

A Study on Environmental Management in and around the Bhutanese Refugee Camps

**A Dissertation in partial fulfilment of the requirements
for the Bachelor degree in Environmental Sciences under
Kathmandu University**



Submitted by

Bidur Dahal

DEPARTMENT OF ENVIRONMENTAL SCIENCES

ST. XAVIER'S COLLEGE

Kathmandu, Nepal

(Affiliated To Kathmandu University)

JUNE 2001

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DECLARATION

I hereby declare that the dissertation entitled “**A Study on Environmental Management in and around the Bhutanese Refugee Camps**” submitted for the partial fulfilment of Bachelors Degree in Environmental Sciences under Kathmandu University, is based on the investigations carried out under the able guidance of Miss Soni Mulmi. The dissertation/ part thereof has not been submitted for the award of any degree/diploma under any University or Institution.

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CERTIFICATE

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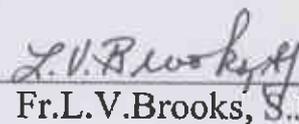
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LISTS OF ACRONYMS

BCDC: Bhutanese Community Development Centre.

BHU: Basic Health Unit.

BR(s): Bhutanese Refugee(s).

BRAVVE: Bhutanese Refugees Aiding the Victims of Violence.

BRC(s): Bhutanese Refugee Camp(s).

BRECC: Bhutanese Refugee Education Co-ordination Committee.

CBS: Central Bureau of Statistics.

CHV(s): Community Health Volunteer(s).

CHW(s): Community Health Worker(s).

CMC: Camp Management Committee.

DDC: District Development Committee.

ENPHO: Environment and Public Health Organization.

HC: Health Centre.

HMG: His Majesty Government.

HUROB: Human Rights Organization of Bhutan.

HH(s): House Holds.

ICIMOD: International Centre for Integrated Mountain Development.

IFRC: International Federation of Red Cross.

INGO(s): International Non-Governmental Organization.

INHURED: International Institute for Human Rights, Environment, and
Development

IUCN: International Union for Conservation of Nature.

JVT: Joint Verification Team.

LWF: Lutheran World Federation.

NGO: Non-Governmental Organization.

NRCS: Nepal Red Cross Society.

RARP: Refugee-affected Areas Rehabilitation Project.

RCU: Refugee Co-ordination Unit.

RAA: Refugee Affected Area.

RGOB: Royal Government of Bhutan.

SUB: Student Union of Bhutan.

SPB: Statistical Pocket Book.

UNHCR: United Nations High Commissioner for Refugees.

VDC: Village Development Committee.

EXECUTIVE SUMMARY

Refugee operations are often typified by the need to make quick decisions which if not based on the best available information, may risk jeopardising the lives and welfare of large numbers of people, both now and in the future.

Camp sites must be found; shelters must be constructed; access routes may need to be built to enable delivery of food supplies and the medication; people must be fed and provided with the basic needs for survival. Many, but by no means all, such decisions are in some way linked with the environment, either directly or indirectly.

One of the most serious implications of environmental degradation for relief and humanitarian organisations is the fact that this might influence the decision of a given country to grant asylum to refugees. Another is that environmental degradation may jeopardise refugee's livelihoods. It is therefore essential that appropriate actions be taken to prevent such a situation from arising.

The framework for the analysis of "A Study Environmental Management in and around the Bhutanese Refugee Camps" in South East Nepal is based on interdependent environmental factors like forest depletion, water resource pollution, and depletion, impacts on health and sanitation, economic impacts, population rise and social problems etc. In addition, the mitigative measures as well as preventive are mentioned as far as possible. The study is divided into following parts; the brief description of each is described along with.

Chapter I: Introduction and the brief description of the study area.

Chapter II: Review of literature.

Chapter III: Research Methodology used in this study.

Chapter IV: Results and Discussion:

- a. Prolonged consequences: This topic deals with the possible outcome of the adverse environmental impacts due to prolonged residency of the Bhutanese Refugees in East Nepal. Impacts on natural resources, health, social conditions, economic and on local population is explained.
- b. NGOs and INGOs: Many NGOs and INGOs are involved in Bhutanese refugee assistance programs; brief summary of which with their activity is given.
- c. Camp Structure: Structure of the BRC is given in this topic.
- d. Site selection: Sites of BRCs with the corresponding impacts of the selection and points to be pondered during site selections are given in this topic.
- e. Forest Resources: Forest of Jhapa, area occupied by the forest in Jhapa, area occupied by BRCs, negative impacts on forest, and thorough discussions on various possible impacts due to refugee settlement is given in this chapter.
- f. Water Resources: This part of the study outlines the water resources of Jhapa District, different wetlands of Jhapa, water usage at BRC, the pollution impacts on health and agriculture.
- g. Impacts on Health and Sanitation: Impacts on health and sanitation due to Bhutanese Refugees in the camp and the peripheral areas are given in this chapter.

- h. Economic Impacts: Economic impacts, both positive and negative, to the local areas is described here.
- i. Environmental Education (EE): Environmental Education, its importance, and EE in BRCs are outlined in this topic.
- j. Roles adopted by relief agencies to address environmental conflicts are mentioned here.

Chapter V: Conclusion and Recommendations: Finally, conclusion and recommendations are outlined mentioning the principal issues related to environmental problems.

Decision-makers must have access to the best available information in order to formulate judgements and evaluate the impact of actions to be taken. In humanitarian relief operations, this is especially important given that the majority of managers dealing with refugee situations are generalists who cannot presume to have in-depth knowledge on specialised subject area such as the environment.

This study will help decision-makers by:

- Drawing attention to the links between refugees and environment; and
- Highlighting key issues to enable decision-makers reach conclusion and take appropriate actions on issues connected to environmental management during refugee operations.

If decision-makers remain unaware of the links between the environment and human well being, the environment may be marginalized by inappropriate decisions. Unwitting placement of a camp close to a protected area or other area of ecological importance can threaten wildlife resources and destroy a country's natural heritage; careless construction of roads can lead to erosion problems-even human deaths; uncontrolled cutting of trees can result in soil erosion; while increased pressure on local natural resources can easily result in conflicts with local communities. All of these actions have a cost: economic, social, and /or environmental.

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CHAPTER 1

INTRODUCTION

General Background

Nepal is situated between China (Tibet) in the north and India in the south, east, and west. It has an area of 1,47,181 sq km. The country lies at 26° 22'N to 30° 27'N latitude and 80° 4'E to 88° 12'E longitude. Nepal is land locked country with its east-west length 883 km and north-south width of 193 km in an average (CBS, SPB-2000). The Mechi and Mahakali rivers mark the eastern and western political boundary respectively with India. The country is usually described in terms of five physiographic regions: High Himal (23%), High Mountain (20%), Mid- Mountain (30%), Siwalik (13%) and Terai (14%). For the administrative purpose, the country is divided into 75 districts, 3,913 village development committees, and 58 municipalities, one metropolis and three sub-metropolitan areas (Nepal Country Report on Biological Diversity, IUCN Nepal).

According to the census of 1991, the total population of Nepal was 18,491,097. The population was increasing at an annual rate of 2.08% in 1991. The estimated population for the year 2000 was 22.9 million; the annual growth rate being 2.34%(CBS: SPB-2000). The literacy rate (for the year 1998/99) was 45% (population aged 15 years & over).

General description of the study area

(i) **Location:** Jhapa district lies in the eastern most part of the Terai plains of the development region of the kingdom of Nepal. It is located between 26°21' N to 26°50' E longitudes. The elevation of the terrain ranges from 125m to 38m. It is surrounded by Ilam district in the north, river Mechi & Darjeeling district (India) in the east, Purnea district (India) in the south and Ratuwa River and the

Morang district in the west. The district headquarter is Chandragadhi. Jhapa is connected by air route as well to Kathmandu via Chandragadhi airport (Basnyet et.al).

(ii) **Land use:** The total area of Jhapa district as calculated by digitising is 1,55,667 ha (based on the 1989 Topographical map of the district) out of which nearly 80% is covered by agricultural land, urban roads (as shown in the table below). Similarly, the second biggest land use comes under 'forest', which covers slightly more than 20% of the area. Nearly 8% of the area is occupied by 'water body' i.e. rivers (Forest Research and Survey Centre, Kathmandu).

S. No.	Land use	Area (Hectare)	Area(%)
1	Agriculture, Urban & Road	123,961	79.6
2	Forest	19,557	12.6
3	Water body	12,149	7.8
	Total	155,667	100.0

Table No. 1: Land use pattern of the district.

Of the 19,577 Hectare of forestland, 207.10 Ha of land (1.058%) is occupied by Bhutanese Refugee camp excluding Sanischarey camp of Morang districts that occupies an area of 40 ha. The table below shows the area occupied by each camp of Jhapa district.

S.n	Camp	Area (hectare)	(%)
1.	Timai	14.50	0.074
2.	Goldhap	16.00	0.082
3.	Beldangi II extension	34.00	0.174
4.	Beldangi I	35.660	0.182
5.	Beldangi II	47.00	0.240
6.	Khudunabari	60.00	0.306
7.	Total	207.10	1.058

Table No.2: Area occupied by each BRC (excluding s/rey camp, 40 ha)

(iii) **Topography:** The topography of the area is rolling flat in the north to flat plains towards the south. The average elevation above mean sea level gradually rises from about 60m near the Indian border to about 152m-213m in the north merging with 'Churia ranges' and 'Bhawar'.

(iv) **Geology:** The geological formation of this district is tertiary Siwaliks in the north and alluvial plains in the south. The Siwalik is composed of tertiary sandstone, siltstone, shale, and conglomerates. The structure of the Siwaliks is fragile, and so their origin is thought to be quite young.

(v) **Soil:** The soil of the district varies from loamy sand to silt-clay loamy and sandy-clay loamy in the Siwaliks while it is more over alluvial in the terai (K.C.H.S 1989). The alluvial in the north terai is coarser than that in the south resulting in deeper water tables in the northern terai.

(vi) **Drainage:** Numerous rivers and streams flowing from north to south drain the plains of the terai. Mechi, Kankai, Ratuwa, Kabal, Biring, Kisti are some of the perennial rivers. The tributaries and streams like Ninda, Tangting, Nete, Deoniya, Surunga, Baluwa, Baniyani, Kawal, Kishni, Gauriya, and others pour into rivers- Mechi, Beering, and Kankai Mai. These rivers flow further southwards and ultimately mix with the river Ganges in India. These rivers and streams originate from the internal hilly region of Mahabharat and Churia hills. They usually swell during rainy seasons due to heavy downpours in the hill causing often flooding and erosion of the adjoining areas and remain dry or harmless during dry months.

(vii) **Climate:** The district experiences sub-tropical type of climate. The period from Falgun (Feb/Mar) through Ashwin (Sept/Oct) is generally hot and the rest of the year is moderately cold. Although monsoon starts here a little bit

earlier compared to other districts, the rainy season starts at the end of June and lasts till the beginning of October. The annual average maximum temperature is around 104⁰F while the minimum is 44⁰F. The annual precipitation is about 1800mm.

(viii) **Vegetation:** The zone of tropical moist deciduous vegetation occurs in the Terai and the Churia hills. In the deciduous forest of the lowland terai, riverine species are found abundantly. The forest consists mainly of Khair (*Acacia catechu*) and Sisoo (*Dalbergia sisoo*). Sisoo is a valuable tree for furniture making. Other species include Semal, Siris, Kadam, Tamarind, Bamboo, Sal, Oak, Banyan, Peepal, Jackfruit, banana, guava, pineapple, other fruit trees, and medicinal herbs. In addition, there are other plantations in many places of Jhapa. The common weeds found are Dubo, prickly peppy, guma, bethu etc.

(ix) **Population:** According to the census of 1991, the total population of Jhapa was 5,93,373 with 1,10,894 households, the population density being 365.7 per sq.km. The projected population for the year 2001 is 752,865 (SPB-2000). The Brahmins, Chhetris, Rai, Limbos, Dashi, Sumar, Sarki, Bhote, Rajbanshi, Meche, Dhimal, Dangi, Tharu, Satar, Muslims, Marwaries, Newars etc constitute the entire population of the district. Besides, minority groups like Barhi, Surhi, Teli (shah), Kyastha, Hazam, Musar, Halwai, Kobat, Gwale, Giri, and Numa reside in Jhapa. They all have their dialects and languages but Nepali is the medium of expression of all the people.

About 90 percent of the population of the district is directly dependent upon agriculture. They till the land, raise cattle, sheep, goats, swine and poultry, the rest of the population is engaged in government service, trade, commerce etc.

(x) **Literacy:** the literacy rate of Jhapa is 57.3%. There are many colleges and plus two colleges, secondary and primary schools. There are 392 schools and the numbers of students enrolled were 131963 out of which 65517 were girls in the year 1998 (SPB. 2000).

(xi) **Economic situation:** The economy of the people in the study area is mainly based on agriculture; a large part of income is earned from agriculture. Occupation like crop forming, vegetable production, animal husbandry, bee keeping, and wage labour. Only small portions of the population are employed in various government agencies, private enterprises and small-scale business. The percentage of poor population exceeds the percentage of rich population. Most of the people of Jhapa still live in a hand to mouth condition.

(xii) **Wildlife situation:** The habitat area of the wild-life has been drastically decreased due to the depletion and deterioration of the forests, thus decreasing a number of wild animals as well as wild life species year by year in this district. Poaching is another big reason for the same. Forest fires, both natural and man-made also kill many wild animals and birds in the district. Tiger, bear, spotted deer, wild boar, fox, porcupine, rabbit, wildcat, peacock, pheasant, jungle fowl, owl, dove, parrot are some of the principal wildlife found in the forest of the district.

Statement of the Problem

Refugee influx:

The movement for the establishment of democracy, spread out in most of the countries of the world since the early 1990's. The movement also affected the country of south-Asia. As a result, multiparty democracy restored in Nepal in 1990. A year old democratic Nepal had to bear the burden of Bhutanese refugee in 1991, influx peak during mid 1992. These refugees were initially housed in harsh, overcrowded camps. Subsequently, the government of Nepal provided the additional land for new camps and with the assistance of UNHCR and other NGOs and INGOs. The living condition of the refugee improved drastically. At present, there are seven-refugee camps out of which six are in Jhapa district and other is in Morang district of Eastern Nepal. About 1,00,000 Bhutanese Refugees are taking shelter in these refugee camps, a population growth at a rate of 2% per year and 53% of the camp population are children of 18 year or less. (Briefing paper, BRP, Jhapa and Morang District, Role of LWF Nepal, 1998)

Environmental conflicts:

Environmental conflict can arise in a refugee hosting area between refugee, local people, and the host government and relief agencies. There may be competition of firewood or building material, for example, and local forest may come under threat. Yet the cause of these conflicts can be more complex than it may first appear. While environmental issue may be the most obvious and easily defined problem an effective response need not necessarily be directly environmental. Local people and the host government may have other development priorities that could be addressed, easing the contradiction that

exists in a more constructive and targeted way. Although, environmental concern have taken a back seat of humanitarian need at the time of crises, the close links between the well being of human populations and the healthy environment are being increasingly recognized.

Refugee and the environment:

General Overview:

The environment: A working definition:

In a refugee context, the environment is best viewed in terms of following,

- Plant, animal and other natural resources that may be affected by the presence of refugee (refugee as well as host communities may derive part of their livelihood from these natural resources);
- Habitats which impact on the well being of refugees and host communities, example due to previous pollution (soil and water) or due to endemic vector diseases.

Consideration also need to be given to the fact that an impact on one part of the environment, e.g. deforestation may have significant effects on others through soil erosion, siltation of water ways or similar, and on the well being of both refugees and host communities.

The spontaneous movement and displacement of people may have significant impacts on the environment. Arriving in an alien situation, refugee face hunger, fatigue, humiliation, and grief. Their first concern is to look after themselves, most often to find food and shelter. Trees are felled to provide support for

rudimentary shelter. Dead wood is collected to build the fire for warmth and as fuel for cooking. With thousands of desperate people, however, the results can be disastrous for the environment. What is bad for the environment is ultimately bad for human welfare.

Among the most significant problems associated with refugee affected area are deforestation, soil erosion, depletion and pollution of water resources etc. and other considerations which must be taken into account include changes in social and economic welfare of local communities following the arrival or during prolonged residency of refugee. These too may impact the environmental, altering the rate and extent of local service available to people today and in the future.

Environmental degradation is a worldwide phenomenon virtually every nation on earth is experiencing some form of habitat destruction or degradation. For most countries, the loss of any forest cover may be a major issue because of habitat degradation, the loss of ecosystem functioning and often reduce level of income or a lower quality of life. Reversing the loss or environmental damage in such a case is a costly and not always practical solution. For this reason, limiting damage to the environment and preserving and promoting options for sustainable development remains the matter of concern for every one.

Bhutanese Refugees and the Environmental Degradation:

The arrival of some 1,00,000 Bhutanese refugees in southeastern Nepal led to resentment on the part of local people and the government. Pressure on forest in this, one of Nepal's most densely populated regions, was already severe; the refugee influx quickly brought environmental concern to the fore. So far the

environmental impact of Bhutanese Refugees was never quantified or local concern about environmental damage justified, this study attempts to explore the impact in the environment of the refugee affected area after the establishment of Bhutanese refugee camp in eastern Nepal, and thus recommend some practical possibility (solution) to help save the environment of the area.

Past Efforts:

Past efforts to address environmental deterioration in the Bhutanese Refugee affected areas, have been quite successful. UNHCR responded to environmental based conflicts in a broad-based manner in the east Nepal, with successful results.

At the request of the government and local communities, and in consultations with concerned government technical departments, UNHCR developed portfolio of project ideas that became known as RARP- the refugees affected areas rehabilitation program. The RARP objectives were to contribute to sustainable development, reduce and repair environmental damage, provide labour opportunities and improved infrastructure. Unofficially, it was hoped that this multi sectoral program would also improve local working relation and achieve some balance in level of service offered to local people and refugee.

RARP developed into a set of mini-investment project focused on infrastructure. The project were proposed and supported through a process of solicitation with local leaders and government. There was a focus on broad improvement, riverbank protection and the construction of sub-health posts, all development properties of the local people. Another component directed through

the district forest officer assisted with a development of plantation, tree nurseries, ranger post, fencing and strengthening of operational capacity.

Objective of the study:

The broad objective of this study is to evaluate the existing ecological and environmental situation of Bhutanese refugees affected areas of the Jhapa district, to identify the problem related to environmental management and recommended measure to reduce, prevent and manage them. The following objectives help to achieve the ultimate goal of this study-

- 1) To analyse the consequences of prolonged residency of refugee in Nepal.
- 2) To identify, whether the refugee are kept away from ecologically sensitive sites such as protected areas, world heritage sites, fragile ecological zones such as water catchments areas, and sites of local, cultural and religious important or not.
- 3) To review the various roles and strategies adopted by private, local government, NGO's and INGO's etc in refugee assistance program and in conservation of natural resources and development works in the refugee affected areas and ways to curb the pollution.
- 4) To assess the socio-economic situation of local people.
- 5) To find out whether the natural resources in the Bhutanese refugee affected areas and in the Bhutanese Refugee camps are sustainably used or not.
- 6) To find out the change in local people's response to agriculture, forest management, social systems etc, then and now.

7) To meet the partial fulfilment of the requirements of the Bachelor's Degree in Environmental Sciences, Kathmandu University (2001).

Scope of the study:

People's lives depend on the quality of the surrounding environment, which may provide food, fresh water, fuel, and building material. In a refugee situation, the condition of the local environment can affect:

- The welfare of the refugees
- The welfare of the local community
- The socio-economic relationship between refugees and host population.
- The willingness of the host government to grant asylum.
- The cost of refugee assistance.

The sound environmental management is indispensable in refugee hosting areas so that the local communities, habitat and their natural resources are not jeopardized.

So far, the environmental impact of Bhutanese refugee has not been qualified and environmental damage has not been justified. The study can be use in future days to assess the hosting environment i.e., identifying and prioritising environmental impacts, explore interventions to prevent, mitigate or rehabilitate those impacts, co-ordinate, and monitor and evaluate interventions, and can be used for the regular monitoring of the hose environment itself. Besides, the data obtained can then be used for minimizing further impacts and for developing rules and guidelines for environmental/political refugees.

Limitation of the study:

This study has been undertaken in view of meeting the partial fulfilment of the requirements of Bachelor's degree in Environmental Sciences under Kathmandu University syllabus (2001). One of the limitations is the time frame. Since the study had to be completed within limited time, area limitation had also to be done. For instance, Goldhap Refugee Camp and Beldangi Refugee Camps 1,2 and Extension camp and their peripheral local areas were mainly focused during the study. This is because Goldhap has least population size (8,838) and Beldangi 1,2 & extension has the highest (48,872). Hence, the impact of population size to the local peripheral area can be studied thus can be used as representative study proportional to all other refugee camps in Jhapa and Morang. Though broad aspect was covered by the study in terms of environmental management, lack of quantitative data is still a constraint.

CHAPTER 2

REVIEW OF THE LITERATURE

The Encyclopedia Americana, International Edition, volume 23 (1980) define refugees as persons outside the country of their nationality (or, if they have no nationality, the country of their former habitual residence) because they have or had well found fear of persecution by reason of their race, religion, nationality, social group, or political opinion. It should be noted that the definition excludes persons displaced within their own country or forced to leave it because of economic circumstances or natural disasters. Also excluded from the basic definition are those who have committed serious crimes, such as war crimes, and crimes against humanity.

Environment and Public Health Organization (ENPHO), 1992, conducted a research on " A Report on Bacteriological Water Quality Study at Bhutani Refugee Settlement sites at the Kankai River" and found that majority of the water sample examined from Maidhar fell on acceptable category (based on Feachem's, 1978 and Luren Burger, 1983 i.e. Faecal coliform up to 100 col/ 100ml is acceptable and Faecal coliform more than 100col/ 100ml is unacceptable, should be treated). While all the other camp sites (Pathri, now Sanischare; Timai and Beldangi) had most of the water samples (at the sources and house holds) of unacceptable quality. In Goldhap, water from the tube well was found less contaminated than water from the dug well. No House holds samples were examined in this camp. (Khudunabari Camp was not established when the research was carried out in 1992).

Dhakal DNS and Strawn, Christopher, 1994, in their book " Bhutan A Movement in Exile" states that the government of Bhutan hinted for over a decade at the end of its tolerance for the Nepali Bhutanese, but the restrictive policy which created the refugee crisis- census exercise that deprived some Nepali Bhutanese of their Citizenship and a strict Bhutanization programme that suppress Nepali culture - emerged only in 1988. Protest erupted in response to the government actions, inspiring the founding of the politically motivated an active student group (Students union of Bhutan), a human rights group founded by ex-Royal Advisory Council member T.N Rizal (The People's Forum for Human Rights), and a political party (the Bhutan Peoples Party). Protest culminated in the September and October 1990 mass demonstration throughout Southern Bhutan. Although dissidents expected the government to bow to the outpouring of dissatisfaction, which the demonstration evinced, the government of Bhutan instead responded by framing a policy of terror to suppress the dissident and began eviction of Nepali Bhutanese, especially those involved in the demonstration. The crackdown produced the exodus of refugees, over 10,000 in the course of less than two years. Originally settling in India, hostility compelled the refugees to move to Nepal for safety, where over 85,000 now live in camps with relief organized by UNHCR.

