

**DEVELOPMENT INDUCED DISPLACEMENT IN SIKKIM: A STUDY OF  
GREENFIELD AIRPORT PAKYONG AND TEESTA V HYDEL POWER  
PROJECTS**

A Dissertation Submitted

To

**Sikkim University**



In Partial Fulfilment of the Requirement for the  
**Degree of Master of Philosophy**

**By**

**BEGAN LEPCHA**

Peace and Conflict Studies and Management  
School of Social Sciences

February 2018

Date: 06/02/2018

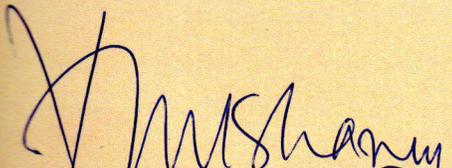
DECLARATION

I declare that the dissertation entitled “Development Induced Displacement in Sikkim: A Study of Greenfield Airport Pakyong and Teesta V Hydel Power Projects” submitted to Sikkim University for the degree of Master of Philosophy, is my original work. This dissertation has not been submitted for any other degree of this University or any other University.

BEGAN LEPCHA

Roll No. 16MPPC01

We recommend this thesis to be placed before the examiner for evaluation.

  
HEAD OF THE DEPARTMENT

  
SUPERVISOR

अध्यक्ष  
Head  
शांति एवं द्वन्द्व अध्ययन एवं प्रबंधन विभाग  
Department of Peace and  
Studies and Management  
सिक्किम विश्वाविद्यालय  
Sikkim University  
फोन : ०३५९२-२५१०६७, २५१४६८, फ्याक्स-२५१८६५  
Sikkim University, P.O. Tadong 737102, Gangtok, Sikkim, India  
Phone : 03592-251067, 251468, Fax : 03592-251865

Website : www.cus.ac.in



सिक्किम विश्वाविद्यालय

(भारतके संसदके अधिनियमद्वारा स्थापित केन्द्रीय विश्वविद्यालय)

SIKKIM UNIVERSITY

[A central university established by an Act of Parliament of India in 2007]

Date: 06/02/2018

**PLAGIARISM CHECK CERTIFICATE**

This is to certify that plagiarism check has been carried out for the following Master of Philosophy Dissertation with the help of **Urkund** software and the result is within the permissible limit decided by the University.

**DEVELOPMENT INDUCED DISPLACEMENT IN SIKKIM: A STUDY OF  
GREENFIELD AIRPORT PAKYONG AND TEESTA V HYDEL POWER  
PROJECTS**

Submitted by Began Lepcha under the Supervision of Prof. Nawal K. Paswan of the Department of Peace and Conflict Studies and Management, School of Social Sciences, Sikkim University, Gangtok – 737102, India.

*Began Lepcha*  
Signature of Candidate

*Nawal K. Paswan*

Countersigned by the Supervisor

६ माइल, सामदुर, पीओ तादुङ-७६७१०२, गान्तोक, सिक्किम, भारत

फोन : ०३५९२-२५१०६७, २५१४६८, फ्याक्स-२५१८६५

6th Mile, Samdur, P.O. Tadong 737102, Gangtok, Sikkim, India

Phone : 03592-251067, 251468, Fax : 03592-251865

Website : [www.cus.ac.in](http://www.cus.ac.in)

## ACKNOWLEDGEMENT

It is immense pleasure for me to submit MPhil Dissertation to Sikkim University in the **Department of Peace and Conflict Studies and Management**. Though challenging but it was interesting to me.

First and foremost, I would like to express my cordial gratitude to those who support and contribute to the writing of my dissertation.

I would like to express my heartiest gratitude to my supervisor, **Prof. Nawal K. Paswan**, for his useful comments, remarks, and engagement throughout the writing process of my dissertation. My special thanks go to **Assistant Professor Dr. Salvin Paul** for his useful comments and encouragement to completing this dissertation. Without his supervision and persistent help, this dissertation has not been conceivable.

I expressed my sincere gratitude to all the Library Staffs of Sikkim University for their cooperation and providing books, Journals, and Articles related to my dissertation.

I am thankful to my mates, Swgwmsar, Brahma Daju (Phd Scholar) Soraj and Subarna and the whole departmental family for their help and perpetual support which made possible to completion of my work on given time.

In addition, my sincere thanks go to Samuel Sangbo for his unaccountable support. My special thanks go to NHPC Chief Engineer, Staffs and all the respondents of R&R Colony Lower Khamdong. Second special thanks go to Airport Authority of India (AAI) staffs who permit me to do field survey in the Construction site of Greenfield Airport at Pakyong. On the other hand, all the respondents of Greenfield Airport Pakyong who really gives a positive response in conducting of my research in the particular area. Without their perpetual support, it would not be possible to complete my dissertation. I would like to give immense thanks to my Aama, Papa and all the family members who extend their moral and financial support for completion of my dissertation. Lastly, I would like to give thanks to God for spiritual support for entire the tenure of my MPhil. Course.

<b>CONTENTS</b>		
ACKNOWLEDGEMENT		
LIST OF TABLES		
LIST OF FIGURES AND MAP		
ABBREVIATIONS		
EXECUTIVE SUMMARY		
<b>1</b>	<b>INTRODUCTION- AN OVERVIEW</b>	<b>PAGE</b>
1.1	Background	1-3
1.2	Review of Literatures	3-9
1.3	Rationale and Scope of the Study	10
1.4	Objectives	11
1.5	Research Questions	11
1.6	Hypothesis	11
1.7	Research Methodology	11
1.8	Study Area and Sample	12
1.9	Tentative Chapterisation	12-13
<b>2</b>	<b>DEVELOPMENT- INDUCED DISPLACEMENT- A THEORETICAL PERSPECTIVES</b>	<b>14-39</b>
2.1	Introduction	14-15
2.2	Meaning and Concepts	15-16
2.3	The Concept of Displacement	16-18
2.4	Theoretical Models	18- 21
2.4.1	John Rawls ‘s General Conception of Justice	
2.4.2	Scudder and Colson Theory (Involuntary Resettlement)	
2.4.3	Chamber ‘s Three Stage Model	
2.5	Impoverishment Risks and Reconstruction (IRR Model)	21-28
2.5.1	Landlessness	
2.5.2	Joblessness	
2.5.3	Homelessness	
2.5.4	Marginalisation	
2.5.5	Food Insecurity	

2.5.6	Increased Morbidity and Mortality	
2.5.7	Loss of Access to Common Property	
2.5.8	Social Disintegration or Disorganisation	
2.6	Reconstruction Measure	28-30
2.7	Cause of Development Induced Displacement	30-35
2.7.1	Development of Transportation Infrastructure	
2.7.2	Urbanization, Transformation of Urban Space and Population Redistribution Schemes in Urban Areas	
2.7.3	Deforestation and the Expansion of Agriculture	
2.7.4	Mining and Transportation of Resources	
2.7.5	Population Redistribution Schemes	
2.7.6	Conservation of Nature	
2.7.7	Other Causes of Development Induced Population Displacement	
2.8	Internally Displaced People IDPs and International Organizations	35-39
<b>3</b>	<b>REHABILITATION AND RESETTLEMENT POLICIES AND PROGRAMMES IN INDIA</b>	<b>39-63</b>
3.1	Introduction	40
3.2	Development Process in India	41-42
3.3	Land Acquisition Act, 1894	42-43
3.4	Principles of Resettlement and Rehabilitation	43
3.5	National Rehabilitation and Resettlement Bill, 2002	44
3.6	National Rehabilitation and Resettlement Bill, 2007	44
3.7	Land Acquisition, Rehabilitation and Resettlement Bill, 2011	45-46
3.8	Rehabilitation and Resettlement, 2013	46
3.9	Sikkim Land Act, 2014	46-47
3.10	The State role and its policies on Airport Authority of India and Teesta V Hydel Power Project	47-48
3.11	Objectives of Policy	48-49
3.12	Eligibility for Compensation and Rehabilitation	49-50
3.13	Role of Panchayati Raj Institutions Especially in Gram Sabhas	50-52
3.14	Compensation	53-
3.15	Cash for Compensation	54

3.16	Land	54-55
3.17	Employment	55
3.18	Impacts of Development Project in India	55-56
3.19	Institutional and Political Context of Displacement	56
3.19.1	Land Acquisition: Law and Policy	56-57
3.20.1	Social Context of Displacement	57-58
3.21	Indigenous Peoples	58-59
3.22	Impact of Displacement on Gender	60
3.23	Role of the World Bank	61-63
<b>4</b>	<b>DEVELOPMENT-INDUCED DISPLACEMENT OF GREENFIELD AIRPORT AND TEESTA V HYDEL POWER PROJECTS IN SIKKIM</b>	<b>64-78</b>
4.1	Introduction	64
4.2	Greenfield Airport Pakyong	64-66
4.3	Impact of Greenfield Airport Pakyong	67
4.4	Socio- Economic Impact of Greenfield Airport Pakyong	68-70
4.5.1	Migration	
4.5.2	Education	
4.5.3	Health	
4.6	Resettlement and Rehabilitation of Greenfield Airport Pakyong	70-71
4.7	Economic Impact	72
4.7.1	Route Connectivity	73
4.7.2	Occupational Pattern	74-75
4.8	Teesta V Hydel Power Project	75
4.9	Environmental Impact	75-77
4.10	Conflict between State Government and NHPC	77-80
4.11	Socio- Economic Impact in Resettlement and Rehabilitation R&R Colony	81-83
4.11.1	Livelihood	83-85
4.11.2	Education and Unemployment in R&R Colony	85-87
4.11.3	Sentiment of the people Affected by Teesta V Hydel Power Projects	87-91

	<b>CONCLUSION, SUGGESTION, FINDINGS OF THE STUDY, RECOMMENDATION</b>	92-98
	<b>BIBLIOGRAPHY</b>	100-105

<b>SI.NO</b>	<b>LIST OF TABLES</b>	<b>PAGE</b>
Table No 4.1	Resettlement and Rehabilitation of Greenfield Airport Pakyong	72
Table No 4.2	Composition of the age Group of Respondents in Teesta V Hydel Power Projects	80
Table No 4.3	Number of Displaced Families in Teesta V Hydel Power Projects	81

<b>SI.NO</b>	<b>LIST OF FIGURES AND MAP</b>	<b>PAGE</b>
Figure No 3.1	Salient Features of the New Law	53
Figure No 4.1	Number of households Damages	68
Figure No 4.2	A Number of Households Damaged	73
Figure No 4.5	Occupational Pattern	75
Figure No 4.6	A Number of Affected Families	81
Figure No 4.7	Livelihood of Rehabilitation and Resettlement Colony Households	85
Figure No 4.8	The Prospective of Teesta V Hydel Power Projects	87
Figure No 4.9	Psychological Parameter of the Affected People of Teesta V Hydel Power Projects	88
Map No 4.1	Map of Greenfield Airport Pakyong	67

	<b>LIST OF ABBREVIATIONS</b>
ADB	Asian Development Bank
AAI	Airport Authority of India
ACT	Affected Citizens of India
CISMHE	Centre for Interdisciplinary Studies of Mountain and Hill Environment
CEC	Centred Empowered Committee
DC	District Collector
DFO	Divisional Forest Officer
DFEW	Department of Forest, Environment and Wildlife
EIA	Environment Impact Assessment
GOI	Government of India
HRT	Head Race Tunnel
IRA	Impoverishment Risk Analysis
IASC	Inter- Agency Standing Committee
IADB	Inter- American Development Bank
LAA	Land Acquisition Act
LARR	Land Acquisition, Rehabilitation, and Resettlement
MIDR	Mining- Induced Displacement and Resettlement
MOEF	Ministry of Environment & Forest
MOU	Memorandum of Understanding
NHPC	National Hydro Power corporations
NTPC	National Thermal Power Corporations
NGOs	Non- Governmental Organisations
NAC	National Advisory Council
OAU	Organisation of African Unity
OECD	Organisation or Economic Cooperation and development
PRIS	Panchayati Raj Institutions
PAPs	Projects Affected Peoples
RAP	Rehabilitation Action Plan
R&R	Rehabilitation & Resettlement
RTI	Right to Information

SIA	Social Impact Assessment
SMIT	Sikkim Manipal Information & Technology
UNHCR	UN High Commissioner for Refugees
USCR	The US Committee for Refugees
WCD	World Commission on Dams
WB	World Bank
WBED	World Bank Environment Department

## EXECUTIVE SUMMARY

This study comprised two fields study, Greenfield Airport Pakyong, and the Teesta V Hydel Power Projects. The Greenfield literally means that the Greenfield projects are either new factories, Power plants, or airports which are built from scratch on Greenfield land. Greenfield Airport Pakyong is an airport under construction near Gangtok, the state capital of Sikkim, India. The airport, spread over 990 acres, is located at Pakyong village about 35km (21.75 mi) south of Gangtok. It is the first Greenfield airport to be constructed in the North-eastern Region of India and the only airport in the state of Sikkim. Frequent protests by locals and landslides upslope of the runway have resulted in the suspension of work twice, escalating the cost of the project from Rs. 309 crore (3.09 billion) to Rs. 605 crore 6.05 billion) (US\$47 million to US\$91 million).

Greenfield Airport construction includes a passenger terminal which was expected to be functional by March 2017; the date has been delayed as the Construction has been under process. According to the statement of Trainee Junior Engineer (JE), it is said that on September 2017, the first trial would be conducted at Greenfield Airport of Pakyong.

Presently, the nearest airports to Sikkim are Bagdogra, located 124 km away in the neighbouring state of West Bengal, and Paro Airport in Bhutan. The project was approved by the Cabinet Committee on Economic Affairs in October 2008. The Punj Lloyd Group was awarded the Rs. 264-crore (2.64 billion) (US\$53 million) contract to construct a runway, taxiway, apron drainage system, and electrical work for the Greenfield Airport in January 2009. The foundation stone for the Greenfield Airport was laid by the then Civil Aviation Minister, Praful Patel, in February 2009

The project was initially slated to be completed by 2012. Protests by local villagers, demanding proper rehabilitation and compensation, had resulted in the suspension of work in January 2014. The Airport Authority of India (AAI) intervened and held discussions with agitating villagers and paid part of the compensation allowing work to resume in October 2014. However, in January 2015, work came to a halt once again as villagers pass on for the protests.

In July 2015, AAI and the State Government signed Memorandum of Understanding (MOU) with AAI, promising to shift the affected households by August 15, so that AAI could resume work from October 2015. Landslides upslope of the airport has further delayed construction. Maximally ecological slope-stabilization techniques are being used to remedy this. When completed, the airport will be one of the five highest airports in India.

Teesta V hydel power project is the first to be taken up in the six-stage cascade plan to harness 3635 MW of hydropower, all within 175 Km of the river Teesta in Sikkim. It is a run of the river scheme, involving a concrete gravity dam 96.45 m high and 182.5 m long at Dikchu which raise the water level upstream before it is diverted through a 17.5 km long 'head race tunnel' (HRT) to the powerhouse at Balutar. The project was started in 1999 and is due to be completed by 2006. The project, being implemented by the National Hydroelectric Power Corporation (NHPC) is generated 510 MW. Clearances under the Environmental (Protection) Act, 1986 and Forest (Conservation) Act, 1980 were obtained in May 1999. The Memorandum of Understanding (MOU) was signed between the State Government and the NHPC in the year 2000. The project is spread over three districts of Sikkim (East, North, and South), with most of the land from East District. This study is organized the fifth chapter including introduction and conclusion. This chapter one is dealing with the introduction, Review of Literature, Rationale and the Scope, Objective of the study and Research Questions, Study Area, Hypothesis, and Research Methodology.

The chapter two basically theoretical portion of Development-Induced Displacement. This chapter basically deals with theories of displacement, development, rehabilitation, and resettlement. It has further analyzed the socio-economic impact of displacement in the global context. This chapter illustrated the role of the World Bank and Asian Development Bank. The chapter three dealing with Rehabilitation and Resettlement Policies and Programmes in India. This chapter examined the policies and programmes on Resettlement and Rehabilitation in India. The history of Land Acquisition Act 1894 in India has examined.

The Chapter four is dealing with fields of Development-Induced Displacement of Greenfield Airport and Teesta V Hydel Power Projects in Sikkim. This chapter focused on the developmental projects in Sikkim. It analyzed the data and information

collected from the field survey and reports from the selected affected areas. This chapter examined the socio-economic drawbacks from developmental projects as well as highlighting the policies and programmes of rehabilitation and resettlement in Sikkim.

The chapter fifth deals exposed overall conclusion, recommendations, suggestions and the major finding of the study.

# CHAPTER 1

## INTRODUCTION: AN OVERVIEW

### 1.1 Background

Sikkim Himalaya has unique and diverse ecosystems with socio-cultural and biodiversity values associated with it. The region is a storehouse of unique and globally significant biodiversity and also provides an ideal habitat for the survival of humans and wildlife. The total geographical area 7096sq.km, almost about 82.31% is under the administrative control of the Forest, Environment, and Wildlife Management Department of the Government of Sikkim. The forest cover in the state consistently increased in the last two decades to about 47% (3359sq km) in 2011, while far less than 12% of the land was available for cultivation until 2012. Agro-biodiversity is equally rich in the human-managed traditional agricultural systems (240-430m) of Sikkim which is attributed to diversity agro-climatic zones along the rising altitudes. Sikkim Himalaya houses around 40% of the biodiversity wealth that occurs in the trans- Himalayan Range, Sikkim is bestowed with the snow and glacier-fed rivers originating in the upper catchment of Teesta And Rangit which show enormous potential for hydropower generation.

Development sustainability justice equity and fairness, touching every dimension of environmental, natural and human which promoted equal opportunity for all. Development discourse maintains that growth through a process of industrialization symbolizes that coming of modernity. The transition process often denotes the modernization process, relates to the idea of development in a specific manner. Development is the transition of the third world qua the transition under developed economy into the developed modern, where the traditional and the modern are represented respectively by the two homogenous wholes. Pre-capitalist and capitalist. Consequently, development came to symbolize a particular notion of progress that telescoped, in turn, the transition of the third world to modernity and also a transition of the third world from pre-capitalist to capitalism. Two aspects of this development discourse help to flesh out the logics of development.

Development and displacement may appear contradictory terms, but these are facts of the national life and these facts are more astonishing than any of the fictions. In India, during last 50 years more than 50 million people have been uprooted from their homes and huts, displaced from their farms, jungles and rivers and sacrificed their holy and sacred place in the name of National Interest (Roy,2000), These millions displaced people were witness to the destruction of their own lives, livelihoods, and lifestyles. This is evident from the fact that the government has no data about the actual number of the people displaced as a consequence of the various development projects like Hydro Power Projects, Airport, Irrigation Projects, Mines, Super-Thermal and Nuclear-Power Plants, Industrial Complexes etc.

There are three types of displacement: the first type of displacement is effected by natural disasters as like droughts, floods, earthquakes, and cyclone. The second type of displacement which the people were fled from homes and their homelands due to the high intensity of conflict as like intrastate war. The third type of displacement which caused by developmental projects in the regions as like dams, mines, thermal power plants, industries, railways, roads, and airports etc.

In India, the land acquisition act, 1894 (amended in 1984) through which the lands have been acquired for development projects, was passed by the colonial government to make it possible for the state to acquire private land for public purpose. The act provides for payment of only cash compensation and only to those who have a direct interest in the title to such land. This land acquisition act, 1894 still practices in the modern India where the state approached the private land for national interest (Kelly, 2010).

Forced displacement refers to physical exclusion from a geographic territory and economic and social exclusion from a set of functioning social networks. Thus affected people face a broad range of impoverishment risks that include landlessness, joblessness, marginalization, food security, increased morbidity, loss of common resources and community disarticulation that result in a loss of social-cultural resilience. Among these, the higher risks are the loss of livelihood and disruption of agricultural activity adversely affecting household food security, leading to under-nourishment and diseases.

The development-induced displacement entails loss of habitat, destruction of cultural ethos, and breaking-up of traditional organizations resulting to a disturbance in the socio-economic life of the displaced persons. Displacement forces them to start their life afresh in new social resettlement areas, which is costly and laborious to the people who lost everything. This study focuses on the displacement of the population due to developmental projects in Sikkim. The developmental projects have adversely affected their socio-economic life of the people in Sikkim.

Sikkim is vulnerable to natural calamities considering that it falls under the seismic zone V and records one of the highest annual rainfalls in the country. Each year a noticeable number of people are affected by natural disasters among which landslide, flash flood, river bank erosion, and earthquake are the most frequent in the region (Arora, 2012).

Development is an essential part of human civilization but sustainable development is necessary to preserve natural resources. The developmental projects affected people who lost their ancestral lands and they were voluntary and involuntary resettlement in the new lands. This study examined on resettlement and rehabilitation policies and programmes in Sikkim.

## **1.2 REVIEW OF LITERATURES**

The review of literatures is divided into three sections. The first Section deals with the theoretical perspectives, concepts, and meaning. The second section deals with the policies and programmes of rehabilitation and resettlement in India. The third section deals with the socio-economic life of the affected people of Greenfield Airport and Teesta V Hydel Power Projects in Sikkim.

### **a) DEVELOPMENT INDUCED DISPLACEMENT: A THEORETICAL PERSPECTIVES**

The classical economic development of western economic tradition evolves a model based on the growth of knowledge and the growth of human control over nature. It is a linear theory of progress. It depicts the process of transformation of societies through traditional, transitional and modern stages (Bandyopadhyay and Shiva, 1988). The western models have envisaged the process of economic development through the exploitation of natural resources, industrialization and

technological transformation, the establishment of development projects by transferring resources from the survival needs of the eco-system people to the demand of markets, capitalist growth, and production of the commodity on a commercial basis.

According to Fuggle et.al. (2000), estimated National Research Center for Resettlement in China has calculated that over 45 million people were displaced by developmental projects in that country between 1950 and 2000.

Thakkar (2000), pointed out, that estimates on displacement in India from dam projects alone range from 21 million to 40 million. The World Commission on Dams (WCD) report notes that, in 1993, World Bank in China accounted for 24.6 percent of people displaced in Bank-assisted projects, while Bank Assisted projects in India accounted for 49.6 percent of the Bank total.

Patel et.al (2002), in his article, pointed out that, in a crowded central city almost any improvement in the provision of water, sanitation, drainage, roads, railways, ports, airports, and facilities for business, needs land on which people currently have their homes.

Paul (2011), in his article, explained about terms development and displacement which directly loss of four-fold human, social natural and economic capitals of the ousted community of the airport both before and after displacement. The life of the oustees had undergone after displacement. The poor initiatives of projects management to reconstruct outsees life generated various socio-economic and physical problems in the life of the displaced which opens one more of the hearted modern marginalization which swallows the poor innocent lives.

The World Commission on Dams case study report by Ortolano et.al (2000), it offers a detailed examination of the Grand Coulee Dam Project in the United States a project that extended over some forty years between 1933 and 1975 and displaced approximately 5,100- 6,350 people in the region, while also adversely affecting indigenous population north of the border in Canada which does not provide them land compensation.

Asian Development Bank (2000), *Dams and Development: A New Framework for Decision- Making*, in this report it discusses the social impact of dams which include resettlement of the displaced host communities, their effect on the communities living upstream and downstream due to changes on river flows, water quality and aquatic ecosystem, and lastly, their effect on the community living in the periphery of the project and due to changes in access to natural resources on the local community.

Ray (2000), stated that the development induced displacement has mostly caused a downward spiral of impoverishment. The long drawn out dehumanizing, disempowering and painful process of displacement had led to widespread traumatic psychological and socio-cultural consequences. It causes dismantling of production systems, desecration of ancestral sacred zones or graves and temple, a scattering of kinship group and family systems, disorganization of informal social networks that provide mutual support, weakening of self-management and complex social relationship which used to provide avenues of representation, mediation and conflict resolution. Essentially, the very cultural identity of the displaced community and individual is subjected to massive onslaught leading to very severe physiological stress and psychological trauma.

#### **b) RESETTLEMENT AND REHABILITATION POLICY IN INDIA**

Scudder and Colson (1982), they formulated a theoretical model of settlement processes distinguishing four stages: recruitment, transition, development, and incorporation/handing over. The diachronic framework was built around the key concept of the stage it focused on settlers stress and their specific behavioural reactions in each stage. Initially, the model was formulated to apply to voluntary settlement processes. Subsequently, Scudder extended it to some involuntary resettlement processes as well, but only to those involuntary relocations that are successful and move through all four stages. The model is not intended to apply to resettlement operations that fail and do not complete the last two stages. The authors argue that relocation, whether voluntary or compulsory, is a stressful experience. People undergoing relocation react in predictable and broadly similar ways partly because the stress of relocation limits the range of coping responses of those involved.

