Bhutan

Case study in the framework of the project
ClimMig: Climate-related migration and the need for new normative and institutional frameworks

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1. Outlining vulnerabilities – clarifying the context of the case study ........................................3
   1. Bhutan Economic, Development and Demographic Situation ........................................3
   1.2. Environmental and Climate Profile ...........................................................................3
      1. 2. 1. Natural Disasters and Environmental Degradation ...........................................4
      1. 2. 2. Climate Change Risk Profile ...........................................................................7
      1.2.3. Vulnerability and Adaptation Strategies .................................................................8
   1.3. Political Context ........................................................................................................10
   1.4. Human Rights ..........................................................................................................11
   1.5. Migration ................................................................................................................12
      1. 5. 1. Demographic Context ......................................................................................12
      1. 5. 2. Current Migration Situation in Bhutan .................................................................12
      1. 5. 3. Internal Migration .............................................................................................13
   1.6. Interim conclusions ..................................................................................................13
2. Legal, Normative and Institutional Frameworks and the Role of the EU ....................14
   2. 1. International normative and institutional framework: management and protection of internal and external migration and displacement ........................................14
      2. 1. 1. International framework concerning migration, asylum and displacement ...........14
      2. 1. 2. International Human Rights Law and international instruments related to international migration ....14
      2. 1. 3. International Climate and Environmental Law ..................................................15
   2. 2. Regional Normative and Institutional Framework: Management and Protection of Internal and External Migration and Displacement ........................................15
      2. 2. 1. Bilateral relationship between India and Bhutan ..................................................15
      2. 2. 2. Bilateral relationship between the People’s Republic of China and Bhutan ..........15
      2. 2. 3. Bilateral relationship between Nepal and Bhutan ................................................15
      2. 2. 3. Interregional cooperation in the context of climate change ...................................16
   2.3. Bhutan Normative and Institutional Framework: Management and Protection of Internal and External Migration and Displacement ........................................19
      2. 3. 1. Constitutional Rights Relevant for Environmentally-related Migration and Displacement .................19
      2. 3. 2. The Disaster Management Organisational Structure .........................................19
      2. 3. 3. Adaptation Strategies to Climate Change ..........................................................20
   2.4. Development Cooperation ..........................................................................................25
      2. 4. 1. The Japan-Bhutan relations ...............................................................................25
      2. 4. 2. The Denmark-Bhutan Relations ........................................................................26
      2. 4. 3. The EU-Bhutan Relations ................................................................................26
3. Conclusion ..................................................................................................................27
4. Literature ......................................................................................................................29
   4. 1. Books, Articles .......................................................................................................29
   4. 2. Government Documents, Laws ............................................................................30
1. Outlining vulnerabilities – clarifying the context of the case study

1. Bhutan Economic, Development and Demographic Situation

As one of the Least Developed Countries (LDCs), Bhutan’s economic structure is extremely fragile. Water and forests constitute the major resource base. Agriculture is the dominant sector in Bhutan, providing livelihood, income and employment to a vast majority of the population. There is a majority of subsistence farmers with average land holdings ranging from 1-4 acres.\(^1\)

Hydropower generation is Bhutan’s main driver of growth. Currently only about 3% of the country’s hydropower potential is exploited. This sector, too, is however highly vulnerable to the impacts of climate change\(^2\). Indeed, the transportation and communication systems are particularly underdeveloped, which reinforces the isolation of the population, which is already sparse, partly due to the geographical features of this mountainous country.

The current population of Bhutan is estimated to be around 750,000. However, Bhutan’s population has increased dramatically from an estimated 452,000 in 1984. Whereas the population density at 12 persons per square km is the lowest in south Asia, the demographic growth rate of 2.5-3% is among the highest in the world. As a matter of fact, in the last decade, improvements in health care have considerably reduced the child mortality rate by over 50% whereas the average life expectancy has increased by over 20 years. As the Bhutanese population is particularly young (with an estimated 39% of the population below the age of 15), the population may double in the next 23 years\(^3\).