The world refugee survey, 1995, states that Nepal hosted some 88,600 Bhutanese refugees living in eight camps in the Jhapa area of eastern Nepal, and a long-standing Tibetan refugee population of more than 18,000. Bhutanese refugees began entering Nepal from Bhutan in late 1991, an influx that peaked during mid- 1992. The refugees were ethnic Nepalese Hindus from the southern plains of Bhutan.

Ramana, P.V., 1995, in the essay "the refugee problem: UNHCR/ NGO Partnership" states that there are 50 million refugees spread over the world. No region's spared the agony of the tragic movements of scores of men, women, and children, uprooted from their homes and land because of armed conflict and intolerance.

Refugees are everywhere- a by-product of every crisis. Millions of Afghans sit in camps in Pakistan and Iran. Thousands of Iranian have sought asylum in turkey, Pakistan, the Persian Gulf, Europe, and North America, riddled with wars and famine, provides a sad catalogue to refugees. Poverty, repression, and wars in Central America have fed a steady stream of refugees northwards. Camps in Hong Kong and Thailand house thousands of Vietnamese, Cambodians, and Laotians behind barbed wire. Forty years on the Palestinians have yet to find a home.

Reilly, Rachael, 1995 in her essay " The politics of participation in Refugee Assistance Programme, the case of the Bhutanese Refugee camps in South east Nepal" submitted to the Department of social sciences and administration of the London school of economics and political science, stated that the first people to leave Bhutan in 1990 settled in refugee camps across the border in India. However Indian government made it clear that it was not willing to provide official asylum to the southern Bhutanese, and trucks were provided to transit the asylum seekers in through India into Nepal. The first refugees arrived in Nepal in 1991 and stayed in spontaneous settled camps along the banks of rivers Mai and Timai in Jhapa district, South East Nepal (Himal 1992, HUOB 1992). The large influx of refugees occurred between March and July 1992, when UNHCR estimated that between 300- 600 people were arriving a day. By the end

of 1992 there were 72,300 Refugees registered in the camps (UNHCR 1992 d). The influx dropped steadily during 1993 and 1994, although families continued to arrive across the border one sixth of the population of Bhutan is now estimated to be in exile. 1,00, 000 Refugees are settled in Nepal, 86,000 of them in the eight refugee camps, while several thousands refugees are self-settled in India (UNHCR 1995 b). In her concluding remarks, she stated that the Bhutanese Refugee situation, amongst others, shows that where circumstances are conducive, high levels of refugees' self-management can be achieved.

Graybow, Charles, 1998, in his essay " Freedom's struggles in Bhutan" published in BRAVVE Activities of Report (93-98), states that as the 20th century draws to a close, there is an unmistakable global trend towards greater freedom and democracy. After a century that witnessed two world wars, genocides, and mass killings in the name of utopian ideology, more country and more people are now living in freedom than at any time inn history. He further writes that in many parts of the world autocratic leaders still ruled by power rather than by law, and denying basic freedoms. Bhutan continues to be the most repressive country in South Asia, and is one of the world's last absolute monarchies. The authority jailed peaceful protesters, the judiciary is not independent the government controls the press, and there are no meaningful elections or democratic processes. In his concluding statements he writes - all most every repressive government turns a minority group into an enemy in order to bolster its own legitimacy. In the late 1980 and early 1990s, the Bhutanese government questioned the loyalty of Nepali speaking citizens. However, when the Sarchops joined the pro-Democracy movement in the middle of 1990s, it became clear that Bhutan's

political crisis was not about ethnicity. It was, and continues to be, a struggle for freedom from absolute rule.

LWF, 1998 in its "LWF Nepal feature report" No.5, 1998, states that the presence of 94,000 Bhutanese refugees Settled seven camps of Jhapa and Morang Districts for the past seven years has placed a heavy burden on this poor country where the Refugees received sanctuary. The impact of this special population on the surrounding districts is often negative and puts a heavy strained on the host community. It further writes - Since 1995 as a response to these pressures, LWF Nepal had been active in development work in refugees affected areas with assistance mainly from Australia.

"The Bhutan Observer," a human rights Bulletin, volume 1, issue 27, 1998, in its editorial, "The issue of pluralism in Bhutan" states that the major issue being faced in today's Bhutan is the question of pluralism but political or cultural. Politically, Bhutan is ruled under an absolute hereditary monarchy established in 1907 when the traditional theocratic order of Shabdrung Ngawang Namgyel was replaced. Since then the country has witnessed four monarchs of Wangchuk dynasty ruling over Bhutanese people. While political pluralism is increasingly being recognized as a changing international order and symbol of civilization, it is still not permitted in the country. The political parties are prohibited in the kingdom, which prove the inherent absolutism an autocracy in the prevailing system. The one lakh refugees created by the Bhutanese regime is the result of the regimes' allergic to cultural pluralism ion the country even if it is multi-ethnic and multi-lingual.

53rd session of the committee on the Elimination of the Racial Discrimination, 1998, states " the committee considered the ninth to the thirteen periodic reports of Nepal (CERD/C/298/Add.1), at its 1292nd meeting ((CERD/C/SR.1292), held on 13th august 1998, and adopted, at its 1301st meeting, held on 20th august 1998, the following concluding observations.

D. Principal subjects of concern

Para.8. The committee is concerned about the situation and conditions of the 10,000 refugees from Bhutan in Nepal.

E. Suggestions and recommendations

Para. 21. The committee calls upon the state party to fully observe the human rights of refugees and displaced person of Bhutan and to negotiate with the government of Bhutan towards a peaceful solution of this important issue.

Maheshwari, Anil, 1998, at a daily national newspaper of India- the Hindustan Times- states that the jingoist fervour, prevailing in the tiny Himalayan state of Bhutan has been invigorated following the National assembly members' demand that persons who had migrated from Bhutan should not be allowed to return.

Sinha.A.C, 1998, in his book "Bhutan, Ethnic and National Dilemma" stated that an exodus of the Bhutanese Nepalese in June 1991 and by august 16,1992, their number reached above 10,000 in various camps in Nepal and India. According to him, there are seven of the camps located at different parts of east Nepal. He states that refugees entered into Nepal via India. He writes that many dignitaries of the world had already visited refugee camps and voiced their plea in the international arena.

Chaudhari, Kalyan, 1999, in his essay at Frontline magazine (November issue), stated that the talks between Nepal and Bhutan remained uncertain which directly had impacts on the fate of thousands of Bhutanese of Nepali origin, who fled southern Bhutan to seek shelter in eastern Nepal.

He found that the conditions of asylum seekers in Nepal were worsening despite efforts from relief INGO's.

UN-Sub Committee on Nutrition, 1999, states that the health and nutritional situation in the Bhutanese Refugee Camps is adequate. The nutritional situation of children has been stable over recent years; the survey conducted by the sub-committee estimated the prevalence of wasting at 9.9%, which is lower than the national prevalence in Nepal. Growth monitoring and supplementary feeding programmes are well established. The report from UNHCR states that (CMR) for the month of October and November 1999 were 0.11/10000/day and 0.09/10,000/day respectively. Overall, the Bhutanese refugees in Nepal are not considered to be at high risks of malnutrition.

Bhurtel, Rudra nath, 2000, states that the problem of Bhutanese refugees has created very serious social, economic, and environmental problems; e.g. Theft, loot, deforestation, pollution, epidemic, etc. Bhurtel found many similarities between refugees and the locals; dialect, religion, culture, traditions, beliefs, names, etc. therefore, it is highly complicated to differentiate the wrong doers, either a refugee or a local.

Ghimire, Sanjeev, 2001, in his article published in "The Space Times Today" states that European Union is planning to resettle half the Bhutanese Refugees who are bound to stay in Nepal after failing to prove themselves as the genuine Bhutanese national during the verification process. He also writes that

there is not a single instance of refugee crisis in the world, which may have culminated in the total repatriation of the refugees. The possible arrangement to resettle some 40,000 Bhutanese refugees has already been started. If this happens, then the already densely populated Jhapa will have to bear the burden of many corresponding consequences, which arise from the added burden.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

A systematic, well designed, and planned methodology is required for any research or study to be undertaken, in order to achieve better results. The methodology should include all the aspects of actions from investigation to the report preparation. For this particular study, the methodology adapted are – general survey of the area with its study aspects through field visits and questionnaires, through discussions and interviews, collections of primary and secondary data from relevant places, review of past studies and finally preparation of report. Additionally, an analysis regarding water pollution and noise pollution was done using some instruments and methods.

Nature and sources of data collected:

Both primary and secondary data were collected for the fulfilment of the objectives regarding environmental management in the Bhutanese Refugee camps affected-areas. The data incorporates both qualitative and quantitative data required for the study.

1. Primary Data:

Primary data are mainly collected from the field through household survey, interviews and several visits to the sites with the help of questionnaires prepared. Most of the qualitative information has been obtained through the non-controlled observations and informal interviews.

2. Secondary data:

These are data that already exist on reports or compiled books etc., which may prove helpful in fulfilling the objectives of the study. Various information,

records and reports were obtained from different relief agencies offices at Jhapa and from other sources like UNHCR, Geneva; Department of Forest Babarmahal, Statistical Department etc. Data obtained helped to fulfil the objectives of the study.

Process of data collection:

Various data and information for the study have been collected not through single but different techniques. Both qualitative and quantitative data concerning the study area are collected from different sectors or concerned agencies. Usually the data are collected by three means:

Observation:

A general survey of refugee household and the surrounding localities was done in order to obtain the basic information about the study area. Through this, the socio-economic conditions of the local people, present state of natural resources, land use pattern, sanitation, hygiene, etc can be visualised.

Questionnaire:

A questionnaire survey was carried out in the form of general group discussions with the villagers with the aid of structured and unstructured questionnaires. The unstructured questionnaires were done during the first field visit where all possible questions regarding the area were asked with the refugees and any villager met during that time. The next field visit to all sites was done with the structured well prepared and multisectoral questionnaires. The data obtained were of primary one.

Interviews:

Interviews of different experts were taken to have adequate knowledge about the study area. This helped to gather relevant information, which might not

have obtained from the general people. The area of coverage for interviews was as of mentioned in the objectives.

Various types of secondary data were collected through different offices in the form of documents, booklets, reports, and records.

Method of data analysis:

The data collected through various techniques in the field were analysed by using descriptive presentation as well as quantitative statistical tools. Both qualitative and quantitative data collected during the study were organised and analysed in different parts and chapters, as required by the objectives. Necessary tables and charts have been presented as well. Also map analysis was carried out to present certain factors like refugee settlement area, an areal water coverage, refugee originating area in Bhutan map etc.

In order to organise and analyse the collected data, the whole dissertation has been divided into five chapters.

All these chapters have been compiled into a report.

CHAPTER 4

RESULTS AND DISCUSSIONS

Consequences of prolonged residency of refugees

Environmental problems associated with refugees are normally the consequence of high refugee concentration occurring rapidly. In the absence of mitigating measures, physical deterioration of the surrounding environment soon takes place, in turn generating other impacts on both the refugees and local populations. Below, the various impacts are grouped into main categories and briefly described

a. Natural resources deterioration:

Degradation of renewable natural resources such as forests, soils, and water dominates the environmental problems associated with refugees. Depletion of these resources is often compared by their biological improvement. Contamination of surface water and ground water can occur when sanitary measures are adequate, or through improper application of agro-chemicals, leakage of vehicle fuel, etc. In the settlement schemes, poor land use practices may further exacerbate land degradation.

b. Irreversible impacts on natural resources:

Particularly serious are impacts on areas of high environmental value that may be related to the area's high bio-diversity, its functions as haven for endangered species or as an important recreation destination. Some of these areas may of global importance, damage to these natural assets can be irreversible, and thus deseryes special efforts of prevention mitigation.

c. Impacts on health:

Impoverishment of surrounding natural resources undermines the long-term nutritional base and brings about further adverse impacts on health of already weakened group. Shortage of fuel may result in undercooking of food. A very high percentage of adverse health impacts are related to faecal contamination of drinking water and ease of disease transmission in the overcrowded refugee camps. Dust and smoke heightens the incidence of respiratory disease. Most of these problems tend to affect disproportionately the vulnerable groups, i.e. the very old or the young.

d. Impacts on social condition

Women and children feel the effects of environmental degradation, particularly those related to fuel wood gathering, with a particular force. Women must spend long hours seeking and carrying wood, activities which put them at increased risk of fatigue and exposure to assault as well as detracting from their child-care and family and social functions.

e. Social impacts on local populations

Host community suffers similar social impacts as those felt by refugees. Competition between locals and refugees for scarce resources (fuel wood, fodder, water) can result in conflicts and resentment. In some cases, refugee influx has lead to the break down of traditional and sustainable local systems of natural resource management.

f. Economic Impact

The influx of the refugees is felt in the local markets. While selections of local population may benefit, the local poor are usually affected adversely as refugee demand forces up the price of commodities. Impact like the loss of

income generating opportunities might be felt in the long run. Deforestation, land degradation and water resource depletion all carry with them an economic cost for the local population. So does the reduced availability of fuel, housing materials, medicines, and meat derived from near by forests. The consequences of environmental degradation in the vicinity of refugee camps may be felt at considerable distances from the camps. Soil erosion and resulting sedimentation can shortened the life of reservoirs and erosion related floods could destroy local infrastructure.

NGOs and INGOs involved in Bhutanese Refugees Assistance Programme:

1. UNHCR:

The office of the United Nations High Commissioner for Refugees (UNHCR) was established in 1951 with a specific mandate to provide international protection and seek permanent solution for the problems of refugees (UNHCR 1950)

Although HMG of Nepal formally requested UNHCR to co-ordinate assistance to the Bhutanese refugees in September 1991, UNHCR did not establish a field office in Jhapa until May 1992. There are different INGOs and NGOs involved in the operation of Bhutanese refugee assistance programme working under UNHCR.

2. HMG/RCU:

The Home Ministry of Nepal established the Refugee Co-ordination Unit (RCU) in mid 1992 for the purpose of registering and supervising Bhutanese Asylum Seekers who entered the country. Presently all the camps have RCU units, one in each camp, located within the boundary of refugee camps. For

security purpose the Police Post in each camp is established which functions under the guidance of RCU. The RCU head office is in Chandragadi.

3. SCF (UK):

The Save the Children Fund (UK) started its assistance in May 1992 to co-ordinate health services in the camps. Each camp has an expatriate health co-ordinator, while the doctors and health staff were all qualified Nepali or Bhutanese professionals. SCF also embarked on an intensive programme of selection and training of CHWs.

Asia Medical Doctors' Association (AMDA) has taken over the role of SCF (UK) programme. AMDA Nepal works in co-ordination with Bhutan Health Association (BHA), a Bhutanese health NGO formed in exile.

4. CARITAS Nepal:

Caritas Nepal started its assistance at the beginning of 1992. It provides education to Bhutanese refugees with its implementing partner Bhutanese Refugee Education Co-ordination Centre (BRECC). It works under UNHCR.

5. Oxfam:

In May 1992 Oxfam started to fund non-formal education and supplementary income generating knitting programme. Although the programme started on a small scale Oxfam was encouraged by UNHCR to expand and become operational. By the end of 1992 Oxfam had established a permanent office and extended its programme. Oxfam programme has been phased out now.

6. The Nepal Red Cross Society (NRCS):

The NRCS is one of the first organisations to provide services to the Refugees in Maidhar camp. NRCS restarted assistance programme in November 1992 with the running of ambulance, service, distribution of non-food items, fire

prevention; and fire fighting training and Afforestation program. NRCS is in charge of entire distribution activities since 1994.

7. Lutheran World Federation (LWF):

LWF started its operation to help refugees since November 1991 when there were approximately 5,000 refugees spread over the Maidhar and Timai riverbanks. It has been acting as an implementing partner for the UNHCR. LWF is responsible for taking care and maintenance of physical infrastructure of the camps, managing a mechanical workshop for refugee operation fleet vehicles and development activities of RARP.

8. Bhutanese Refugee Aiding the Victims of Violence (BRAVVE):

BRAVVE is a non-partition, non-profit, voluntary organisation established on Jan 1, 1993 to provide humanitarian assistance to the victims of violence in Bhutan.

BRAVVE objective in exile is to rehabilitate the victims of violence in confidence building economic activity in order to enable them to recoup their original vigour and strength to make normal living in the refugee camps. Also BRAVVE works to provide support for activities, for e.g. advocacy, which would help find a durable solution of the refugee problem (BRAVVE 1993-98).

BRAVVE's activities in year 2000 focused on the development of skills (tailoring, weaving, bamboo crafts, shoe making, embroidery and typing), refugee advocacy and the empowerment of the people in the camps (BRAVVE 2000).

9. Bhutanese Community Development Centre (BCDC):

BCDC was established on March 1, 1993 at Goldhap refugee camp by a group of young educated refugee youths of the camp. BCDC was initially named as

Community Development Centre (CDC). The aims and objectives of the BCDC in exile are-

1. Education

- Upgrade literacy rate through need based education
- To involve youths in social useful productive work
- To give continuity to non formal education graduates

2. Social Service

- To maintain healthy situation and brother hood through-

a) Sharing social ideas/skills

b) Helping needy, widows, special needs

- To engage people

- Social service

3. Women empowerment/ upliftment

- To give priority to women in all respect
- To bring awareness in women
- To maintain gender balance

4. Awareness

- To bring overall awareness in community
- To maintain mutual understanding and national unity
- To protect/promote/respect Bhutanese culture/tradition

5. Personality

- To overcome fear-psychosis
- To make people ready to face different situations by helping people to help themselves
- Public dealing and communication

6. Development activities:

- Games and sports
- Debate
- Quiz
- Literary symposium
- Cultural activities

7. Skill development (Could be implemented after repatriation):

- Cottage industries
- Use of modern techniques in agriculture
- Revolving fund
- Vocational training

UNHCR and CARITAS NEPAL assist the centre.

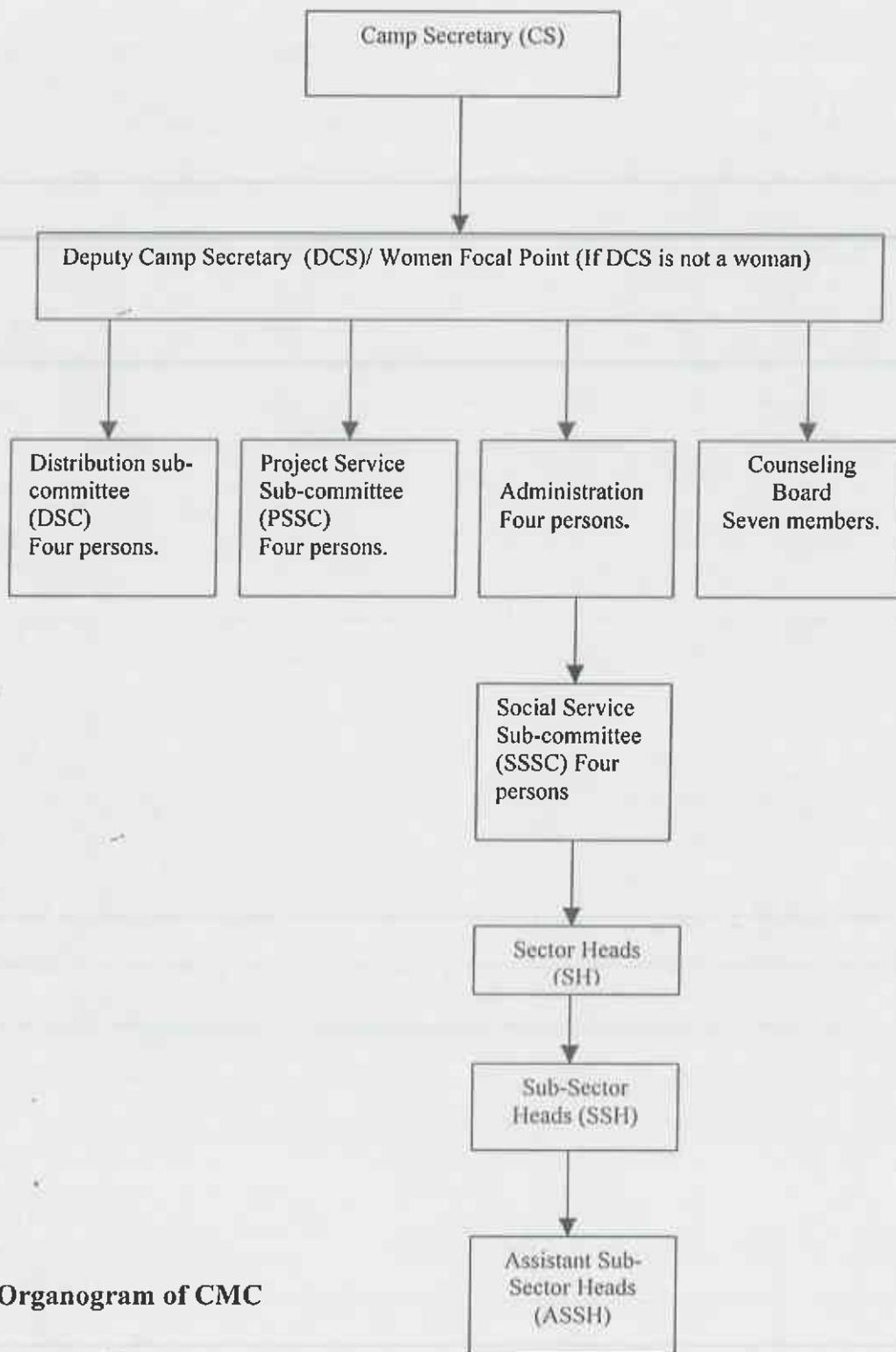
Camp structure:

Each camp has been divided into sectors and sub sectors/units. Each sub-sector is composed of around 100 families with approximately 500 refugees.

Each sub-sector, sector, and camp has heads and their assistants. A camp management committee (CMC) is formed in each camp by the HMG/RCU in coordination with the UNHCR. This is done to decentralise distribution operation, to help the relief agencies for providing assistance and for protection of refugees in all distribution and other related work.

The terms of CMC are made in advance and the tenure of the CMC is at least one year. All the relief agencies involved in refugees assistance programme launch their programmes through CMC together with the concerned sub-committee. Refugees elect all the members in CMC from their respective unit and sectors.

The organogram of CMC that is solely of volunteer body formed by refugees themselves is given below:



Organogram of CMC

Site Selection of Refugee Settlements:

Although the pressure to meet basic human needs like security, food, health, and shelter can be intense during an emergency operation, it is essential that environmental concerns are taken into account. Failure to do so will invariably result in environmental degradation and subsequent losses in terms of local welfare. Mostly, environmental pressures are dealt during care and maintenance phase that is in a reactive way, not proactive.