World Commission on Dams (2000), in this report, the Resettlement Programmes have predominantly focussed on the process of physical relocation rather than on the economic and social development of the displaced and other negatively affected people. This has severely eroded the development effectiveness of resettlement and rehabilitation programmes and heightened the impoverishment risk of the resettlers. Another important problem of displacement is the issue of land acquisition.

Nayak (2008), in his thesis, stated that the land acquisition act, 1894 (amended in 1984) through which the lands have been acquired for development projects, was passed by the colonial government to make it possible for the state to acquire private land for public purpose. The act provides for payment of only cash compensation and only to those who have a direct interest in the title to such land. This land acquisition act, 1894 still practices in the modern India where the state approached the private land for national interest.

Sharma (2014), in his article, stated that the Mega development projects like construction of dams, industries, highways, airports, and roads resulted in the forced displacement of people. He further illustrated that the poor people who face the consequences of such projects more because their livelihood, habitat, and assets are affected. Where involuntary resettlement has received public attention, either through NGOs or media intervention, the state administration has responded. In most of the cases, such displacement has resulted in the loss of livelihood and shelter.

Cernea (1999), pointed out that people were forcibly ousted from one's land and habitat carries with it the risk of becoming poorer than before displacement since a significant portion of people displaced does not receive compensation for their lost assets, and effective assistance to re-established themselves productively.

According to Cernea (1995), highlighted the basic risks affecting development-induced displaced people to include the following landlessness, joblessness, homelessness, marginalization, food insecurity, loss of access to common property resources, increased morbidity, and mortality and community disarticulation.

Thomas (2002), described that the most of the potential displaces are opposed to the implementation of the Pagladia dam project because it directly affects their lives and livelihood. The people of that native place formed an organization called Pagladia Bandh Protirodh Committee to protest against the construction of the dam and implementation of the project.

According to Pandit (2008), the director of the Centre for Interdisciplinary Studies of Mountain and Hill Environment (CISMHE) under whose supervision a carrying capacity study of the Teesta Basin was conducted over nearly six years admitted in December 2007 that stages I-III of the Teesta project are neither environmentally advisable nor feasible. He warns that many of the hydropower projects on river Teesta is located in the high-risk zone IV of the seismic zoning map. He pointed, towards the drastic increase in the number of landslides in the Teesta Basin due to increased developmental activity, especially after the commencement of construction and blasting in the projects sites.

Ganguly (2011), pointed out that the profound socio-economic and cultural disruption for those affected by displacement by developmental projects. He further states that dislocation breakup living pattern and social continuity. It dismantled existing modes of production disrupted social network causes the impoverishment of many of those uprooted, threatens their cultural identity and increases the risks of epidemics and health problem.

Baxi (1989), in his article, highlighted the most important factor that displaces people is the prevailing Land Acquisition Act (LAA) of 1894. In India, the Land Acquisition Act of 1894 (LAA) empowered the state to enjoy unlimited power over land within its territory. It follows that the state has the right to invoke this right for public good and the consequent compulsory acquisition of the land cannot legally be challenged or resisted by a person or community. The doctrine of Eminent Domains which state acquired private lands for general interest.

According to Sangvi (1989), in his article, dealing with the problem of land submergence in Sardar Sarovar Dam project on Narmada River in India. According to him 'in case of Sardar Sarovar, it is anticipated that 11 thousands hectares of cultivable land, besides 13774 hectares of forest lands would be submerged, while for

Narmada Project the proportion of submergence is expected to be in the range of 91 thousand hectares of agricultural and forest land”. Thus he points out the greatest defect of big dams, which results in the loss of fertile land, which can never be compensated in true sense.

Baboo Balgovind (1991), he stated that, the state of Orissa did not have any unified resettlement and rehabilitation policy for displaced persons until the execution of Rengali multipurpose project. He further elaborated that at the time of construction of the Hirakud dam the policy of rehabilitation was full payment of compensation for all properties acquired by Orissa government which set up a Hirakud Land Organisation to tackle the complicated and protected task of land acquisition and resettlement. It is estimated that only 11 percent resettled in the camps. Because some felt that the camps were too far from their original village and some had no faith in the government's scheme. Although the government was committed to resettlement, people did not get the exact compensation in terms of land and money.

**c) GREENFIELD AIRPORT AND TEESTA V HYDEL POWER PROJECTS IN SIKKIM**

Lepcha (2014), in her thesis, described the land of Dzongu and it has been declared as a reserve land for Lepcha Community but the modernization project brought vast changes in homogeneous society. Therefore, the term of displacement and resettlement has emerged on a homogeneous society where the Lepcha community blended with other community which influx from outside the states as a working labourer in the hydropower projects as well as another sector in the State. Many households in Dzongu sold their lands and migrated and some of the affected citizens where they are working in project sites.

Nepal (2012), in his article, stated that movement adopted multiple types of strategies and tactics in the affected areas in the region where the local people protest against the mega developmental projects through the Gandhian non-violent methods, pilgrimage of Lepcha sacred land, rallies, demonstrations and hunger strikes which were against the construction of major power projects in Sikkim.

Subrata (2013), in her article, pointed out, hydropower projects not only bringing about socio-economic and demographic changes but it also drastically redefining the land use pattern that is often associated with displacement of people from their ancestral habitats, and at the same time is causing large-scale loss of traditional culture that is sometimes resented by the local population and are often not easily acceptable to the local population resulting to turmoil and conflicts in a relatively peaceful area.

Dhakal (2007), in his article, highlighted the developmental projects which caused the socio-economic life of the people in the construction areas. National Hydro Power Corporation (NHPC) which has started their hydel power project in Teesta river basins for hydroelectric power generation in Sikkim, India. It has been conceived without adequate participation from the people. The construction process has disrupted the destroyed people's houses their land and livelihood. NHPC projects have been crop productivity has decreased agricultural fields and losing water sources due to the project. This has pushed to the edge in their struggle for survival.

Bhutia, Doma, T. (2012), Independent People's Tribunal on Dams, Environment, and Displacement", in her article gives an insight that an integral part of the Sikkimese ethos. Much of the folklore and traditions of the locals revolve around the mighty Teesta and the Rangeet rivers. The river Teesta not only sustains the livelihood of the locals by preserving and propagating the rich biodiversity but also is the very backbone of Sikkim's cultural heritage. It is home to diverse ecological systems inhabited by rich diverse flora and fauna and man protected species of plants and animals.

Himalayan Mirror (2016), in the local newspaper, highlighted land compensation issue to the locally affected people in the region. The 65 houses at Dikling - Karthok Tashithing areas of Pakyong had adversely affected by the Greenfield Airport project construction works, has alleged the concerned Airport Authority of withholding the compensatory payments since last two years. Almost all families of the 65 houses have abandoned their homes and have been staying at rented houses at the nearby Pakyong market area. However, after receiving an initial paltry amount as compensation against the damages to their houses, it is all obvious that the aggrieved families have by now completely exhausted the only initial compensatory

amount received till late, in this local newspaper stated that the Airport Authority concerned had in its contract, agreed to pay a monthly compensatory amount of Rs.10, 000 for each aggrieved families of the 65 houses, till completion of the project.

### **1.3 RATIONALE AND THE SCOPE**

The scope of the study is limited to the two developmental projects of Greenfield Airport and Teesta V hydel power project of Sikkim. It covered the aspects of development, displacement, rehabilitation, and resettlement. The aspect of development which highlights the objectives generation of electricity and the accessibility of transportation. In term of displacement, it would be narrated internal displacement, resettlement and rehabilitation policies and programmes of Sikkim.

The Greenfield Airport and Teesta V Hydel Power Project have witnessed of development-induced displacement which dismantled the socio-economic aspects of human survival. The social impact looks into inward migration, health, and attachment of cultural ethos. Further, economic impact looks into production, livelihood, employment and shifting occupation.

During the recent decade, the protest on dam movement in Sikkim was spearhead by the regions ethnic communities through Gandhian non-violent methods such as hunger strikes, the affected citizens of Teesta (ACT) taking the lead role. This study finds out internal displacement by developmental projects in the region. The purpose of the study has examined socio-economic impact of mega-projects planned in the Teesta V hydel power projects and Greenfield airport of Sikkim.

The construction of a series of dams on the river Teesta and the Greenfield Airport on the pretext of development of the state has been one of the important population displacement issue associated with development. The local communities, civil society, academicians, and environmentalists are raising concerns about these impact of these projects in the seismic zone of Sikkim.

This study help to policy formulators and governmental agencies to analyze and address disgruntling groups and their issues associated with development-induced displacement problems. It will also help to bring the attention of other agency and experts to look into the matter in a systematic and effective way.

#### **1.4 OBJECTIVE OF THE STUDY**

1. To understand the relationship between developmental projects and displacement.
2. To examine the impact of Greenfield Airport and Teesta V Hydel Power Projects in Sikkim.
3. To examine the policies and programmes on Resettlement and Rehabilitation in Sikkim.
4. To evaluate displacement caused by the Greenfield Airport and Teesta Hydel Power Projects.

#### **1.5 RESEARCH QUESTIONS**

1. What is the relationship between developmental projects and displacement?
2. What are the policies and programmes on Resettlement and Rehabilitation in Sikkim?
3. What are the impact of Greenfield Airport and Teesta V Hydel Power Projects in Sikkim?
4. How developmental projects caused displacement in the Greenfield Airport and Teesta V Hydel Power Projects?

#### **1.6 HYPOTHESIS**

Greenfield Airport and Teesta V Hydel Power Projects are negatively correlated with the socio-economic aspect of Sikkim.

#### **1.7 RESEARCH METHODOLOGY**

This study has employed both Quantitative and Qualitative methods where in order to collect information both primary and secondary has been used. The primary data was collected from the field survey as well as governmental reports whereas for the secondary data has collected from various Journals, Articles, Books, and Newspapers etc. Dissertation and working papers also used the sources of secondary information.

## **1.8 STUDY AREA AND SAMPLE**

Greenfield Airport of Pakyong and Teesta V hydel Power Project. The Greenfield Airport of Pakyong, as per the 2011 census, the total population of Pakyong is 36,392. Out of this, 18,795 are males whereas the females count 17,597. Pakyong is a Block situated in East Sikkim district in Sikkim. Positioned in a rural part of Sikkim, it is one among the 3 blocks of East Sikkim district. According to the government register, the block code of Pakyong is 8.

The block has 29 villages and there are total 7,738 houses in this Block. The total area of Pakyong is 1.142 Acres out of this 400ha (990 acres) land which is under Greenfield airport construction. The ethnic community of this area is Lepcha, Bhutia and Nepali inhabitants in the area and over the years, many immigrants were an influx to the area for business and for working labourer in the construction of Airport.

Teesta V hydel power project concrete gravity dam of the located in the river Teesta near Dikchu and the powerhouse is located at Sriwani, Balutar Singtam, East Sikkim. This Hydel Power Project is one of the six hydropower scheme in a cascade identified on river Teesta in Sikkim which installed capacity of 3x170 MW (510MW). According to NHPC data has provide the number of families displaced were 60 households and the number of families partially affected were 199 and total number of affected families were 259 households in the Teesta V hydel power projects. The Sampling size was 100 from both the study areas of Sikkim.

## **1.9 TENTATIVE CHAPTERISATION**

### **1. Introduction**

This chapter deal with the introduction, Review of Literature, Rationale and the Scope, Objective of the study and Research Questions, Study Area, Hypothesis and Research Methodology.

### **2. Development Induced Displacement- A Theoretical Perspectives**

This chapter basically deals with theories of displacement, development, rehabilitation and resettlement. It has further analysed the socio-economic impact of displacement in the global context. This chapter illustrate the role of the World Bank and Asian Development Bank.

### **3. Rehabilitation and Resettlement Policies and Programmes in India**

This chapter examined the policies and programmes on Resettlement and Rehabilitation in India. The history of Land Acquisition Act 1894 in India has examined.

### **4. Development Induced Displacement of Greenfield Airport and Teesta V Hydel Power Projects in Sikkim**

This chapter focused on the developmental projects in Sikkim. It analysed the data and information collected from the field survey and reports from the selected affected areas. This chapter examined the socio- economic drawbacks from developmental projects as well as highlighting the policies and programmes of rehabilitation and resettlement in Sikkim.

### **5. Conclusion**

This fifth chapter exposed overall conclusion, recommendations, suggestions and the major finding of the study.

## CHAPTER 2

### DEVELOPMENT INDUCED DISPLACEMENT:

#### A THEORETICAL PERSPECTIVES

##### 2.1 Introduction

Dams as the modern temple of India. "If you are to suffer, you should suffer in the interest of the country." - Jawaharlal Nehru, speaking to villagers who were to be displaced by the Hirakud Dam, 1948 (Roy, 1990). He accentuated that adopting infrastructural development in the country create nation towards self-sufficiency and self-reliance but on the other hand, the growing developmental projects had burden to people in India and it has create marginalisation of section of people which had failed to enjoy basic human rights.

Development and displacement may appear contradictory term, but these are facts of the national life and these facts are more astonishing than any of the fictions. Moreover, this is not a new phenomenon in the world. It exists from the ancient to modern decades which has been reduced the livelihood of the affected people. Development is a necessary evils which exists in the country. Development projects which has directly control by a developers over land. Natural resource extraction, industrial parks, and infrastructure projects such as highways, airports, bridges, irrigation canals, and hydel power projects all require land, often in large quantity.

The classical economic development of western economic tradition evolves a model based on the growth of knowledge and the growth of human control over nature. It is a linear theory of progress. It depicts the process of transformation of societies through traditional, transitional and modern stages (Bandyopadhyay and Shiva, 1988). The western models have envisaged the process of economic development through the exploitation of natural resources, building up huge industrialization and technological transformation, establishment of developmental projects by transferring resources from the survival needs of the eco-system people to the demand of markets, capitalist growth, and production of commodity on commercial basis.

In the 1950s and 1960s, it may be said that the dominant view in development was informed by modernization theory, which, put crudely, saw development as transforming traditional, simple, Third World societies into modern, complex, and Westernized ones. Seen in this light, large-scale, capital-intensive development projects accelerated the pace toward a brighter and better future. If people were uprooted along the way, that was deemed a necessary evil or even an actual good, since it made them more susceptible to change. In the displacement perspectives which often development reduce the human survival in the world. The displaced population were often victims from developmental projects where they themselves loses equal rights than other group of the people. This chapter is deals with basic concepts and theory of the thinkers as like John Rawl's General Conception of Justice, and Scudder-Colson Theory of Resettlement.

## **2.2 MEANING AND CONCEPTS**

**Development induced displacement:** If displacement is caused by the development projects like construction of Airports, dams, roads, power stations, defence projects, establishment of industrial complexes etc. It is known as development induced displacement.

**Displacement:** It refers to the process of expropriation or physical dislocation of population and other assets in order to allow a project to proceed for the over-all social good of the society. Displacement may be total or partial. The total displacement occurs when in addition to the loss of livelihood, there is a loss of home and hearth. Otherwise displacement is termed partial.

**Resettlement:** Resettlement is the package and processes provided in new resettlement sites in addition to compensation, for those who are physically dislocated from their original habitations as a result of any developmental project.

There are three types of resettlement.

They are:

1. Voluntary resettlement
2. Involuntary resettlement
3. Development induced resettlement

**Voluntary resettlement:** Voluntary resettlement is usually associated with migration of the people. It is caused either by push or pull factor of migration. People voluntarily resettled in a new place.

**Involuntary resettlement:** Involuntary resettlement is not spontaneous. It is imposed on the people. It is usually caused by the push factors of migration. In case of involuntary resettlement the levels of anxiety and insecurity are much higher among the people.

**Development induced resettlement:** Involuntary resettlement caused by the development projects like construction of hydel power projects, airports, roads, defence projects, establishment of industrial complexes etc. This is known as development induced resettlement.

**Compensation:** Compensation as packages in cash or kind, for persons directly or indirectly adversely affected by development projects, as reparation for their acknowledged losses, not only of assets but also of livelihoods, common resources, shelter and habitat.

**Rehabilitation:** Rehabilitation seen as packages and processes provided in addition to compensation and resettlement, in order to ensure that the persons affected by projects and their offspring are sustainably better-off as a result of the project (Paul, 2011).

### **2.3 THE CONCEPT OF DISPLACEMENT**

Displacement involves physical eviction from a dwelling and the expropriation of productive land and other assets to make possible an alternative use. According to Cernea (1999), he defines the displacement can start before people who are physically evicted from their live of residence by legally stopping construction, entrepreneurial investment, and public infrastructure investments. He stated that displacement makes households suffer economically before actual removal from their land/houses and eventually leads them into impoverishment.

According to Cernea & Kanbur, displacement can be experienced in many forms including the people who realised less benefit as a result of development process and those who face severe consequences and for those individuals and

communities who involuntarily move leaving behind homes, networks, jobs, social capital and emotional or cultural attachment to place.

Development induced population displacement, is the upheaval of communities to make way for large dams, industrial zones, transportation routes, game parks and commercial forestry, concerns the balance between the benefits of infrastructural development and the costs and pains of being uprooted and consequently resettled, and the risk of impoverishment carried by those forcibly displaced (McDowell, 1996).

Involuntary displacement is not a phenomenon that will disappear in the foreseeable future, as the number of projects that entail the acquisition of land, which is already large, will increase further. As the needs grow for the irrigation, electricity and infrastructure necessary to satisfy the demands of growing and increasingly urbanized populations, there remains enormous pressure for infrastructural development.

Population displacement is an outcome of multiple sets of factors. The many “push factors” leading to internal displacement can be aggregated into a range of overlapping categories: natural and human-made disasters, ethnic or religious persecution, development, and conflict. Displacement occurs where coercion is employed, where choices are restricted, and where the affected populations are facing more risks than opportunities by staying in their place of residence, which distinguishes it from “voluntary” or “economic” migration. Displacement deprives people of many things, some of which are fundamental to their lives, including homes, productive assets, and livelihoods, familiar environments to which skills and practices have been attuned, community networks, and a sense of local belonging. What determines the extent of their deprivation and suffering depends on what they face in their new location and the resources with which they arrive there. If an uprooted community could simply be transplanted from one location to another site that is equally productive, healthy and desirable, then the deprivation would consist simply of the loss of accustomed place and the stress of relocation.

The study of displacement by development is complicated by the fact that development is a notoriously ambiguous term. It can refer to a social goal, an ideal of social well-being to which peoples, their governments and international agencies

aspire. It can also refer to a complex of social and economic policies, practices and changes that lead towards achieving such a goal. Typically, economic development policies and practices promoting growth have been advocated for the development goal of reducing or eliminating poverty; economic growth would provide employment for the poor, purchasing power for consumers to buy what poor people could produce and a tax base with which governments could provide essential services to the poor, including schooling to make them more competitive in job markets. There is no doubt that development since 1950 has accomplished much of this. Life expectancy and educational levels have increased dramatically.

Nevertheless, some of the development practices serving these goals have been far from ideal. Development has also been a source of large scale human suffering insofar as it has displaced people, evicting entire communities and denying families their accustomed livelihoods. Here is the paradox- the tension between development as an ideal and development as an actual process- with which we are confronted when development causes displacement.

## **2.4 THEORETICAL MODELS**

The theoretical Models which has comprises the John Rawls's Conception of Justice, Scudder and Colson theory of involuntary resettlement, Chamber's Three Stage Model, Micheal Cernea theory of Impoverishment Risks and Reconstruction (IRR) and Reconstruction Measure.

### **2.4.1 John Rawls's General Conception of Justice**

John Rawls has been called his general conception of justice. It requires that all social values-liberty and opportunity, income and wealth, and the bases of self-respect are to be distributed equally unless an unequal distribution of these values is to everyone's advantage (Rawls, 1971). With respect to development-induced displacement, Rawls's general conception enables us to recognize some of the problems encountered by the oustees as injustices. An unsuccessful resettlement scheme which cannot only fail to benefit to displaced persons and their families, but this studies often show that it can impoverished to the displaced people.

In Rawlsian terms, it can create new inequalities by depriving people not only of income and wealth but also of social goods in two other categories: liberty and

opportunity, and social bases of respect. Rawls' thinking is followed, justice forbids any inequalities unless they work to everyone's advantage. Then these effects of displacement can be seen not only as impoverishing but as unjust to the affected population. The first contribution of the Rawlsian general conception of justice, then, is to synthesize these various impoverishing effects of bad resettlement plans from the developmental projects. The second contribution is to support and somewhat strengthen standards for best practice in treatment of people displaced by developmental projects. The existing ideas of compensation and mitigation come nowhere close to satisfying this conception of justice.

Rawls' justice requires that the condition of displaced people should be improved in terms of income and wealth and social bases for respect. This would suggest an alternative set of principles for justice in resettlement. The community and its members are not to be made worse off in assets or resources on the contrary, the outcome is to be advantageous to them.

Displacement and resettlement are to be freely negotiated by the community, in a process in which all members are fairly represented. Relocation should not damage community members' social and cultural means of self-respect. A community has the right to refuse displacement provided this does not perpetuate or impose deeper disadvantages upon other communities or other segments of the society. The sort of insight central to Rawls's projects corresponds to a more general insight, that utilitarian thinking is inherently tolerant of social injustice and this is the starting-point of Rawls's theorizing about social and political justice. One of the most salient results of his analysis, significant to involuntary displacement, is a particular conception of injustice. A scheme or system which creates advantages for some groups of a community is unjust for others unless it creates benefits for all.

"Injustice," he wrote in 1971, "is simply inequalities that are not to the benefit of all" (Rawls, 1971).

Rawls emphasised egalitarianism and distributive justice. He favours the right to own private property as one of the basic liberties of the people. These concepts have their relevance to the concepts of involuntary resettlement particularly when it argue for distributive justice, land for land and evaluation of pre- and post-project conditions under involuntary resettlement. Here is Rawlsian concept of

egalitarianism and distributive justice which failed to provide an equal justice to the section of society. His idea about right to own private property as land and resources which taking away by the state for public interest by means of coercive activity of the authority.

#### **2.4.2 Scudder and Colson Theory (Involuntary Resettlement)**

Elizabeth Florence Colson was an American social anthropologist. Colson focused her research on the consequences of forced resettlement on culture and social organization. The second one is Thayer Scudder, an American Social anthropologist. His work on socio-economic issues and infrastructure development associated with river basin development, forced relocation, and refugee reintegration has made him a world leader in these fields.

In the early 1980s, building upon earlier approaches that dealt primarily with the processes of voluntary resettlement, Scudder and Colson proposed a four-stage model of how people and socio-cultural systems respond to resettlement. The stages were labelled recruitment, transition, potential development, and handing over or incorporation. In the recruitment phase, policy-makers and developers formulate development and resettlement plans, often without informing those to be displaced. During transition, people learn about their future displacement, which heightens the level of stress experienced. Potential development occurs after physical relocation has occurred. Displaces begin the process of rebuilding their economy and social networks. Handing over or incorporation refers to the handing over of local production systems and community leadership to a second generation of residents that identifies with and feels at home in the community. Once this stage has been achieved, resettlement is deemed a success (Cernea, 2000).

The Scudder and Colson model focused on the different behavioural tendencies common to each of a series of stages through which resettlers passed. At first, the model was formulated to explain the stages of voluntary settlement, and was only later applied to some cases of involuntary resettlement. In the 1980s and 1990s, the mounting evidence of involuntary resettlement schemes that failed to pass through all four stages suggested that a new model was necessary to explain the consequences of involuntary relocation. In particular, it was recognized that a new theory was

necessary to model what was increasingly seen as predictable impoverishment in forced resettlement schemes.

The criticism by scholars like Dewet (1993), is that the Scudder-Colson relocation theory is formulated to explain similarities, rather than differences in people's reaction to involuntary relocation. According to Thangaraj (1996), Scudder's model, built on Robert Chamber's three-stage framework, is restricted to the success or failure of resettlement; in other words, to the limits of the project itself. Hence it is a Project-centered model.

#### **2.4.3 Chamber's Three Stage Model**

Chamber (1970), identified a three-stage general model in the evolution of land settlement schemes in Africa, namely recruitment, transition and development. Nelson (1973) based on his studies of development-induced displacement issues in tropical lands confirmed this pattern in a synthesis of many experiences with new land settlements in Latin America. The models developed by both Chamber and Nelson generalized the experience of voluntary settlers and conceptualized the institutional/organizational dimensions of managed land settlement programmes.