Bhutan’s development is based on the concept of Gross National Happiness which revolves around sustainable and equitable socio-economic development, conservation of the environment, preservation and promotion of culture and promotion of good governance. This concept aims to promote the welfare of the disadvantaged parts of the population\(^4\).

Bhutan has set up an official national poverty line of Nu. 1,096.94 per person per month (approximately BTN\(^5\) 37 or USD 0.9 per person per day). Between 2004 and 2007, there has been a significant decrease of the proportion of the population below the poverty line, falling from 31.7% to 23.2%\(^6\). Inequalities remain high however, and rural populations tend to be more affected by poverty than those living in towns and cities.

1. 2. Environmental and Climate Profile

Bhutan is a small mountainous country, with a total area of 38,394 square km. It is located on the southern slopes of the eastern Himalayas. The country is surrounded on three sides by India and in the north by the Tibet region of China. Because of dramatic variations in topography, the climate in Bhutan varies significantly from one region to another. The country has indeed three climatic zones:

1) the southern plains with a typical subtropical climate with high humidity and heavy rainfall,

2) the central belt of flat valleys characterized by cool winters and hot summers with

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5 Bhutanese Ngultrum, the local currency.
3) the high valleys with cold winters and cool summers. Annual rainfall on average varies from 1,020mm to 1,520mm. Over 5000m, the land is permanently covered with snow and glaciers.

In addition, Bhutan is influenced by both extra-tropical and monsoon systems, as the country is located at the periphery of the tropical circulation in the North and at the periphery of the Asian monsoon circulation in the South.

The summer monsoon period starts from late June and end in late of September with heavy rains coming from the southwest. These rain-bearing clouds come from the Bay of Bengal and travel north towards the Bhutan Himalayas, where they bring heavy rainfall, causing devastating flash floods and landslides in the region.

Most of Bhutan's territory (72.5%) is covered by forests – most of them being primary forests. Protected Areas represent 28% of the total land area with another 9% designated as Biological Corridors. Thus, only 7.8% of Bhutan's land area is finally used for agriculture.

Biodiversity is of high importance in Bhutan, which hosts approximately 700 bird species, 201 mammal species, 7000 species of vascular plants, 46 species of rhododendrons, 400 lichen species, and 360 species of orchids. The eastern Himalayas area of Bhutan is also part of an international global hotspot for biodiversity conservation. Thus Bhutan plays a vital role in protecting some of the world’s most endangered species (elephants, tigers, snow leopards, golden langurs, ect.).

The Royal Government of Bhutan's is highly committed to sustainable development, which is reflected the country’s Constitution. Indeed, according to the Article 5 of the Constitution, the Government must « secure ecologically balanced sustainable development while promoting justifiable economic and social development ».

Nevertheless, Bhutan faces very limited economic resources and low technological advancement. More than half of Bhutan's GDP can be attributed to sectors that directly or indirectly depend on the health of the environment. The protection of the environment therefore provides safety nets for the poor, maintains public health and increases economic growth.

1. 2. 1. Natural Disasters and Environmental Degradation

Although Bhutan is prone to many natural hazards as shown by the Table 1, two main natural hazards are key threats for the country.
Table 1. The major natural disasters that occurred in Bhutan from 1900 to 2010.

<table>
<thead>
<tr>
<th>Disaster</th>
<th>Date</th>
<th>Causalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood</td>
<td>2-Aug-2000</td>
<td>200</td>
</tr>
<tr>
<td>Epidemic</td>
<td>Sep-1985</td>
<td>41</td>
</tr>
<tr>
<td>Flood</td>
<td>6-Oct-1994</td>
<td>22</td>
</tr>
<tr>
<td>Storm</td>
<td>May-1994</td>
<td>17</td>
</tr>
<tr>
<td>Storm</td>
<td>25-May-2009</td>
<td>12</td>
</tr>
<tr>
<td>Earthquake (seismic activity)</td>
<td>21-Sep-2009</td>
<td>11</td>
</tr>
</tbody>
</table>