Treating environmental impacts as an add-on, something to be tackled at a later stage has been one reason why refugee operations are so costly for both the international community and host countries. This is mainly because timely and deliberate environment protecting methods can cost far less (and help refugees more) than the crisis-type response that has predominated so far.

There are no protected areas or zones of ecological significance, ecologically sensitive sites such as national parks, world heritage sites, fragile ecological zones such as water catchments areas and, sites of local, cultural and religious importance near the Bhutanese refugee camps. These refugee camps are established on the barren owned by HMG, forest department. The forest encroachment was the major concern before the distribution of kerosene and kerosene stoves and the problem has been almost solved now. Refugee communities are quite aware of the pollution problem and its impact on them. Since majorities of the population are religiously inclined, they view the local resources as part of the god's gift. This too has helped in reducing the environmental problems. One of the flaws in the Bhutanese refugee camps settlement is that they are at close proximity to river course.

Generally, site selection and camp lay out require particular attention. Unless preventive measures are initiated from the outset, local wood resources may become depleted and ground cover eliminated. Such activities can lead to soil run off, erosion and sedimentation of water sources. Settlement size (camp population), settlement siting (location and distance from one camp to another), settlement spacing (widely spaced camps), housing density (large plots < 400sq m), site clearance (camp areas should never be clear-felled), alignment of roads and housing configuration (shared and group cooking) are some of the important points to be borne in mind while selecting and establishing a refugee camp.

Forest Resources

Introduction

The Forest provides basic needs to rural and local communities, clean water, and recreational sites, pasture land, rangeland and in situ conservation of biological diversity. However, rapid, haphazard settlement, urbanisation, high demands for forest products, population growth, unregulated and illegal quarrying have depleted much of the forest vegetation. The major ecological implications are loss of vegetation, declining recreational sites and decreasing water sources.

Historical Background of Forest Management

Before the seventies, there seems to be no record of the preparation of forest management plan for Jhapa District. The first forest management plan so far for Mechi forest division which included Jhapa District too was prepared by under the Department of Forest in 1973 for the period of ten years commencing from 1973/74 to 1983/84. No management plan was prepared for Jhapa District during 1984 to 1988. All activities related with forestry were accomplished in the

district in accordance with the annual plan prepared by the department of forest in that period. Mr. Himmat Singh KC had prepared the working scheme for the district in 1989 for the period of five years (2046/47 to 2050/51). There after, forest research and survey centre, Babar Mahal, Kathmandu, Department of forest, prepared a report on “Operational Forest Management Plan of Jhapa District” for the year 1996/97 to 2000/01.

Categories of Forest in Jhapa District

The total forested area of Jhapa District is 19,557 ha. This is the 12.6% of the total land area (1,55,667ha) of this district. The forest of Jhapa has been classified into three main categories viz. The production forest, the community or leasehold forest and the protection forest, the summary of which is given below.

S. No.	Category	Area occupied in ha	% of area coverage
1.	Production forest	10,513	53.7%
2.	Potential community/lease hold forest	1,934	9.9%
3.	Protection forest (e.g. river buffers)	1,167	6%
4.	Others (old community forest + plantation area)	5,943	30.4%
	Total	19,557	100

Table No.3 Summary of categories of forest found in Jhapa district

The Impact of Refugees on Forest

People have long made use of forest resources, clearing forested land for settlement, cultivation, and livestock grazing; collecting wild foods; and benefiting from a broad range of other services. As long as the population density remains below the carrying capacity of concerned habitat, such activities can be under taken and developed in harmony with the natural environment, and people tend to use the available (forest) resources in a sustainable way. This means that people make use of forest product and services without causing undue reduction

in the forest's inherent values and future productivity and do not cause undesirable effects on the physical environment.

The question of resource sustainability becomes a concern with increased human concentration on a given piece of land, a typical situation in many refugee operations. The higher the concentration and the longer such a situation persists, the more evident the extent and level of negative environmental effects. Deforestation and degradation of forest land are among the main environmental problems associated with refugee situations.

The main refugee –related activities which contribute to forest depletion and, potentially, to more wide scale deforestation are outlined below:

- 1. Activities related to camp establishment, repair and maintenance.**

Since camps sites are more often established in forested area than on agricultural land, the process of camp establishment and construction of access roads usually results in large areas of forest vegetation being removed.

Forest products such as poles, posts, and sawn timber are essential components of basic shelter. If not otherwise provided, refugees will search for construction materials in the vicinity of the camps and will harvest what they need from surrounding forests. In situations where refugees have also brought livestock, additional wood and fodder will be required for fencing and feeding, respectively.

In case of Bhutanese refugees, in order to protect the forest, mitigate negative impacts on the local environments, and maintain the ecological balance with in and around the camps, plantation programmes had been conducted in hut basis of all camps and in public and barren/deforest land area of HMG. 3,28,931 saplings in 65.3ha of land were planted with the assistance from International Federation of the Red Cross (IFRC). This assistance was started in the year 1993 and phased out in 1998. An environmental protection and rehabilitation phase II

programme was started in June 1998 in the refugee hosting areas with the generous assistance from UNHCR. 44,849 saplings had been planted in different sites during 1998. The major components of the programme are plantation around the refugee camp affected areas, multicultural nursery development, training/workshop/seminar for Forest User Committee and other related people to sensitise about environmental issues, community forest management, bioengineering technology and other related subjects. The brief detail of this programme is given below.

Afforestation and reforestation with assistance from IFRC

Total area of coverage- 65.3ha

Total no. Saplings- 3,28,931 of different plants

UNHCR supported programmes

1) Plantation

Total area-54ha

Total no. of saplings-1, 23,329 of 16 species

Target for 2000- 40ha

2) Bio-engineering work

577-sq. m area of Ratuwa riverbank near the Beldangi-I camp protects the camp as well as natural forest planted area.

3) Multicultural nursery

90,000 plants of 16 species were produced in 1999 and 100,000 plants of 25 species had been targeted to produce in 2000.

4) Training/ workshop/seminar

Total package –11

Total no. of participants-290

Table No.4 Camp wise Plantation Record (with assistance from IFRC)

SN	Camp	1993	1994	1995	1996	1997	Total
1	Beldangi-I		11,750	4,715	550	-	17,017
2	Beldangi-II		16,100	6,600	500	-	23,200
3	Beldangi -Ext.		7,507	3,180	500	-	11,187
4	Sanischare	29,000	11,800	8,100	500	-	49,400
5	Goldhap		6,000	2,600	500	1,230	10,330
6	Timai		1,179	2,050	650	-	3,879
7	Khudunabari		9,000	3,530	850	-	13,380
	Grand Total	29,000	63,336	30,775	4,050	1,230	128,391

Source: NRCS, Damak

Tree planting around and within refugee home- stead has proved to be the most successful reforestation activity initiative, because of the clearly defined rights of ownership and access to the benefits derived from the trees. In anticipation of such benefits, refugees have been taking greater care of seedlings, which have resulted in higher survival rates. For instance, Goldhap camp, during its establishment, was almost devoid of vegetation. However, it has now been fully covered by vegetation.

For the construction of huts, construction materials like bamboo, thatch, Bata, sandwich panel, jute (suthli) etc. are provided to refugees by UNHCR through its implementing partner LWF. Most of the public/ community buildings, health centres CARITAS schools, OXFAM, police post, kerosene units, agency complex, toilets etc are made-up of bamboo and thatches except few concrete buildings. The distribution criteria of construction materials are as follows:

S. No.	Material	Remarks
1	Bamboo	For one hut, 4nos/hut/year For one toilet, 4nos/year One toilet is used by two huts/double plots
2	Thatch	120 bundle/hut/year 240 for new hut 1 bundle 1m long and 18" in diameter
3	Bata	120 pieces/hut/year 240 for new hut
4	Suthli	0.5kg /hut/year
5	Sandwich panel	2nos./hut during construction. Every after 3 years, for repair of one side of the roof, one sandwich panel is distributed to each hut. Length of s/panel=20ft Breadth of s/panel=8ft

Table No. 5: Distribution Criteria of Construction Materials in BRCs

However the above criteria can be subject to alter depending upon the availability of the raw materials.

Remarks of local people about forest encroachment by refugees

Local people in the refugee hosting area say that the forest of the (refugee hosting) areas have been seriously deteriorated due to the illegal felling of trees and pilferage of wood by the smugglers rather than by refugees. Trees are also illegally cut by the villagers for their domestic use because of the absence of a smooth supply system of timbers. However, one cannot strongly deny the impacts due to refugees on near by forest of the refugee camps. Nevertheless, the impacts

are insignificant in comparison to pilferage and illegal felling. Refugees who have cattle, collect fodder from near by forest and also the plant parts like twigs, leaves etc. are collected some times by the refugees for religious rituals. The logs of uprooted trees, or trees which pose threats to refugee (human) life are felled and collected by the HMG /RCU or local user groups and sold to local people at minimum cost or freely distributed to refugees for burning down the dead bodies.

2. Activities related to subsistence

a. Fuel wood collection:

The gathering and cutting of fuel wood was widely practiced before the kerosene and the kerosene stoves were provided .The demand of fuel wood was drastically reduced after the distribution of stoves and kerosene. Jhapa, one of the most densely populated districts of Nepal, had to bear pressure on forest with the influx of refugees and associated demand for fuel wood.

A decision was taken to supply the refugees with kerosene and suitable cooking stoves in the hope that this would reduce the fire wood consumption and there by address the environmental concerns and conflicts that had arisen from 1992 onwards, following a pilot period of stove testing and appraisal with refugee women groups, a programme of fuel supply began. Refugees were allocated one litre of kerosene per week for families of up to three members and 0.5 litres extra for each additional family member (acknowledging the economics of scale achieved in larger cooking groups). They received a new stove every two years. Fuel was purchased through the Nepal Oil Corporation, delivered to underground tanks in camp by the Nepal Red Cross Society, and distributed at camp level by the refugees. Loss was less than 1% under this arrangement, although they had been as high as 10 % when agencies were managing the distribution. Up to 3.5

million litres were supplied annually, at total cost for the programme of about \$ 6,00,000.

The fuel met the majority of the refugees' energy demands and resulted in a dramatic reduction in fire wood harvesting. Like wise tensions between refugees and local people, as well as between relief agencies and the host government were reduced. The search for alternative energy development has been always in progress in Bhutanese Refugee Camps, for example, a solar heater was developed to cook food, heat water, etc. This was initiated with a pilot program in Beldangi.

I. But the program could become popular due to its low efficiency.

b. Farming:

Small –scale agriculture and horticulture were wide spread activities during the care and maintenance and local settlement phases, especially by refugees who have traditionally earned their livelihood as farmers. Forestland is often cleared for this purpose. When locally important forests or protected areas are affected by such clearing practices, the host country's efforts to preserve its natural resources are often strained or jeopardized.

However, such practices as mentioned above, are not practised in case of Bhutanese refugees. No refugees are allowed to go out of camp without the prior permission (gate pass) from RCU located at camp. Instead to keep people busy and meet some dietary requirements, home gardening and nutritional education programme (HGNE) has been launched since April 1999 by NRCS. The objective of the programme is to provide nutritional and Vitamin A enriched vegetables using their land occupied around their huts as kitchen gardening .It contains sweet potatoes, radish, spinach, papaya, Swiss chat, cauli, Kang kung etc. This programme is suitable for the refugees because they are getting vit.A

enriched fresh vegetable of different tastes and also they are benefiting from homely environment cultivating vegetables on the barren land around their huts. In addition to this, women are engaged in their leisure time. The nutrition education is useful forever, and hence they can use their skill/expertise in Bhutan upon their repatriation.

c. Grazing:

If large no of livestock accompany refugee flight, intensive grazing cannot be avoided around the refugee camps. Depending on the carrying capacity of the area, grazing can quickly turn into over grazing, and hence land degradation. Uncontrolled grazing by small ruminants is often a major contributing factor to forest degradation, over grazing and eventual land degradation.

Bhutanese Refugees are living in third country –first being Bhutan, their homeland, second- India, via which they came across to Nepal and third being Nepal the country of asylum. Therefore, there doesn't arise the question of accompanying livestock with them. However, some refugees who can afford to buy a buffalo or cow from the local area are rearing their livestock in harmony with local residents. They do this to keep themselves busy and at least to fulfil some dietary needs from milk and milk products and for income generation to buy clothes and essential materials. This activity has not significantly affected the local environment and the forest.

3. Income generating activities

a. Cutting wood for sale

Lack of wood-timber harvesting controls and the proximity of good markets encourage the cutting of wood for sale. In some cases, local middlemen to extract fuel wood, timber, or other forest products destined for urban areas use

refugees as a source of cheap labour. So far, such activities have not been reported in regard to Bhutanese refugees, says police at one of the camps of Bhutanese refugees.

b. Charcoal Manufacturing

The production of charcoal is a questionable activity from an environmental point of view. Apart from high conversion losses in the transformation from raw wood to finished charcoal, and the low efficiency rates of commonly used earth kilns, charcoal manufacturers only select certain tree species that produce good quality charcoal. This selective process may threaten the survival of certain species. From social point of view, charcoal production generates income for some people while it reduces the fuel wood (and other) resources of a great many more. This is carried out in Bhutanese community by tailors for ironing the clothes and by blacksmiths and goldsmiths for manufacturing utensils and ornaments respectively.

c. Illegal Hunting

Illegal hunting or poaching is a common activity in forests where wild life is abundant. Refugees perceive it as a means of adding to their food rations. Poaching can be of severe environmental and social concern, particularly since rare and /or protected species are hunted along with the more common ones. In some cases, where forest reserves shelter rare animals, hunting may be carried out for commercial reasons (i.e. to sell skins, horns etc) rather than food.

Regarding Bhutanese refugees, hunting or even going into the forest is strictly prohibited. Forest department is always alert in regard to this problem. If any body is found in the forest with an intention to kill wild life, fell trees or disturb forest habitat, he or she will be jailed, made to pay fine or summoned to

court for necessary action. As per the information collected, no such activities have been encountered and hence no actions have been taken so far.

Water resources:

Introduction:

Water, a basic need for survival is in constant short supply in urban areas. However, Jhapa so far has not faced acute shortage of water despite its urbanization, industrialization, and population explosion. There are many rivers, tributaries, and stream to fulfil the demand for irrigation, drinking water and other need of the place. Alternative sources of ground water extraction are on the rise due to the suitability, accessibility and convenience and geographical condition. (Jhapa is about 200 feet above mean sea level). In order to increase the water supply to meet current and future demand the available rivers and streams must be preserved and properly tapped.

Water Sources:

(1) Surface water:

The source of surface water is from river runoff and floods. The main source of water for rivers in Jhapa is rainfall and water form natural spring. The annual rainfall in Jhapa averages about 1800 mm. Because 80% of rain falls between June and September during the monsoon, the quantity of surface water available through out the whole year is less. Most of the river and their tributaries originate in Mahabharat and Churia range and do not have permanent snow at its source. Thus, the place experience considerable seasonal fluctuation. Stream which flows in the mid hills follow a rainfall pattern and are greatly influenced by rainfall intensity, vegetation cover, soil type, slope of the basin and water use.

(2) Ground water:

Ground water occurs in the crevices and the pores of sediments. However, since Jhapa is just few meters (>60) above mean sea level, ground water has become the principle source for drinking and irrigation as well. The use of well and tube-well are on the rise since there is not pipeline drinking facilities to rural areas. Hand full of reservoir, tank, and distribution system exists in Jhapa especially meant to serve municipalities and town areas.

(3) River system:

The main drainage of the area takes place through the river Mechi, KanKai, Beering, and Ratuwa. Besides these many tributaries and streams like Ninda, Deoniya, Surunga, Baluwa, Kishni, Kabal, and others pour into the rivers - Mechi, Beering and KanKai Mai. These rivers flow further southward and ultimately with the river Ganga in India. These rivers and streams originate from the internal hilly region of Mahabharat and Churia hill. They usually swell during rainy season due to heavy down flow in the hill causing often flooding and erosion of the adjoining areas and remain dry or harmless during dry months.

The rivers, in crossing siwalik hill, where Bhawar zone- a gravel talus with somewhat steep slope- fringing the outer margins of siwalik. Loose them by the abundant percolation in loose absorbent gravel. Below the Bhabar is the Terai zone. In these tracts, the water of Bhabar Zone repairs and maintains them in a permanently marshy or swampy condition.

IUCN- the World Conservation Union has categorized following rivers and ponds as wetland areas.

- a) Ratuwa Flood Plain
- b) Gaura Daha.

- c) Kankai Flood plain
- d) Beering Flood plain.
- e) Mechi flood plain
- f) Kechana Kabal.

Brief description of each wetland area:

(a) Ratuwa flood plain:

Ratuwa flood plain lies in Damak Ward no 1, Damak Municipality, 1km of Damak, in Jhapa district, eastern development region. Situated near the Damak Municipality, the flood plain begins from Ilam and enter into India after travelling many miles inside the district of Jhapa. The flood plain is good for rice cultivation and an ideal place for flora and fauna. The geographical co-ordinates of the flood plain is 26°39'20. 0" N latitude, 87°42'0.8" E longitude and is in an altitude of 235 m above sea level. The area of the wetland site including shorelines is 7,125 ha. It has permanent inflow and outflow hydrological pattern. It has indo-Malayan bio geographical Realm the land use pattern of the place is – Agriculture [70%], open forest [10%], Barren land [10%] and settlement [10%]. *Acacia catechu*, *Bambax ceiba*, *Dalbergia sisoo*, and *Terminalia alata* are the principal trees growing in this flood plain. The flood plain also provides a habitat for *Imperata Cylindrica* and *Sacchrum spontaneum* grasses. Flood plain serve as suitable habitat for large waders e.g. *Ciconiae episcopus*, *Leptoptilos dubius* and *Platalea leucorodia*. Other important wetland dependent bird species are *Ceryle lugubris*, *Egreta alba*, *Ketupa zeylonensis*. Only one species of wild fish (Amphiphous *Cuchia*) has been recorded from here. There does not exist special features to the area. It is the government land. Humans use the flood plain for irrigation, fishing, and grazing. Agriculture runoff, pollution, and filling are the

major threat and disturbance of the wetland. A total 1,47,551 form 26,934 households from Jhapa and Morang districts uses its resources (IUCN Nepal, 1996). The over all ranking of the site in relation to other wetlands is poor because of over exploitation of natural resources. It is fresh water riverine type of wetland (2,5)

2-permanent rivers and streams including water fall

5- riverine flood plain including river flats, flooded river basins, and seasonally flooded grassland.

(b) Gaura Daha:

This pond is situated in Gauradaha, ward no 9, Gauradaha VDC, 11 km south of Padajunge on the Mahendra highway, Jhapa district. Gauradaha is a special pond situated in the middle of the settlement in Jhapa. The daha is owned by VDC and is on the contract for fishing, the income from that goes to the VDC. The nearby ice cream factory provides water to the pond. It covers an area of 6.5 Ha. It is a permanent fresh water pond. In Gauradaha, almost all the area is covered with *Azolla imbricata*, *Eichhornia crassipes*, *Nelumbo nucifera* and *Nymphoides hydrophyllum*. Marginal areas of the pond include *Alternanthera sessilis*, *Cassia tora*, *Colocasia esculenta*, *Fissendocarpa linifolia*, *Ipomoea carnea* sp. *Fistulosa* and *Saccharum Spontaneum*.

The wetland is used as a fish-stocking pond. The observed birds are *Amaurornis Phoenicurus*, *Ceryle rudis*, *Leptoptilos javanicus*, *Phalacrocorax carbo* and *P. niger*.

During the winter season, large and small cormorants are seen in large numbers foraging in the pond. The pond is less suitable to waterfowl population. One of the protected reptile species of HMG, *Varanus flavescens*, also occurs in

large number in adjoining agriculture fields. Two species of wild fishes are recorded from the pond mainly *Labeo rohita* and *Puntius ticto*. It has government land ownership. About 30% is agriculture land and 70% is used for settlement purpose in Gauradaha VDC. The pond is used for domestic use, fishing, and aquaculture and waste disposal. The major threats to pond are pollution and agriculture runoff. Some 12,376 inhabitants of Gaura daha use the resources of the pond. The VDC has 2,299 households.

(c) **Kankai flood plain:**

Kankai flood plain is at Maidhar; ward no 5 Dehagadhi VDC, 2 km west of Surunga Barar, Jhapa. Kankai flood plain is a wetland with Perennial River in the district of Jhapa. Their wide areas are good for growing rice. The Shrine of goddess Kankai Mai near the Mahendra highway enhances the sanctity of the area. The area extended to the Indian Border. It is located at 26°40'34.8" N latitude and 87°52'44.7" E longitude. The flood plain is at the height of 220m from mean sea level. Kankai flood plain covers an area of 7,125 Ha where total population of 98,569 with 18,371 households distributed in 10 VDCs of the area are residing. It has permanent rivers and streams including waterfalls. Riverine flood plain including river flats, flooded river basin, and seasonal flooded grassland also exist. It has permanent inflow and out flow hydrology. *Imperata cylindrica* and *Saccharum spontaneum* dominate the marginal area of the river. The principal trees of the area are *Accacia catechu*, *Bombax ceiba*, and *Terminalia alata*. Aquatic vegetation is very poor.

Being part of Mai valley area, Kankai flood plain harbours a small number of waterfowl. However, it is rich in forest birds. Some of the wetland dependent birds observed are *Ciconia episcopus*, *Egretta sp.*, *Leptoptilos dubis*,

Ketupa Zeylonensis and *Pelecanus philippensis*. About 10 species of fresh water wild fishes are recorded. The special feature of the place is that the Pilgrims come to worship goddess Kankai Mai, which is a renowned place all over the world especially for Hindus. There are government as well as private lands. Land use consists of 80% agriculture land, 10% open forest, 5% barren land, and 5% settlement. The flood plane is used for irrigation, fishing and grazing. Conversion practices used are irrigation, heritage site, livestock, and grazing and fuel collection. The threat and disturbance to the wetland are road construction, agriculture runoff, pollution, and filling.

(d). Kankai canal:

It is situated in Dhudhey, ward no 8, Komukha VDC, 2 Km north- west of Kankai. The canal dammed at the gorge near the foothills of the Mahabharat range, irrigates about 8000 Ha. of land in Jhapa District, mostly on its west side. The temple of Kankai Mai is located at a distance of 2 km from the canal. The dam is 2 km north of the highway at an altitude of 254m. The dam area is a good picnic spot. The land use is as follows- Agriculture 75%, open forest 10%, Pasture 5%, Barren land 5%, Settlement 5%. Road construction and siltation are the major threats for the canal. 8 VDC adjoin the canal with 88,663-population size and 16,514 households.