#### **2.5 IMPOVERISHMENT RISKS AND RECONSTRUCTION (IRR) MODEL**

Michael Cernea's Impoverishment Risks and Reconstruction (IRR) model arose in the 1990s in response to this recognition. In contrast to the Scudder-Colson model, the IRR model does not attempt to identify different stages of relocation, but it rather aims to identify the impoverishment risks intrinsic to forced resettlement and the processes necessary for reconstructing the livelihoods of displacees. The core concepts of the theory are Risk, Impoverishment and Reconstruction, which have inner linkage to assess the nature of displacement, different problems faced and socio-economic remedies to reconstruct the resettled community. Theory puts forward two risks to the society i.e., potential and actual risks. The higher the risks, the lower will be the security of the displaced populations. Forced displacement intrinsically contains a risk pattern though the vulnerability differs in groups and communities (Cernea, 1999). It also talks about the processes which can facilitate the reconstruction of displaced people livelihood. Without well planned and targeted policies, involuntary shift can end up in impoverishment and marginalization of the displaced.

Micheal Cernea has identified eight interlinked potential risks intrinsic to displacement by the developmental projects.

### **2.5.1 Landlessness**

Expropriation of land removes the main foundation upon which people's productive systems, commercial activities, and livelihoods are constructed. Land based economy which the capitalist idea which often deterioration of agricultural lands, grazing ground, buried and ritual and sacred place (Cernea, 1995). Loss of lands which may result in people losing their agricultural lands and livelihoods which deconstruction of socio- economic wellbeing of the people. Land expropriation takes away the foundation on which people's basic livelihood systems are constructed. If the livelihoods has unbalance then the impoverishment will occur.

Pandey (1998), study provides an example of landlessness as a result of displacement. He studied four villages - Jambubahali, Hensmul, Brahmanbahal and Laccamanpur in Orissa-where the Thalchar Mining project resulted in large scale displacement. It is found that in each of these villages the number of landless people increased after the displacement. In Brahmanbahal and Jambubahal the number of landless increased from 20.97 per cent to 90.37 per cent and from 36.42 per cent to 84.77 per cent respectively.

### **2.5.2 Joblessness**

Loss of wage employment and shift in the occupational pattern is yet another form of economic dispossession faced by the displaced people. The risk of losing wage employment is very high both in urban and rural displacements for those employed in enterprises, services or agriculture. Yet creating new jobs is difficult and requires substantial investment. Due to the land acquisition by the state which directly people were deprived to hold their traditional job in the affected areas.

Creating new jobs is a difficult task to all the displaced people like landless labourers and service workers' artisans and small businessmen. Creating new jobs is as difficult as finding empty lands, and resulting unemployment and under employment lingers long after physical relocation. Majority of the displaced people are illiterate on the one side and on the other the literate people are unfit for the jobs available in the Seabird project area. Even though they are eligible they are not in a

position to compete with the outsiders. Selections have been done without giving priority to the project affected people in the seabird project. Farmers have no land to work of their own. They even cannot sell their service as agricultural labour because there is no agricultural field nearby (Cernea, 1995).

A study of the displacement process in the Narmada Project showed that the oustees were given only lowly and temporary posts. There was no provision for permanent employment.

Occupational shift is another impact of displacement. This can create under employment that can be psychologically quite traumatic for the affected people. A survey of the Upper Indrāvati Hydroelectricity Project displacement process found that the number of people engaged in wage labour increased after relocation. Before displacement 4719 persons from 2744 families subsisted on wage labour. The number increased to 5248 persons from 2814 families after displacement.

The number of families engaged in traditional skilled work came down from 67 to 60 after displacement (Mathura and Marsden, 1998).

### **2.5.3 Homelessness**

Loss of shelter tends to be only temporary for many people being resettled but, for some, homelessness or a worsening in their housing standards remains a lingering condition. In a broader cultural sense, loss of a family's individual home and the loss of a group's cultural space tend to result in alienation and status deprivation. After the construction of mega developmental projects which itself creates people homelessness and made them internally displaced persons (IDPs) (Cernea, 1995). Homelessness is the major cause by mega developmental projects which directly affects on the livelihood without shelter. The people without home makes them paralyzes on their social cultural aspects which gradually break their family chain and the family system.

In India in the early 1970s Rehabilitation & Resettlement policy provided only homestead plots. This created a state of homelessness for the displaced as in the case of Bharat Heavy Electricals Ltd (BHEL) in Andhra Pradesh and the Bokaro Steel Plant in Jharkhand etc. (Asif, 1999). In certain other cases the project authorities had not made provision for enough homestead plots for all the oustees and the houses

were of low quality. Evidences of such cases are reported from the resettlement sites of Sardar Sarovar dam (Singh).

#### **2.5.4 Marginalisation**

Marginalisation occurs when families lose economic power and spiral on a downward mobility path. Many individuals cannot use their earlier-acquired skills at the new location human capital is lost or rendered inactive or obsolete.

Economic marginalisation is often accompanied by social and psychological marginalisation. Marginalization is one of the serious impoverishment risks occurs when families lose economic power and slide downward and often overlaps with joblessness, landlessness and homelessness (Reddy,1998). Marginalization leads to impoverishment of mind as displaced people are given a feeling that their way of thinking and analysing a problem is wrong. So marginalization is more a mental impoverishment than economic one (Agarwal 1998). Relative economic deprivation and marginalization begins prior to actual displacement, as new investments in infrastructure and services are discontinued in these areas long before the projects start. When high productivity farmers are relocated from very fertile valley soil to uphill inferior soil, they become marginalized.

The story of the Rihand dam oustees, particularly the tribals, is a case of the process of marginalization. The oustees lost their land and the common property. They fell into the cycle of increasing debt bondage, destitution etc. Over time they were thrown out of their employment as contract labourers in coal mines (Jain 1995 and Mathura and Marsden 1998). The stories of the women of Laaguabeda, Sagadipal and Bolangi of the Regalia Barrage Project at Samd (Orissa) are classic examples of women's impoverishment (Mathura and Marsden 1998).

In the process of displacement, children are also a very vulnerable group. Dislocation and relocation often interrupts schooling and some children never return to school. In the studies by Pandey, marginalization is observed through the changes in the land holding patterns of the displaced persons. For instance in the Talchar Coal Mining Project, before displacement 11.1per cent of the oustees were landless, 61.1per cent marginal farmers, 17.8per cent small farmers, 7.8 per cent middle farmers and 2.2 per cent large farmers. After displacement the status-wise

composition of the oustees changed drastically. The number of landless people changed to 22.2 per cent, marginal farmers to 45.5 per cent, small farmers to 15.5 per cent, middle farmers to 11.1 per cent and large farmers to one per cent. Thus the proportion of the landless category doubled. Marginalization can be counteracted through measures taken for avoiding landlessness (Mathura and Marsden, 1998).

### **2.5.5 Food Insecurity**

Forced uprooting increases the risk that people will fall into temporary or chronic undernourishment, defined as calorie-protein intake levels below the minimum necessary for normal growth and work. Time was there when rural farmers used to purchase readymade goods from the town or urban market and the people for urban area used to depend upon rural farmers for food productions (Cernea, 1995).

In the agrarian society while crops are grown in the field that provide food for the entire family for years, vegetables are grown in the kitchen garden for the daily consumption of the family. Only surplus foods and vegetables are sold in the market. Talcher coalfield is located in Angul district of Odisha and Ib valley coalfield projects which located in Jharsuguda district in the Indian state of Odisha have destroyed the means of agricultural livelihood not only by acquiring land and displacing the people from their habitats but also polluting their natural environment. Now the time changed. The rural people depend on urban market for everything. After displacement, they spend money to procure food-grain and vegetables (Pandey, 1998). In the agrarian society, crops are grown that provide food to the family for the entire year. But land acquisition destroys this self-sufficiency. At Sri Lanka's Victoria Dam Project, about 55 per cent of the resettled faced food insecurity (Pandey, 1996).

### **2.5.6 Increased Morbidity and Mortality**

Displacement-induced social stress and psychological trauma, the use of unsafe water supply and improvised sewage systems, increase vulnerability to epidemics and chronic diseases. Serious decline in health levels results from displacement-induced social stress, insecurity, the outbreak of relocation-related diseases and psychological trauma caused by displacement. Health status is a sensitive indicator of development. Cernea said that the weakest segments of the demographic spectrum - infant, children and elders are most vulnerable to relocation-related

diseases like parasitic and vector borne diseases (Malaria, Schisto-Somiasis) and diarrhoea and dysentery due to unsafe water and poor sewerage system (Cernea, 1995). Lb Valley and Talcher, the displaced are suffering from diarrhoea, eye irritation, gastric disorder and skin diseases due to coal dust. More often there are some common causes such as mental stress, polluted air and water sources and increased pressures to do more work responsible for such health hazard of project affected peoples (PAPs) in and around National Thermal Power Corporation projects (NTPC) (Ramaiah, 1995).

The study of Nagarjunasagar Dam has shown that creation of large water bodies due the construction of the dam resulted in the spread of water-borne diseases like knock-knee in the area (Thukral, 1989).

#### **2.5.7 Loss of Access to Common Property**

For poor people, loss of access to the common property assets that belonged to relocated communities pastures, forest lands, water bodies, burial grounds, quarries and so on result in significant deterioration in income and livelihood levels. For the displaced people particularly for the landless and the asset less poor, loss of access to common property assets (forests, pastures, water bodies etc.) that earlier belonged to the relocated communities results in significant deterioration in income and livelihood levels (Cernea 1995).

In India, in seven projects in Orissa between 1950 and 1954, no compensation was paid for common properties (Pandey and Associates 1998). Research conducted by Sequeira (1994), in the semi-arid regions of India revealed that between 91 and 100 per cent of firewood, between 66 and 89 per cent of domestic fuel, and between 69 and 80 per cent grazing needs of poor households' are supplied by Common Property Researchers. Resettlement planning should be done with a sense of social justice, both in terms of natural resources and in terms of public services.

### **2.5.8 Social Disintegration or Disorganisation**

Displacement causes a profound unravelling of existing patterns of social organisation. This unravelling occurs at many levels. When people are forcibly moved, production systems, life-sustaining social capital, trade linkages are dismantled (Cernea, 1999).

Forced displacement tears apart the existing social fabric and disperses and fragments communities, dismantles production systems, often scatters kinship groups and family systems, disrupts local labour markets and puts at risk people's sense of cultural identity. Life-sustaining informal social networks of mutual help among local people, voluntary associations, self-organized service arrangements are dispersed and rendered inactive. This is a net loss of valuable 'social capital' that compounds the loss of natural, physical and human capital. All these represent a massive loss of disquantified and uncompensated facilities. Such 'elusive' disintegration processes undermine livelihood in ways unaccounted by the planners (Cernea, 1995).

Mathura's study identified one more impoverishment factor in addition to the eight risk factors pointed out by Cernea. This is loss of access to basic public services. In the resettlement colonies, the basic services like school, clinics, street lights, public taps, transport facilities etc are usually not provided as promised. This contributes further to their continuing impoverishment (Mathura, and Mohan, 1998). Cernea also discusses the risks to hosts. These risks are not comparable with the risks to the displaced in substance or intensity. But they are related to them and may also result in impoverishment implications.

The influx of the resettlers has increases to pressurize on local resources and scarce social services, as well as competition for employment in the particularly region. Cultural clashes and social tensions among the different ethnical group tend to continue for long. Due to process of development by displacement which often unbalance the social and human capital in the new resettled place for displaced people and the host communities. Hence host communities are a major factor with a stake in good resettlement, particularly with mass displacements. Recognizing the specific risks to hosts is integral to using the risks and reconstruction model and approach (Cernea, 1995).

Although the risks to the hosts are not identical with the risks to displaced, they become the major actor while rehabilitating the displaced. The inflows of the oustees increase the pressure on the resources and they become the competitor of host communities in terms of the sources of livelihood and for employment. It increases the local prices of the commodities and welcome health hazards in the host areas. The inclusion of nonhomogeneous group (caste, religion, ethnicity and community) creates cultural clashes, social tensions, political problems and demographic imbalance. Sometimes the problems become so severe and lead to caste conflicts and communal riots. It hurts both the hosts and displaced communities (Cernea 2000). As a case of Hydel power project in Dzongu, Sikkim where the indigenous tribe Lepcha who has suffered by the social disorganisation and disintegration in the particularly area where some group of displaced people were deserted their homes and homelands and to resettled in the new place where they might not be able to follow of cultural and traditional practices and gradually they are the victims of modernity.

## **2.6 RECONSTRUCTION MEASURE**

The significance of Cernea's model is that the conceptual representation of impoverishment through displacement is not just a model of inescapable gloom. Cernea has enclosed directions for the socio-economic reconstruction of the displaced.

If the risk model is reversed, it tells what positive actions are to be taken to restore or to improve the livelihood and the income of the displaced.

The reconstruction actions are as follows:

- 1.From landlessness to land-based resettlement
- 2.From joblessness to re- employment
- 3.From homelessness to house reconstruction
- 4.From food insecurity to safe nutrition
- 5.From increased morbidity to better health care
- 6.From social disarticulation to social reconstruction
- 7.From marginalization to social inclusion
- 8.From loss of common property rights to access to public utilities.

The use of the IRR model is not only academic, it is practical too. Planners can use it as a compass for planning and for justly considering resettlers' rights and needs. However, it is pathetic to note that even when adverse consequences occurred, many countries including India either overlooked or underestimated its use in planning. This legitimately raises the basic social justice question: "Development for Whom?" (Mahapatra, 1991).

Huge investments leading to large scale displacement raises economic, environmental, social and other issues. Theories of development formulated by economists consider only economic issues. Hence, theories formulated by them cannot explicitly answer to a social issue like displacement.

Social impacts of displacement are the major concern of anthropologists and sociologists. An overview of different theories of development induced-displacement shows that the theories of Chamber, Rawls, Scudder or Colson theory do not explain the full process of the trauma of involuntary relocation and rehabilitation.

Chamber's theory discusses about the lifestyle of the voluntary resettlers. Rawls emphasizes injustice resulting from involuntary displacement if the condition of the displaced is not improved in terms of income and wealth. Scudder-Colson theory based on Chamber model is more relevant in successful resettlement. In most situations where displacement is involuntary, resettlement is least successful. Thus, the earlier theorists emphasized only one or another aspect of displacement trauma faced by evictees at different phases of relocation. These theories cannot be considered as complete in themselves.

A review of these theories reveals that they do not take an in-depth look into the overall problems faced by the victims of involuntary displacement. The superiority of Cernea's model is that, being a social scientist, he foresees the possible impoverishing factors of compulsory relocation and also suggests measures of reconstruction also. Recent researches by Alagh, Mathur, Ota, Pandey and Agarwal bring to light Cernea's awareness of the displacement situation in India. Application of the Impoverishment Risks and Reestablishment (IRR) model to different projects gives interesting feedback on it (Thangraj, 1996).

Agarwal observed its applicability at different stages of a project. To him, Impoverishment Risk Analysis (IRA) can be an efficient and effective decision-making tool at the project inception stage. While preparing Rehabilitation Action Plan (RAP), Impoverishment Risks and Rehabilitation (IRR) can ensure its social obligation and decision support system. This can help to focus on the marginalized who suffer the impact of impoverishment.

Further, Agarwal asserts that all those who come forward to get the resettlement compensation package are not necessarily from among the impoverished. Often they are the rich local landlords and the educated people living far away from the project area. The Ramagundam Super Thermal Power Project provides a good example. Cernea's work has significance in India's NPRR (2007) as many provisions of the policy are very close to his views. It is with this understanding that Cernea's Impoverishment Risks and Rehabilitation (IRR) Model is adopted as the theoretical frame work for the present study.

## **2.7 CAUSES OF DEVELOPMENT INDUCED DISPLACEMENT**

The causes of development induced displacement which imbalance the living standard of the people. This portion illustrated the construction of Dams and Irrigation projects, Development of transportation infrastructure, Urbanization, re-urbanization, transformation of urban space and population redistribution schemes in urban areas, Development of transportation infrastructure, Mining and transportation of resources, Population redistribution schemes, Conservation of nature and the other causes of development-induced population displacement.

### **2.7.1 Construction of Dams and Irrigation Projects**

The first artificial dams were created in ancient China, Imperium Romanum and the Middle East (by Hittites in the Ancient Anatolia Region). As far back as 3000 BC, the oldest known dam Java Dam was created on the territory of present-day Syria. The oldest dam remaining in operation today is the dam in the Syrian Orontes, created in the thirteenth century BC. China's Grand Canal was another major project which may have led to involuntary relocations. However, only in the twentieth

century can observe dam construction on the unprecedented scale known today, together with its major social consequences.

According to the World Commission on Dams' final Report (2000), between 40 and 80 million people worldwide have been displaced by the construction of dams. The document estimates that there are currently over 45,000 dams which are more than 50 feet high. According to a report of the International Commission on Large Dams (ICOLD), the number of large dams in the world increased from 5,000 in 1950 to over 45,000 by the late 1990s. The particularly strong dynamics of dam construction and associated resettlement could be observed worldwide by the mid and late forties of the twentieth century.

As pointed out by Taneja and Thakkur (2000), the construction of dams could have led to the relocation of between 21 and 40 million people in India alone. Among the dams built in India by 1947 which led to a high level of involuntary resettlement can mention the Pong, Hirakud, Balimela and Sardar Sarovar dams. This last-mentioned project had enormous social consequences, including the compulsory relocation of about 320,000 local people (approximately 40,000 families). The Sardar Sarovar Project was one of the calamitous projects, the aim of which was to construct 10 dams on the Narmada River and 20 smaller dams on its tributaries.

The key goal of this project was to provide irrigation for 1.8 million hectares of agricultural land. Its implementation (especially its key element: the 136-metre Sardar Sarovar Dam) from the very beginning was marked by intense social controversy. The project, of which construction began in 1987, inspired protests for several years, with the World Bank even withdrawing its financial support in 1993. Non-violent protests led by Medha Patkar who is an Indian social activist of Narmada Bachao Andolan drew worldwide media attention to the consequences of the investment in the Narmada Valley. Narmada Bachao Andolan (NBA) is one of the social movements consisting of tribal people, adivasis, farmers, environmentalists, and human rights activists opposed to the construction of Sardar Sarovar Dam. Another, mega construction of Tehri Dam, which is the highest dam in India and one of the highest in the world. The first phase of the dam was completed in the year of 2006, and led to the compulsory relocation of about 100,000 people (Terminski, 2013).

### **2.7.2 Development of transportation infrastructure**

According to the WBED report, transportation was the cause of 24.6 percent of resettlement projects between financed by World Bank and active in 1993. Involuntary resettlement caused by construction of roads, highways, railways or other infrastructure such as ports and airports, is currently one of the dominant forms of DIDR and is taking place in all continents. Due to the prolonged realization and wide dispersion of such projects, it is difficult to estimate the scale of this problem even approximately.

The main factor influencing this phenomenon is, of course, the level of population density in particular areas. Construction of the Trans-Amazonian Highway, despite its length, did not lead to large-scale displacement due to the low level of population density in its surrounding areas. The development of transport networks (roads, highways, railways) leading to the largest number of displaced people has occurred in the densely populated countries of Asia and Africa. Even in Europe and the United States, we can list a number of projects such as construction of numerous communication poles, finished in recent years, which led to the compulsory relocation of thousands of people WBED,

Creation of ports and airports is another common cause of involuntary resettlement in several parts of the globe. The creation of this kind of facility requires a large area and is often carried out in highly populated urban areas or their immediate vicinity.

### **2.7.3 Urbanization, re-urbanization, transformation of urban space and population redistribution schemes in urban areas**

In recent years, ongoing urbanization and re-urbanization have been among the dominant causes of development-induced displacement. The most significant areas of contemporary urban transformation leading to population-induced displacement include a) expansion of urban areas into new territories, b) reurbanization of existing units including the demolition of poverty districts, c) water supply projects, d) public transport projects, especially underground construction, d) mass population redistribution schemes within urban space, and e) reconstruction of housing units following the aftermath of war (Terminski, 2013).

### **2.7.4 Deforestation and the expansion of agriculture**

Due to the low level of population density in forested areas, the deforestation process itself does not constitute an important direct cause of mass population displacement. The aim of deforestation is usually to prepare land for large undertakings such as monoculture plantations, agricultural projects, mining of raw materials and even irrigation projects. Deforestation is therefore an important initial step in preparing the land for development projects. Another important factor that may shape the dynamics of forced migrations caused by deforestation is land degradation and other forms of environmental decline. Deforestation may become a factor in the deterioration of the economic situation of DPs and PAPs, in the context of loss of access to common resources, including forests.

### **2.7.5 Mining and transportation of resources**

Extraction of raw materials cannot be considered a consistent cause of development-induced displacement. The details of displacement caused by the expansion of open-cast mining differ significantly from those associated with extraction and transportation of crude oil. Taking the reasons into account, it seems essential to distinguish between two quite different categories of DIDR: oil development-induced displacement (oil-induced displacement and resettlement) associated with the extraction and transportation of crude oil, and mining-induced

displacement and resettlement (MIDR) caused by the expansion of mines for minerals such as gold, silver, diamonds or carbon.

### **2.7.6 Population redistribution schemes**

Relocations are usually implemented in countries with authoritarian governments, as an element of a centrally planned economy or a means of achieving specific political goals. Mass population redistribution was already known in ancient times, when it usually helped to serve particular political interests (Terminski, 2013). Redistribution schemes in antiquity therefore took the form of politically motivated deportation and population transfer. As an example of this process, it is worth mentioning the exile of the Israelites from Judah into Babylon, and the numerous mass deportations carried out in Imperium Romanum and the Hellenistic states. Another period when population redistribution schemes were popular was that of nineteenth-century colonial expansion. During this period, the displacement of large numbers of people combined political and economic goals. In the United States, the nineteenth-century displacement of Indians allowed the expansion of the white man and his subjugation of the territory, as well as unfettered demographic growth and, especially, access to valuable resources such as gold. In the twentieth century also, colonial countries pursued more costly population redistribution schemes, often extended later by sovereign countries.

### **2.7.7 Conservation of nature**

Forced relocations caused by the conservation of nature are, historically speaking, one of the youngest categories of internal displacement worldwide. This problem had already become highly visible in the first half of the 20th century as a result of the creation and expansion of conservation areas. As pointed out by Marc Dowie, the author of a fundamental book on the problem of conservation refugees and conservation-induced displacement, after 1900 more than 108,000 units of protected nature were created worldwide. It is estimated that today protected areas cover over 10 percent of the earth's land surface. Its primary objective was the protection of wild nature from the consequences of expanding human exploitation. As conventionally understood, conservation of nature was associated in some countries with forced displacement of thousands of people from areas designated as national parks and

nature conservation units. By some estimates, over 50 percent of protected areas established since 1992 incorporate territories traditionally occupied and used by indigenous peoples. In the Americas this number increases to approximately 80 percent. People already living in those areas, mostly indigenous people, have been forced, day by day, to relocate and adapt to a new environment. The loss of existing hunting grounds as well as exclusion from economically important common property resources such as pastures, rivers and forests are prominent causes of their progressive marginalization within new neighbourhoods.

### **2.7.8 Other causes of development-induced population displacement**

Contemporary economic development is increasingly expanding the catalogue of the types of development-induced displacement and their dynamics. Among the relatively new factors shaping the dynamics of this process we can mention among others the consequences of pipeline construction. Fear of separatist acts and attempts to damage pipelines have frequently forced authorities to displace local communities from their immediate vicinity. Another relatively new cause of population displacement is the creation of extensive landfills. In times of rising costs of recycling, some African countries, such as Ghana, are filled with waste electronic equipment from Europe. An increasingly visible cause of displacement is the construction of large facilities such as factories and airports. It is quite possible that the further advance of economic globalization will expand the list of causes of displacement. It is worth highlighting the fact that even in the twentieth century we have witnessed the emergence of previously unknown causes of displacement, such as relocations associated with the conservation of nature.

## **2.8 INTERNALLY DISPLACED PEOPLE (IDPs) AND INTERNATIONAL ORGANIZATIONS**

There are clear parallels between refugees and displaced persons. Both groups lack the protection of their governments. The root causes of both are similar and solution for one are often interlinked with the other. Yet, the fact that one group crosses the border and another does not or cannot makes a significant difference to their situation under the international law and United Nations in regard to response to their plight. For the refugees, there is the international protective mechanism under

the UNHCR mandate and a specific body of law to address their needs. The needs of the internally displaced remain to be addressed largely with the general provisions of human rights law and humanitarian law, measures and mechanism (Sen 1998).

