91.
- Leigh, J. Petra Macaskill, Eeva Kuosma, and John Mandryk September 1999 Global Burden of Disease and Injury Due to Occupational Factors. *Epidemiology* 10(5): 626-631.
- Lister, R 2004 Poverty. New Delhi: Atlantic publishers.
- Mandal, A 2005 Women workers in brick factory: Sordid saga from a district of West Bengal. New Delhi: Northern book centre.
- Marmot, M. and R.S. Wilkinson 2006 Social Determinants Of Health. London: Oxford University Press.
- Mathur, P.R.G 2008. Ecology, Technology and Economy. Jaipur: Rawat publications.
- Ministry of Labour & Employment 2013 Report on Employment and Unemployment Survey 2012-2013. Government of India. Chandigarh: Labour Bureau.
- Ministry of Statistics and Programme Implementation 2011 Selected Socio-economic Statistics India 2011. New Delhi: Government of India.
- Mishra, M.S 1985 Rural poor their hopes and aspirations. Kolkata: Indian Institute of Management.
- Mohsin, N 2002 The Lost Innocence: A Perspective On Child Labour. New Delhi: Common Wealth Publishers.
- Mukhopadhyay R S 2009 Social Formation Of The Rajbansis And The Emergence Of Kamtapuri Identity. *In* Identity, cultural pluralism and state South Asia in Perspective. N.K.Das and V.N.
- Mukhopadhyay, Krishnendu 2011 Exposure to Respirable Particulates and Silica in and Around the Stone Crushing Units in Central India. *Industrial Health*.49: 221–227.
- Nwibo, A.N 2012 Pulmonary Problems Among Quarry Workers Of Stone Crushing Industrial Site At Umuoghara, Ebobi State, Nigewria. *International Journal Of Occupational And Environment Medicine* 3 (4): 178-85.

- O'Malley, L S S 2001 Bengal District Gazetteers, Darjeeling. Kolkata: Asiatic Society.
- Onder M, S. Onder and A. Mutlu, Apr 2012 Determination Of Noise Induced Hearing Loss In Mining: An Application Of Hierarchical Loglinear Modeling. Environment Monitory Assessment. 184(4):2443-51.
- Oxford Dictionary, 2013 New York: Oxford University Press.
- Pande, S 1986. Trends of occupational mobility among migrants, Jaipur: Rawat publications.
- Park, K 2013 Park's Textbook of Preventive and Social Medicine. Jabalpur: Banarasidas Bhanot Publishers.
- Pelto, J P, and G.H. Pelto 1978 Anthropological Research: The Structure of Inquiry. Cambridge: Cambridge University Press.
- Piotrowski, M 2010 Mass Media and Rural Out-Migration in the Context of Social Change: Evidence from Nepal. International Migration. 1-35.
- Prasad, S.S 1988 Tribal Women Labourers- Aspects Of Economic And Physical Exploitation. Delhi: Gian publishing house.
- Ramu, G.N 1989 Women Work And Marriage In Urban India: Study Of Dual And Single Earner Couple. New Delhi: Sage publications.
- Rao, R.N 1990 Social organization in an Indian slum, New Delhi: Mittal publication.
- Ray, N R 2007 Koch Rajbanshi and kamtapuri the truth unveiled, Guwahati: Vicky publishers.
- Reddy P S 1995 Displaced population and socio cultural change, New Delhi: Commonwealth publishers.
- Roy, Barma H.K 1988 Koch Beharer Itihas (in Bengali), Cooch Behar.
- Roy, M. 1902 Some notes on the Rajbansi, Journal of Asiatic society Bengal, LXXI,II(2).
- Roy, S 2001 Refugees and Human Rights. Jaipur: Rawat Publications.
- Russell Bernard, H, ed. 1998 Hanbook of Methods in Cultural Anthropology. London: Altamira Press.
- Saha D.C. and Pratap Kumar Padhy 2011 Effects of stone crushing industry on *Shorea robusta* and *Madhuca indica* foliage in Lalpahari forest. Atmospheric Pollution Research 2: 463-476.

- Saiyed, H. N. and R. R. Tiwari 2004 Occupational Health Research in India. *Industrial Health* 42: 141–148.
- Sanyal, C C 1965 *The Rajbansis of North Bengal*. Kolkata: The Asiatic Society.
- Saradmoni, K 1991 *Filling the rice bowl: women in paddy cultivation*. Hyderabad: Sangam books.
- Sarkar, A. and S. Dasgupta 2000 *Ethno ecology of Indian tribes*. Jaipur: Rawat publications.
- Sattar, A 1971 *The Rajbanis in the Sylvan shadows*. Dhaka: Bangla Academy.
- Shrestha, K. K. 2010 Labour Practices And Arrangement In The Rajbanshi Society. *Himalayan Journal of Sociology & Antropology*. Vol. IV: 91-104.
- Singh, K.S. 1999 *The scheduled caste people of India: National series volume—II*, Kolkata: Oxford university press.
- Singh, S.D. and K.P. Pothan 1982 *Slum children of India*. New Delhi: Deep and Deep publications.
- Sixtieth World Health Assembly 2007 *Workers' health: Global plan of action*. Geneva: World Health Organization.
- Stellman S.D. 2011 Sep Case-control study of lung function in World Trade Center Health Registry area residents and workers. *American Journal of Respiratory and Critical Care Medicine*. 184(5):582-9,
- Sujatha, V 2003 *Health by the people: Sociology of medical lore*. Jaipur: Rawat publications.
- Takala, J 1999 Global estimates of fatal occupational accidents, *Epidemiology*, 1999, 10(5): 640-646.
- Talwar, A, D. Chakraborty and S. Biswas, 2005 *Study on Closed and Re-opened Tea Gardens in North Bengal*. Kolkata: Paschim Banga Khet Majoor Samity.
- Telu Ram, L.P 1993 *Environmental health and hygiene*. New Delhi: Vikas publishing house.
- Tiwari R R, Y.K. Sharma, and H.N. Saiyed, May 2007 Tuberculosis Among Workers Exposed To Free Silica Dust. *Indian Journal Occupational and Environment Medicine*. 11(2):61-4.
- Vidyarthi, L.P. and B.K. Rai, 1976 *The Tribal Culture of India*. New Delhi: Concept Publishing.

Watts W.F. Jr, T.B. Huynh and G. Ramachandran 2012 Quartz Concentration Trends In Metal And Nonmetal Mining, Journal of Occupation Environment and Hygiene. 9(12):720-32.

Wheelwright, S.A. 1906 Human occupation. Belleville: Monoa publishing company.

Wilson, M. January 2012 In The Lineage Of The King: Conversion, Identity And Why The Rajbanshi In Bangladesh Claim To Be Kshatriya. East West Journal of Business and Social studies.3:(1-17).

World Health Organization 2007. 60th World Health Assembly. Workers Health Global Plan of Action. Geneva.

www.dgfasli.nic.in/info.1htm, accessed on 31.1.2013 at 11:10 A.M.