(e) Beering Floodplain:

Beering floodplain lies in Laxmipur, ward no 9, Gailaduwa VDC Jhapa. This floodplain is wide sand plain with virtually no water in the river. On its both sides are rice fields with some wide pasture area and open forest. It is located at 26°36'53. 9" N latitude and 87°56'52.2" E longitude. The floodplain is at altitude of 218m. 5875 Ha of are covered by the wetland. It has perennial, permanent

rivers and streams. In addition, it has riverine floodplain, including river flats, flooded river basin and seasonally flooded grassland. Hydrology consists of permanent inflow and outflow. The major tree sp. observed are *Acacia catechu*, *Bombax Ceiba*, *Dalbergia Sisoo*, *Treminalia alata*, and the principal grasses and *Imperata cylindrica* and *Saccharum spontaneum*.

The perennial river floodplain provides a suitable habitat for large waders. The observed large waders are *Ciconia episcopus* and *Leptoptilos dubius*. Other important birds occurring in the area are *Anas crecca*, *A. poecilorhyncha*, *Egretta alba*, *Ceryle lugubris* and *Sterna albifrons*. The river supports a few waterfowl population. Land use _ Agriculture (70%), Grassland (10%).

Open forest (20%). The flood plain is used for irrigation; fishing and grazing agricultural run off, dredging or drainage, pollution and filling are threats and disturbances to the flood plain. The human population of 10 VDCs' is 104,020 with 19,356 house holds that share with the flood plain.

(f) Mechi Flood Plain:

This flood plain is situated at Bhadrapur, ward No;2, Bhadrapur Municipality, Jhapa. The Mechi River is the eastern border of Nepal with India (see Map). It's shore areas on either side are covered with sand. Its flat and wide floodplains are good for birds and other fauna and flora. A bridge connects Jhapa district of Nepal and the West Bengal state of India at Kakarbhitta located at 26°33'23.5" N latitude and 86°04'45.5" E longitude, the flood plain is at an altitude of 184m. It covers an area of 16,250 ha. It is a perennial river with fresh water and having seasonally flooded forest, wooded swamps, swamp forest and fresh water marshes and swamps on inorganic soils. It has permanent inflow and out flow.

The flood plain vegetation is poor. Some of the plants observed are *Alternanthera sesilis*, *Centipeda minima*, *Clocasia esculenta*, *Cynodon dactylon*, *Cyperus cuspidatus*, *Eichornia crassipes* etc. The flood plain also supports a small water flow population. It provides a foraging habitat for a number of species of wetland birds including *Alcedo atthis*, *Ardea cinerea*, *Ardeolo grayii*, *Butorides striatus* etc. The flood plain also harbours reptilian fauna e.g. *Varanus bengalensis* and *V. flavescens*. Four species of fishes are recorded from the flood plain area. Land uses consist of –Agriculture (70%), Open forest (10%), Pasture (5%), Barren land (5%), Settlement (10%). The wet lands is used for irrigation, domestic use, plant harvest, fuel sources, fishing, grazing, fodder, waste disposal, religious value, transport, recreation.

Six VCDs of Jhapa district that share their boundary with this flood plain have a total population of 63,017 with 12,198 households. Deforestation and settlement is growing at a higher rate. So far no threats and disturbances to flood plain have been observed.

(g) Kechana Kabal:

Kechana Kabal is a natural pond situated at Kechana, Ward No; 3, Kechana VDC, 25 KM south of Chadragadhi. The natural pond about 50-60 m in width surrounds a land area of about 40.5 ha, of which some parts are leased out to fish contractors by the VDCs which gives a good income to VDC. It lies in the lowest altitude in Nepal. Located at 26°33'23.5" Latitude and 87°59'42.0" E Longitude the pond is at an altitude of 178 m covering an area of 40.5 ha. It is a permanent fresh water pond and also has man made wet land meant for aqua culture. The wet land supports a number of aquatic and semi aquatic plants. The major floating plants comprise *Nelumbo nucifera*, *Nymphaea nouchali*. The water body

consists of *Utricularia aurea*, *Ludwiga adscendens*, *Eichhornia crassipes*, *Alternanthera sessilis*, *Colocasia esculenta* and *Eleocharis dulcis* are emergent marginal plants. This wetland provides an important feeding habitat for *Leptotilos dubis*, *Phalacrocorax niger*, *Amaurornis phoenicurus* and *Egretta alba*. The reptilian fauna include two species of monitor lizards (*Varanus begalensis* and *V. flavescens*). Both species are found in large numbers. *V. flavescens* is protected by the National Parks and Wild life Act 1973. Three species of fishes are recorded from this area. Land ownership- govt. land Agriculture (75%), Barren Land (15%) and settlement land (10%) is the land use of the area. The major threat for the wetland is Agricultural run off. About 4,420 inhabitants of Kechana VDC have 964 households.

Use of water resources

Surface water and ground water are the main sources of water in Jhapa. Water is mainly used in the district for Agriculture (irrigation), domestic (shallow wells/ Inars, tubewell, tankers), industrial (Carpet industries, Brick Industries, Hotels/restaurants and other industries) and commercial purposes.

Water supply at Bhutanese Refugee camps:

The supply of potable water is an essential component in the response to a refugee situation. Water is needed for drinking, personal hygiene, livestock, and agriculture and for institutional uses.

There is a strong inter-relationship between environment water and other sectors including health, sanitation, physical planning, agriculture, and livestock, e.g. For water and sanitation exist between water washed, water borne diseases and environmental health. As regards agriculture, due attention has to be given to soil and water conservation measures for rain fed agriculture and the design and

construction of sound irrigation systems in the case of irrigated crop production; the indiscriminate use of agrochemicals may lead to contamination of surface or ground water sources. For water and livestock sectors, water availability on and carrying capacities of grazing lands need to balance in order to avoid over-grazing or desertification.

Environmental conditions may be positively or negatively affected by water supply systems, depending on the appropriateness of the system and its operation. Refugee related activities could have serious environmental impacts on water supplies both locally and further afield.

Impact of water supply systems on the environment and impact of refugee related activities on water resources.

- Over exploitation/ contamination of available water resources.
- Faulty design, operation or maintenance of pipeline networks may reduce efficiency of distribution network and introduce new contaminants into the system which may prove difficult or impossible to eliminate before water reaches users.
- Poor quality of drinking water may affect health condition of refugees, the local population, and agency staff.
- Some sanitation systems(e.g. Sewers, septic tanks) need sufficient water in order to function properly.
- Camps and settlement may be subject to flooding if wrongly located (e.g. in riverbeds).
- Inappropriate drainage, soil and water conservation measures as well as poor water management in irrigation systems may lead to erosion, floods, ground water contamination and soil salinisation.

- Poor watering point hygiene may lead to increased occurrence of vectors.
- Human settlement close to open streams or over unconfined aquifers may cause downstream contamination.

At Bhutanese refugee camps, ground water is the prime source of drinking water and for other uses as well. The ground water is extracted using the pump set machine and then it is stored in a water storage tank. Water is treated with chlorine in the tank itself before distributing it. The networks of pipelines have been built for the effective distribution of water. Taps are provided to almost each sub-sector. In an average 23 litres of water per day is received by a refugee. Refugees are satisfied with the water supply facilities in the camps. The plastic buckets, Jerry-can and Gargros (Jars) are used for storing water. These items are provided by NRCS.

However, despite extracting such a large amount of water regularly since last ten years or so, the nearby villagers have not found any change in their drinking water availability and quality before and after the establishment of the refugee camps. When asked whether they may face the drinking water shortage in future or not if the present trend continues, then they admit that it will definitely harm them one day. Hence, there is unsustainable use of water at refugees' camps.

Water quality test

A microbial analysis of water samples from Goldhap (Deoniya River) was found to contain 2.6×10^6 col/100ml in down stream and 75 col/100ml in upstream of Goldhap Refugee camp. A test of drinking water quality carried out by ENPHO in 1992 at Beldangi found that hand pumps and dug wells (both do not serve for drinking now) were polluted due to faecal contamination (270-1760 col/100ml). However, test conducted recently found that the drinking water

quality is in excellent condition (5 col/100ml). This too shows the improvement in health and sanitation aspects. The presence of coliform in the water also depends on how clean a water tank/water storage jar is.

Contribution of refugees in up and down stream pollution

As refugee camps are built at close proximity to water courses the up and down streams pollution is unavoidable. A test conducted at Goldhap (Deoniya river) shows that down stream pollution (2.6×10^6 col/100ml) is much higher than up stream (75 col/100 ml). This is because of refugees use the river for washing their clothes and the waste is dumped on the banks of the river, thus polluting the river.

Impacts on agriculture due to up stream pollution

Local people who reside at lowland area of refugee camps and use water passing through refugee camps for irrigation purposes reported that the agricultural output has been reducing year after year since the establishment of the refugee camps. The reason is pollution of upstream river. Since refugees use soap to clean their clothes and soap contains boron, a toxic element, it is hazardous for plants. Boron, at traces amount is essential for plants but concentration greater than 4ppm is hazardous to all plants.

Thus, to improve the agricultural output, water with soap content is to be avoided for irrigation.

Health and Sanitation

Health:

The sudden arrival of large numbers of refugees in an area creates a source of potential health and environmental problem, for both the refugees themselves, as well as for the local population. The rigours of flight, and poor

sanitation due to the disruption of normal health services, may lead to the onset of outbreak such as cholera, dysentery, hepatitis, or typhoid among the refugee population.

Similar situation was experienced when Bhutanese refugees were housed in an over crowded manner and where there was lack of sufficient food, adequate water and sanitation in the Maidhar Camp during 1991-1992. For instance, Environment and Public Health Organisation (ENPHO) conducted a study on "A Report on Bacteriological Water Quality Study at Bhutani Refugee Settlement sites and at Kankai River," July 1992, found that the dug wells were heavily contaminated (1660-3700 col/100ml), the household storage water contained 2 - 1840 faecal coliform per 100ml, however tube wells were not contaminated. The WHO standard for drinking water quality is 0 col/100ml (i.e. no faecal coliform should be detected in 100ml of sample).

Thus, due to combined risk of flooding and major health emergency, the Maidhar Camp located at the bank of river Kankai was closed and four-planned camps-Goldhap and the three Beldangis were established during 1992. There after, the emergency health services were highly successful in reducing mortality rates and improving health standards.

Environmental conditions which have impacts on refugees' health and well-being are –

1. Over crowding
2. Poor drainage in camp area
3. Polluted water
4. Inadequate sanitation
5. Presence of vector borne diseases such as malaria, river blindness, etc.

6. Extremes of climate and weather etc

The problem of over crowding is still there however, since the camps are well planned and people have adapted themselves with the environmental conditions, the acute problems related to health have been reduced to a greater extent. However the risk of health problems still persist in the camps if all of the conditions are not properly monitored-time and again.

Environmental Impacts Related to Refugee Health:

Introduction of (non-endemic) disease vectors into the local environment, by the refugees themselves or by the poor management, of health services (e.g. improper storage or disposal of hazardous medical waste such as used dressings, syringes, expired medicines etc).

Health Service at Bhutanese Refugee Camps (BRC):

The health surveillance system in the BRC has bottom up approach. The lower most unit is Basic Health Unit (BHU), followed by Health Centre (HC) and then referral cases sent to hospitals outside the refugee camps. The referral cases, if it is a first-degree patient is sent to Bhadrapur, if second degree-Biratnagar or Dharan and for third degree- Kathmandu. The communities are mobilised and made aware of the health and sanitation importance through Communities Health Workers (CHW) and other health staff.

Health service for Locals:

Except transportation and referrals, all the medical facilities available in the camp like check up, diagnosis, medicines etc are provided to local people free of cost. So local people who cannot afford to buy medicines or go for other health check up can use the health services of BRC. Also in case of emergency they are given health services and counselling.

Hence this practice has reduced the constraints between the refugees, locals and relief agencies in one hand, and in other hand the service has established a cordial and friendly relationship between locals and refugees. As a result intermingling has increased which in turn leads to assimilation- one of the aims of UNHCR during durable solution phase.

Sanitation:

Failure to maintain adequate standards of sanitation can result in health risks caused by pests and vectors such as mosquitoes, flies, cockroaches, or rodents and by contamination of the environment (water, soil, etc). This contamination will almost certainly lead to disease among the refugee population and possibly among the local population as well.

Sanitation includes activities in the following areas:

1. Disposal of human excreta
2. Waste water and drainage
3. Drainage
4. Dust
5. Insect and rodent control.

Environmental impacts related to sanitation:

Management of excreta:

Poor control of excreta can lead to pollution of surface water as well as ground water. This can result in the spread of disease to a much greater population than that which caused the pollution, with resultant human and financial costs. Keeping in view of the above points, pit latrines are constructed in the alternate rows between two opposite huts. Two families or a double plot

use(s) one latrine. Refugee themselves maintain the latrines. The repair, maintenance and construction (if required) materials are provided by LWF.

Waste water management:

Poor management of wastewater (that is if it is allowed to collect in ponds or puddles) can provide breeding grounds for disease carrying vectors. In order to manage the wastewater, sanitary pits are constructed in each and every huts of the refugee camp. This is based on “3As” rule-

1. Socially acceptable
2. Appropriate (technically adapted) and
3. Affordable (Moderate cost).

A pit hole of about 1.5m deep and 1m diameters is dug. A pipe is kept on the wall of the pit (as shown below) at an angle of 45° with the earth surface.

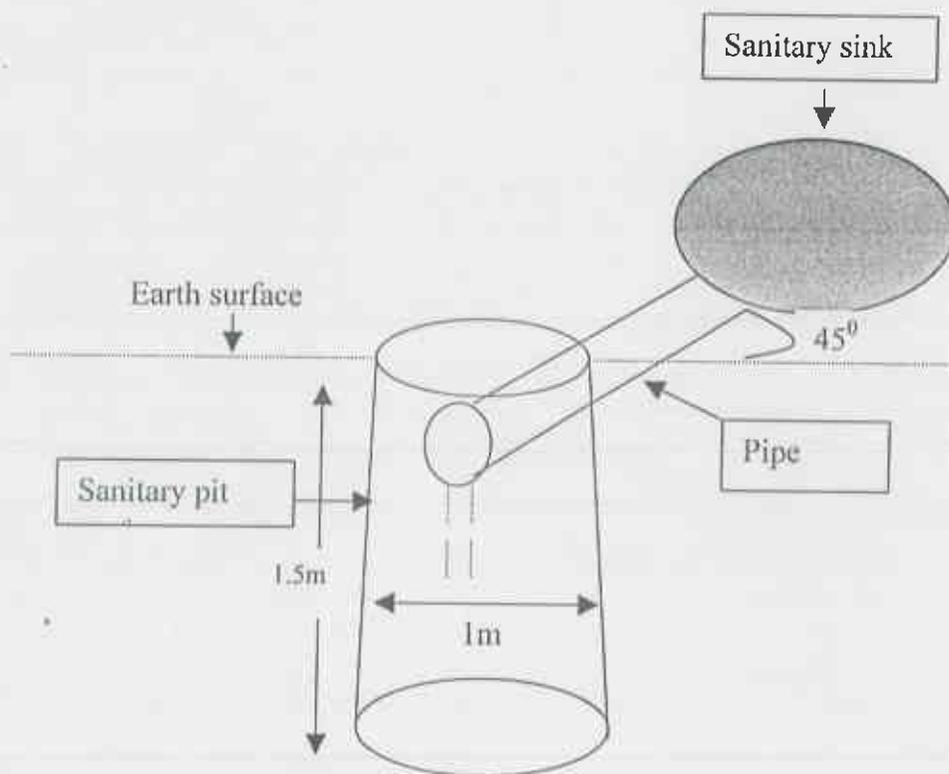


Fig: Sanitary pit

The pit is covered on top by twigs, branches, bamboo, mud etc, which are locally available in the camps. The wastewater is collected in the pits and seeps below the ground. In addition, the biodegradable waste (mostly food waste) decays in the pit. The pit thus lasts long. This technique has prevented the breeding of flies and mosquitoes and hence the sanitation remains in excellent condition. It is incredible to see such a clean environment despite the over crowding population residing here. (See plate of sanitary basin). The hazardous waste such as medical waste, used/expired chemicals from hospitals etc are dumped in a covered pit and incinerated whenever possible.

Garbage control and Management:

Inadequate provision of: garbage storage near point of use, collection, disposal and stabilisation, or reuse and recycling, could lead to contamination of the environment and the potential spread of disease by humans, animals, insects or vermin. Composting pits are constructed about 500m away from refugee camp boundary or within the boundary to dispose off waste generated in refugee households. 99.9% waste produced is of organic in nature, remaining being plastic, cardboard, wood etc. After the pit is filled another pit is constructed and former is covered by mud to keep flies and other rodents away and also to prevent foul smell.

Dust control and management:

Dust carried in the air can be irritating or harmful to the eyes, respiratory system, or skin, can contaminate food, and damage sensitive camp equipment. Under some conditions, dust can be heavily contaminated with faecal matter and may be a direct cause of disease. Since most of the refugee camps are established in the barren land it is not at all possible to curb air pollution due to dust

particle. However, people have tried their labour best to minimise the effect by sprinkling water on the ground, scrubbing the floor, and cleaning the surrounding regularly and by planting trees and vegetables in their small plots around their huts. Local people are worried about the dust pollution due to the regular movement of vehicles plying to and fro refugee camps through gravel roads near by their houses. The pollution level rises during the winter season when there is no rainfall than in summer (when there is adequate rainfall). The RARP has black topped the roads of some villages which lead to refugee camps.

Refugees don't use pesticides and insecticides in the refugee camp. This has reduced the risk-of killing non-target organisms and –the pollution of environment.

Implementation of a programme involving “3Rs” (reduce, reuse, recycle) should be a major part of a waste management plant in the refugee camp. “2Rs” (reuse and recycle) were found to be absent in the process of waste management in the camps. Had “ 3R principle” been applied in the camps it would have had further made the management practices efficient.

Community mobilisation and awareness at camp:

Objectives-

1. To prevent communicable disease
2. To keep surrounding clean
3. To observe personal hygiene of every hut
4. To check medicine follow-up given to the patient.

Activities:

Role-play, drama, quiz competition, celebration of health related days
e.g.: condom day, HIV/AIDS day etc.

Volunteers:

Community Health Workers (CHW) has direct contact with community. Four numbers in Goldhap, 49 CHW in overall camps. Community Health Volunteers (CHV), looks after every 10 houses of the unit. There are 340 CHVs in Goldhap camp and 2500 CHVs in all the 7 camps.

Air pollution, noise pollution, population growth, and social problems.

Air Pollution:

Indoor air pollution results from burning of firewood and fossil fuels, fumes from carpets, furniture, plastic and dry paints. Organic compounds found at home causes irritation and allergies. Outdoor air pollution results from fossils fuels, vehicular emissions, toxic gases, and dust particles from unpaved roads, brick and cement factories. The major sources of air pollution in the Jhapa district are –

1. Natural Sources:

- Dust particles blown during spring and pre monsoon period by strong winds
- Smoke from forest fires
- Heavy fog during winter months

2. Anthropogenic Sources

Combustion of fossil fuels, vehicular emissions and industrial emissions

- Burning solid waste including plastic and other petrochemical products resulting in toxic emissions
- Street sweeping in the day time
- Fumes from carpets, furniture, plastic and dry paints.
- Fuel burning without ventilation facility in rural households.
- Stone quarrying which produces dust particles.

All the natural sources of pollution and camp's street sweeping in the daytime, stone quarrying and fuel wood and kerosene burning among Anthropogenic sources of pollution are prevalent in the refugee camps.

Cases of chronic bronchitis, lung blocking diseases and eye related diseases are some of the effects of air pollution on human health.

Noise pollution:

Noise is defined as unwanted sound. Noise is one pollutant that dissipates when generated, but the effect may linger until death. According to some authorities the world noise level is increasing by 1 decibel (dB) per year. Noise can be an indoor problem (radio, television, vacuum cleaner etc) or a community concern (trucks, cars, aeroplanes, tractors etc).

Noise has three effects- psychological (tension, anxiety and anger), psychophysical (communication interface such as speech) and physiological (headaches, gastric ulcers, poor circulation of blood, irregular heartbeats and stomach spasms).

Road traffic noise levels in various areas of Jhapa ranges from 60 to 100 dB. The average noise level at different refugee camps during night, morning and daytime was found to be 55db, 75db, and 80db respectively. Sound system produces 104 dB of sound. Some standard noise levels are –

Threshold hearing	0dB
Just audible	10 dB
Very quiet (e.g. library)	30 dB
Quiet	50 dB
Intrusive (conversational speech at 3 ft)	60 dB
Annoying	80 dB.

Table No. 6 : Standard Noise Level

The result shows that the camps noise level is high during daytime, moderate during morning and quiet at night. 80db is ten times as loud as 70 dB, 90db is 100 times as loud as 70 dB, 100db is 1000 times as loud as 70 dB etc (noise study levels are expressed on a logarithmic scale). Exposure to noise level greater than 85db for lengthy period can result in hearing loss. Despite such a large population cluster in a small area, the noise level was found to be quite low than as expected. Loud radio, tape recorder, sound system, mikes and gatherings (religious, political, social, organisational, institutional, etc) are some of the major noise pollution sources in the camps. Avoiding the above factors will further help in reducing the noise pollution.

Population Growth and Social Problems.

Population Growth

More than 98,000 BRs have been taking shelter in Eastern Nepal under UNHCR monitored refugee camps. The table below shows the population of BRs during the period 1997-2000.

Table No.7 : The no. of Bhutanese Refugees

YEAR	1997	1998	1999	2000
TOTAL	93,674	94,444	96,617	98,886

Source: Quarterly Statistical Bulletin (CBS: 2001).

The population of Jhapa and Morang Districts during 1991 and the projected population for the year 2001 are given below:

Table No. 8 :Population during 1991

DISTRICT	MALE	FEMALE	TOTAL
JHAPA	2,99,946	2,93,791	5,93,737
MORANG	3,43,045	3,31,778	6,74,823

Source: National Population Census, 1991.

Table No.9: Projected population for the year 2001.

DISTRICT	MALE	FEMALE	TOTAL
JHAPA	3,78,817	3,74,048	7,52,865
MORANG	4,35,655	4,26,882	8,62,537

Source: CBS, Statistical Year Book of Nepal, 2000.

The data above shows that the population of Bhutanese refugees is increasing at an alarming rate not because of additional refugees pouring into Nepal from Bhutan but due to the natural reproductive birth. If assimilation process is started, Jhapa(Nepal) will have to bear a heavy burden of population which will adversely affect the social, economic and environmental sectors. It has been expected that some numbers (approximately 40,000) of BRs may be assimilated in Nepal after the on going joint verification process is over (The Space Times Today, May 27, 2001).

Social Problems:

Many social problems have erupted in and around the BRCs. Basically, prostitution, sexual scandals, alcoholism, gambling, theft, drug trafficking, acquiring Nepali citizenship with the help of fake testimonials, fights, foul languages, etc. are some to be mentioned here. However, despite the above problems, locals say that the refugees are disciplined, hardworking, sincere and religiously inclined. Most of the social problems arise due to the overcrowded refugee camps. Repatriation of the Bhutanese refugees to their homeland at the earliest possible is the only solution to all the problems associated with these refugees.