The Refugee is a meaning which population migrants from native place to another foreign place due to several unbearable factors as like intra-inter-state conflict, natural disaster and economic development in the regions. The term Refugee is very different from the internally displaced persons (IDPs).

The archetypical example of forced migration is that of the refugee, who, according to the UN Convention Relating to the Status of Refugees (1951), must be outside his or her country of nationality and unable or unwilling to return due to a well-founded fear of persecution for any one of five reasons: race, religion, nationality, membership of a social group, or political opinion. It is this definition that has been endorsed by 135 UN member states and that guides the work of the UN High Commissioner for Refugees (UNHCR) (Robinson, 2003).

In addition to this universal instrument, several regional instruments also have evolved. In 1969, the Organization of African Unity (OAU) formally recognized the need for an expanded definition of refugee within the African context. The OAU Convention Governing the Specific Aspects of Refugee Problems in Africa, which had 42 signatories as of 1993, repeats the UN definition but adds that the term ‘refugee’ shall also apply to every person who, owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality.

In 1984, ten Central American states signed the Cartagena Declaration on Refugees, which, in non-binding language, extended the definition of refugee beyond the 1951 Convention to include “persons who have fled their country because their lives, safety, or freedom have been threatened by generalized violence, foreign aggression, internal conflicts, massive violation of human rights or other circumstances which have seriously disturbed the public order.” Based primarily, though not solely, on the 1951 Convention definition, UNHCR estimated that there

were 12 million refugees worldwide in 2002. A private, non-profit organization, the US Committee for Refugees (USCR), estimated that there were 14.9 million refugees and asylum-seekers worldwide in 2002, counting “two categories of uprooted people: refugees who are unable or unwilling to return to their home countries (Robinson, 2003).

They fear persecution or armed conflict there and who lack a durable solution and asylum seekers who are awaiting a refugee status determination.

Despite the variations in terms and the different estimates that result, it is fair to say that the definition of refugee, at its core, encompasses people who have fled their country and fear persecution or violence if they return. It is also fair to say that this definition, however broadly construed, leaves out millions of vulnerable people, including all those who have not crossed an international border.

Walter Kalin, one of the international legal advisers who helped to develop the Guiding Principles on Internal Displacement, has underscored the difference between refugees and IDPs. The Guiding Principles, he emphasized, seek to highlight the descriptive and non-legal nature of the term ‘internally displaced persons. Internally displaced persons need not and cannot be granted a special legal status comparable to refugee status. In international law, refugees are granted a special legal status because they have lost the protection of their own country and, therefore, are in need of international protection not necessary for those who do not cross international borders. Internally displaced persons do not need such a substitute protection. Rather as human beings who are in a situation of vulnerability they are entitled to the enjoyment of all relevant guarantees of human rights and humanitarian law, including those that are of special importance to them (Rhodri, 2008).

According to UN guiding principles on Internal Displacement ‘Internally Displaced Persons are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border (Ganguly, 2011).

Although the problem of internally displaced people is by no means a new one, a concerted international focus on solutions has come about only within the last decade. One catalysing event occurred on April 5, 1991, when the UN Security Council's Resolution 688 demanded that Iraq "allow immediate access to international humanitarian organizations to all those in need of assistance in all parts of Iraq." At its peak, the aid effort serving internally displaced Kurds in northern Iraq involved 30 bilateral donors, 50 international NGOs, several UN agencies (including UNHCR), 20,000 personnel, and more than 200 aircraft. UN Secretary-General Javier Perez de Cuellar felt compelled to announce, "We are clearly witnessing what is probably an irresistible shift in public attitudes towards the belief that the defense of the oppressed in the name of morality should prevail over frontiers and legal documents." In December 1991, the General Assembly created the position of Emergency Relief Coordinator, affirming that humanitarian assistance to victims of natural disasters and other emergencies was a matter of international import (Rhodri, 2008).

In 1992, as noted above, UN Secretary-General Boutros Boutros-Ghali appointed Francis M. Deng as his Representative on Internally Displaced Persons with authorization to conduct fact-finding missions, establish dialogue with governments, coordinate with humanitarian and human rights groups, make proposals for legal and institutional protection, and publish reports for action by the UN Commission on Human Rights, the General Assembly, and international organizations. Prior to Deng's appointment, in February 1992, the UN Commission on Human Rights issued a report on IDPs in which it defined internally displaced persons as "Persons who have been forced to flee their homes suddenly or unexpectedly in large numbers, as a result of armed conflict, internal strife, systematic violations of human rights or natural or man-made disasters, and who are within the territory of their own country." In the years of debate and discussion that followed, most of the commentators tended to agree that this definition was too limiting. If the term only referred to those who fled "suddenly or unexpectedly" and "in large numbers," then smaller numbers would be excluded as would those displaced in more gradual, deliberate circumstances. Similarly, some argued that IDPs were not always "forced to flee," but often were obliged to leave their homes and property, either as a

result of a government order or in the face of an impending disturbance (Rhodri, 2008).

In 1998, Deng presented a revised definition of IDPs to the UN Commission on Human Rights, which unanimously adopted a resolution taking note of the Guiding Principles. In addition, the Inter-Agency Standing Committee (IASC), comprising the heads of the major international relief and development agencies, welcomed the Guiding Principles and encouraged its member agencies to share them with their Executive Boards and staff and to apply them when working with internally displaced populations (Rhodri, 2008).

Development projects has directly control by a developers over land. Natural resources extraction, industrial parks, and infrastructure projects such as highways, airports, bridges, irrigation canals, and hydel power projects all require land, often in large quantity. This study show that development itself reduced the quality of human life by violating the right to life of an individual by construction of mega developmental projects in the country. Micheal Cernea has identified eight interlinked potential risks intrinsic to displacement by the developmental projects as landlessness, joblessness, homelessness, marginalization, food security, increased morbidity and mortality, loss of access to common property and social disintegration.

Development projects, ‘temple of modern India’, in the globalized era became partially disfigured or partially beautiful sculpture. The face of modern India, thus, needs introspection inviting discussion, disputes and deliberations. Plentiful policies and laws guide the State’s development initiatives.

Development projects in the country call for systematic implementation, giving more importance to people as centre of development. We are challenged to prefer in between national development priorities and great magnitude of displaced people from their land of origin. In the choice between human beings and development, we are challenged to say ‘it is human being first and then development’. It does not mean to stop development projects rather direct projects to aim at sustainable development of all section of the society in the human world. The implementation of development projects made possible with peoples’ participation informed consent not buy in by drafting a culturally fit design will eliminate lopsided

development where the social scientists, social workers and their professional bodies have significant role to play to build the nation and thus becomes a Welfare State.

## **CHAPTER 3**

### **REHABILITATION AND RESETTLEMENT POLICIES AND PROGRAMMES IN INDIA**

#### **3.1 Introduction**

Development induced displacement often a contradictory term which subjugated the life of the common people in the world. Independent India began with the Nehru vision that big dams and mega development projects are modern temple of development. In the post-independence period India has sought rapid economic growth through planned development. This has entailed large scale investments in dams, roads, mines, power plants, industrial estate new cities and other projects involving land acquisition. Since independence land has been acquired from people particularly from farmers for the purpose of expanding towns/cities by converting agricultural land into non-agricultural land.

In the name of industrialization a larger portion of land was being acquired from the people for ‘public purpose’ and ‘development’ and was later handed over to private companies. The provision of rehabilitation and resettlement which was formulated under the supervision of Ministry of Rural Development and Department of Land Resources. The public facilities or infrastructure often requires the exercise of legal powers by the state under the principle of eminent domain for acquisition of private property, leading to involuntary displacement of people, depriving them of their land, livelihood and shelter; restricting their access to traditional resource base, and uprooting them from their socio-cultural environment. These have negative impact on people to become traumatic, psychological and socio-cultural consequences on the affected population which call for protecting their rights, in particular of the weaker sections of the society including members of the Scheduled Castes, Scheduled Tribes, marginal farmers and women. This chapter especially deals with the rehabilitation and resettlement policies and programmes in India.

Further, the provision of Rehabilitation and Resettlement policy 2002, 2007, Land Acquisition, Rehabilitation and Resettlement Bill, 2011, and Rehabilitation and Resettlement Act, 2013 have been examined.

### 3.2 DEVELOPMENT PROCESS IN INDIA

After India's independence, a fastest infrastructural development has been takes place. The displacement of people from their land and livelihood has been a part of India's history even before the advent of the British. When the colonial power advent Indian subcontinent where a huge amount of resources had taken away from Indian Territory to the West. The economic agenda of colonialism led directly to the plundering of natural resources, to enable the colonial power to meet the demand made by rapid industrialisation and commercial expansion in the west. Legal instruments such as the Land Acquisition Act (LAA) of 1894 further consolidated state power and legalised all forms of state-sponsored acquisition. The Land Acquisition Act 1894 which has made under the colonial power in British India which still implemented. The then prime minister of India, Pandit Jawaharlal Nehru who emphasised on the modern development of India. His statement to the Hirakud people that "Dams is the modern temple of India. If you are sufferer, you should sufferer in the name of the national interest".

India has the largest number of development projects in the world and, quite possibly, the largest number of development-induced displaced persons in the world as well. The India Social Institute estimated there were currently 21.3 million persons displaced because of development projects of this number 16.4 million were displaced by dams. According to the Central Water Commission, 3,300 dams had been built since 1947 and another 1,000 are under construction. The Indian Institute of Public Administration estimates that the development projects disproportionately affect the poorest segments of Indian society, including those belonging to scheduled castes and tribal groups, and threaten them with even greater impoverishment because of a loss of livelihood, land, assets and social structure (Mahapatra, 1990).

The Land Acquisition Act 1894 which mean the private land has directly control and it is use for public purpose. This is also called eminent domain. The most powerful logic for modernisation and development in India is based on the notion that the standard of living can be improved by modern science and technology and by creating basic infrastructure. On the other side, development itself burdening to the displaced people who resided in the territory. Displacement is

described as dislocation of people from their native place and region. It often exacerbates rather than mitigates economic insecurity, helplessness and alienation. This could mean loss of economic livelihoods and communities. After independence, developmental projects were launched by the government, which were formulated, designed and carried out which had no concern for environmental and rehabilitation issues in India.

### **3.4 LAND ACQUISITION ACT, 1894**

From the pre-colonial to post-independence India, Land Acquisition Act which have been formulated in India where the private land acquired and transformed it into general purposes. The major instrument of displacement was the Land Acquisition Act 1894, under which private land could be acquired by the state for a “public purpose”. The government had given compensation to the land owner based on historical cost plus a solatium, but the concept of replacement cost was unknown. It extends to the whole of India except the State of Jammu and Kashmir. It came into force on the first day of March, 1894.

The Land Acquisition Act, 1894 (amended 1984) is one of the draconian laws enacted by the British Colonial Govt. which is retained much in the same form by the Republic’s government. The law neither defines what constitutes ‘public purpose’ and what does not, nor mandates that the state provide information to the people about the projects which are supposed to serve public purpose. It gives few and very nominal right to the citizens to challenge acquisition. (This nominal right too is now being taken away by the proposed 1998 Amendment Bill to the Act). The only right it gives the citizen is to get compensation in cash for the life-sustaining resources taken away from him/her (Hemadri, 1999).

The compensation amount was not a negotiated sum, but a figure fixed by the government officials under certain rules. There was a great deal of dissatisfaction with the Act (a) on the part of to (including corruption amongst the officials dealing with the matter) (b) on the part of the government because of the delays in land acquisition because of challenges and litigation and the delays that these caused to the implementation of the projects in question the people on the grounds of the quantum of compensation, the delays in payments, and so on (C.A, 2014). Development which is leading to displacement of people form their own land is

inevitable. Land acquisition forces the otherwise stable, sedentary population to move away from their original places of home and work. It uproots people from their original lands and creates psycho-sociological stress leading to many dysfunctional consequences. More often, both social and economic benefits of such developmental projects are not shared equally by displaced population (Sinha, 2006).

### **3.5 PRINCIPLES OF RESETTLEMENT AND REHABILITATION**

Several draft proposals and counterproposals for a national policy, made by governmental and non-governmental organisations are available. At of them highlight the need for a national policy as opposed to ad hoc and piecemeal government resolutions and orders passed intermittently. These proposals make suggestions as to what would constitute adequate and appropriate resettlement and rehabilitation according to what they consider to be the nature and extent of losses and deprivations suffered by those displaced. Some also call attention to the violation of individual and/or group rights that can occur with perfunctory and superficial attempts at compensation which are neither adequate nor just (Goyal, 1996).

The principles and/or the assumptions on the basis of which they are made are, however, not always explicit. It is important for analysis that general concepts and approaches are made overt for purposes of proper understanding and effective communication. From independence onwards and until very recent times, monetary compensation as per the Land Acquisition Act 1894 was the major resettlement approach in India, though sometimes employment on the project was provided to some of the displaced families. Since 1979, with the supposedly break through provisions of the Narmada Water Disputes Tribunal, greater World Bank involvement, and increasing resistance on the part of the displaced aided by NGOs and activist organisations, the scenario has changed somewhat, Other principles of resettlement and rehabilitation have emerged, which go beyond mere cash compensation. As the Land Acquisition Act 1894 is still the mam legal instrument and point of departure for resettlement policies in India (Goyal, 1996).

### **3.6 NATIONAL REHABILITATION AND RESETTLEMENT BILL, 2002**

In the absence of a statutory rehabilitation law or even a national policy there is no legal imperative for state government or project authorities to integrate comprehensive rehabilitation planning into the part of a project. Indeed it has been found that even the existence of state and project specific policies is not sufficient to ensure this. The project authorities are interested mainly in the relocation rather than rehabilitation of project affected persons, in their physical transference from the submergence zone rather than their long term welfare. As India is witnessed that negligence of rehabilitation and resettlement to the affected people by the mega developmental projects which is basically a violation of right to life (Article 21) (Government of India, 2002).

A Bill such as Rehabilitation and Resettlement Bill, 2002 and Land Acquisition (Amendment) Bill, 2001 were being considered by the parliament and various committees. The effort which incorporated the obligation towards a social impact assessment have been failed due to lack of political will. Prevailing utilitarian mind set needs to be changed with the understanding that in a highly populated country such as India even the minority constitute a great number in itself. The row/seen argument of violability of certain rights goes against the socialist ideals possessed by the Indian political leaders, such as Nehru, “who viewed large scale development project to be temples of modern India”. The displacement of the underprivileged few for construction of large scale development programmes. Despite of having many positive aspects no Rehabilitation and Resettlement Policies will be passed, the subject gradually faded into oblivion, until 2003 when the draft National Rehabilitation policy was finally notified. This policy came into effect in February 2004 as the National policy on Rehabilitation and Resettlement for project affected families. However, because of its inadequacy in many aspects, the policy was severely criticized. The National Advisory Council (NAC), unsatisfied with this and sent its own revised policy draft to the government. The Government then brought out a version of the 2003 policy in the year 2006 which became the National Rehabilitation and Resettlement Policy, 2007 (Sihna, 2006).

### **3.7 NATIONAL REHABILITATION AND RESETTLEMENT POLICY, 2007**

The Government of India, under the supervision of Ministry of Rural Development Department of Land Resources which have formulated a National Rehabilitation and Resettlement Policy of 2007. In October 2007, the Government of India notified the National Rehabilitation and Resettlement Policy 2007, they have followed that up with two pieces of draft legislation, the Rehabilitation and Resettlement Bill 2007 and the Land Acquisition Bill 2007 have been introduction in the Lok Sabha (Iyer, 2011).

The chapter II of the National Rehabilitation and Resettlement Policy 2007, mentioned the objectives of the National Rehabilitation and Resettlement Policy: to minimise displacement and to promote, as far as possible, non-displacing or least-displacing alternatives; to ensure adequate rehabilitation packages and expeditious implementation of the rehabilitation process with the active participation of the affected families; to ensure that special care is taken for protecting the rights of the weaker sections of society, especially members of the Scheduled Castes and Scheduled Tribes, and to create obligations on the state for their treatment with concern and sensitivity; to provide a better standard of living, making concerted efforts for providing sustainable income to the affected families; to integrate rehabilitation concerns into the development planning and implementation process; and where displacement is on account of land acquisition, to facilitate harmonious relationship between the requiring body and affected families through mutual cooperation (Government of India, 2007).

### **3.8 LAND ACQUISITION, REHABILITATION AND RESETTLEMENT BILL, 2011**

Land Acquisition, Rehabilitation and Resettlement Bill in India is a much awaited bill for Land acquisition reforms and rehabilitation for the development projects in India. The bill was introduced in Lok Sabha on 7 September 2011. The bill will be central to legislation in India for the rehabilitation and resettlement of families affected by land acquisitions. The Land Acquisition, Rehabilitation and Resettlement, 2011 Bill is also known as LARR Bill 2011. LARR 2011 seeks to repeal and replace India's Land Acquisition Act, 1894. The Bill seeks to enact a law that will apply when:

- Government acquires land for its own use, hold and control.
- Government acquires land with the ultimate purpose to transfer it for the use of private companies for stated public purpose. The purpose of LARR 2011 includes public-private-partnership projects, but excludes land acquired for state or national highway projects.
- Government acquires land for immediate and declared use by private companies for public purpose.

LARR Bill 2011 aims to establish the law on land acquisition, as well as the rehabilitation and resettlement of those directly affected by the land acquisition in India. The scope of LARR 2011 includes all land acquisition whether it is done by the central government of India, or any state government of India, except the state of Jammu & Kashmir (Paul, 2011).

### **3.9 REHABILITATION AND RESETTLEMENT ACT, 2013**

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 is an Act of Indian Parliament that regulates land acquisition and provides laid down rules for granting compensation, rehabilitation and resettlement to the affected persons in India. The Act has provisions to provide fair compensation to those whose land is taken away, brings transparency to the process of acquisition of land to set up factories or buildings, infrastructural projects and assures rehabilitation of those affected. The Act establishes regulations for land acquisition as a part of India's massive industrialisation drive driven by public-private partnership. The Act replaced the Land Acquisition Act, 1894, a nearly 120-year-old law enacted during British rule (Gazette of India, 2013).

### **3.10 SIKKIM LAND ACT, 2014**

In the Land Act of Sikkim 2014, in which state government provide for consolidation and updating the records of Rights of persons allotted government land in the State prior to 26th April 1975 and also to deal with consolidation and updating records of Rights of the heirs and descendants of the persons allotted government land prior to 26th April 1975 in the State (Gazette, 2014).

It enacted by the legislature of Sikkim in the sixty-fifth year of the Republic of India. This Act may be called the Sikkim land Act, 2014.

It extends to the whole of Sikkim. It shall come into force on such date as the State Government may by notification in the official gazette appoint. In this Act, unless the context otherwise requires:-

(a) “Act” means the Sikkim Land Act 2014;

(b) “Authority” means the State Government or any office or department functioning under the State Government or such department as may be specifically notified in this behalf and includes the Government of Sikkim functioning prior to 26th April 1975;

(c) “Government” means the Government of Sikkim and includes the Administrative department of the Land Revenue and Disaster Management Department, Government of Sikkim, including the Government of Sikkim functioning prior to 26th April 1975 (Sikkim Gazette, 2014).

### **3.11 THE STATE ROLE AND POLICIES ON GREENFIELD AIRPORT PAKYONG AND TEESTA V HYDEL POWER PROJECTS**

The role of state government regarding to the rehabilitation and resettlement are positive responses to the affected people of Sikkim. In the year of 2014, District Collector, East said that the district administration is trying to solve the problem related to the rehabilitation of families affected by the construction of Pakyong Airport. The DC said, “We learnt about the press meet held by the Pakyong Airport Affected Families Committee recently and the District Administration is also very much concerned for the safety of the people. The aware of the public resentment and since the monsoon is at its peak which can cause further damages to the houses, the district administration is trying to solve the problem.

Pakyong Airport Affected Families Committee had held a press conference on 11 August 2014, where it had requested the state administration to undertake the rehabilitation process earnestly and provide compensation to the 165 families affected by the construction of the Pakyong Greenfield Airport. Seventeen households had

approached the district administration for acquiring houses, the assessment for which has already been done by the Buildings & Housing Department and the assessment value in total had been forwarded to the Airport Authority of India AAI. But the AAI had sent back the file putting up certain queries basically pertaining to the rates of compensation to be paid for the damaged houses. Therefore, the district administration requested the Building & Housing Department to immediately look into the matter regarding the rates quoted, said the DC further adding that before the monsoons, 143 households had approached the district administration regarding the same issue and the line departments had gone to the field and analyzed the assessments of the houses. Over 150 families in East Sikkim today demanded compensation and rehabilitation from the state government, alleging their homes and land had been damaged because of construction work for an airport in the area (Sikkim Now, 2014).

In the case of Teesta V Hydrel Power Project in Sikkim state government responses for betterment of the affected people where the projects broke the live and livelihood of the affected people. The project was cleared on the basis of certain conditions that National Hydro Power Corporation Limited (NHPC) is committed to comply. However, continued violations of the conditions by NHPC despite, repeated summons/notices/reports forced the DFO (East) to file a petition in the court of the District Judge (East & North) Sikkim (Civil Suit No. 28 of 2002) against the company and its contractors in late 2002. A compensation of 14 crores has been sought by the Department. In November 2002 the court issued an ad interim injunction restraining the company from violating the law. Till today the DFEW has filed four contempt petitions since NHPC has failed to comply with the orders. The Ministry of Environment & Forests (MoEF) verified the violations and in September 2003 gave a show-cause notice to NHPC for violations of environment and forest laws, thus supporting the State Government's action (ACT, 2014).

### **3.11.1 Objectives of Policy**

While the Government is separately developing a policy framework for the entire civil aviation sector, this policy relates to use and development of airport infrastructure. The Policy on Airport Infrastructure should always be read along with the National Policy on Civil Aviation.

The objectives of the policy are:

1. To provide a boost to international trade and tourism and enhance the country's image in the community of nations
2. To provide airport capacity ahead of demand, in order to handle an increasing volume of air traffic and to garner the maximum share of traffic in the region;
3. To enhance, the airport facilities to make the airport user friendly and achieve higher level of customer satisfaction.
4. To ensure total safety and security of aircraft operations by the introduction of state-of-art air traffic, security and related services;
5. To provide multi-modal linkages;
6. To provide a market orientation to the present structure, bridge the resource gap and encourage greater efficiency and enterprise in the operation of airports, through the introduction of private capital and management skills;
7. To foster the development of a strong airport infrastructure, maintaining a balance between the need for economic viability and the objective of equitable regional dispersal of infrastructural facilities;
8. In the achievement of the above objective, to lay special emphasis on the development of infrastructure for remote and inaccessible areas, especially the North East, the hilly and island regions; and
9. To encourage the transparency and clarity in the decision-making processes of Government and its public sector units.

Policy has necessarily to change in response to a rapidly transforming global scenario, although the process of transformation has to be progressive, orderly and safeguarded. Looking at what has been achieved in other countries, there is a wide gap which needs to be bridged first (Ministry of Civil Aviation, 2011).

### **3.12 ELIGIBILITY OR COMPENSATION AND REHABILITATION**

The prevailing law in India (the Land Acquisition Act 1894) recognises only those with legal rights on land to be eligible for compensation. The World Bank definition is wider, as follows: Displaced persons in the following two groups are entitled to compensation for loss of land or other assets taken for project purposes: those who have formal legal rights to land or other assets (including customary and

traditional rights recognized under the laws of the country); and those who do not have formal legal rights to land or other assets at the time of commencement of the census, or at the time of delineation and effective public disclosure of the area affected by the project, whichever is earlier, but have a claim to such legal rights provided that such claims become recognized under the laws of the country through a process identified in the resettlement plan (World Bank, 1998).

Such rights could be derived from adverse possession, from continued possession of public lands without government action for eviction (that is, with the implicit leave of the government), or from customary and traditional law and usage etc. The absence of legal title to land or other assets is not, in itself, a bar to compensation for lost assets or other resettlement assistance. Displaced persons in these two groups are also entitled to in the Bank policy for compensation for loss of other assets, in particular, structures and crops, and other resettlement assistance.