Economic Impacts:

Like other host govt., the Nepalese government's priority lies with its own situation, and refugee-involvement in income generating activities can exclude Nepalese from employment opportunities. Government restriction on the employment of refugee has resulted in lowering the economic burden of poor and deprived groups.

Poverty, with its associated deprivations, seems to be the source of all socio-economic problems along the refugee hosting areas, including the over exploitation of forest resources. The local dwellers, if provided with alternatives to firewood collection and sale, will tend not to over exploit the Eco-system. Establishment of buffer zones, Eco-tourism, honey bee farming, small scale income generation etc, are some of the alternatives that may be offered to the local people. These programmes require little investment and may be ideal for the local people as a side occupation for economic upliftment. Lack a public awareness about ecological and environmental issues may underlie the plight of deteriorating natural resources around the camps. In case of economically - important systems such as the forest/water resources of Nepal, such ignorance is self-defeating.

The influx of Bhutanese refugees brought both positive and negative impacts in the refugees' hosting areas.

The positive impacts are-

1. The local market benefits increased. Local people can sell their locally available goods especially vegetable and food items easily and at much higher price than they used to sell before the arrival of refugees.

2. The economic upliftment of the local people took place because of some income generating activities assisted by different INGOs and RARP programme.
3. The locals got cheap labour force. For one refugee labour, they pay around RS. 50 /day and for a local labour RS. 100 /day. On top of this, locals need not provide food to refugee labour force where as for local labour force they have to provide food despite offering RS. 100/day
4. Locals got employment opportunities in different NGOs, INGOs and relief agencies.
5. Local development took a pace with assistance from donor and relief agencies.
6. The land value increased due to road network linking different VDCs and towns.
7. Locals learned new skills, technologies, and art from refugees and vice versa.

The negative impacts are –

1. Local labours are replaced by refugee labour force. For instance, refugee began working in local tea estate, agriculture field etc. with half the labour wage than that of local labour's wage. Obviously, the owner chooses refugees from economic point of view. This has lead local labour force to migrate to some other places.
2. The pollution of irrigation water decreased the agriculture outputs, there by leading to economic downfall.
3. Refugees have replaced higher incomes jobs like teaching in private schools etc.
4. Forest depletion occurred which too has economic output.

5. Encroachment and destruction of agricultural fields.
6. Adverse effects on poor locals due to price increase in commodities.
7. Spread of new diseases, social cost increased.

Thus for mutual benefits between refugees and locals, promotion of activities which, in the best scenario, contribute directly to sound environmental management, should be initiated. Such initiatives should include the promotion of the development related projects in refugee-affected areas (in co ordination with implementing partners, international development agencies etc.), e.g.

1. Production of fuel-efficient stoves.
2. Manufacturing concrete latrines /, water cisterns, cement blocks or sun-dried /compacted earth blocks for shelter constructions etc.
3. Nurseries and reforestation.
4. Terracing eroded hillsides.
5. Collecting and recycling of waste.
6. Composting programmes.
7. Fish farming.
8. Setting up Biogas generators etc.

For successful promotion of the activities with a positive impact on the environment, these activities need to be seen jointly by the refugees and the locals.

Environmental Education (EE):

EE activities can be introduced, as a refugee program develops to reinforce the environmental themes contained other project component. There should be strong and practical linkages between any environmental programmes and formal and non-formal education. Education typically has long-term impacts

and should be supplemented with short-term public information messages on environmental protection. It is advisable to ensure a mix of education and incentives for environmentally –sound behaviour. Non-formal EE can be channelled through health programmes, adult literacy classes, religious services, notice boards, drama and poetry festivals, competitions etc. Networks of community services and health mobilisers can be particularly effective in passing on appropriate environmental messages, given appropriate training.

In regard to Bhutanese Refugees, all the activities mentioned above are performed, however due to lack of environmental education particular emphasis to save environment is not imparted clearly. Thus, people are not so much aware of the importance of the environment, which is crucial to mitigate adverse environmental impacts like high fuel consumption, polluting near by streams and rivers etc. Non formal education can be most effective in schools if a “whole school approach” to EE is adopted, so as to use co-curricular activities that reach all pupils and teachers, as well as features of the school landscape. School must not operate as island of knowledge in communities; they must be given to communities and the communities be brought into the schools, for e.g., through camp/ settlement environmental working groups. Due to lack of sound environmentalist, this approach however has not been initiated yet in Bhutanese Refugee Camps.

The EE programme should include-

1. Energy conservation
2. Conservation of trees and other vegetation
3. Soil conservation
4. Water conservation

5. Environmental health
6. Sustainable shelter
7. Waste disposal
8. Local laws and traditions on natural resources.

In implementing EE programmes at refugees the following principles should be followed-

- Integration of EE within existing refugees, UNHCR and implementing partner initiatives;
- Cultural sensitivity;
- Refugee motivation;
- Refugee community initiative, participation and empowerment;
- Respect for traditional knowledge as well as for modern science;
- Priority to women and children;
- Local populations as well as refugees should benefit;
- Involvement of host country govt. authorities.

Roles adopted by NGOs and INGOs to address environmental conflicts in eastern Nepal.

A set of mini-investment project –refugee-affected areas rehabilitation programme (RARP) was developed by UNHCR to contribute to sustainable development, reduce and repair environmental damage, provide labour opportunities and improve infrastructure. This programme is carried out by RCU, LWF and NRCS, assisted by UNHCR.

The project focussed on:

1. Construction and management of piped drinking water system.
2. Hand pump installation for drinking water and vegetable gardening purposes.

3. Family latrine construction (see photo)
4. School building construction
5. Irrigation canal construction and water management.
6. Functional adult literacy programme
7. Assistance to income generation through various skill development training.
8. Personal hygiene awareness training
9. Community leadership for development training
10. Assistance for establishment and strengthening the shading and credit groups in the community.
11. Institutional development
12. Environment protection through forestation (see photo)
13. Vegetable gardening for household consumption
14. Schools teachers training
15. Community based disaster preparedness training.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusion:

From the study, it can be concluded that Jhapa, being one of the densely populated districts of Nepal, is quite efficiently managed in terms of its overall environmental framework (Management) despite hosting some one lakh Bhutanese Refugees. The Bhutanese refugee situation, amongst others shows that where circumstances are conducive high levels of refugee's self-management can be achieved.

With a clear mandate to work with refugees and as the lead agency in most refugee situations, UNHCR has a critical advocacy and facilitating role to play in the promotion of environmental management in the refugee hosting areas. Experience from the refugee situations discussed in this situation study demonstrates the importance of establishing clear guidelines on environmental management and setting a precedent from the beginning of an assistance programme. Once the refugee camps have been set up, it is very difficult to reverse environmental patterns at a later stage. The 'symbolic' or 'passive' participation of Bhutanese refugees in environmental management was noticed during the entire study period. The present approach of environmental management in the BRCs and the refugees-affected areas seems unsustainable. There is top to down approach, participation of grass root level is minimum. Many protection schemes such as bank protection gully erosion prevention reforestation etc have been initiated with the assistance from the donor agencies. For long-term operation, empowerment of refugees and local communities to manage natural resources becomes the most sustainable possibility.

The supply of kerosene and suitable cooking stoves met the majority of the refugees' energy demands and resulted in a dramatic reduction in firewood harvesting. Likewise, tensions between refugees and local people as well as between relief agencies and the host government were reduced. The effects of Bhutanese refugees to local areas seem similar in all the places where refugee camps are situated. The effects on labour force, economic impacts, natural resource depletion, disease, water pollution, social problems, congestion etc are some of the major concerns brought to the fore due to refugee situation.

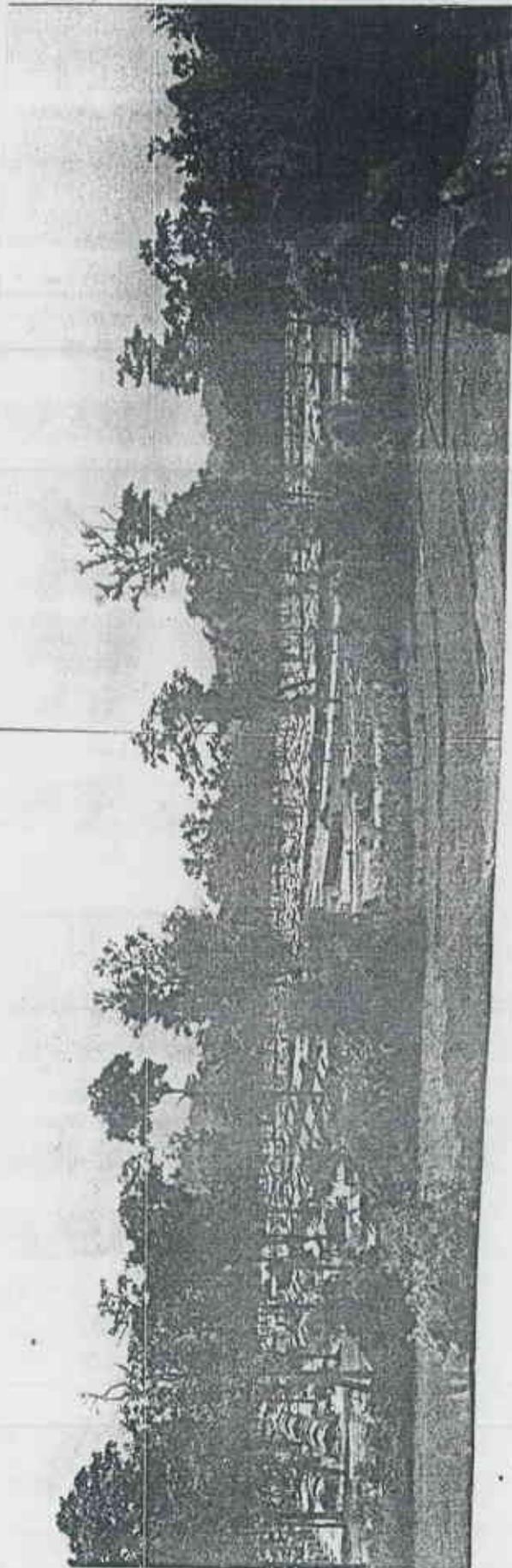
This study emphasises to promote the 'genuine' and 'active' participation of refugees and locals in strategic decision-making especially in environmental management.

Recommendations:

1. Ensure that refugees and local people are involved with project design implementation and management.
2. Environment programmes need not be costly. Cost effectiveness should be a key aspect of all environmental activities in refugee situations.
3. Environmental management should be more than providing stoves and planting trees.
4. Natural resource management programmes must be appropriate to local conditions and meet identified social and ecological needs.
5. With the growing number of refugee population in the camps, and increasing demand for the growing population; the sustainability of supply seems inappropriate. Food supply demand, fuel demand etc are always rising. Thus, alternatives for such demand should be given due considerations now, before it becomes too late.

6. Gender and culture issues must be taken into account in all educational activities and environmental management programmes.
7. Regular monitoring and evaluation of air, water, solid waste and noise pollution should be done.
8. Together with local authorities and institutions establish a mechanism such as a revolving fund to reinvest income gained from the sustainable use of natural resources into environmental management programmes.
9. Develop a clean policy on access to, and use of, natural resources by refugees. Any subsequent changes should be communicated to refugee communities and local communities.
10. Health education/sanitation and hygiene awareness program should be made efficient and advocate more rigorously
11. Trend of population increase should be curbed.
12. Environment friendly technologies such as solar-powered electricity, biogas, advance cooking stoves etc should be enhanced through input of financial and technical support.

LIST OF PLATES



1 A VIEW OF BHUTANESE REFUGEE CAMP LOCATED
IN SOUTH-EAST NEPAL



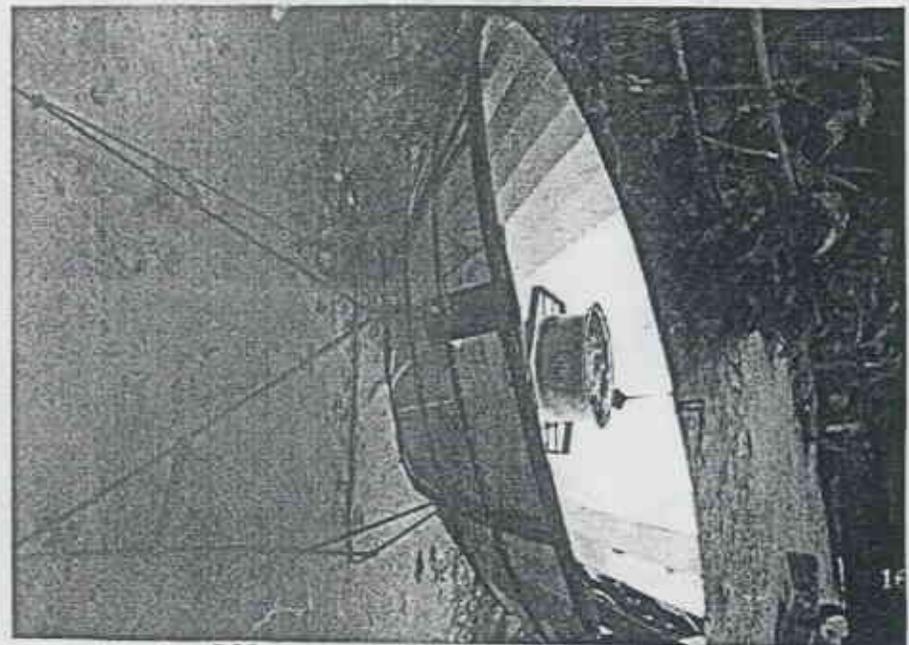
2 a. RARP PLANTATION AREA IN BHUTANESE REFUGEE CAMP



c. GULLY EROSION CONTROL AT BHUTANESE REFUGEE CAMP



b. RIVER BANK PROTECTION AT REFUGEE AFFECTED AREA



d. SOLAR HEATER AT BHUTANESE REFUGEE CAMP



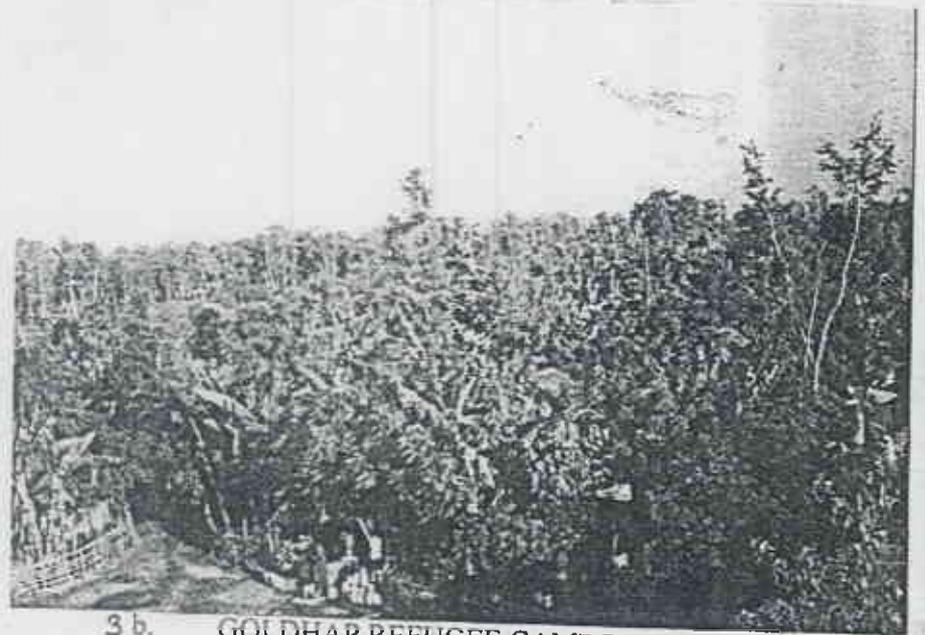
2e. A REFUGEE CLEANING HIS KEROSENE STOVE



3 a. GOLDHAP REFUGEE CAMP DURING 1994
(DEVOID OF VEGETATION)



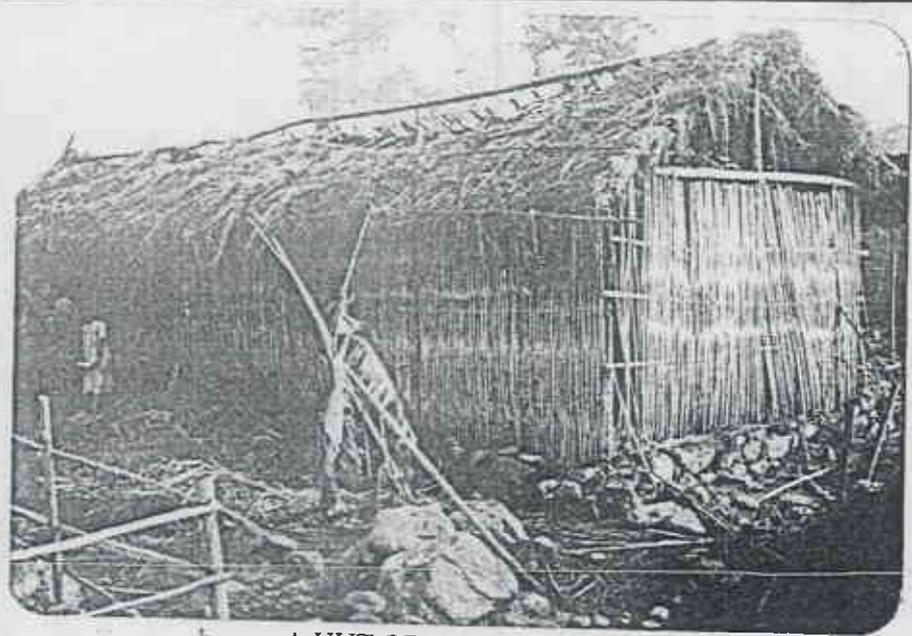
7 HEALTH CENTER AT BHUTANESE REFUGEE CAMP



3 b. GOLDHAP REFUGEE CAMP DURING 2001
(COVERED BY VEGETATION)



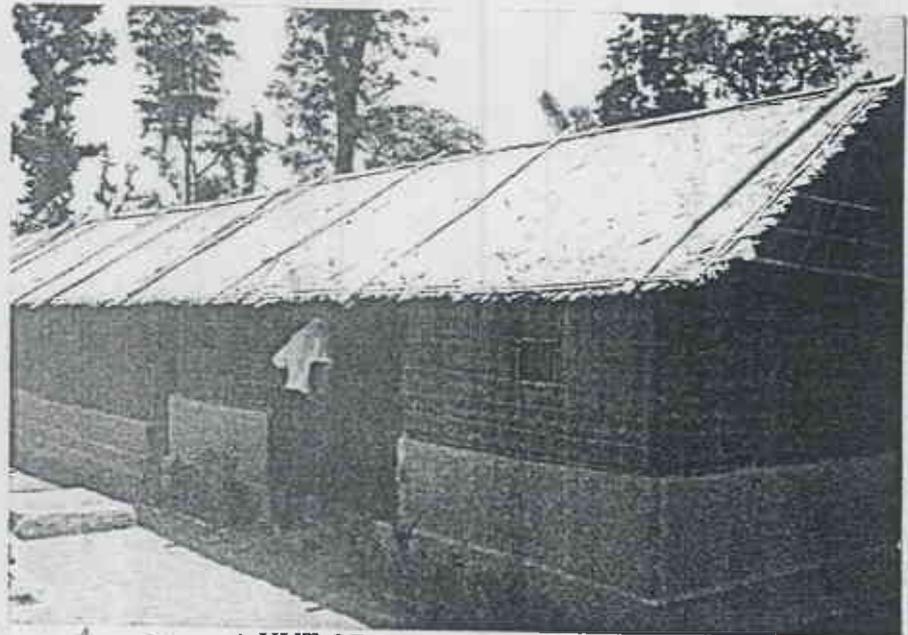
d. STOCK OF BAMBOO FOR DISTRIBUTION AT
BHUTANESE REFUGEE CAMPS



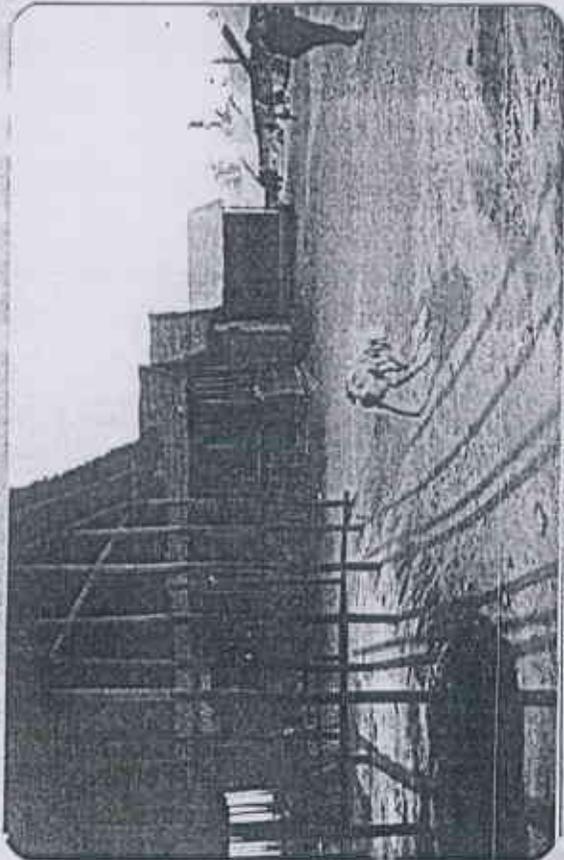
b. A HUT OF BHUTANESE REFUGEE WITH
THATCHED ROOF



c. STOCK OF THATCH FOR DISTRIBUTION AT
BHUTANESE REFUGEE CAMPS



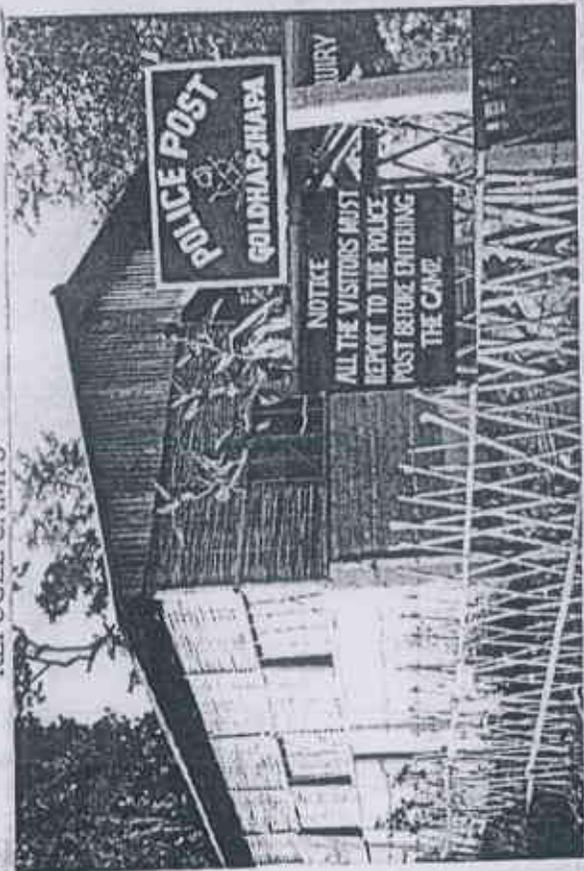
4 a. A HUT OF BHUTANESE REFUGEE WITH
SANDWICHED PANEL ROOF



4c. DISTRIBUTION CENTERS OF BHUTANESE REFUGEE CAMPS

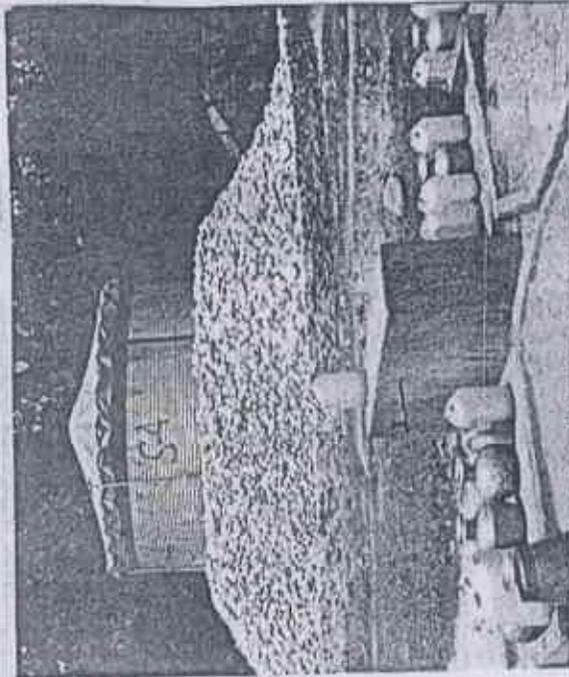


4 E A REFUGEE REPAIRING HIS HUT



9 a POLICE POST FOR SECURITY AT BHUTANESE REFUGEE CAMP

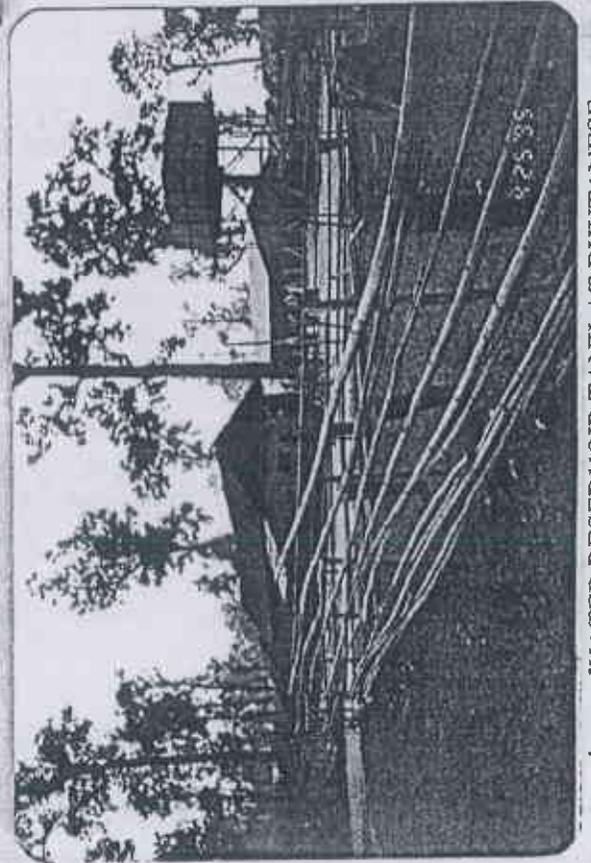
b POLICE POST FOR ENQUIRY AT BHUTANESE REFUGEE CAMP



5 a. WATER RESERVOIR TANK AT BHUTANESE REFUGEE CAMP



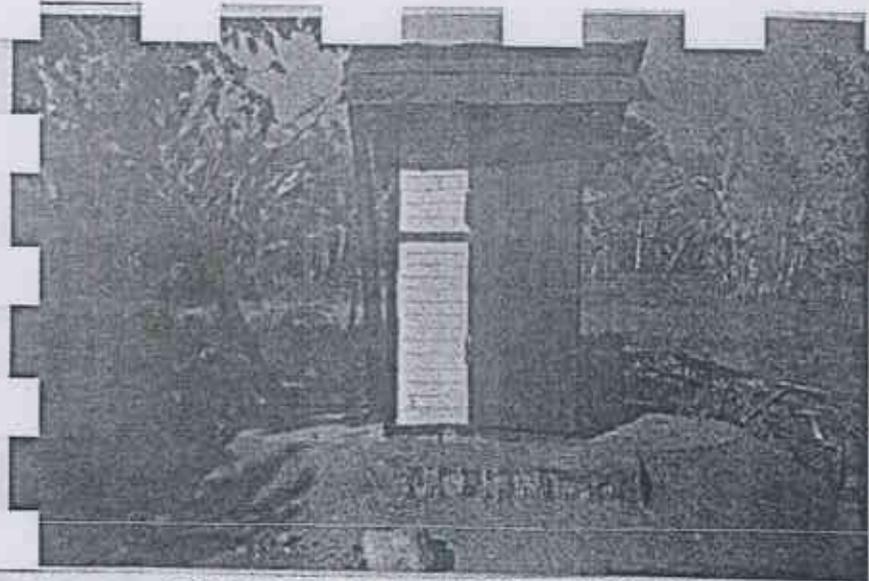
5c VESSELS BEING LINED UP TO FETCH WATER AT BHUTANESE REFUGEE CAMP'S TAP



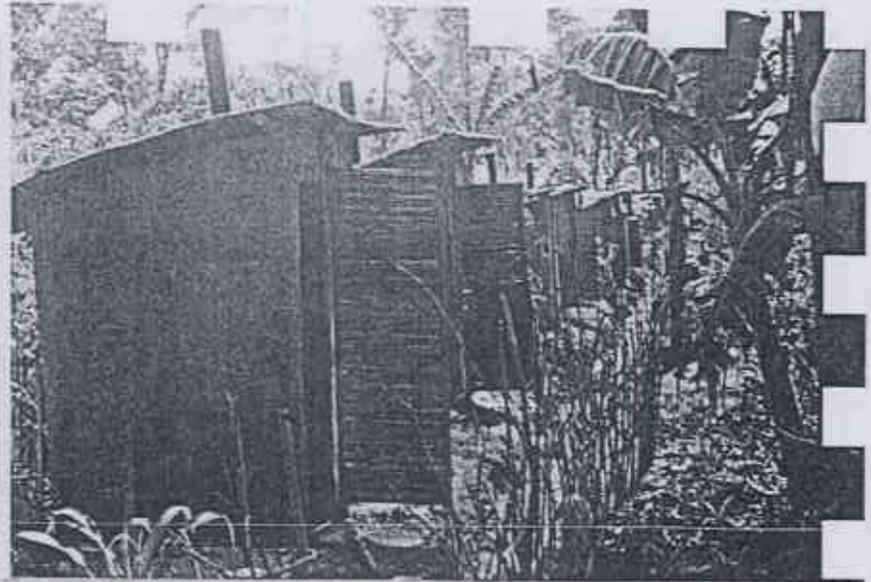
5 b. WATER RESERVOIR TANK AT BHUTANESE REFUGEE CAMP



5d. COLLECTING WATER FOR BACTERIOLOGICAL ANALYSIS AT GOLDHAP REFUGEE CAMP



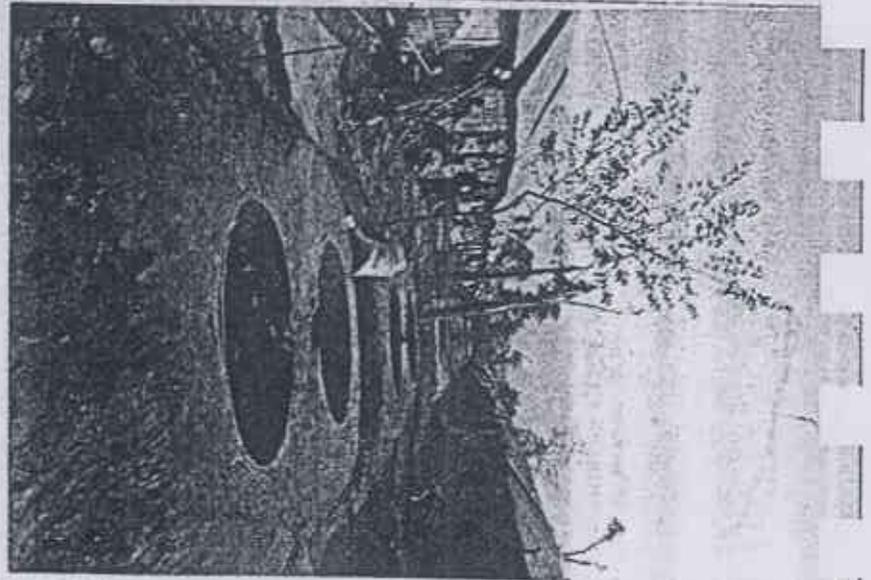
6d. TOILET FOR LOCAL PEOPLE AT REFUGEE AFFECTED AREA



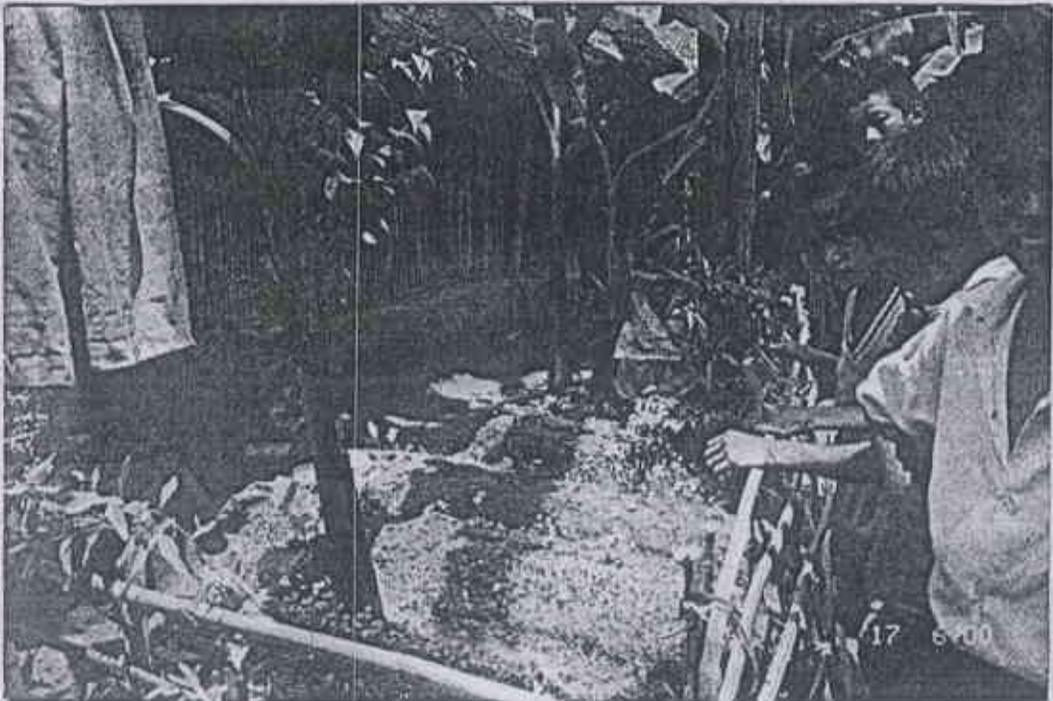
6c. TOILETS AT BHUTANESE REFUGEE CAMP



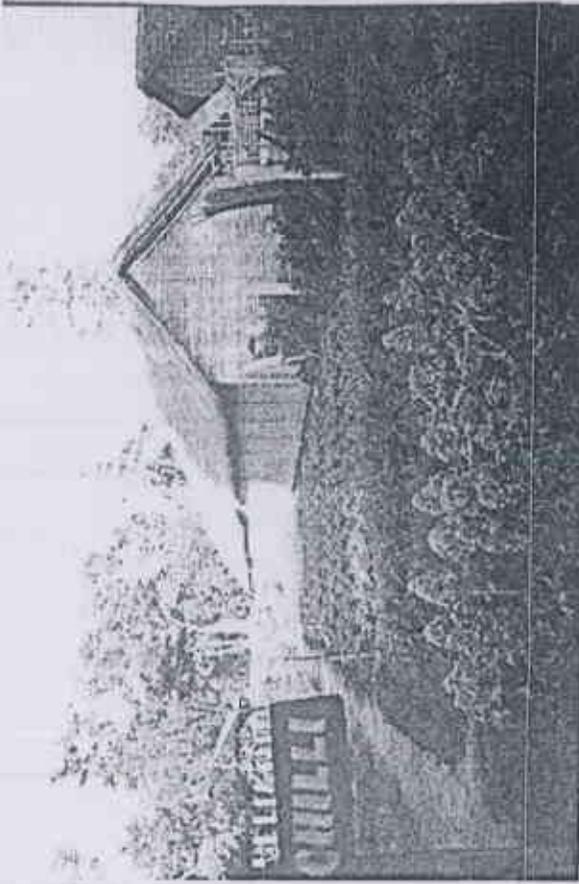
6 a. SANITARY BASIN/PIT AT BHUTANESE REFUGEE CAMP



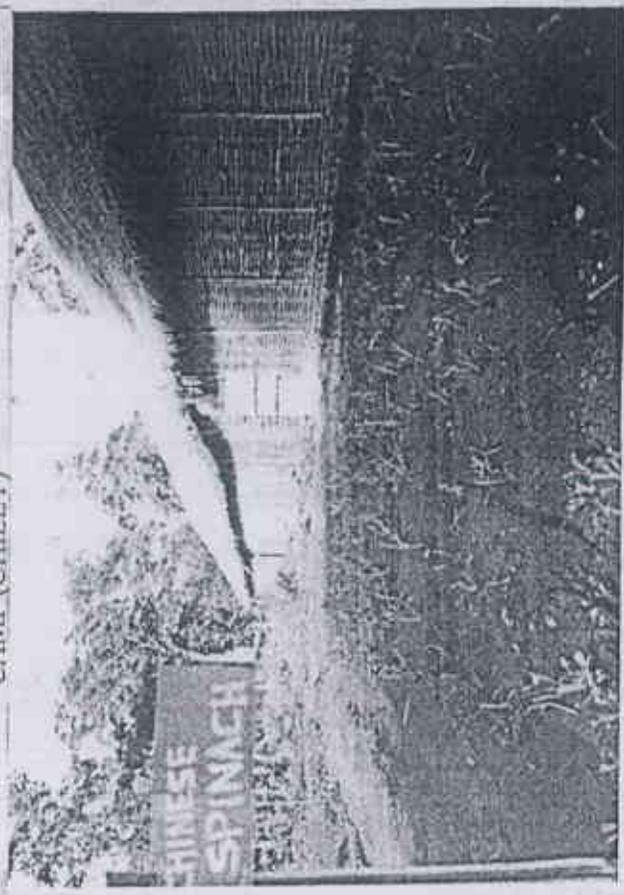
6b. TOILET PITS AT BHUTANESE REFUGEE CAMP



8 c KITCHEN GARDEN AT BHUTANESE REFUGEE CAMP



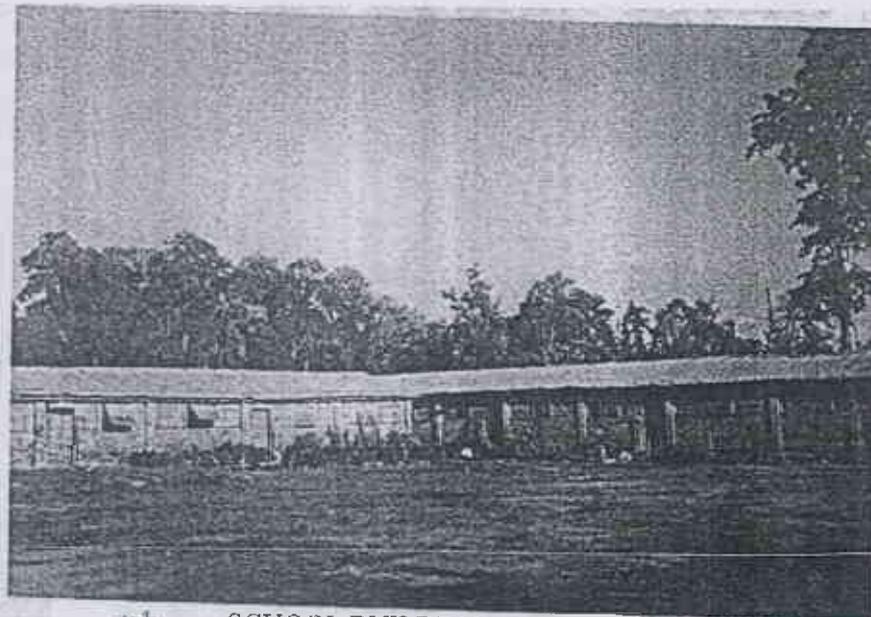
8 a VEGETABLE GARDENING (NURSERY DEVELOPMENT) AT BHUTANESE REFUGEE CAMP (CHILLY)



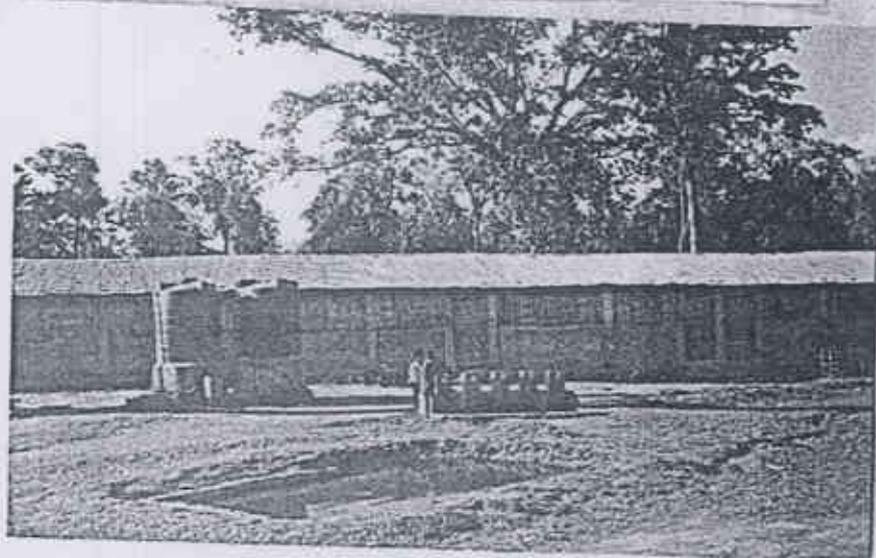
8 b VEGETABLE GARDENING (NURSERY DEVELOPMENT) AT BHUTANESE REFUGEE CAMP (CHILLY)



10 a SCHOOL BUILDING (THATCH ROOF, BAMBOO WALLS) AT BHUTANESE REFUGEE CAMP



10b SCHOOL BUILDING (TIN ROOF, CONCRETE WALLS) AT BHUTANESE REFUGEE CAMP



10c WATER RESERVOIR TANKS, TAPS AND A SMALL FISHERY POND AT SCHOOL PREMISES OF BLOOMING LOTUS ENGLISH SCHOOL, GOLDHAP AT BHUTANESE REFUGEE CAMP