A third group of displaced persons those who are occupying land in violation of the laws of the country and who do not fall within the category described in (b) above is not entitled to compensation for loss of land under this policy. However, they are entitled to resettlement assistance in lieu of compensation for land, as necessary to achieve the objectives set out in this policy, if they occupy the land prior to the date of the commencement of the census or prior to the delineation and public dissemination of information on the project area, whichever is earlier. All such displaced persons are entitled to compensation for loss of assets other than land, in particular, structures and crops (World Bank, 1998).

### **3.13 ROLE OF PANCHAYATI RAJ INSTITUTIONS ESPECIALLY IN GRAM SABHAS**

Social Impact Assessment (SIA) in consultation with Panchayati Raj Institutions (PRIs): The Social Impact Assessment has to be carried out in consultation with the representatives of the Panchayati Raj Institutions.

SIA Reports To Be Shared: Reports prepared under the Social Impact Assessment are to be shared with these individuals in their local language along with a summary.

Representation in Expert Group: The Expert Group has to have two members belonging to the Panchayati Raj Institutions. This is a powerful body that has the power to reject a project.

Hearings in All Gram Sabhas: In case where an affected area involves more than one Gram Panchayat or Municipality, public hearings shall be conducted in every Gram Sabha where more than twenty five per cent of land belonging to that Gram Sabha is being acquired.

Consent of Gram Sabha: The Consent of Gram Sabha is mandatory for acquisitions in Scheduled Areas under the Fifth Schedule referred to in the Constitution.

Representation of Panchayat Chairpersons on R&R Committee at Project Level: The Rehabilitation and Resettlement Committee at Project Level has to have the Chairpersons of the Panchayats located in the affected area or their nominees as representatives.

Panchayat Ghars have to be provided as per the list of Infrastructural amenities given in the Third Schedule. (Ministry of Rural Development, GoI, 2013).

Figure 3.1 **Salient Feature of the New Law.**



Source: The Right to fair compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013, An Overview. Ministry of Rural Development Government of India, Sep. 8th 2013.

### 3.14 COMPENSATION

Compensation as packages in cash in hand for person who are directly and indirectly affected by development projects, as reparation for their acknowledged losses, not only of assets but also of livelihoods, common resources, shelter and habitat.

Compensation is a critical issue in any resettlement programme. Resettlement efforts will come to nothing if the affected people are not compensated adequately. The loss of even small plot of farmland can have vital consequences for the household economy, and unless sufficient and appropriate compensation is given, this initial loss may be but the first step in a wider process of impoverishment and marginalisation (Mathur, 2011).

As compensation is an important to the reestablishment process, it will be helpful to first clarify the meaning of compensation and rehabilitation.

The Government, no doubt gives compensation in terms of land, site for home, and other expenses. But this economic compensation may not satisfactorily counter balance the social and psychological disturbance. They need to be rehabilitated not only economically but socially and psychologically as well. The rehabilitation process therefore, poses a problem not only to the Government, but it brings in its wake which may stress and strain to the affected as well (Joshi, 1982).

According to Shihata, (1997) explains, compensation is what the owner of property, unilaterally acquired by the government, receives in lieu of that property. It can be made in cash or in kind, and is usually based on a standard of valuation provided by law. Rehabilitation, on the other hand, constitutes a series of measures including but not limited to monetary compensation, aimed at affording the affected population the possibility to become re-established and economically self-sustaining in the shortest possible period. Compensation is usually provided only to land and property owners, while rehabilitation measures are to be provided to all those severely affected by the development projects.

Traditionally, compensation approaches have revolved mainly around the following four alternatives: cash, land, and employment.

### **3.15 CASH FOR COMPENSATION**

In the past, resettlement has simply meant the payment of cash in lieu of land and other properties taken over for project purposes. However, when the affected people are given compensation in cash and then left to their own devices, they often get impoverished.

The major problem with monetary compensation is that most displaced people, especially tribal people and those from remote villages, do not know what to do with cash in quantities that they see or the first time in their lives. In a Project in Nepal, the impact of cash compensation on the life style of the affected people turned out to be more serious than that of the loss of land. The sudden inflow of cash gave them a false sense of riches, changed their entire behaviour. Gambling and drinking increased to an unprecedented level. As a result, some adults developed

tuberculosis, and one died in a miserable condition. One young man who had received a large sum in compensation, went to a casino in Kathmandu to gamble only to lose all his money. He ended up working as a dishwasher in the city. One or two persons with some entrepreneurial ambition started a trucking business, due to lack of experience, failed in the venture (Pokharel, 1995).

### **3.16 LAND**

Land is a precious asset for everyone who are owner of it. Economic development needs immense lands for the general purpose and basically an agricultural land has been transfers into developmental purpose in India. A millions of peoples the owner of lands were oustees from their hearth and homes due to major developmental projects. Land for land has evolved as the major focus of most current policy proposals, combined with the broader understanding of the notion of project affected people. Land is a lifelong and inheritable livelihood producing asset and therefore, not comparable with one time cash payment that is inadequate. The land for land principle is particularly pertinent in the case of tribal areas. Where land rights may vest with the community rather than individuals, land markets are generally weak or non-existent in such context and it is difficult to assign a value to land based on its market price (Nayak, 2008).

Where rural people are involved, programmes that relocate them to agricultural land of comparable size and quality often prove successful. Thus, land for the displaced people with agriculture background from rural areas remains the best way to compensate them as no occupational change is involved. No wonder this this is a form of compensation which is much preferred by those who lose land (Mathur, 2011).

Land acquisition can result into de- capitalization and pauperization of displaced people. It disrupts the basics of displaced people by affecting their system of production, earnings and commercial activities (Cernea, 1996).

### **3.17 EMPLOYMENT**

The practice of offering jobs in the projects as compensation for land or other loss has been followed in many projects. Often, people who get permanent jobs are able to resettle themselves even more quickly than those who get land. This

explains the never ending clamour for jobs, especially the permanent jobs in public sector enterprises. In addition, there are several benefits that go with such jobs, such as the cost of living allowance, annual increments leave and travel concessions for children besides pension after retirement. For the affected people, a job with a public sector organisation means a lot, not only as a permanent source of good income but also as a status symbol (Mathur, 2011).

It was evident that loss of agricultural lands had an immediate impact on employment opportunities for members of communities that were directly dependent on farm-related activities. Many local people witnessed a sharp fall in cumulative agricultural landownership. With the decline in landownership in a village, its landowning farmers lose income due to the fall in total agricultural output, and its landless farm labourers and small farmers who partially engage in farm labour work witness a more drastic income reduction owing to a fall in employment.

### **3.18 IMPACTS OF DEVELOPMENTAL PROJECTS IN INDIA**

Developmental projects has led to significant human and social upheavals particularly in terms of displacement. Compulsory displacement embodies a perverse and intrinsic contradiction in the context of development. They raise major ethical questions because they reflect an inequitable of development caused by such programmes created major imposition on some population segments. It restricts population rights by state-power intervention. This raises major issues of social justice and equity.

### **3.19 INSTITUTIONAL AND POLITICAL CONTEXT OF DISPLACEMENT**

The international institutions especially those who fund the building of dams worldwide is another cause of accerating the number of those displaced peoples. The institutions involve the World Bank, the Asian Development and the Inter- American Development Bank are the most important international institutions funding dam building worldwide. On the other hand, the political context of displacement by developmental projects. In India, the Land Acquisition Act of 1894 (LAA) empower the state to enjoy unlimited power over land within its territory. It follows that the state has the right to invoke this right for public good and the consequent compulsory acquisition of the land cannot legally be challenged resisted

by a person or community. Land acquisition Act 1894, also refers draconian law to the people.

### **3.19.1 Land Acquisition: Law and Policy**

The most important factor that displaces the people is the prevailing Land Acquisition Act (LAA) in different countries, which is unchallengeable in the court. In India, the Land Acquisition Act of 1894 (LAA) empower the state to enjoy unlimited power over land within its territory. It follows that the state has the right to invoke this right for public good and the consequent compulsory acquisition of the land cannot legally be challenged resisted by a person or community (Hemadri, 1999). The same is the case with the Ghanaian State Lands Act of 1962 and its subsequent amendments that provided for the acquisition of the land in the national interest (Bartolome 2000). The Public Interest Appropriation Law was used in Argentina to acquire land with just monetary compensation without any provision of resettlement or other kind of compensations and mitigation measures. Although Article 41 of the new Argentinean Constitution (1994), establish the need to protect the environment and the obligations of mitigating the anthropic impacts, the article yet has not developed into specific norms and it is open to diverse interpretations (Dankalmair, 1999).

The Second International institutions especially those who fund the building of dams worldwide is another cause of accerating the number of those displaced peoples. Among them, The World Bank, The Asian Development and the Inter- American Development Bank are the most important international institutions funding dam building worldwide. Third, Privatization and the market forces in the post- liberalization era is another critical institutional factors extending the number of those displaced. The spread of market forces and private capital and their large-scale infrastructural projects have been displacing people by acquiring their private lands for public purposes (Nishal, 2015).

### **3.20 SOCIAL CONTEXT OF DISPLACEMENT**

Large dams have significant altered many of the world's river basins with involuntary impacts on the livelihoods and the socio-economic foundation of millions of people. The livelihood impacts caused by dams on people are particularly devastating in Asia, Africa and Latin America. The scale and extent of

impacts will vary depending on location, size and other characteristics, such as inundated area and population density in the river basin. The number of people deriving their livelihood directly from the river and its ecosystem and the overall population density in the river basin, gives an indication of the potential impacts.

Among them, indigenous people or the tribal's are mostly the victims in the whole episode of displacement. The Sources of livelihood of the tribals are closely associated to the forestland, relying on a number of activities, including hunting, fishing, gathering and shifting cultivation. It became too complex for them to sustain, while shifting their forest economy to a non- forest economy.

The infrastructural development of the rehabilitate area will be foremost concern for any organization before delving deep into the project. It restricted the use of cultivable land and support permission of the environment protection agency before installing any project. It needs to be mentioned here that there are certain instances where the big projects suffered more loss due to not built up within the time frame. The government incurred heavy losses in projects like - Sardar Sarovar dam, Subanshiri project (almost 40% works done but facing lots of trouble due to its impracticality and geographical situation of the project), Pagladia dam (initial cost was Rs.12.8 crores according to 1971-72 now government granted Rs.1, 0594 in year 2000 yet it is incomplete). Karbi- langpi project (for this project the Assam state electricity board spent 30 lacs every day although it started working now). The present act of 2013 will also see the viability and sustainability of the project before its installation (Gogoi, Lahon, 2014).

Environmental change and social disruptions caused by large dams and associated infrastructure development can have a significant which adversely impact on existing nutritional and health conditions of the population and the capacity to resist new health problems is at the root of the adverse health impacts of dams. The health issues associated with the displaced can be both communicable as well as non-communicable diseases. There is regional variation in the prevalence rate of health hazards and it depends primarily on ecological factors, such as the presence of insect vectors, types of vegetation and rainfall. It sometimes leads to psychological trauma accompanied by the outbreak of relocation-relate illness, particularly parasitic and vector borne diseases, such a malaria. Unsafe water supply

and improvised sewage systems increase vulnerability to epidemics and chronic diarrhoea, dysentery, etc. the weakest segment of the demographic spectrum- infants, children and the elderly are affected most strongly (Nishal, 2014).

### **3.20.1 Indigenous People**

Among the oustees, indigenous people or the tribals (ethnic minorities) are the most victims in the whole episode of displacement. In the Philippines almost all the larger dams those have been built or proposed were on the land of country's 6-7 million indigenous people. Similarly in India 40 to 50% of those displaced by development projects were tribal people, who accounts for just 8% of the 1 billion people (World Commission on Dams, 2000).

The identity of many of these communities is closely tied to the land and has significant spiritual and emotional attachment. They primarily depend on the forests and forests land for their livelihoods (fodder, fuel wood, fiber and fruits) and rely on number of activities, including hunting, fishing, gathering and shifting cultivation. The quality of livelihood and their living standard depend on the adequate availability of the forest products closer to them. They also cultivate their ethnic agricultural products in the forests land suited to their climatic conditions. Indigenous people also tend to be more vulnerable than other sections of the society as they often lack formal rights to the area on which they depend for their subsistence. In case of resettlement and rehabilitation the tribals do not generally get compensation, because they don't have legal title to the land. Thus it is evident for the tribals face difficulties in keeping up their livelihood. It became too complex for them to sustain, while shifting their 'forest economy' to non-forest economy (Mahapatra, 1991).

The indigenous people living in the rural areas, often do not have formal education and may face language barrier, cultural obstacles and racial prejudice as well as lack financial resources and social and political contacts to influence the decisions that are made in the national and regional capitals (Inter-American Development Bank 1998). They remain deprived of justice due to negligence and incapacity to fight for their rights. Structural inequalities, cultural dissonance, discrimination and economic and political marginalization are the main factors responsible for their marginalization (World Commission on Dams, 2000).

There are many cases of development induced landlessness and marginalized indigenous people across the world. Kisan tribe of eastern India is one of the good examples of landlessness, caused by loss of livelihoods due to construction of Mandira dam near to Rourkela of Orissa.

The Kisan tribes were displaced from their traditional environment in the post-colonial period as part of the Nehruvian thrust towards development and self-reliance. The Mandira dam was the part of Rourkela Steel Plant Project (built by German assistance) the river Sankh to provide water requirements to the steel plant. Nearly 100,000 people were affected in this operation with too less compensation and no concern for land for land rehabilitation (Nayak, 2000).

Indigenous people of industrial countries also face the similar situations in the era of building large dams, not very different from that of the developing countries. 142, 000 hectares of the best land belonging to the indigenous people including number of burial and other sacred sites was submerged by dam in the Missouri River Basin of the United States during the 1950s and 1960s. Thus it can be stated that the rights of the indigenous people and the ethnic minorities are poorly defined or enshrined in the national legal framework, and lack effective protection (World Commission on Dams, 2000).

### **3.21 IMPACT OF DISPLACEMENT ON GENDER**

According to World Health Organisation (WHO), gender refers to the socially constructed characteristics of women and men- such as norms, roles and relationships of and between group of men and women. It varies from society to society and can be changed.

Gender is the vital element, while understanding the impacts of involuntary displacement. It not only results in terms of losses and destruction of goods and property but also alters the people's lives and their social fabric. The displaced, coming to a new environment, lose their former support structure and it affects the social roles and responsibilities of men and women. Women have major role in contributing to their households and their dislocation results in loss of their livelihoods and such situations promote alcoholism, prostitution, gambling, etc. and it affects the lives and status of women. They also sometimes face physical and several violence in a newly relocated place (Nayak, 2013).

In the process of voluntary displacement, conflict also arises in many cases between in displaced people and host communities. It put heavy pressure on the resources of host competition takes place over the sources of livelihood and employment. The inclusion of a non-homogeneous group on the basis of caste, religion, ethnicity and community creates cultural clashes, social tensions, political problems and demographic imbalances. Sometimes these problems become very severe and lead to caste conflict and communal riots. It hurts both and the displaced communities (Nayak, 2013).

### **3.22 ROLE OF THE WORLD BANK**

There were also no resettlement policies anywhere until the late 1980s. In the absence of policy, projects addressed resettlement issues as they arose in a purely adhoc manner, through promulgation of instructions that were specific to the project causing displacement. Gradually, sector-specific policies applicable to all projects within that particular sector merged. There was no uniformity either in project- specific instructions or sector-specific policies, which varied from project and sector to sector. Often, the affected people received resettlement assistance that differed markedly from one project to the other in the same country (World Bank, 1994).

The World Bank issued it policy statement on involuntary resettlement in 1980. It has since been updated on several occasions with the October 2001 update being the latest. The World Bank policy has served as a template for several other policies, such as the policies issued by the Asian Development Bank (ADB), the Organisation or economic cooperation and development (OECD) and other international development agencies.

The World Bank's policy requirement that those resettled, at the very least, not become any worse off and its focus on resettlement as a development package receives strong support from the recent literature on sustainable development. The essence of sustainable development is (a) that future generations should be no worse off than those currently living and, (b) that the currently least advantaged in society should be given special attention and, at the very least, should be no worse off because of development (Pearce, 1999).

The World Bank policy was meant primarily for its own staff to guide them in dealing with resettlement issues surrounding development projects but over the years, the whole world seems to be adopting its basic principles in their own resettlement policies.

The adverse effect of the population displacement caused by development projects has become the focus of a wide international debate since the 1980s. The debate as well as the critique of the governments, non-governmental organizations, public opinion groups, parliamentarians, development agencies and the media influenced the funding agencies to engage in the process of resettlement and rehabilitation programme.

Thus, the World Bank fully shares the concerns of the critics who deplore bad resettlement operations. Criticism by NGOs and other groups of poor resettlement operations, including failures under Bank assisted projects, has helped the Bank improve its policies and operations. The Bank has become increasingly receptive to their specific signals and constructive signals. It regards their concern for the welfare and livelihood of the displaced populations as justified and germane to the Bank's own mandate and policies (World Bank, 1996).

The Bank policy on involuntary resettlement was first prepared in 1979 and issued in early 1980. During the 1960s and 1970s the policy on involuntary resettlement was adopted on a case-by-case basis. That was entirely left to borrowing agencies with little assistance of any Bank. The lack of explicit norms, procedures and adequate resources for handling resettlement resulted in serious negative effects on the people displaced and the host communities at the relocation sites. By issuing resettlement policy guidelines and the procedures the Bank became the first multilateral institution to enact a policy framework for displacement and to provide landmark thinking about resettlement (World Bank, 1996).

The fundamental goal of the Bank's policy is to improve the former living standards and earning capacities of displaced persons or at least to restore them. Bank's policy calls for transforming people's involuntary resettlement into an opportunity for development and for enhancing their prior living standards by enabling resettlers to share in the benefits of the development project that causes their displacement (see Box 1.1). The Bank's resettlement policy raises a major

challenge for both borrowers and the Bank. Attaining this objective often requires changes in the policies, legal frameworks, institutional capacities and current practices of many borrowing countries and it became a new challenge in every single project that entails displacement (World Bank 1996).

Development projects, ‘temple of modern India’, in the globalized era became partially disfigured or partially beautiful sculpture. Independent India began with the Nehru vision that big dams and mega development projects are modern temple of development. In the post-independence period, India has sought rapid economic growth through planned development. This has entailed large scale investments in airports, dams, roads, mines, power plants, industrial estate, new cities and other projects involving land acquisition. Since independence land has been acquired from people particularly from farmers for the purpose of expanding towns/cities by converting agricultural land into non-agricultural land. The Land Acquisition Act, 1894 (amended 1984) is one of the draconian laws enacted by the British Colonial Government which is retained much in the same form by the Republic’s Government.

Developmental projects which often subjugated the people’s rights and liberty. In India, there is more than millions population were oustees from their homes and homelands. The law neither defines what constitutes ‘public purpose’ and what does not, nor mandates that the state provide information to the people about the projects which are supposed to serve public purpose. It gives few and very nominal right to the citizens to challenge acquisition. (This nominal right too is now being taken away by the proposed 1998 Amendment Bill to the Act). The only right it gives the citizen is to get compensation in cash for the life-sustaining resources taken away from him/her.

After the Government of India has withdrawn land acquisition act 1894, and reframed the new policy on rehabilitation and resettlement in India. The new policy has given new packages for affected peoples by so called developmental project in India. After the making of this policy people are more secure than the previous draconian law which was framed by the British Colonial India.

Not only national policies on rehabilitation and resettlement played a vital role to eradicate the problem of impoverishment of displaced peoples but the

international bank also played the crucial role minimised the problems from developmental projects in India.

## **CHAPTER 4**

### **DEVELOPMENT INDUCED DISPLACEMENT OF GREENFIELD AIRPORT AND TEESTA V HYDEL POWER PROJECTS IN SIKKIM**

#### **4.1 Introduction**

Sikkim Himalaya has unique and diverse ecosystems with socio-cultural and biodiversity values associated with it. The region is a storehouse of unique and globally significant biodiversity and also provides an ideal habitat for the survival of humans and wildlife. The total geographical area 7096sq.km, almost about 82.31% is under the administrative control of the Forest, Environment, and Wildlife Management Department of the Government of Sikkim.

The forest cover in the state consistently increased in the last two decades to about 47% (3359sq km) in 2011, while far less than 12% of the land was available for cultivation until 2012. Agro-biodiversity is equally rich in the human-managed traditional agricultural systems (240-430m) of Sikkim which is attributed to diversity agro-climatic zones along the rising altitudes. Sikkim Himalaya houses around 40% of the biodiversity wealth that occurs in the Trans- Himalayan Range, Sikkim is bestowed with the snow and glacier-fed rivers originating in the upper catchment of Teesta and Rangit which show enormous potential for hydropower generation. This chapter is basically deal with the Greenfield Airport and Teesta V Hydel Power Project in Sikkim. On the one hand, development is the necessary or inevitable evil for the state but on the other hand, every departmental project has the negative impact on the life and livelihood of the people. This particular study revealed the socio-economic impacts of the people.

#### **4.2 GREENFIELD AIRPORT PAKYONG**

Greenfield literally means that the Greenfield projects are either new factories, Power plants, or airports which are built from scratch on Greenfield land.

Greenfield Airport Pakyong is an airport under construction near Gangtok, the state capital of Sikkim, India. The airport, spread over 990 acres, is located at Pakyong village about 35km (21.75 mi) south of Gangtok. It is the first Greenfield

airport to be constructed in the North-eastern Region of India and the only airport in the state of Sikkim. Frequent protests by locals and landslides upslope of the runway have resulted in the suspension of work twice, escalating the cost of the project from Rs. 309 crore (3.09 billion) to Rs. 605 crore (6.05 billion) (US\$47 million to US\$91 million).

Greenfield Airport construction includes a passenger terminal which was expected to be functional by March 2017, the date has been delayed as the Construction has been under process. According to the statement of Trainee Junior Engineer (JE), it is said that on September 2017, the first trial would be conducted at Greenfield Airport of Pakyong.

Presently, the nearest airports to Sikkim are Bagdogra, located 124 km away in the neighbouring state of West Bengal, and Paro Airport in Bhutan. The project was approved by the Cabinet Committee on Economic Affairs in October 2008. The Punj Lloyd Group was awarded the Rs. 264-crore (2.64 billion) (US\$53 million) contract to construct a runway, taxiway, apron drainage system, and electrical work for the Greenfield Airport in January 2009. The foundation stone for the Greenfield Airport was laid by the then Civil Aviation Minister, Praful Patel, in February 2009.

The project was initially slated to be completed by 2012. Protests by local villagers, demanding proper rehabilitation and compensation, had resulted in the suspension of work in January 2014. The Airport Authority of India (AAI) intervened and held discussions with agitating villagers and paid part of the compensation allowing work to resume in October 2014. However, in January 2015, work came to a halt once again as villagers pass on for the protests.

In July 2015, AAI and the State Government signed Memorandum of Understanding (MOU) with AAI, promising to shift the affected households by August 15, so that AAI could resume work from October 2015. Landslides upslope of the airport has further delayed construction. Maximally ecological slope-stabilization techniques are being used to remedy this. When completed, the airport will be one of the five highest airports in India.

The company, holding the project with partners Mott MacDonald and Punj Lloyd, won the 'International Project of the Year' award at the Ground Engineering Awards 2012 for its work in constructing 70 m (230 ft.) high reinforced soil walls and slopes at the site. The project is among the tallest reinforced soil structures in the world.

**Map 4.1 Greenfield Airport Pakyong**



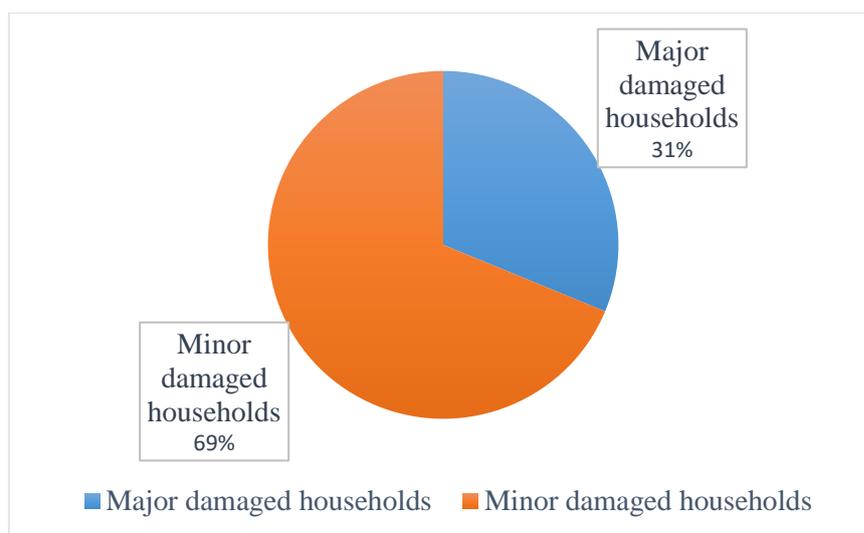
Source: Google Map, American Geophysical Union. The Pakyong Airport Landslide Issue in India- Date: 28/11/2017.