13 JOINT VERIFICATION TEAMS' OFFICE AT DAMAK, JHAPA, NEPAL.



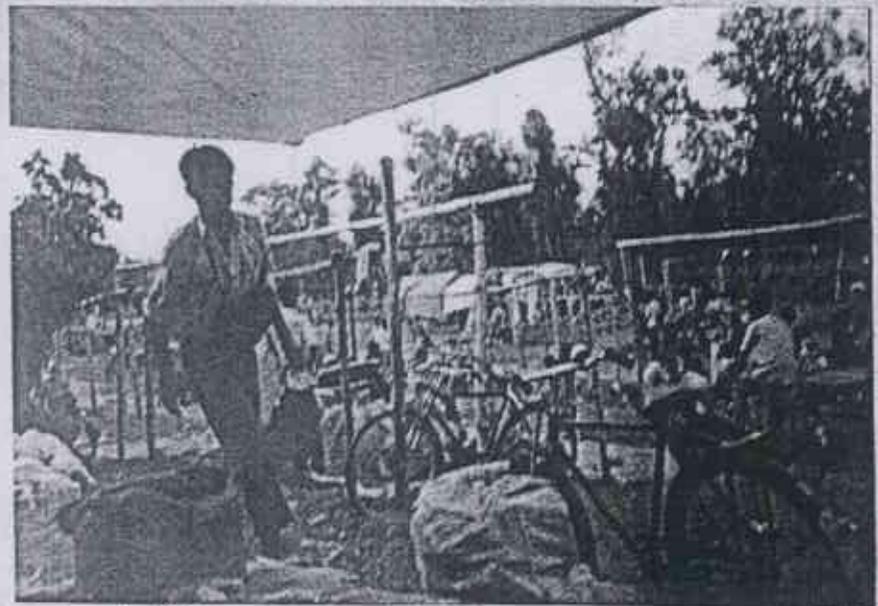
11 a INTERVIEWS WITH LOCAL PEOPLE - FEMALE RESPONDENT



12 a INCOME GENERATING ACTIVITY AT BHUTANESE REFUGEE CAMP



11 b INTERVIEWS WITH LOCAL PEOPLE



12 b LOCAL MARKET (POPULARLY KNOWN AS

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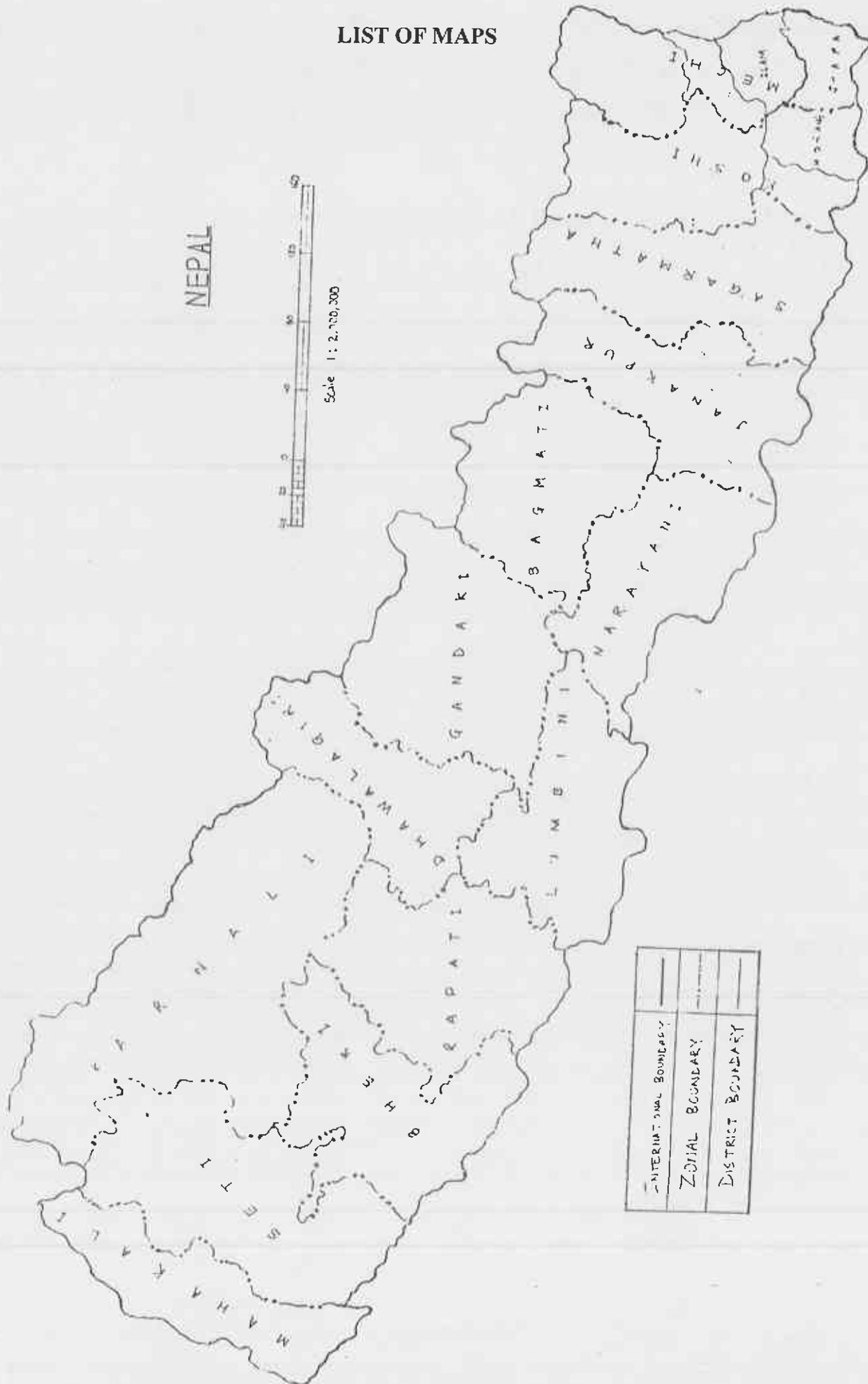
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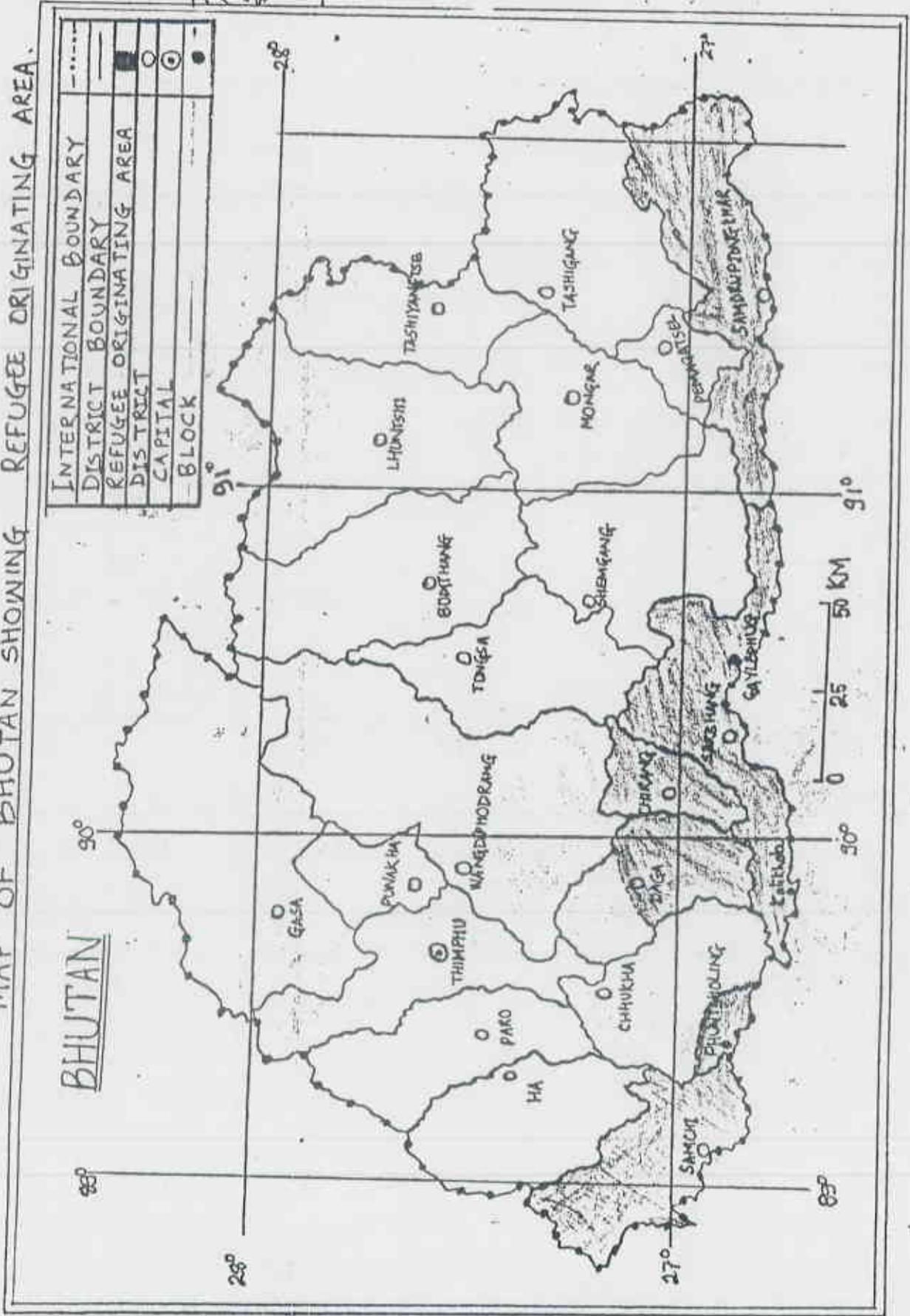
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LIST OF MAPS



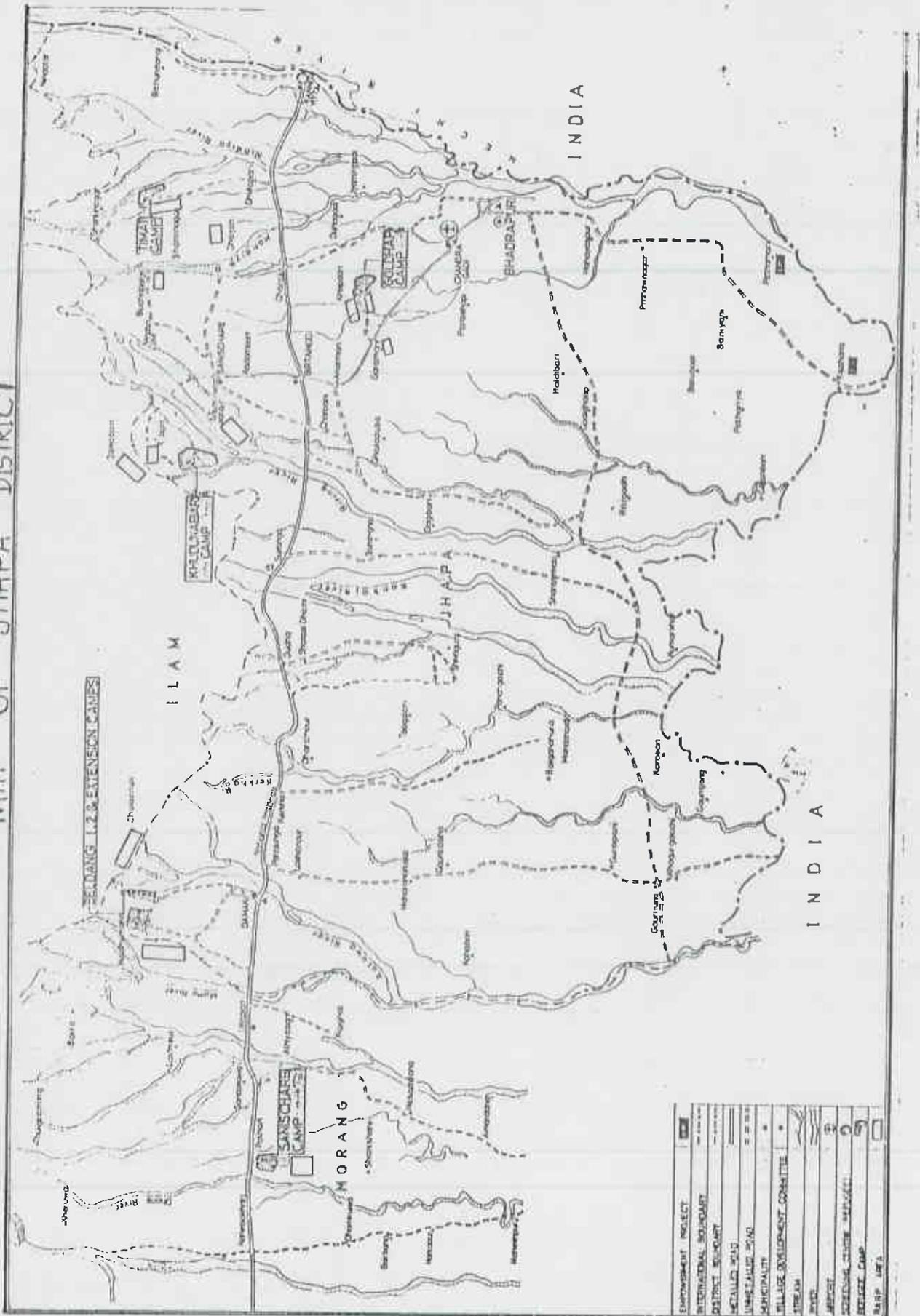
MAP OF BHUTAN SHOWING REFUGEE ORIGINATING AREA.



INTERNATIONAL BOUNDARY	---
DISTRICT BOUNDARY	---
REFUGEE ORIGINATING AREA	■
DISTRICT	○
CAPITAL	⊙
BLOCK	●



MAP OF JHAPA DISTRICT



↖ To Itahari

High Way

↗ To Damak



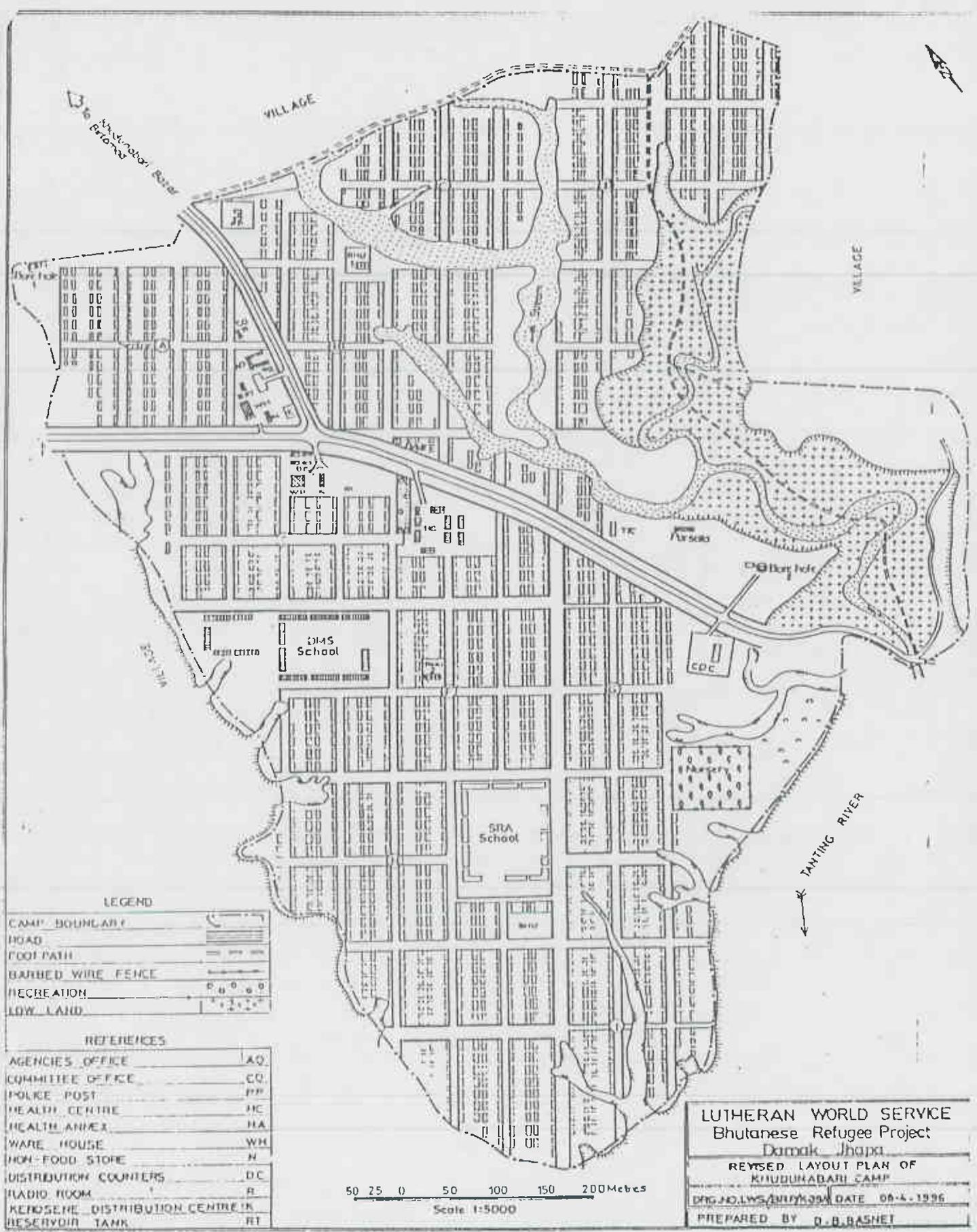
REFERENCES

NFS	Non-Food Store
WH	Ware House
DC	Distribution Counters
RR	Radio Room
KDC	Kerosene Distribution Counters
HA	Health Annex
BIU	Basic Health Unit
HC	Health Centre
SS	Sector School
RT	Reservoir Tank
BN	Bore Hole
PP	Police Post

100 80 60 40 20 0 100 200Metres
SCALE 1:4000

LUTHERAN WORLD SERVICE
 Bhutanese Refugee Project
 Damak Jhapa
 Layout Plan of Sanischara Camp

PRG. No. LWS/BRP/SP/S/16A
 PREPARED BY D.B. BASNET



LEGEND	
CAMP BOUNDARY	—
ROAD	—
FOOT PATH	—
BARBED WIRE FENCE	—
RECREATION	○ ○ ○ ○
LOW LAND	—

REFERENCES	
AGENCIES OFFICE	AQ
COMMITTEE OFFICE	CO
POLICE POST	PP
HEALTH CENTRE	HC
HEALTH ANNEX	HA
WARE HOUSE	WH
NON-FOOD STORE	N
DISTRIBUTION COUNTERS	DC
RADIO ROOM	R
REFRESHMENT DISTRIBUTION CENTRE	IK
RESERVOIR TANK	RT

50 25 0 50 100 150 200Mches
Scale 1:5000

LUTHERAN WORLD SERVICE
Bhutanese Refugee Project
Damak Jhapa
REVISED LAYOUT PLAN OF
KHYUDUNABARI CAMP
DPR NO. LWS/AR/17/03/84 DATE 08-4-1996
PREPARED BY D.B. BASNET



10 75 50 25 0 10 20 40 200m
 Scale 1:5000

REFERENCES

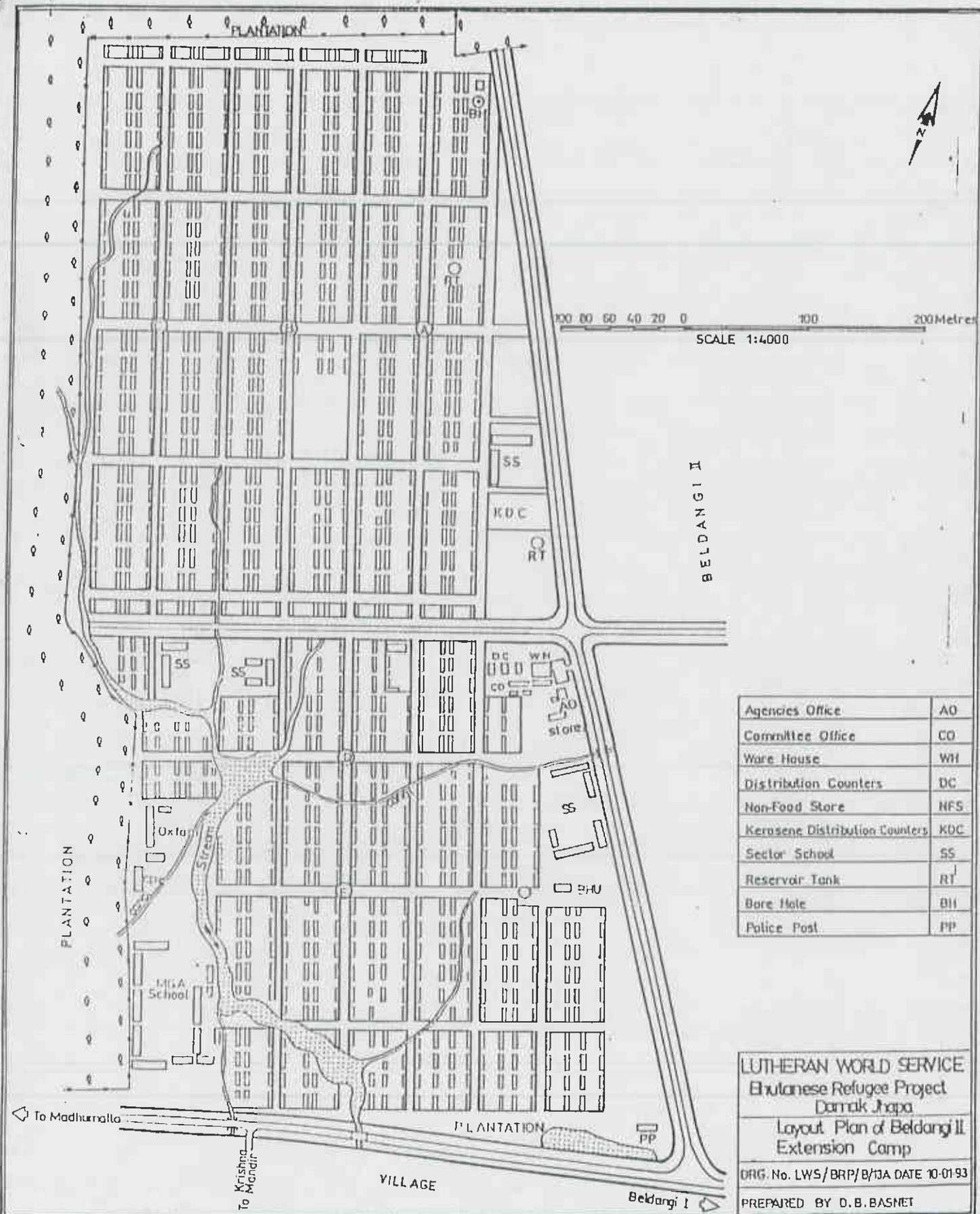
OFFICE	O
REPOSURE INSTRUCTION COURTES	RIC
POLICE POST	PP
WORKSHOP	WS
WARE HOUSE	WH
DISTRIBUTION COURTIERS	DC
HEALTH COMPLEX	HIC
HEALTH AREA	HA
SECUR SCHOOL	SS
BORE HOLE	BH
WATER TANK	WT
WATER TAP	T
CAMP BOUNDARY	
COMMITTEE OFFICE	CO

LUTHERAN WORLD SERVICE
 BHUTANESE REFUGEE PROJECT
 DAMAK, JHAPA
 Layout Plan of Beldangi I
 SCALE AREA
 DNG.No.125/1895/27/25 DATE 16-6-1994
 PREPARED BY D.B.BASNET



CAMP BOUNDARY	
SECTION	
ROAD	
FOOT PATH	
RESERVOIR TANK	
MANUREY LOW LAND	

LUTHERAN WORLD SERVICE
 BHUTANESE REFUGEE PROJECT
 DAMAK JIAPA
 Layout Plan of Beldangi II
 SCALE 1:2500
 ORG. No. LWS/IND/SY/14 DATE 22.92
 PREPARED BY D.B.BASNET



Agencies Office	AO
Committee Office	CO
Ware House	WH
Distribution Counters	DC
Non-Food Store	NFS
Kerosene Distribution Counters	KDC
Sector School	SS
Reservoir Tank	RT
Bore Hole	BH
Police Post	PP

LUTHERAN WORLD SERVICE
 Bhutanese Refugee Project
 Darrak Jhapa
 Layout Plan of Beldangi II
 Extension Camp
 DRG. No. LWS/BRP/B/13A DATE 10-01-93
 PREPARED BY D.B.BASNET

ANNEX- 1: QUESTIONNAIRE

General Questionnaire prepared for the survey of environmental management in and around the BRCs in Southeast Nepal.

For a local respondent:

Name of respondent:

Occupation... VDC... ward no... Total household in ward...

For a refugee respondent:

Name of respondent... Occupation.... Hut No----- Sub-Sector ----Camp-----

Culture and ethnicity

Name of ethnic group

Sl. No	Types	Percentage

Which ethnic group has more interaction with the refugees /Locals?

Reason of interaction:

1. Culture
2. Providing accommodation
3. Local market
4. Caste similarity
5. Social and religious gathering e.g. Puranas , Dhamsi-Jhankri etc
6. Employment opportunity
7. Others

Was there any cultural and religious conflict between refugees and local residents?

Yes/No

Do you find any negative impact on your culture due to refugee problem?

Yes/no

If yes, specify...

Are there cases of intermarriage between refugees and local residents?

Yes / No

Does the establishment of refugee camps bring the major problems?

Yes/no

Do all the villagers/refugees know about the importance of natural resources?

Yes/no

Suggest the measures to be taken to conserve the natural resources.

Are all the groups (poor, deprived, well off, etc) involved in the management program?

Yes/no

Forest resource management.

Do you know the importance of forest management?

Yes/no

Are the local people/refugees dependent on the forest resources?

Yes/no

Do you think that the locals/refugees are destroying the forest?

Yes/no

Of the causes which one is instrumental in destroying the forest?

- Elections

- Refugee encroachment
- Illegal felling and pilferage of trees ?
- Fire
- Others

Have you kept separate grazing lands for your cattle?

Yes/no

Which fodder is the most common beneficial for your cattle? And why?

Why do you keep livestock?

- For your own basic needs
- For a source of income generation

Has the refugee affected your pastureland?

In what way the land was used before the refugee camps were established?