Greenfield literally means that the Greenfield projects are either new factories, Power plants, or airports which are built from scratch on Greenfield land. Greenfield Airport Pakyong is an airport under construction near Gangtok, the state capital of Sikkim, India. The airport, spread over 400ha (990 acres), is located at Pakyong village about 35km (21.75 mi) south of Gangtok. It is the first Greenfield airport to be constructed in the North-eastern Region of India and the only airport in the state of Sikkim.

### 4.3 IMPACT OF GREENFIELD AIRPORT PAKYONG

In every developmental project, the socio-economic impacts have been experienced either directly or indirectly. Refers to the total damaged households during the construction of Greenfield Airport Pakyong (interview SDM, Pakyong).

Figure No: 4.1 **Number of Households Damaged**



Sources: Socio-Economic and Political impacts of Greenfield Airport Construction on the lives of the people in Pakyong (Sangbo, 2017).

According to Sangbo (2017), Around 800 households have been experiencing the impacts of Greenfield Airport Construction. According to Sub Division Magistrate (SDM), among 800 households; 250 households have been considered as major impact areas; the affected areas are Karthok, Dikling, Bhanu turning (Pakyong Bazaar 02). The other areas where the minor impacts were experienced are places like Dhamlakha, Mamzay, and Chalamthang. There have been various socio-economic impacts experienced in the areas.

#### **4.4 SOCIO- ECONOMIC IMPACTS OF GREENFIELD AIRPORT PAKYONG**

The socio-economic impacts indicate the effect of an activity on the social fabric of the community and well-being of the individuals and families. There are various socio-economic impacts experienced by the society which is summoned below:

##### **4.4.1 Migration**

Migration means the movement or shifting of people or person from one place to another. Primarily there are two types of migration, inter and intra migration where former refers to the migration between two countries or between two states while latterly refers to migration inside the one country or states. Migration occurs due to push and pull factor.

In case of Pakyong, the pattern of migration was inter-state migration, where people migrated from adjoining areas of West Bengal (Darjeeling, Dooars, Islampur, etc) and other parts of the country. The intra migration (amongst the state of Sikkim). Migration usually takes places for better opportunities for employment, livelihood, and etc. which is considering as a pull factor. Pakyong isn't an exceptional where the Greenfield Airport demands a huge number of workers (skilled and unskilled) and it attracted workers as well.

The inter-state migration has been experienced with the voluntary action occurred due to the economic liabilities. Presently, the rapid growth of the population has been observed which has been influenced by inter-state migration as with the due increase of labours employee by respective companies; like Punj Lloyd, Durga Travels. The section of companies' employee was from Dooars, Jaigoan, Islampur and other states of India. They were an employee as helpers, drivers, and casual labour.

The other part of the project covers the drainage system (Construction of Jhoras), where the new drains were constructed from the Greenfield Airport Construction areas to Rorathang. Rorathang is 19 km from Pakyong, the jhoras (drainage system) has been handled by the local contractors as well as contractors from other districts of Sikkim and West Bengal. The maximal labours were from

Dooars, Islampur, and Darjeeling and in minimal were those local people of the area. The major impact of migration in Pakyong was seen in its social scenario where marriage amongst the workers and the native of Pakyong was predominant. Several incidents of married women and teenagers of eloping with the workers were observed.

Similarly, the construction of Greenfield Airport was also responsible for involuntary migration of local people in Pakyong. This can be considered as a push factor occurring due to the destruction of the land located nearby areas of Greenfield Airport, which was once considered to be an agriculture land holdings, schools, and local residents.

For instances, a residence of Pakyong has relocated themselves to the nearby area of Sikkim Manipal Institute of Technology (SMIT), Majhitar and some of them relocated in nearby areas like Pachey, Pachey- Samsing, Namcheybong, Lower Chalamthang and others.

#### **4.4.2 Education**

Education is one of the liable social statuses which couldn't be ignored. Puspanjali Vidhyalaya, a private based senior secondary school was located 1km away from Pakyong Bazaar and was below the Greenfield Airport Construction site.

During the year 2014, Puspanjali Vidhyalaya was collapsed; the classes were arranged in rented rooms within the local residents. The student was facing problems; like there was no sound environment for studies, classes were hampered since classrooms were congested as compared to the previous school classroom.

Only after 3years, Puspanjali Vidhalaya has been relocated in Upper Namcheybong (03 km from Pakyong Bazaar). The students are facing lots of problems in transportation and other facilities.

Since 2009, people of Dikling and Mamzay especially, the student of Govt. Senior Secondary School Dikling has been facing lots of problems due to the Greenfield Airport Construction. As, Govt. Senior Secondary School Dikling is located 6km away from Pakyong Bazaar, the route connectivity of school and the construction site lies in the same phase. The alternative route constructed by Airport

Authority of India is in bad shape which causes a problem in transportation and others.

#### **4.4.3 Health**

As defined by World Health Organisation (WHO), it is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity. Health is a dynamic condition resulting from a body's constant adjustment and adaptation in response to stresses and changes in the environment for maintaining an inner equilibrium.

In the case of Greenfield Airport Pakyong where the Airport Authority of India (AAI) has renovated the infrastructure of Primary Health Centre, Pakyong which seems to be a great contribution to the people of Pakyong. The section of the block covers the offices and infantry section. A mobile unit vehicle has been sponsored by Airport Authority of India (AAI), which has not been under use to date. In spite of such initiatives taken by the Airport Authority of India (AAI) there have been a lot of challenges faced by the resident people of Pakyong on the issues of health. Some of the problems faced by the Greenfield Airport Pakyong are the less availability of fresh drinking water, the creation of dusty atmosphere, air pollution, noise pollution, deforestation, etc which are directly or indirectly hampering the health of the people residing in Pakyong.

#### **4.5 RESETTLEMENT AND REHABILITATION OF GREENFIELD AIRPORT PAKYONG**

Resettlement and Rehabilitation process not intertwined in every developmental project. In India, these processes are always incomplete. Resettlement is the package and processes provided in new resettlement sites in addition to compensation, for those who are physically dislocated from their original habitations as a result of any developmental project.

On the other hand, Rehabilitation is seen as packages and processes provided in addition to compensation and resettlement, in order to ensure that the persons affected by projects and their offspring are sustainably better-off as a result of the project.

Around 800 households were located in the Greenfield Airport areas; among 800 households 250 households have been considered to be damaged by the Greenfield Airport Pakyong. The resident people of the damaged household have relocated themselves in and around Pakyong and beyond Pakyong area. The displaced people have been reallocated in places like Pachey, Pachey Samsing, lower Chalamthang, Lower Namcheybong and Upper Namcheybong which is located nearby Pakyong. Though they have been allocated in these areas, they are facing challenges like adjustment in the new area, constructing the new building, social inclusion etc. Compensation was given to those people who had their house near the airport which were damaged, while land compensation was delayed and in some cases ignored.

#### **4.5. RESETTLEMENT AND REHABILITATION OF GREENFIELD AIRPORT PAKYONG**

Refers the data about the numbers of households damaged and the pattern of Resettlement, Rehabilitation and Reserved Household after Compensation.

**Table No.4.1 Resettlement and Rehabilitation of Greenfield Airport Pakyong.**

<b>Total no. of Household</b>	<b>Household Damaged</b>	<b>Rehabilitated Household</b>	<b>Resettled Household</b>	<b>Reserved Household after Compensation</b>
800	250	Nil	180	70

Sources: Socio-economic impacts of Greenfield Airport Construction on the lives of the people in Pakyong (Sangbo, 2017).

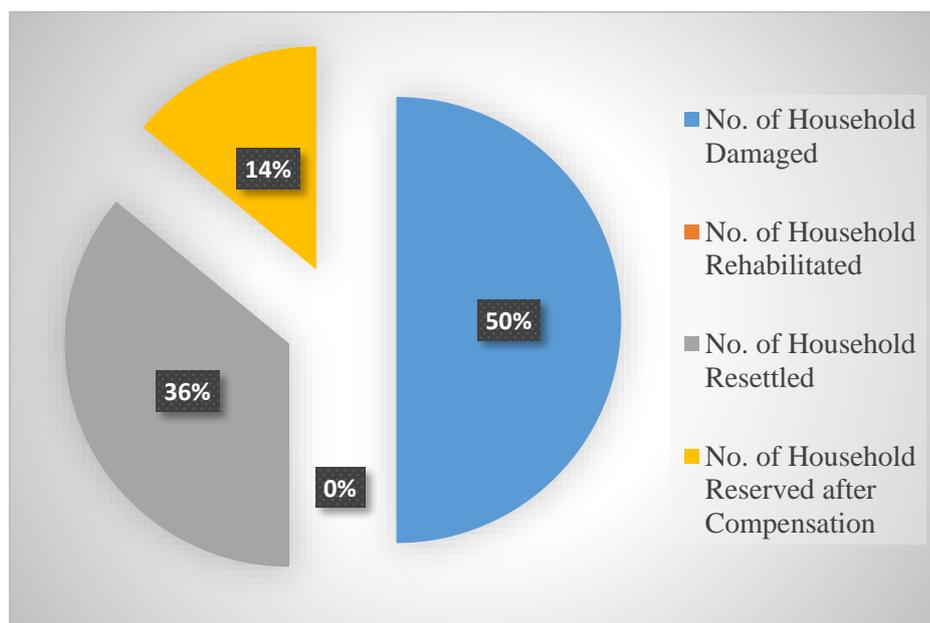
Table number 4.1- Shows 800 household were located near the constructing site of the airport out of which 250 were damaged due to the construction. As per the agreement of Airport Authority of India the compensation was given to those households who were affected by the construction of the airport with the consultation to Sikkim government.

But the field visit finding was the paradox to that of the Airport Authority of India and Sikkim government. Where the Rehabilitated household was none, while the Resettled households were 180 in numbers. Reserved household which refers to

those households who refused to move away from their original household due to less compensation and incomplete compensation were observed. Figure 1. Which has been derivative from the table 1 give a clear picture of the Resettlement and Rehabilitation pattern based on compensation?

The figure refers the data about the numbers of Households damaged and the pattern of Resettlement, Rehabilitation, and Reserved Household after Compensation

Figure No 4.2 **Number of Household Damaged**



Source: Socio-Economic and Political impacts of Greenfield Airport Construction on the lives of the people in Pakyong (Sangbo, 2017).

#### 4.6 ECONOMIC IMPACTS

The economy is one of the important factors regarding the development of the state or nation. It indicates the favourable livelihood of the resident people of that area where development is being induced. The introduction of Greenfield Airport Pakyong has an impact on the economy of the residential area, as well as to the state. Few economic indicator developed in this study area are route connectivity, occupational pattern.

#### 4.6.1 Route Connectivity

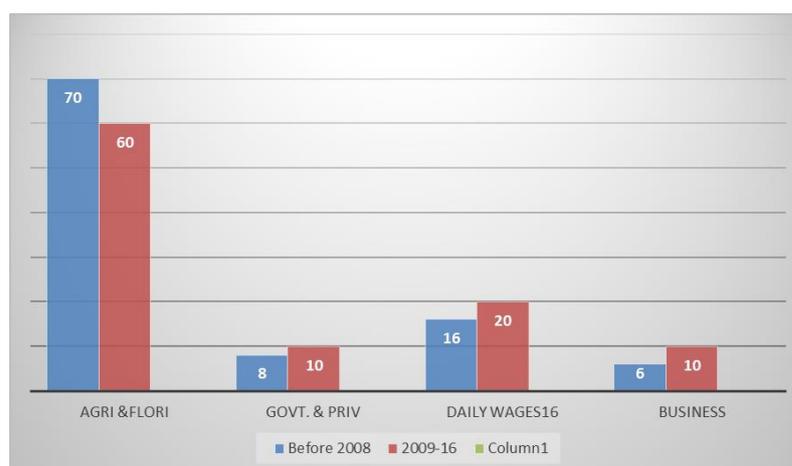
Similarly, the route connectivity has been a major factor in the hilly areas. The roads conditions indicate the socio-economic conditions and development of the area. Through various routes, Pakyong is connected to National Highway NH10. The routes are Ranipool, Rangpo via Padamchey and also connect to the other areas of Sikkim.

The road conditions of the Pakyong bazaar, in and around areas; the road connecting to National highway NH10 via Padamchey, Rangpo is in bad shape due to the constant flow of heavy loaded vehicles to the Greenfield Airport Construction site. Frequently, the ill- conditions of the road are creating the problems to the locals as well as the daily service vehicles which move along the route of Pakyong. In October 2017, the maintenance of roads has been observed from Ranipool to Pakyong (Greenfield Airport Pakyong).

#### 4.6.2 Occupational Pattern

The people of Pakyong are engaged in mainly four sectors for their livelihood which are Agriculture and Floriculture, Government and Private jobs, Daily wages and Business.

Figure No 4.3 Occupational Pattern



Sources: Field Survey 03rd October 2017-20<sup>th</sup> October 2017. Greenfield Airport Pakyong.

The figure 4.3- Indicate the comparison of the four sectors where people of Pakyong earn their livelihood. Before 2008, 70% of the people were involved in agriculture and floriculture, 8% were engaged in government and private jobs, 16% earned their livelihood through daily wages which include the minimal work like labour, taxi drivers, porters etc. and 6% were engaged in business.

After 2008, Greenfield Airport construction started where the pattern of livelihood of the Pakyong was altered. The construction of airport took away a huge chunk of agricultural land and moreover, water reservoir was also hampered. Hence, there was fall in the people engagement in agriculture and floriculture. The field visit data shows that 60% were now involved in agriculture and floriculture. There has been an increased in the other three sectors due to the creation of job by the construction of Greenfield Airport which boosts the daily wages and business sector in the area. People stakeholder in government and floriculture has increased from 8 to 10%, while in case of daily wage it rose to 20%.

Though this sector has shown a significant increase but at the same time, the taxi drivers are facing problems which roused due to a maximum number of vehicles plying in the same region and business sector rises to 10%.

#### **4.7 TEESTA V HYDEL POWER PROJECTS**

According to Menon (2003), he elaborated that the Teesta V hydel power project is the first to be taken up in the six-stage cascade plan to harness 3635 MW of hydropower, all within 175 Km of the river Teesta in Sikkim. It is a run of the river scheme, involving a concrete gravity dam 96.45 m high and 182.5 m long at Dikchu which raise the water level upstream before it is diverted through a 17.5 km long 'head race tunnel' (HRT) to the powerhouse at Balutar. The project was started in 1999 and is due to be completed by 2006. The project, being implemented by the National Hydroelectric Power Corporation (NHPC) is generated 510 MW. Clearances under the Environmental (Protection) Act, 1986 and Forest (Conservation) Act, 1980 were obtained in May 1999. The Memorandum of Understanding (MOU) was signed between the State Government and the NHPC in the year 2000. The project is spread over three districts of Sikkim (East, North, and South), with most of the land from East District.

#### 4.8 ENVIRONMENTAL IMPACTS

Traced back the history of the construction of Teesta V Hydel Power in the past decade. The first serious problem posed by the constructions of tunneling in the dam sites and the other hand blasting. The work on the Head Race Tunnel (HRT) and the associated 'Adits' at five places along the tunnel length have already caused serious problems. Complaints of cracking houses, drying up of water resources and landslides have been streaming in from local people living in the tunnelling area. The list of project affected persons is clearly much longer than what was calculated in the planning stages (only those whose homes or lands were going to be submerged were listed).

According to Menon (2004), the villagers of Amdara, situated above the dam-site, started moving out of their damaged homes. The blasting of rock for tunnelling has resulted in cracking of constructions above this area. The villagers pointed out that the problem had begun two-three years ago. The problem has not been redressed although they have petitioned the district authorities. In the year of 2004, a few of the buildings along the main road developed deep cracks following a landslide induced by the blasting at the project site. According to Menon report, all the project affected peoples decided to have a meeting with the District Commissioner in the recent decade.

He further elaborates that, as per their last communication with the project authorities, they had been asked to move out temporarily on the condition that the cost of the rental accommodation would be borne by the project authorities. There was no indication of where such accommodation was available. After construction activities ceased, they could come back to their homes if they were not damaged. If they were damaged, they would be repaired/rebuilt. The solution is ad hoc and piecemeal. There were no written commitments made by National Hydro Power Corporation NHPC.

The project suffered a huge setback when the surge shaft collapsed. During the investigation of the surge shaft collapse, a resident of Khamdong bazaar told the news reporter that NHPC had callously felled all trees in and around the area loosening the soil. He added that the walls of the Lower Khamdong Primary school had developed huge cracks as it was just near the fencing of the shaft. The report on

the causes of the surge shaft collapse by the State Department of Mines and Geology states "Lower Khamdong Primary School area where the failed shaft is today is a small spur with a history of stability as indicated by the geomorphology, soils, and orientation of the in-situ rocks, especially below the Singtam-Dikchu road level. The affected spot is subjected to massive excavation (road building, shaft construction), vibrations (dynamite blasts, heavy vehicular movement, earthquakes) and development of stress relief features, negligence and untimely rectification of these adverse features.

The village is also facing water shortages. Some of their drinking water sources, which were perennial streams, have now turned seasonal and dry up in the summer months. The villagers relate this problem directly to the tunnelling activity going on beneath their land. The villagers also said that their crops and trees are also beginning to get affected by this activity. They feel that the gas used in drilling and blasting may have brought down the productivity of cardamom crop by 50%. This is the main cash crop of the area and important for the livelihood of the local people. The dust pollution caused by the stone crusher near Adit III is very high. It is located right in front of the government school. Students and teachers are facing a great problem due to the dust and noise that is generated all day. The villagers said that the dust also affects the flowers of fruiting trees and their productivity.

#### **4.9 CONFLICTS BETWEEN STATE GOVERNMENT AND THE NHPC**

According to Sikkim Government, the dams are most eco-friendly with negligible pollution. When questioned about the dangers of dams in a seismically sensitive zone, the Government social claimed that the entire Himalaya is a sensitive zone but the Central government has planned hundreds of dams across the mountain ranges, not only in Sikkim. And then almost cynically used the concern to explain the cracking up of homes by stating that no one can prove that people's homes were damaged owing to the blasting. It could be for other reasons such as earthquakes or landslides.

In an affidavit to the Supreme Court appointed Central Empowered Committee (CEC) in 2007, the Chief Secretary of Sikkim conceded that there was an environment governance crisis in the Teesta V project, where the power company

had grossly violated the terms, conditions, and guidelines of the (MOEF) Ministry of Environment and forest by dumping excavated debris into the Teesta river, “obstructing its free flow causing thereby huge damage to the forest and environment.

The public hearing for the project, held way back in 1997, took place before the Environmental Impact Assessment (EIA) report was submitted, a violation of the standard procedure that requires such a report to be handed over at least a month in advance, and the company (NHPC) could not provide satisfactory answers to the questions and concerns raised in the public meeting.

The impacts of the dam became known to people only after the construction began, much to their dismay. About 928 families were affected by the construction, no insignificant number in a small State, while the clearances were given based on the assessment that only 72 families will be affected. A Right to Information (RTI) application by Affected Citizen of Teesta (ACT) also revealed that 48 persons died during the construction of the Teesta V, and about 31 seriously injured, a striking indication of the dangerous work conditions and abominable safety procedures a normal affair as elsewhere in the country. Also, as per the report highlighted that there has been massive corruption in the payment of compensation to the affected, being paid only a fraction of what social records indicate.

*You should reap the benefit because no one can stop this project, no matter which political party comes to power tomorrow. No one can stop this as the Government of India has given the orders. These projects are not meant to harm or bring tension to anyone who disturbs this project is not a Sikkimese and is a useless person if he opposes such a good project such people are your opposition and anti-social element. But because you are in the opposition, you are opposing the Government. Since you are opposing the Government of India you are an anti-national.*

One aspect used as a justification for the Teesta V project was that unlike projects with large submergence, this project utilized only 67.75 ha of land. The total non- forest land used for the project is 204.5 ha. Sikkim is a small, mountainous state. 80% of the state is under the administrative control of the Forest Department. Approximately 11% of the total geographical area is under agriculture. Up to 65% of

the population is engaged in agriculture of which almost 8% are agricultural labourers.

This indicates the importance of agriculture in the economic activities of the state and the extent of the population supported by the limited agricultural lands. The lands along the river are the most fertile and productive. The acquisition of fertile agricultural lands by a project affects the population dependent (owners of lands and wage labourers) on it until and even after new sources of revenue generation are found. The loss of such land for the local people due to the project should be seen in the light of the limitations already posed by the terrain and the ownership of the land as well as the extent of dependence on it.

**Table No.4.2 Composition of the Age Group of Respondents in Teesta V Hydel Power Projects.**

<b>Age</b>	<b>Number of Respondents</b>	<b>Percentage</b>
20-30 years	20	10%
30-40 years	10	5%
40-50 years	10	5%
50 above	10	5%

Source: Self-estimates based on Household Survey on 28th October 2017-07th November 2017, Teesta V Hydel Power Projects.

For the purpose of the study, a total number of 50 respondents were taken. Teesta V Hydel Power Projects is a sparsely populated village which fieldwork survey has been done from Dikchu Bazaar to Balutar, East Sikkim. All the respondents were mixed communities like Bhutia, Lepcha, Rai, Sharma, Chettri, Gurung etc included 5% respondents were officials and workers.

In a minority as in the whole state. The Lepcha community is often referred to as 'the rear tribe'. The Maharaja of Sikkim, through a proclamation in 1956

safeguards the rights of these traditional communities over their land in North Sikkim. Dzongu is an area within North Sikkim that is reserved only for the Lepcha community. Although, most of the area on which the project is located is inhabited by the Nepali community, some land from Dzongu has also been acquired. But, in the study of Teesta V Hydel Power Project where different mixed communities have been settled. So, the project has been constructed with less pressurized from the public interference. But, still, a displaced peoples have more hidden pain and sorrow where they are failed to raise and oppose the NHPC and State Government. They are socially and economically paralyzed by so-called major developmental projects in their areas.

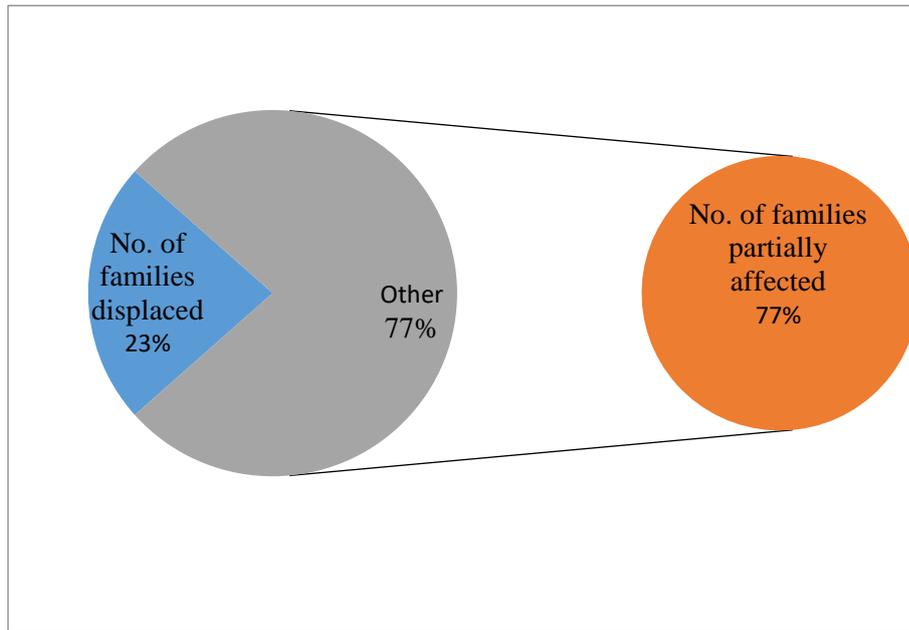
Table No 4.3 **Number of Displaced Families in Teesta V Hydel Power Projects.**

<b>Name of the project installed capacity (MW)</b>	<b>No. of families displaced</b>	<b>No. of families partially affected</b>	<b>Total number of affected families</b>
510	60	199	259

Source: <http://www.nhpcIndia.com>. Date: 13/06/2017.

The table indicates the numbers of affected families by the Teesta V Hydel Power Projects.

Figure No. 4.4 **Number of Affected Families.**



Source: Self-compiled.

The figure indicates the numbers of affected families by the Teesta V Hydel Power Projects

For the purpose of the study of Teesta V Hydel Power Project above mentioned in official data has shown that the number of families displaced and a number of families partially affected on their official record. But, in the field survey according to the respondents, they estimated that a total number of families were displaced 80 households.

#### **4.10 SOCIO-ECONOMIC IMPACTS BY THE TEESTA V HYDEL POWER PROJECTS**

Socioeconomic impacts which have more or less identified in the developmental projects where every project create socio-economic impacts in the country.

##### **4.10.1 Socio-Economic Impacts in Rehabilitation and Resettlement Colony**

The study identifies that the project brought along with a large number of migrations. There has been an irreversible impact on the Lepcha-Bhutia and Nepalese communities residing in the area (Teesta V Hydel Power Projects). The report raises

fears and panic among the societies as the direct impact of the loss of their lands and the influx of a large number of labourers affect the culture and way of living of the community; which causes a sense of deprivation and loss of ethnic identity. As a result of dilution of their social customs and practices. The presence of a large number of people in an area which was earlier sparsely populated resulted in health problems and outbreak of diseases.

After the installations of Teesta V Hydel Power which directly or indirectly paralyzed the social relation among the people. According to Respondents, in the post-period, the people were held together by the society with their culture and the sentiment of the welfare of society. As per the respondents in those days, they used to celebrate the cultural and religious ceremony. They all used to come together and enjoy the pleasure of festivals. The above statement mentions that the society was off mixed culture. Presently, the society was split, the people got migrated and there were lots of cases of inter and intra-state migration. Where the inter-state migrated people were given an unregistered area for their living. The area was provided by the authority of NHPC which was located at Lower Khamdong and was meant as Rehabilitation and Resettlement (R&R) Colony.

According to the survey and statement of NHPC authority, the R&R Colony were meant for 80 households. The Respondents than states that the people who had resettled where less in numbers as per the survey. The 18 households were constructed in a pattern in the colony. The 18 constructed houses were Kaccha house and more interestingly, it is learned as per the survey the 2 households among those 18 households were resettled.

Others houses were given for a rent to the people who have been migrated from the other state or other countries (Nepal, Causal Labourer). Later, the left few houses were vacant and the observed site was in pathetic condition. The questions were raised about the issue and situation of the colony. The Respondents statements elaborate the uneasy livelihood as there was scarcity of the necessity belongings. Those necessity belongings included the water facilities, transportation facilities, road condition, Health facilities and especially the issue of the registration of their land.

It stated that, the area located had to survive and depend upon the water facilities provided by the nearby village. The colony had to pay Rs. 200 as monthly charges for water supply. The colony and people were isolated from the national highway. The Respondents stated that the areas were aloof from the transport facilities. The people had to reach the connective point at the early hour for the vehicles and further, stated that it was really tough for them to get the vehicle during the daytime. The road connected with the highway was narrow and in a depraved condition. The road that entered the colony was stiff which the reason for the ill-transport facilities was also.

As per the interview, the statement provided by the NHPC authority (Assistant Engineer) stated that they provide health camp facilities with the reference of the reputed doctors for the R&R colony. As per their views, they organized a frequent health camp for the people living in the colony. The statement was at the controversy, as the respondents stated that the health camps were conducted at the initial point of the inauguration of the colony. Presently for two years, it has been observed that the health camps had not yet been conducted which such facilities. The reason behind such carelessness of the authority was the least number of households present in the R&R colony.

Among that statement, it was observed that the grievances of the colony were on the issue of registration of the land. It is said that the respondent had been living in the colony for more than ten years and yet the issue of registration of the lands was neglected by the authority. Further, for the justification and satisfaction of the colony people, they had argued about the issue of the registration of the land. It is known that there has been an influence of the State as well as the National Hydel Power Corporations (NHPC). Their ill-communication and a loophole among the State and NHPC authority was witnessed.

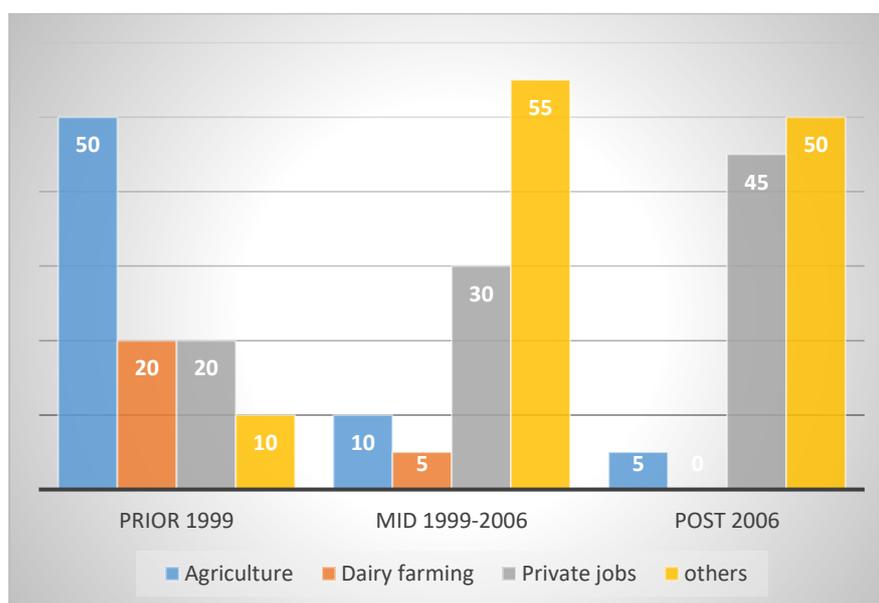
As per the respondents, it is stated that the issue of the registration of the land was placed before the NHPC authority which was forwarded to the State. As per the state argument upon the issue of registration of the land, the words of the resettled peoples of Teesta V Hydel Power Projects were kept in dilemma. As the state argued that the issue of registration of the land was not of the state but of the NHPC. For the satisfaction of the people living in the colony as well as those people who have been

victimizing forwarded the issue of registration of their land to the advocates. Where it has been observed that the issue of the registration of the land was a disappointment and the great failure. Till date, the people are in hope on the issue of the registration of the land in their names.

#### 4.10.1 Livelihood

Livelihood means of securing the necessities of life of the people. Food water, shelter, and clothing of the life. Livelihood is defined as a set of activities, involving securing water, food, fodder, medicine shelter, clothing and the capacity to acquire above necessities working either individually or as a group by using endowments for meeting the requirements of the self and his/her household on a sustainable basis with dignity.

Figure No: 4.5 **Comparative study of Livelihood of R&R Colony (prior 1999- Post-2006).**



Sources: Field Survey 28th October 2017-07th November 2017, R&R Colony, Lower Khamdong.

As stated Report, it is learned that the initiative of the construction of Teesta V Hydel Power projects started from 1999 and completed in 2006. The above figure mentions the sentiment of the respondents. It is discussed that prior to the construction of Teesta V Hydel Power Projects (Prior 1999), the above 2 resettled

household in the R&R Colony stated that their households were located in Balutar, East Sikkim near the river coast Teesta. They enjoy the livelihood depending on an agriculture, dairy farming, private jobs and others (business). As well as, they enjoyed their cultural festivals (Nepali Festivals) and their religious ceremony. The youths and children used to enjoy their schooling, festivals which signify the better living of the people. Singtam (Nagar Panchayat Area) was an epicentre for their living.

During the mid-1999- 2006, the lands of the respondents were allocated by the NHPC for the Teesta V Hydel Power Projects. That year signifies the turning point in their life. Their land was measured and was provided with compensation. Further, the authority stated to provide a regular job to one of the members of the family in the company (projects). Now, the people were in fear and were panic as they were homeless. Later, they were relocated to the present name R&R Colony, Lower Khamdong. It is noted from words from respondents, that the area of R&R Colony was a settled colony.

The few settled households were then shifted from the area. The NHPC border the area and was then, handed over to the displaced people. As per the respondents, the area provided by the NHPC was as less compared to their original land, which created dissatisfaction among the households. The family together cleared the land and constructed the Kaccha house on their own. It is said that the respondents had a lifestyle of farming and agriculture. So, respondents adopted the area and started cultivating and farming in the (less) given area in R&R Colony. They faced lots of problems as compared to the previously settled area. As in previously settled area, they used follow pastoralism which was not so possible in R& R Colony. In the present context, their life satisfaction is limited.

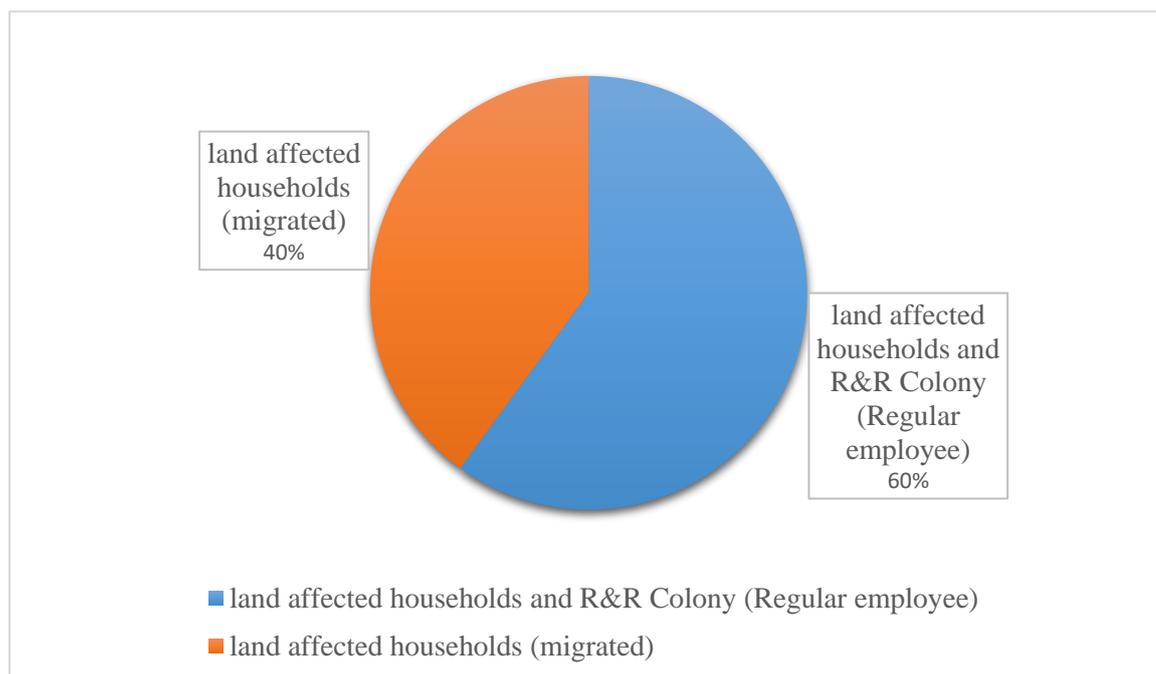
#### **4.10.2 Education and Unemployment in Rehabilitation and Resettlement Colony**

An education is a medium of communication, development of the skills and analyzing the ability of an individual. In the present scenario, an education has been a major issue for the betterment of the livelihood. During the survey, it has been observed that the youth present in the Rehabilitation and Resettlement Colony were less educated as compared to the present status of the education in the nation. The youths were educated till the primary education. They remained as an unemployed in

their home. As per the question raise on their interest for their future, they replied that they are not interested in working in and around their locality and in the state Sikkim. At last, they replied that they had no hope for their better future in the R&R Colony.

The employment rates provided to the fully affected households by Teesta V Hydrel Power Projects.

Figure No: 4.5 **The Prospective of Teesta V Hydrel Power Projects.**



Source: Field Survey on 28<sup>th</sup> October 2017-07<sup>th</sup> November 2017, Teesta V Hydrel Power Projects.

The above figure mentions about the employment and migrations activity of the land affected people by Teesta V Hydrel Power Projects. As per the statement of the NHPC authority, they said that the NHPC has provided better livelihood to the affected displaced peoples and created a better facility for the people living in and around areas. Referring the above statement, the status of employment tally with the statement of the respondents. According to the sources (NHPC), 60 households were displaced, 199 households were partially damaged and 259 households were fully affected by the Teesta V Hydrel Power Projects.

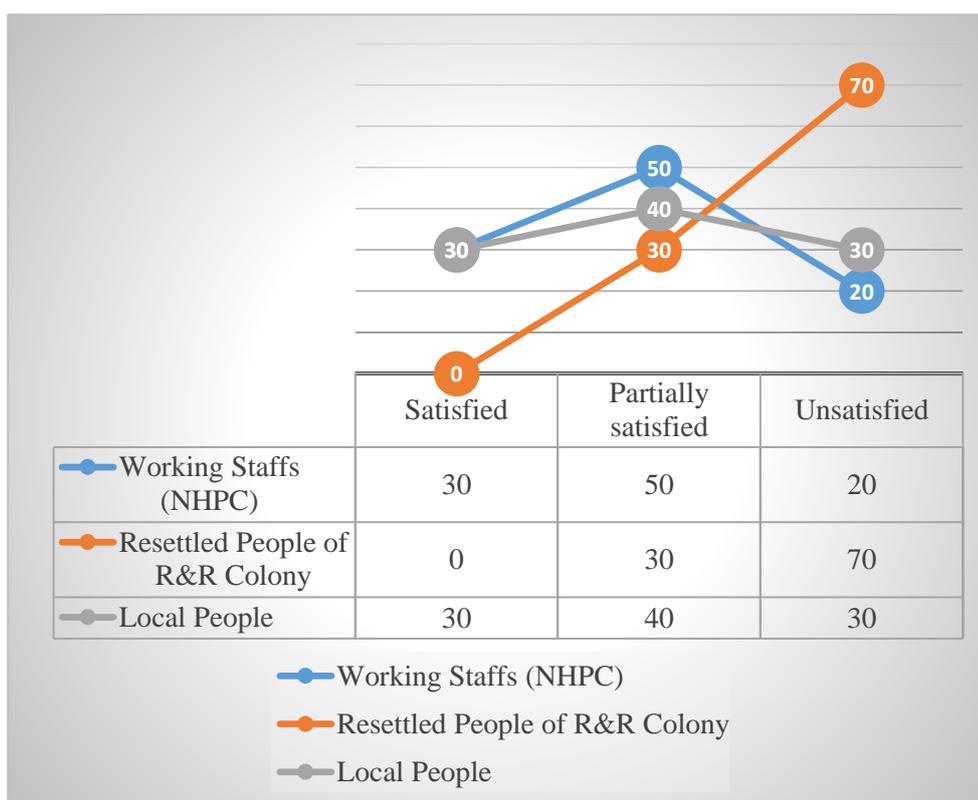
It is learned from the survey that the affected displaced peoples were 80 households, who were relocated to Rehabilitation and Resettlement Colony Lower Khamdong. Among those 80 households, the 2 households were permanently settled for more than 10 years in R&R Colony. According to those 2 households and the NHPC working staffs present in the located dam (Dikchu), they stated that the displaced and mostly land affected people were provided with the regular job with the tenure of 2004-2029. The partially affected and the local people located in and around Dikchu were engaged in a temporarily basis employment on the regular basis for the full land affected peoples and the resettled people in the R&R Colony were provided at a rate of 60 percent, where the remaining 40 percent are unknown as they have either inter migrated or intra migrated themselves from the area. On the temporary or ad-hoc basis, the percentage of the participants from partially land affected people were outnumbered.

#### **4.11 SENTIMENTS OF THE PEOPLE AFFECTED BY TEESTA V HYDEL POWER PROJECTS**

A parameter in statistics is an important component of any statistical analysis. In simple words, a parameter is any numerical quantity that characterizes a given population or some aspects of it. The means the parameter tells us something about the whole population.

A psychological parameter is a process of analyzing the sentiments of the people. The analytical study categorizes under (i) satisfied, (ii) partially satisfied and (iii) unsatisfied behavior of the people. The figure is shown Psychological Parameters of the affected people of Teesta V Power Projects.

Figure No. 4.6 **Psychological Parameter**



Sources: Field Survey 28th October 2017-07th November 2017, Teesta V Hydel Power Projects.

From the above figure, the analysis on Teesta V Hydel power projects reminds about the behavior of the affected people and people living in a locality. As per the interview conducted in NHPC office (which is located 300meters from the reservoirs), the statement given by the NHPC working staffs stated that they were appointed as a regular employee. As they were the affected landholders and a single representative of the land holder's family. They stated that they are satisfied with the NHPC authority, as they have fulfilled their words of employing a single member from the land affected households. Further, they elaborated the concept of an increase in an employment rate in and around the locality. Hence, the people are been dependent either fully or partially on NHPC projects. According to the NHPC Staffs, they agreed that NHPC Projects had created a better opportunity, health facilities for the people in and around the locality.

On the other hand, during the field survey hour, it is learned that perspectives of the Rehabilitation and Resettlement Colony are contradictory to the

words of NHPC staffs. As the respondents visited in Rehabilitation and Resettlement Colony stated that they are unsatisfied with the works of NHPC authority. As the respondents feel that there has been the drastic change in their socio-economic, and cultural pattern.

As per the focus group discussion (FDG) conducted in Dikchu, Lower Khamdong, Balutar (Singtam) and people living in northern part of Dikchu, it is observed that the people fulfil the categorization of the psychological parameter. People living nearby area of Teesta V Hydrel Power Projects are satisfied with the activities and the initiatives taken by the NHPC authority.

As employment opportunity were at the high rate as compared to prior 1990's. And people living in the northern part of Dikchu complies stating that the people should have preserved their cultural and religious deity. Further, the statement of the people residing in Balutar Singtam, Lower Khamdong, Lower Samdong, Sriwani and Adarsh Goan (Singtam) elaborates the unsatisfied sentiments, as the dam reservoirs (project) has created ecological imbalances and environmental destruction which directly or indirectly had caused socio-economic and cultural impacts. The people residing nearby the river coast had to relocate themselves from their ancestral property.

The chapter emphasizes the recent development policy taken by State Government and Central Government is known as Greenfield Airport Pakyong and Teesta V Hydrel Power Projects. The term development means a change in the structure of an area for the betterment of the resident people and the state as well as the nation.

The development causes lots of advantages and disadvantages on the basis of socio-economic aspects of the people. The chapter looks into the socio-economic aspect of the regions.

During the field survey on socio-economic impacts on Greenfield Airport Pakyong and Teesta V Hydrel Power Projects on the lives of resident people from both the areas, the respondents gave their opinion on the issue. The field survey was interesting in knowing the different views of the residents of the area. There has been

lots of confusion among the people regarding the Greenfield Airport Pakyong relating to the development of the state. Suggestions on the impacts of Greenfield Airport Pakyong on the lives of the resident of people were observed.

Some of the advantages of the Greenfield Airport as per the respondents are as summoned below: The introduction of Greenfield Airport has brought lots of changes in the lives of people. The changes could be traced out in socio-economic aspects.

Pakyong, in 2008 the Greenfield Airport policy was introduced; the construction started in 2009 and is still under the construction; there are lots of disadvantages caused by the ongoing construction. The various problems have been observed in socio-economic aspects. Like migration and marriage, health, education, rehabilitation, resettlement, route connectivity, road conditions, livelihood, production, water issues, drainage problems, etc.

The Greenfield Airport Construction gives rise to ecological imbalance, like deforestation, air pollution, water issue (shortage of fresh water in the local area), damaging of houses nearby construction areas affecting the public health. As per the criteria of Greenfield policy; the barren land is used for the construction of an airport. In case of Pakyong, the barren land located in Manay Dara Dikling has been used for the runway. Land above the Greenfield Airport runway was agriculture land; where the numbers of the household were less in number compared to land below the runway.

According to the figure provided by the government officer: around 800 households were under the Greenfield Airport Construction zone; among 800 households 250 were damaged households. The indirect impacts were observed in the other areas. People of the damaged areas were not so aware of the issues of compensation of Greenfield Airport. Most of them were unaware of the Land Acquisition Policy of the India. There was a fraction of the residence of 250 households. Some of them indicated themselves as residence above the Airport runway and residence below the Airport.

People below Airport runway were aware of the compensation and did approach to the office of Airport Authority of India without the notice of the people residing above the runway. Airport Authority of India with the consultation of Sikkim government distributed the compensation to the damaged households. The compensation patterns were distributed in different forms; in the first phase: 80% compensation was distributed to the above residence people and 20% compensation was distributed among the residence below the runway of Greenfield Airport. The process of compensation is still under process. People were in dilemma regarding compensation pattern, where they received a compensation for the damaged household but the compensation of land was kept (still) pending.

According to the sources (NHPC), 60 households were displaced 199 households were partially damaged and 259 households were fully affected by the Teesta V Hydel Power Projects. It is learned from the survey that the affected displaced peoples were 80 households, who were relocated to R&R Colony Lower Khamdong. Among those 80 households, the 2 households were permanently settled for more than 10 years in R&R Colony. According to those 2 households and the NHPC working staffs present in the located dam (Dikchu), they stated that the displaced and mostly land affected people were provided with the regular job with the tenure of 2004-2029.

The partially affected and the local people located in and around Dikchu were engaged in a temporary basis. Employment on the regular basis for the full land affected peoples and the resettled people in the R&R Colony were provided at a rate of 60 percent, where the remaining 40percent are unknown as they have either inter migrated or intra migrated themselves from the area. On the temporary or ad-hoc basis the percentage of the participants from partially land affected people were outnumbered.

## CHAPTER 5

### CONCLUSION

The Development projects have direct control by developers over land. Natural resources extraction, industrial parks, and infrastructure projects such as highways, airports, bridges, irrigation canals, and hydel power projects all require land, often in large quantity. This study shows that development itself reduced the quality of human life by violating the rights of an individual by the construction of mega developmental projects in the country. Micheal Cernea has identified eight interlinked potential risks intrinsic to displacement by the developmental projects as landlessness, joblessness, homelessness, marginalization, food security, increased morbidity and mortality, loss of access to a common property and social disintegration.

The first Prime Minister of India Pt. Jawaharlal Nehru given statement that development projects, ‘Temple of Modern India’. But, in the globalized era, infrastructural development became partially disfigured or partially beautiful sculptures. The face of modern India, thus, needs introspection inviting discussion, disputes and deliberations. Plentiful policies and laws guide the State’s development initiatives.

Development projects in the country call for systematic implementation, giving more importance to people as the center of development. The challenged to prefer in between national development priorities and great magnitude of displaced people from their land of origin. In the choice between human beings and development, the challenged to say ‘it is a human being first and then development'. It does not mean to stop development projects rather direct projects to aim at the sustainable development of all section of the society in the human world. The implementation of development projects made possible with peoples' participation informed consent not buy in by drafting a culturally fit design will eliminate lopsided development where the social scientists, social workers, and their professional bodies have a significant role to play to build the nation and thus becomes a Welfare State.

Nehru's vision that big dams and mega developmental projects are the modern temples of India. In the post-independence period, India has sought rapid economic growth through planned development. This has entailed large-scale investments in airports, dams, roads, mines, power plants, industrial estate, new cities and other projects involving land acquisition. Since independence land has been acquired from people particularly from farmers for the purpose of expanding towns/cities by converting agricultural land into non-agricultural land. The Land Acquisition Act, 1894 (amended 1984) is one of the draconian laws enacted by the British Colonial Government which is retained much in the same form by the Republic's Government.

Developmental projects which often subjugated the people's rights and liberty. In India, there is more than millions population were ousted from their homes and homelands. The law neither defines what constitutes 'public purpose' and what does not, nor mandates that the state provides information to the people about the projects which are supposed to serve a public purpose. It gives few and very nominal right to the citizens to challenge acquisition. (This nominal right too is now being taken away by the proposed 1998 Amendment Bill to the Act). The only right it gives the citizen is to get compensation in cash for the life-sustaining resources taken away from him/her.

After the Government of India has withdrawn land acquisition act 1894 and reframed the new policy on rehabilitation and resettlement in India. The new policy has given new packages for affected people in India. After the making of this policy people not so much of secure than the previous draconian law which framed by British Colonial India.