Water resource Management:

What is the local source of water for drinking and domestic uses?

- River
- Tap water
- Well water
- Springs
- Tube wells

Do you have special irrigation facilities?

Yes/No

Do you have piped drinking water facilities at your locality?

Yes / No

Do you use the river water for your daily activities like washing, cleaning , bathing etc?

Yes / No

Do you think the refugee problem will invite problem of water shortage in long term / future?

Yes/ No

Is there any shortage of water for irrigation as well as for drinking due to the refugee settlement in your area?

Yes / No

What measures should be taken in order to conserve and make sustainable use of the water?

Please specify...

What are the main reasons behind the water pollution?

- Fecal contamination
- Washing / cleaning/ bathing etc
- Dumping a waste at water source
- Refugee settlement and waste thrown by refugee
- Lack of knowledge about the importance of the water resources
- Others

Is your water reservoir free from contamination?

Yes / No

Do you treat your drinking water before use?

Yes /, No

How do refugees / Locals pollute near by water sources?

Have you observed any change in your agricultural output after the settlement in your locality?

Yes/No

If yes, specify...

Economic Analysis:

What is the current economic status of the family?

Good

Fair

Poor

Very Poor

Has refugee settlement created economic stresses in your locality?

Yes / No

If yes, specify...

Do you allow refugees to work in your field?

Yes /No

If yes, why?

Whom do you prefer to employ?

A refugee

A local

Why?

How much do you pay as a wage to a refugee?

How much do you pay as a wage to a Local?

Has land rate/ Value increased in your area due to road network?

Yes /No

Solid waste:

What kinds of wastes are produced from your house?

Degradable / Non degradable

What are the main sources of solid waste production?

- Kitchen waste
- Fodder
- Human waste
- Waste from livestock
- Agricultural waste

Do you have special technique to handle solid waste?

Yes / No

If no, how do you and where do you dump it?

How much waste is generated from refugee camps/ Local area?

- A large quantity
- Not so much
- Have no idea

Do refugees contribute to solid waste problem in your locality?

Yes/ No

If yes, how?

Population:

Do you think that the increasing number of refugee population will affect your locality in a long run?

Yes/ No

If yes, what kind of problems may arise?

How do you evaluate your present trend of population growth in your locality?

- At a faster rate
- At a slower rate
- At an average

Important sites:

Is your area -----

- Close to an airport/or major tourist center
- Moderately close
- Remote

Is the journey to your area -----

- Easy and comfortable
- A bit of an effort
- Dangerous

Does the area offer-----

- Star species attraction
- Other interesting wild life
- Natural heritage
- Cultural attraction

Does the area -----

- Offer several distinct features
- More than one feature of interest
- One main feature of interest

Is the area-----

- Unique in its appeal
- A little bit different
- A similar to other places

Are there sites of ecological importance like protected area, fragile ecological zone, catchment etc in the refugee hosting areas?

Yes / No

Has the establishment of the refugees camp brought more tourist to your area ?

Yes / No

Energy development:

Do you have any provision of energy development like biogas, solar etc?

Yes / No

If yes, specify...

Should government encourage such practice?

Yes/ No

Do you have any other idea for provision of energy development?

Yes/ No

If yes specify...

Air Pollution:

Do you know the causes of outdoor/ indoor pollution?

Yes/ No

Is the road near to your locality-

- Black topped
- Gravelled

Does vehicle produce dust in your locality?

Yes/ No

What can be done to prevent air pollution in your area?

Are there any industries that produce lots of smoke?

Yes/ No

If yes, mention..

Does refugee camp contribute to air pollution?

Yes/ No

What are the sources of air pollution?

Biodiversity:

What kind of trees, shrubs, or other vegetation planted in your locality?

Has the biodiversity been changed after the refugee settlement?

Yes/ No

If yes, specify

Is there a loss of any species due to refugee encroachment?

If yes, which species?

ANNEX – 2: DISTRIBUTION CRITERIA

Distribution criteria of food items

Basic Ration	Quantity
Rice	410gram/person/day
Pulses	60 gram/person/day
Vegetable oil	25 gram/person/day
Sugar	20 gram/person/day
Salt	7.5 gram/person/day
Cabbage or Pumpkin or Green Banana.	300 grams/person/week
Potato	300 grams/person/week
Onion	50 grams/person/week
Green chilly	20 grams/person/week
Garlic	20 grams/person/week
Turmeric	10 grams/person/week

Source: Nepal Red Cross Society, Damak

Distribution criteria for Non-food items

NAME OF ITEMS									
CRITERIA FOR DISTRIBUTION									
ITEMS	Blanket Nos./set	Mosquito Net	Cooking utensils	Plastic bucket	10 litre jerrycan for water	5 litre jerrycan for kerosene	Soap W-washing (200gms.) B-bathing (150gms) Monthly basis	Stove	Empty sacks (Yearly)
1	-	1-4 person(s)	Per family	Per family	1-7 person(s)	1-3 person(s)	1-5 persons-B	Per family	Per family
2	1-3 person(s)	5-7 persons	-	-	8 and above	-	6-11 persons-B 1-5 persons- W	-	-
3	4-6 persons	8-10 persons	-	-	-	-	12-17persons-B 6-11persons-W	-	-
4	7-9 persons	11-13 persons	-	-	-	-	18 and above-B 12-17persons-W	-	-
5	10-12 persons	14-16 persons	-	-	-	-	18 and above-W	-	-
6	13-15 persons	17-19 persons	-	-	-	-	-	-	-
7	16-18 persons	20-22 persons	-	-	-	-	-	-	-

Source: Nepal Red Cross Society, Damak

Danish envoy concerned over slow verification

■ By Pramod Poudel

KATHMANDU, May 3 - Danish envoy and President of the European Union here in Nepal Lars Hormann, today expressed his concern on the slow progress of the Bhutanese refugee verification process in Khudunabari camp in Jhapa, eastern Nepal.

In an exclusive interview with the *The Kathmandu Post* after his recent visit to the refugee camp, Hormann, Danish Charge d'Affairs said, "Although we are satisfied with the procedures applied, we are concerned with the speed of the process."

The envoy's concern comes at a time when only 1,380 individual refugees have been verified which is just around one per cent of the total number of refugees languishing in over seven camps. The Nepal-Bhutan joint verification team (JVT) started the verification works on March 26 with the motive of verifying 10 families per day. But the achievement is far short of the initial target. Experts say, at the current rate, it would take at least

six years to complete the verification.

"It would take at least 8 months to complete the verification process in the camp alone," he said. Khudunabari is most remotely located camp and once the monsoon starts, there will be more problems while transferring refugees to the JVT office in Damak, which could further delay the verification process.

As a way out, Hormann suggested either breaking up the current 10-member JVT into smaller groups or constituting more JVTs. "We also feel it is very important that the verification of the first camp (Khudunabari) be completed as soon as possible since it will be crucial for the whole repatriation process."

Recalling his visit to the camp, Hormann said that the refugees were optimistic about their chances to go back to Bhutan. "But they were also frustrated due to the slowness of the process". However, added the envoy, the refugees feel that they are being given fair treatment by the verification team and they have been allowed to tell their own

story as they wish, without any restriction.

The European Union (EU) is one of the major sponsors of the United Nations High Commissioner for Refugees' programme in the camps.

He suggested an early meeting between the Foreign Ministers of the two countries to expedite the verification and subsequently the repatriation process of the refugees. "They can speak over phone; that would be the best thing to do."

Hormann said that the five head of missions of EU would soon send a report on the current status of the refugee verification process to Brussels, the EU headquarters. He also said that he visited the camp on behalf of all the 15-member EU countries.

"This visit hopefully will contribute to illustrate the interest of international community in the process and will help expedite the process," said the envoy.

The Danish envoy, expressing the EU's close interest in the verification process, said EU was willing to contribute financially to the repatriation of the refugees.

(FROM THE KATHMANDU POST OF 1 JUNE, 1996)

India arrests 190 Bhutanese

BIRTANGAR - In a bid to thwart a series of attempts by Bhutanese refugees to return to their homes, the Indian police once again arrested 190 Bhutanese refugees near Jalpaijun today.

The refugees, who were the fifth team on a peace march to Thimphu to press the Bhutanese King for their

'respectable' repatriation, were arrested at Salugarh, some four kilometre from Durgagarh where they were stopped the previous night.

Reports received here said the peace marchers, led by Srial Kafle and Ms Manju Magar, were earlier assured by local police that they would not be arrested.

Bhutanese protesters arrested

By a Post Reporter

KATHMANDU, Feb 27-A peaceful protest was held under the aegis of the ongoing national movement at Phuntsholing, the Gateway Bhutanese town in the Indo-Bhutanese town in the Indo-Bhutan border today, states a National Movement Bhutan press statement issued here today.

According to the release, the rally was called under the leadership of the chairman of the national movement Rongthong Kuenley Dorji. The rally was started from vegetable market at about 8.50 am by thirty democratic activists that was soon joined by thousands of other supporters from

inside the country.

The security forces tried to block the protesters.

Undeterred by the blockage when the protesters moved ahead carrying banners and shouting slogans in favour of democracy and repatriation of the Bhutanese refugees, the police in uniform as well as in mufti and local goons hired by the police surrounded them and overpowered them when they reached near Tashi commercial corporation, says the release. The security forces, the release states, then resorted to violent means to disperse the crowd. In the process, some of the protesters were seriously injured and were seen profusely bleeding.

Alap Pradhan and Tara Bir Bista particularly had sustained severe head injuries and their conditions, the release says, are very critical.

Later all of them were arrested. Among them at least six protesters, namely, Tara Bir Bista, Alap Pradhan, D B Khanal, BB Basnet and Mr Darji including an unknown Bhutanese supporter from inside the country were ruthlessly manhandled, tortured and being detained by the security forces. While others were handed over to Jaigaon Police, an Indian outpost on the Indo-Bhutan border and it is most likely that they will be deported at Indo-Nepal border just after the dusk tonight, the release states.

Refugees under stress

Urgent medical attention recommended

TODAY Reporter

KATHMANDU, May 28- Nearly half the Bhutanese refugees stationed in Nepal have been found suffering from mental disorders such as extreme anxiety, persistent emotional suffering and "irreparable physical pain" at some point of their life while three-fourths of them have been found suffering from post-traumatic stress disorder (PTSD), which demand urgent medical attention.

These were some of the shattering findings released lately on the basis of more than five years of psychological research on about half the Lhotshampas refugee population jointly conducted by the World Health Organization (WHO) and Centre for Victims of Torture (CVICT), Nepal, an NGO committed to the refugee cause.

According to Shalendra Guragain of the CVICT, the

research team led by Dr Mark Van Ommeren conducted the psychological test in two phases ¼ running into two and three years respectively ¼ since early 1990s.

The team report given to the Archives of General Psychiatry early May reveal that over 50 percent of the refugees were severely distressed while many of them were subjected to sustained physical abuse before they fled Bhutan.

Likewise, the research has shown that 90 percent of those tortured survived extreme mental cruelty. Moreover, about 90 percent of the refugees who faced torture were intimidated while 80 percent were humiliated with another 50 percent of those tortured were deprived of basic needs like sleep or hygiene. Many more were forced to act against their faith or forced into doing "incongruent acts".

Refugee students sit for in SLC exams

THE KATHMANDU POST, APRIL 16, 2001

Post Report

BHADRAPUR, April 15 - A total of 1,026 Bhutanese refugees living in the camps of Jhapa and Morang districts over the last 10 years have appeared in this year's SLC examination which commenced here on Sunday, according to Jhapa District Education Office.

Bhutanese students of seven camps have appeared in the examination from five secondary schools and five examination centres. It is reported that there are 127 Bhutanese refugees from Timai camp, 83 from Khudunabari camp, 163 from Pathari Shamsichare (Morang) camp, 518 from Beldangi 1, 2, and 3 and 135 from Golihap camp.

A total of 424 Bhutanese students had appeared in the examination for the first time in 2055 BS. Similarly, 589 students sat for the examination last year

appearing for the SLC exams.

SLC or the School Leaving Certificate exams began today and college students are also either taking their exams or preparing for it.

"As long as the vehicles are running we have no problem," says a student from Bagbazar returning after appearing for his Nepal exams. "We won't mind walking

The government had announced that it would cancel the system of "home centre" (examination centre in the same school where the student had studied) from this year, but it was not applied strictly in Jhapa district.

Viewed from the perspective of increasing number of Bhutanese students appearing in the SLC examination, it is estimated that their number would double next year. This has added a burden on the employees of the District Education Office and they complain that they have to perform the additional duties without any incentive.

The Kathmandu Post, April 25, 1999

The Stateless Bhutanese

By Ashok Sayenju

The right to a nationality is recognised universally as a fundamental human right since it is a pre-requisite for exercising most civil and political rights in a state. Citizenship is a legal connection between states and individuals and it is upon this basis that the former provides the latter diplomatic protection or legal standing in the international arena. People lacking this legal protection are referred to as "stateless persons."

There are various reasons for statelessness, but the most common causes are: i) conflict of laws between states, ii) transfer of territory upon a state's dissolution, succession, or restoration, without adequate legislative or constitutional provisions for citizenship, iii) loss of nationality through operation of citizenship or marriage laws, iv) lack of compliance with laws governing information on births and identity, v) laws where nationality is solely based on descent (*ius sanguinis*) which can result in the inheritance of statelessness from a stateless parent, vi) renunciation of nationality without prior acquisition of another nationality. Stateless persons, nevertheless, must be given adequate protection of their fundamental human rights by states which are obligated to respect them under international law.

While every state has a sovereign right to determine, through its own rules and regulations, who its citizens are, this entitlement is not absolute. Domestic laws and practices must meet the minimum requirements of international treaties and conventions the states are signatory to. All states should allow the acquisition of citizenship by all citizens who resided in their territories when the state was created.

As with many refugee situations around the globe, identity is a highly contested issue in the Bhutanese refugee crisis. The term, "Bhutanese refugees," already conveys two conclusions about the 100,000 or so people living in the camps of Jhapa and Morang. First, they are or were at one time Bhutanese nationals. While Nepal accepts this, Bhutan disagrees by saying that most of them were "illegal immigrants" who overstayed their contracts there. Second, they are refugees now, having fled Bhutan out of fear of persecution which again Bhutan rejects arguing that most of them left the country voluntarily. The Bhutanese refugees are currently stateless, with Bhutan saying that they are not citizens under its nationality laws on the one hand, and Nepal too claiming that they cannot be Nepali citizens on the other. Most of the other reasons given above for statelessness also apply to the Bhutanese refugee situation.

According to Article 15 of the Universal Declaration of Human Rights (UDHR), promulgated in 1948, "Everyone has the right to a nationality. No one shall be arbitrarily deprived of his nationality, nor denied the right to change his nationality." Although the UDHR is not an official treaty among states, it is regarded as an authoritative declaration of states' human rights obligations under the UN Charter and customary international law which all states must oblige to. Any state action breaching its requirements with respect to nationality or statelessness would be a violation of international law. Bhutan appears to have violated this international legal instrument since it is a member of the UN.

The 1954 Convention on Stateless Persons defines a stateless person as one "who is not considered as a national by any state under the

operation of its law." In other words, if a person is not a national of any country, by each country's municipal laws, then that person is stateless. The stateless person must show that all countries where s/he might have claim to nationality consider her/him a non-national. In the case of Bhutanese refugees, they cannot claim nationality in Nepal or India. The 1954 Convention also provides for the basic human rights of stateless persons to be respected by their country of residence without discrimination on the basis of race, religion, or country of origin. In this case, Nepal has already followed it since it has given shelter to the Bhutanese refugees for almost a decade now.

Under the 1961 Convention on the Reductions of Statelessness (adopted by the UN to decrease future statelessness), many persons who would otherwise be rendered stateless are able to obtain nationality. Signatory states are to provide mechanisms for persons born in their territory to acquire their nationality and limit the circumstances under which persons might lose their nationality without acquiring another. The situation with the Bhutanese refugees are that many of them were not born in Nepal. Hence, there is little ground for Nepal to give them citizenship just because they are here for a few years.

Although many states have not acceded to the 1954 and 1961 Conventions (Nepal, Bhutan and India included), the general principles embodied in these instruments are drawn from basic provisions of citizenship laws and practice in most states. Therefore, these Conventions are said to be a reference for determining customary international law that reflect an international consensus on the minimum acceptable legal standards to be applied in questions of nationality. Based on these conventions and practice of many states, the right to nationality without arbitrary deprivation is now recognised as a basic human right under international law. Although states have sovereign right to deny citizenship to any applicant under their own laws, they have a general duty not to create a situation resulting in statelessness. Here, Bhutan seems to have created a situation where more than 100,000 people were made stateless.

One should, however, be cautious with the stateless label since it can complicate possible repatriation of refugees in the future. Putting the stateless label on the Bhutanese refugees might make it easier for Bhutan to shy away from their responsibility. The 1954 Convention also articulates the goals of assimilation and naturalisation of stateless persons and the 1961 Convention provides certain mechanisms to achieve those goals. Nepal can be forced to naturalise or assimilate them if it were to accede to these Conventions.

Although the Bhutanese refugees have been deprived of their nationality, it really does not affect their refugee status. The main problem seems to be the inaccessibility of Bhutanese nationality for them. It seems that they want their nationality problem resolved by being able to return to Bhutan soon. Currently, Nepal does not have the obligations to integrate them locally. Bhutan refuses to repatriate as the refugees have been demanding for years now, and a third country resettlement is an impossibility given current attitudes towards asylum. Hence, the problem has been dragging on for almost a decade now with no probable solution in sight.

(Mr. Sayenju is a student of International Relations, he wrote his Master's dissertation on Bhutanese refugees)

Hurdles ahead of refugee repatriation

By S Chandrasekharan

What is surprising is that during the 10th JMC meeting both Nepal and Bhutan conveniently skirted the issue of those who were forced to "voluntarily" give up their citizenship and move to Nepal. They would form nearly 60 percent of the total population in the camps, and their citizenship is not an issue either because they were citizens of Bhutan before they were forced to leave or are accepted as such. After seven years of uncompromising position in the bilateral negotiations, HMG Nepal seems to be resigned to categorizing the refugees into (1) Bhutanese forcibly evicted, (2) Bhutanese who left the country after signing "voluntary" migration forms, (3) Non-Bhutanese, and (4) Bhutanese with criminal records.

There are many hurdles for the Bhutanese refugees in the days to come. The policy of HMG Nepal, the mind-set of the Royal Government of Bhutan towards the problem and the inter-play of regional politics and international diplomacy--either singly or in combination --could expose the refugees to unprecedented political risk.

First, though not linked directly to the refugees, the induction of the "Citizenship Amendment Bill" by Nepal's Legislature on July 28th 2000 has a caveat for the Bhutanese refugees. Clause, 4, Article 9 of the 1990 Constitution of Nepal stipulates that "the acquisition of citizenship of Nepal by foreigners may be regulated by law, which may inter alia, require the fulfilment of the following conditions: (a) that he can speak and write the language of Nepal; (b) that he is engaged in an occupation in Nepal; (c) that he has renounced his citizenship of another country; and (d) that he has resided in

Nepal for at least fifteen years." The Citizenship Amendment Bill has reduced the required residence period to ten years, which if approved by the upper house and the King would make all 100,000 Bhutanese refugees in the camps eligible for Nepali citizenship by 2002. Although the amendment is intended to address the long standing citizenship issue of the Terai people in Nepal, it would neatly solve the problem of at least 60,000 Bhutanese refugees, who were coerced into signing "voluntary" migration forms, while at the same time keeping all the parties - the governments of Bhutan, Nepal and India - happy, leaving the poor refugees in the lurch.

Second, there seems to be a strategy on the part of the Royal Government to divide the Nepali Bhutanese community. Once Bhutan's foreign minister, Dawa Tshering, said in an interview to the foreign press that the Royal Government would consider taking back the people of Mongoloid origin provided they agreed to adopt the tradition and culture of the mainstream Buddhists in Bhutan. Reportedly, some of the refugees from the Gurung and Magar communities have converted into Buddhism, and one Robert Cooper, a field officer at UNHCR in Jhapa from September 1996 to June 1998, prepared a list of 3,000 people belonging to the "Neo-Buddhists" communities and handed it over to Bhutan without Nepal's concurrence. The UNHCR headquarters had called back Cooper to Geneva upon the complaint of HMG Nepal. This seemingly moribund issue could easily be a major problem during or after the repatriation since it would be easy to instigate pliable individuals to jump into sub-ethnic issues, which are non

existent at present in Bhutan.

Third, the presence of militant groups namely, the United Liberation Front of Assam (ULFA) and the National Democratic Front of Bodoland (NDFB) is Bhutan's other major problem. The Bhutan Assembly in its 78th session passed a resolution that military force should be used to evict the militants from Bhutanese territory if peaceful negotiations failed. There are allegations from an official Bhutanese source that ULFA and NDFB militants are supporting the Nepali Bhutanese. There is no evidence of the Nepali people either inside or outside the refugee camps seeking the support of the insurgents. On the other hand officials of the Bhutan government have been frequently visiting the camps of the insurgents ostensibly for the purpose of persuading them to leave Bhutan. For the past one year and a half, talks have been going on between India and Bhutan on joint military operations for flushing out the militants from south Bhutan. As this operation is being delayed on the pretext of negotiations with the militants, rival factions of the militant groups have begun to be vindictive of the Royal Government alleging it to be a sympathizer with the ULFA and NDFB.

On December 22nd a bus travelling from Samdrup Jzongkher to Phuntsholing was attacked by militants of the Bodo Liberation Tigers (BLT) at Kokrajhar and Nalbari districts of Assam killing 15 Bhutanese in cold blood. The BLT has issued an ultimatum to the Royal Government to begin flushing out the ULFA and NDFB militants, failing which would invite its wrath in Bhutan. Unexpectedly, this has emerged as the greatest security

threat to Bhutan since the Bodo population inhabits all along the 266 km long Indo-Bhutan border from Kalikhola to Daifam. The King of Bhutan has been touring the country in the past months seeking people's approval for undertaking a military operation against the ULFA and Bodo militants in Bhutan. The returnees from the camps are likely to be the cannons of the Royal Government if it really undertakes a military operation against the ULFA and NDFB alliance, which would be an opportunity as well as a challenge.

Undoubtedly, the international initiative led by the United States of America for the resolution of the refugee problem in Nepal is a welcome step. Nevertheless, it is a long way to go before achieving an amicable solution. First, the land owned by the refugees in South Bhutan has already been distributed, complicating the actual process of repatriation. Second, the two governments have not clarified the status of the people who have been coerced to sign the "voluntary" migration form, leaving a gray area of those who can or who cannot return to Bhutan, and third, Bhutan is yet to come up with appropriate strategies on how to handle the presence of ULFA and NDFB militants in south Bhutan.

Invariably, Bhutan needs India's assistance and cooperation to solve both the refugee issue and the ULFA-NDFB problem, and India's involvement is rightly a foregone conclusion, which the refugee leaders have reiterated time and again, and for which the Royal Government is yet to make a decision.

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