Not only national policies on rehabilitation and resettlement played a vital role to eradicate the problem of the impoverishment of displaced peoples but the international bank also played the crucial role minimized the problems from developmental projects in India.

This study emphasizes on the recent development policy taken by the state government and central government known as Greenfield Airport Pakyong and Teesta

V Hydel Power Projects. The term development means a change in the structure of an area for the betterment of the resident people and the state as well as the nation.

The development causes lots of advantages and disadvantages on the basis of socio-economic aspects of the people. This chapter looks into the socio-economic aspect of the regions.

## **GREENFIELD AIRPORT PAKYONG**

Greenfield Airport Pakyong is one of the first airports in the state. It has covered 400 ha (990arce) land for the purpose of communication among the state of India. Sikkim is situated in the international border with China and the purpose of construction of the airport is for the military (defense) as well as tourism.

During the field survey on socio-economic impacts on Greenfield Airport Pakyong on the lives of resident people from the areas, the respondents gave their opinion on the issue. The field survey was interesting in knowing the different views of the residents of the area. There has been lots of confusion among the people regarding the Greenfield Airport Pakyong relating to the development of the state. Suggestions on the impacts of Greenfield Airport Pakyong on the lives of the resident of people were perceived.

Some of the advantages of the Greenfield Airport as per the respondent are as summoned below: The introduction of Greenfield Airport brought lots of changes in the lives of people. The changes could be traced out in socio-economic aspects.

Pakyong, in 2008 the Greenfield Airport policy was introduced; the construction started in 2009 and is still under the construction; there are lots of disadvantages caused by the ongoing construction. Various problems have been observed on socio-economic aspects. Like migration and marriage, health, education, rehabilitation, resettlement, route connectivity, road conditions, livelihood, production, water issues, drainage problems, etc.

The Greenfield Airport Construction gives rise to ecological imbalance, like deforestation, air pollution, water issue (shortage of fresh water in the local area), damaging of houses nearby Construction areas effecting the public health. As per the

criteria of Greenfield policy; the barren land is used for the construction of an airport. In case of Pakyong, the barren land located in Manaydara Dikling has been used for the runway. Land above the Greenfield Airport runway was agriculture land; where the numbers of the household were less in number compared to land below the runway.

According to the figure provided by the government officer: around 800 households were under the Greenfield Airport Construction zone; among 800 households 250 were damaged households. The indirect impacts were observed in the other areas. People of the damaged areas were not so aware of the issues of compensation of Greenfield Airport. Most of them were unaware of the Land Acquisition Policy of India. There was a fraction of the residence of 250 households. Some of them indicated themselves as residence above the Airport runway and residence below the Airport.

People below Airport runway were aware of the compensation and did approach to the office of Airport Authority of India without the notice of the people residing above the run way. Airport Authority of India with the consultation of Sikkim government distributed the compensation to the damaged households. The compensation patterns were distributed in different forms; in the first phase: 80% compensation was distributed to the above residence people and 20% compensation was distributed among the residence below the runway of Greenfield Airport. The process of compensation is still under process. People were in dilemma regarding compensation pattern, where they received a compensation for the damaged household but the compensation of land was kept (still) pending. The present status of the airport is going to delaying, with unavoidable circumstances of the Airport Authority of India and the Local People. The last final inauguration date has been declared on 30 Nov 2017, but it was cancelled due to the incomplete works and the compensation issue. The displaced people from Pakyong airport were received only house damaged compensation and till date land compensation is pending.

## **TEESTA V HYDEL POWER PROJECTS**

Teesta V hydel power project is the first to be taken up in the six-stage cascade plan to harness 3635 MW of hydropower, all within 175 Km of the river

Teesta in Sikkim. It is a run of the river scheme, involving a concrete gravity dam 96.45 m high and 182.5 m long at Dikchu which raise the water level upstream before it is diverted through a 17.5 km long 'head race tunnel' (HRT) to the powerhouse at Balutar. The project was started in 1999 and is due to be completed by 2006. The project, being implemented by the National Hydroelectric Power Corporation (NHPC) is generated 510 MW.

According to the sources (NHPC), 60 households were displaced 199 households were partially damaged and 259 households were fully affected by the Teesta V Hydel Power Projects. It is learned from the survey that the affected displaced peoples were 80 households, who were relocated to R&R Colony Lower Khamdong. Among those 80 households, the 2 households were permanently settled for more than 10 years in R&R Colony. According to those 2 households and the NHPC working staffs present in the located dam (Dikchu), they stated that the displaced and mostly land affected people were provided with the regular job with the tenure of 2004-2029. The partially affected and the local people located in and around Dikchu were engaged on a temporary basis. Employment on the regular basis for the full land affected peoples and the resettled people in the R&R Colony were provided at the rate of 60 percent, where the remaining 40percent are unknown as they have either inter migrated or intra migrated themselves from the area. On the temporary or ad-hoc basis, the percentage of the participants from partially land affected people were outnumbered.

## **MAJOR FINDING OF THE STUDY**

The affected people from Greenfield Airport Pakyong and Teesta V Hydel Power Projects were unfamiliar with the policies of Resettlement and Rehabilitation of India.

The conflict between State Government and NHPC on the issue of land registration of the R&R Colony. The affected people of Greenfield Airport Pakyong displaced not a single times but they were displaced more than one time or it would be double displacement from the native place.

As per the NHPC reports, it has shown only 60 households were displaced. But, according to field survey, the respondents stated that a total number of affected people from Teesta V Hydel Power projects were 80 households.

Some youths of the affected families were not willing to do any kind of jobs after they were displaced. According to 2 households and the NHPC working staffs present in the located dam (Dikchu), they stated that the displaced and mostly land affected people were provided with the regular job with the tenure of 2004-2029.

The report raises fears and panic among the societies as the direct impact of the loss of their lands and the influx of a large number of labourers affect the culture and way of living of the community; which causes a sense of deprivation and loss of ethnic identity. As a result of dilution of their social customs and practices. The presence of a large number of people in an area which was earlier sparsely populated resulted in health problems and outbreak of diseases.

Some of the problems faced by the Greenfield Airport Pakyong are the less availability of fresh drinking water, the creation of dusty atmosphere, air pollution, noise pollution deforestation, etc which are directly or indirectly hampering the health of the people residing in Pakyong.

## **RECOMMENDATIONS AND SUGGESTIONS**

- Since the study has revealed that the development in this region is problematic and socio-economically sensitive, the government and developer should come up with an approach that is most attuned with the base realities of the affected people of Greenfield Airport Pakyong and Teesta V Hydel Power Projects.
- Both the area, small villages with less sparsely populated. As such, there are groups of people in this regions are dependent on the primary sector but since the projects begin the people are subjugated, the developmental projects should take into account the direct or indirect impacts on socio-economic aspects of the affected people.
- Most of the employees in the projects sites are from another part of the states and the local people are deprived to get a job because, they are

considered an unskilled, so the projects should train them and give more opportunity to the local people.

- The construction of the dam and the airport is often destructive to local-biodiversity and especially the agricultural farming. Hence, the Construction should be done in such a manner that, it should not harm the local sentiment of the people.

## BIBLIOGRAPHY

- Affected Citizens of Teesta (ACT). (2014). Deficiencies at Teesta Stage V. info@actsikkim.com. Retrieved from Date: 04/03/ 2017.
- Baboo, B. (2002). Dams, Displacement and Violation of Human Rights: Case of Hirakud Dam in Orrisa. In P.M, Katare and B.C, Barik (Eds), Development, Deprivation and Human Rights. Jaipur & New Delhi: Rawat Publication.
- Bhutia, Doma T. (Eds) (2012). 'Unheard Voices from the River Bank of Sikkim'', Independent People's Tribunal on Dams, Environment and Displacement, Human Rights Law Network, New Delhi.
- Cernea, M. (1995). Understanding and Preventing Impoverishment from Displacement: Reflections on the State of Knowledge. Washington, World Bank, Journal of Refugee Studies, Vol.8, No.3.
- Chakrabarti, Anjan and Dhar Anup. (2010). Dislocation and Resettlement in Development: From third world to the world of the world. London and New York: Routledge.
- Cernea, M. (1996). Development, Displacement and Rehabilitation: Special Issue. Economic and Political Weekly. Vol.31.
- Cernea, M. (1999). Why Economic is Essential to Resettlement: A Sociologists view.in Cernea Micheal ed. the Economic of Involuntary Resettlement: Questions and Challenges: Washington DC, Internal displacement monitoring centre.
- Cernea, M. (2000). Risks, Safeguard and Displacement and Resettlement. In M. Dowell, Experience of Refugees and Resettler. Washington DC: World Bank.
- Cernea, M. (Ed). (1999). The Economics of Involuntary Resettlement: Questions and Challenges. Washington. DC: World Bank.
- De Wet, C. (1993). Reconstructing resettlement: some research suggestions for developing and combining Scudder's and Cernea's approaches to resettlement. In C. McDowell and M. M. Cernea. (Eds.). Reconstructing Livelihoods: New Approaches to Resettlement. Oxford. Berghahn Publishers.

Dankalmair, and Bartolome. (1999). the experience with dams and resettlement in Argentina. Contributing Paper. Prepared for Thematic Review, Social Issue.1.3 Displacement, Resettlement, Rehabilitation, Reparation and Development, world commission on Dams.

Dhakal, Tara. (2016). Sikkim Teesta Hydro Project of NHPC: Carving path to disaster.

Durga. P. (2012). *Politics, Society and Development: insight from Sikkim*. New Delhi: Kalpaz Publication.

Fernandes, Walter et.al. (2006). Development induced displacement and deprivation in West Bengal: A Quantitative and Qualitative Database on its extent and impact. Guwahati: North Eastern Social Research Centre.

Fernandes and E.G Thukral. (Eds) (1989). Development Displacement and Rehabilitation. Indian Social Institute. New Delhi.

Fuggle, R and W.T, Smith. (Eds) (2000). The Three Georges Project on the Yangtze River in Large Dams and Energy Resource Development in the People's Republic of China. Hydrosuit inc. and Agrodev Canada.inc.

Garada, Rabindra. (2009).Development Induced Displacement Rehabilitation and Resettlement in the mining and industrial project of Orrisa. Unpublished Thesis, PhD, Utkal University. Vanivihar, Bhubaneswar. Government of India. (2007). National Rehabilitation and Resettlement Policy, 2007. Ministry of Land Resources, Gazette of India, Extraordinary, Part 1, Section I.

Government of India. (2004). National Policy on Resettlement and Rehabilitation for project affected families-2003. Gazette of India, Extraordinary Part I, Section I, No 46.

Government of India. (2013). The Right to fair compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013, An Overview. Ministry of Rural Development Government of India.

Gazette of Sikkim. (2014). Sikkim Land Act. Extraordinary. Gangtok. Sikkim

Goyal, Sangeeta. (1996). Economic perspectives on Resettlement and Rehabilitation. Economic and political weekly

- Ganguly, N. S. (2011). Development Projects Vs Internally Displaced Population in India: Appraisal. University of Bielefeld: working paper- center Migration, citizenship and development.
- Government of India. (2004). Rehabilitation and Resettlement Policy, 2007. New Delhi: Ministry of Rural Development.
- Government of India. (2004). National Policy on Resettlement and Rehabilitation for Project Affected Families, Gazette of India. Extraordinary Part I, Section I. No. 46
- Hemadri, Ravi. (1999). Dam, Displacement, Policy and Law in India, Contributing paper, prepared for thematic Review, Social Issue, 1.3, Displacement, Resettlement, Rehabilitation, Reparation and Development. World Commission on Dams (WCD).
- Himalayan Mirror. (2016). Airport Project Affected Locals, Demands Compensation as Per Land Acquisition Act 2014. Gangtok, Sikkim, Vol.10, No. 523.
- Iyer, R. R. (2007). Towards a Just Displacement & Rehabilitation Policy. EPW, 3103.
- Kumar, Sudesh. (2013). Developmental Projects and Displacement: A Case Study of Developing India from an Indigenous Perspective. Amritsar India: Research Expo-International Multidisciplinary Research Journal.
- Khagram, Sanjeev. (2004). *Dams and Development: Transnational Struggles for Water and Power*. New York: Oxford University Press.
- Kothari, Smitu (1996). Whose nation? The displaced as victims of development. Economic and Political Weekly, 31(24). Bombay.
- Lepcha, Reshma. (2014). Dams and Development Conflict: A Case of Dzongu Reserve in Sikkim. Unpublished Thesis. M.Phil. Sikkim University, Gangtok. Sikkim.
- McDowell. (2000). Risks and Reconstruction: Experience of Resettlers and Refugees: Washington DC, World Bank.
- Mahapatra, L.K. (1999). Resettlement Impoverishment and Reconstruction in India: Development for the Deprived. New Delhi: Vikas Publishing House.
- McDowell. (1996). Understanding the Consequence of Development Induced Displacement. Refugee and Forced Migration Studies, Vol. 2.

Mankodi, Kashyap. (1989). Displacement and Relocation; Problems and Prospects: In Walter Fernandes and Enakshi Ganguly Thukral Eds Development, Displacement and Rehabilitation in India: Issues for a National Debate. New Delhi: Social Institute. pp 135-63.

Mathur H.M. (1999). The Impoverishment Potential of Development Projects: Resettlement Required Risk Analysis.

Nayak, Arun Kumar. (2008). Development Induced Displacement and Rehabilitation India and Bangladesh: A Comparative Study of Hirakud and Koptai Dams. Thesis PhD. JNU. New Delhi.

Nepal, Padam. (2012). *Religio- Cultural Space, Development and the Politics of Ecology: Evaluating the movement of the Lepchas against the hydro project in Dzongu, Sikkim*. Yasin, Mohammed and Chhetri.

Nayak, Kumar Arun. (2008). Development, Displacement and Justice in India. Study of Hirakud Dam. Los Angeles, London, New Delhi, Singapore Washington DC.

Mathur and D. Marsden, (ed). (1998). Development Projects and Impoverishment Risks: Resettling Project-Affected People in India, Delhi: Oxford U.P.

Nehru, Jawaharlal. (1989). "Modern Temples of India- Selected speeches", Central Board of Irrigation and Power, New Delhi, 1989.

Pearce, David W. (1999). Methodological Issues in the Economic Analysis for Involuntary Resettlement Operations' in Michael M. Cernea (ed.).

Pokharel, Jagdish. (1995). "Population Displacement and Compensation Planning in Kulekhani Hydro-electric Project, Nepal," In H. M. Mathur (ed), Development, Displacement and Resettlement. Focus on Asian Experiences, Delhi: Vikas Publishing House.

Penz.et.al. (2011). Displacement by Development: Ethics, Rights and Responsibilities. London: Cambridge University Press.

Pandey, B. (2000). Displacement: A Case Study from Orissa, Organising Strategies, Friedrich Ebert Stiftung, New Delhi

Paul, U.N. (2011). Development Induced Displacement and Rehabilitation and Social Disarticulation of the Displaced People of Kerala: With Special Reference to Kochi International Airport; Unpublished Thesis; PhD. Rajagiri College of Social Sciences. Kalamassery.

Robinson, W. Courtland. (2003). Risks and Rights: the Causes, Consequences and Challenges of Development Induced Displacement. Washington DC: The Brooking Institute, SAIS Project on Internal Displacement.

Ramanathan, Usha. (2008). The Land Acquisition Act 1894 Displacement and State Power. India Social Development Report Development. Oxford University Press. New Delhi. Council for Social Development. Rawls, J. (1971). A Theory of Justice. Cambridge, USA: Harvard University Press.

Robinson, W. (2003). Risks and Rights: The Cause, Consequences and Challenge. Project of Internal Displacement.

Rhodri, C Williams. (2008). Protecting Internally Displaced Persons. A Manual for Law and Policymaker. Brooking Institution: University of Bern. Project on Internal Displacement

Reddy, I.U.B. (1993). Displacement and Rehabilitation, Mittal Publication, New Delhi

Sharma, Radhika (2016). Development Induced Displacement: A Study of Population Affected by Jaipur Metro Project. Thesis, PhD. the IIS University, Jaipur India.

Smith, A. O. (2001). Displacement, Resistance and the Critique of Development: From the Grassroots to the Global. Gainesville, Florida. Refugee Studies Centre.

Sikkim Now. (2014). DC East Reassures Pakyong Airport Affected. [Http// Sikkim Now. Blogspot.in/2014](http://SikkimNow.blogspot.in/2014). Date: 05/ 03/ 2017.

Subrata, Purkayastha. (2013). Hydro Power Development and the Lepchas: A Case Study of the Dzongu in Sikkim, India. International Research Journal of Social Science. Vol. 2 (8).pp 19-24. Meghalaya, India.

Sharma, Subash. (2014). Development for whom and at whose cost: Displacement due to dams in India. Indian Journal of Public Administration, Vol. IX, No.1.

- Thomas, C.J. (2002). *Dimensions of Displaced People in North East India*. New Delhi; Regency Publication.
- Thakkar, Himanshu. (2000). Large dams projects and displacement in India. In his presentation to the world commission on dams.
- Sinha, B.K. (1996). 'Draft National Policy for Rehabilitation: Objectives and Principles'. *Economic and Political Weekly*, June.
- Scudder, T. (1991). A sociological framework for the analysis of new land settlements. In M. M. Cernea (Ed.). *Putting People First: Sociological Variables in Rural Development*. New York. Oxford University Press. pp. 148-187.
- Thangaraj, S. (1996). Impoverishment Risks analysis: A Methodological Tool for Participatory Resettlement Planning. In C. McDowell (Ed.). *Understanding Impoverishment: The Consequences of Development-Induced Displacement*. Oxford: Berghahn Books. pp. 223-32.
- Thukral, E. G. (1992). *Big Dams, Displaced People: Rivers of Sorrow, Rivers of Change*. New Delhi: Sage Publications.
- Terminski, Bogumil. (2012). *Development Induced Displacement and Resettlement Framework and Current Challenges*.
- Taneja, Bansuri and Thakkar, Himanshu, (2000). *Large Dams and Displacement in India*. Cape Town, South Africa.
- World commission on Dams (2000). *World commission on dams Report*. Retrieved from: [https://energypedia.info/wiki/World Commission on Dams \(WCD\) Report](https://energypedia.info/wiki/World_Commission_on_Dams_(WCD)_Report).
- World Bank. (2004). *Involuntary Resettlement Sourcebook – Planning and Implementation in Development Projects*. Washington. Printed by the World Bank.
- World Bank. (1996). *Resettlement and Development: The Bank-wide Review of Projects Involving Involuntary Resettlement*. Environment Department Paper No. 032. World Bank, Washington D.C.
- World Bank. (1998). *Involuntary Resettlement: Comparison of OP 4.12 and Revised OP 4.12'*. World Bank, Washington, D.C.

World Bank Environment Department (WBED). (1996). Resettlement and Development; the bank wide review of projects involving involuntary resettlement. Environment Department. Washington DC, World Bank. Available at <http://WWW.WDS.W.B.org>.

World Commission on Dams. (2000). Dams and Development: A new framework for decision-making. London: Earthscan. [http:// WWW. dams.org/report/contents.htm](http://WWW.dams.org/report/contents.htm).

World Commission on Dams. (2000). Dams and Displacement: A New Framework for Decision-Making. London and Sterling, Virginia: Earthscan Publications Ltd.

QUESTIONNAIRES

1) We have observed the construction of Greenfield Airport is going on in Pakyong, do you think or feel the ongoing constructions is a part of development?  
Yes ( ) No ( )

2) On what basis you would like to frame the term development on issue regarded to the Greenfield Airport construction has displaced the life and livelihood of the people?  
.....  
.....  
.....  
.....  
.....

3) Do you feel that the ongoing construction of Greenfield Airport in Pakyong has brought development in and around your society?  
Yes ( ) No ( )

4) Did the construction of Greenfield Airport damage your Land?  
Yes ( ) No ( )

5) Did the construction of Greenfield Airport damage your area?  
Yes ( ) No ( )

6) Did you get compensation for your area?  
Yes ( ) No ( )

7) On what basis/ Pattern compensation of your area Land was distributed?  
.....  
.....  
.....

8) Did you feel satisfied with the pattern of the distribution of cash compensation?  
.....  
.....  
.....  
.....

9) Apart from compensation, did the Airport Authority of India AAI provided any other facilities to the people affected by the Greenfield Airport?

.....  
.....  
.....  
.....

10) The rumour was spread on the issue of the compensation, saying that compensation was given to the household, not of the Land, Is the above statement true or false?

.....  
.....  
.....  
.....  
.....

11) Did the Airport Authority of India (AAI) provide the facilities of resettlement and rehabilitation to the affected people of the Greenfield Airport of Pakyong?

.....  
.....  
.....

12) How many people were affected by the airport projects?  
Yes ( ) No ( )

13) Is the Greenfield Airport going on according to Land Acquisition Act and policy? What is your opinion on this issue?

.....  
.....  
.....  
.....

14) Greenfield Airport Pakyong is the example of the ongoing initiatives taken by the Sikkim State Government for the development of the state/ what is your opinion about such initiatives of the State Government?

.....  
.....  
.....  
.....  
.....  
.....

15) Do you feel or think such kind of initiatives should be taken by the state government in coming days for the further development of the state?

.....  
.....  
.....  
.....  
.....

16) Do you feel that coming from the developmental project in your area? Does Greenfield airport cause the social relation in the particular area?

.....  
.....  
.....  
.....

17) Did you get compensation for your agricultural crops?

Yes ( ) No ( )

18) Greenfield Airport Pakyong provides any job in your family?

Yes ( ) No ( )

19) Is there any water scarcity in your area after the construction of Greenfield airport?

Yes ( ) No ( )

20) Is there any health issue related to the construction of Airport?

Yes ( ) No ( )

21) Did you get any compensation, rehabilitation, and resettlement from State Government?

Yes ( ) No ( )

## TEESTA V HYDEL POWER PROJECT

### Questionnaires

1. Do you get cash compensation on your Land?  
Yes ( ) No ( )
  
2. The acquisition of land in your area that project developers give full compensation?  
.....  
.....  
.....  
.....  
.....
3. Did the developers of the project give job in the project site in your locality? On which basis has the projects development given a job on the regular basis or temporary basis?  
.....  
.....  
.....
4. Is there any policies and programmes on resettlement and rehabilitation has promoted by the State Government on your locality? If so, illustrate your statement.  
.....  
.....  
.....
5. Did the Teesta V hydel power projects had to damage your Land? if yes, give a statement  
.....  
.....  
.....  
.....
6. Did you feel satisfied with the pattern of distribution of compensation?  
Yes ( ) No ( )
  
7. Teesta V Hydel Power Projects is the example of the ongoing initiatives taken by the Sikkim State Government for the development of the state/ What is your opinion about initiatives if the State Government?  
.....  
.....  
.....  
.....

8. Is the Teesta V Hydel Power Project going on according to Land Acquisition Act and policy? What is your opinion on this issue?

.....  
.....  
.....  
.....  
.....

9. Does projects developer and State Government provide any relocation to affected peoples of your area?

Yes ( ) No ( )

10. Will the Affected Citizens of Teesta (ACT) act according to the people's will? If yes, drop the comment.

.....  
.....  
.....

11 After the coming of the hydel power project in your area, do any severe health issue spread? If yes, give a comment.

.....  
.....  
.....  
.....

12 What is a role played by the State Government in the Teesta V Hydel Power Projects for the welfare of the displaced peoples?

.....  
.....  
.....  
.....  
.....

13 Does any negative impact on your socio-cultural ethos by the construction of projects on your locality?

Yes ( ) No ( )

14 How many peoples had been affected by the hydel projects in your area?

.....  
.....  
.....  
.....

15 Did you face water scarcity in your area after the setup of Teesta V hydel power projects?

.....  
.....  
.....

16 How many locals affected peoples got jobs by the Teesta projects?

.....  
.....  
.....

17 If, Yes then on what basis the project developers give them jobs? The temporary basis or Permanent?

.....  
.....  
.....

18 Did you get compensation for your agricultural crops?

Yes ( ) No ( )

19 How many members are there in your family?

Yes ( ) No ( )

20 Teesta V hydel power projects are provided any job in your family?

Yes ( ) No ( )

21 Is there any water scarcity in your area after the construction of Teesta hydel power projects?

Yes ( ) No ( )

22 Is there any health issue related to the construction of Teesta projects?

Yes ( ) No ( )

23 Did you get compensation, rehabilitation, and resettlement from State Government?

Yes ( ) No ( )