The first one is the **Glacial Lake Outburst Flood** (GLOF). As a matter of fact, all the major rivers in Bhutan (Mo Chu, Pho Chu, Mangde Chu, Chamkhar Chu, Kuri Chu and Pa Chu) originate from glaciers and glacial lakes of the higher Himalayas. It is estimated that 2,674 total glacial lakes exist in Bhutan, out of which 562 are associated with glaciers. In addition, 24 glacial lakes are potentially dangerous (see Map 1). However, this threat wasn’t taken seriously until the devastating 1994 GLOF.¹³

Indeed, while several GLOFs occurred in 1957, 1960, 1968, 1994 with varying intensity and impacts to life and property in the lower valleys, the 1994 GLOF was the most devastating in Bhutan’s history. On October 7th, 1994, the Luge Tsho in eastern Lunana burst and caused massive flooding, leading to extensive damage along the Punakha-Wangdi valley. The Dzongchu was partly devastated when the Pho Chu and Mochu rivers joined course above.


¹⁴ Bhutan Disaster Knowledge Network, 2009.
the Dzong. In the Lunana Region, a total of 91 households were affected by flood. In total, the GLOF damaged 816 acres of dry land and 965 acres of pasture land, washed away 5 water mills and about 16 tons of food grains\textsuperscript{15}.

In addition, the Raphstreng and Thorthormi glaciers and lakes could become highly dangerous in about a decade without appropriate mitigation measures. In the worst case scenario, it is estimated that a combined GLOF of these two lakes could result in a flow of over 53 million cubic meters of water, which would be more than twice the volume of the 1994 GLOF\textsuperscript{16}.

The second most dangerous environmental hazards are \textbf{flash floods} and related \textbf{landslides}. In the summer of 2000, the Southern regions of Bhutan were affected by unprecedented rainfall in the recorded history of hydrology in Bhutan\textsuperscript{17}. The highway to the country’s capital city of Thimphu was closed for almost a month. Although flash floods highly damaged the deeply eroded gullies, gorges and steep terrain of Phuntsholing, Pasakha, Samtse and Kalikhola areas, the Phuentsholing region experienced the worst flood. The course of both Toorsa and Dhotikhola rivers changed, causing casualties and important damage to both industrial areas and residential homes\textsuperscript{18}.

The hydropower stations of Bhutan are also at risk. As a matter of fact, the \textbf{landslide} on the Tsatichu river, which occurred in August 2003, shaped a dam forming a lake that could endanger downstream to the Kurichu Hydropower station. Although there is no imminent danger from the lake, it particularly underlines how vulnerable the nation’s hydropower facilities are\textsuperscript{19}.

Compared to the Southern regions, the eastern \textbf{floods} that occurred between July and August 2004 received less total rainfall. However, the eastern Dzongkhags of Trashigang, Trashiyangtse and Samdrupjongkhar experienced major flooding and damages\textsuperscript{20}.

Furthermore, Bhutan is prone to \textbf{earthquake} disasters, as it is located at the boundary of Indian and Eurasian plates.

The earthquakes of 1988 (6.6 on Richter scale) and 2003 (5.5 on Richter scale) with epicentres at the Indo-Nepal and Bhutan border caused gigantic damages to human settlements, institutional buildings (including schools, hospitals, etc) and highways in Bhutan (\textbf{Table 2}). The recent September 21st, 2009 earthquake (6.3 on Richter scale) with the epicentre at the central Eastern District of Bhutan also caused major damage to the individual properties and to the public infrastructures. In addition, 11 deaths were reported in eastern Bhutan because of the quake\textsuperscript{21}.

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\textsuperscript{15} Royal Government of Bhutan (National Environment Commission), 2006, «Bhutan National Adaptation Programme of Action». UNFCCC. \url{http://unfccc.int/resource/docs/napa/btn01.pdf}

\textsuperscript{16} Ibid.

\textsuperscript{17} RGOB Ministry of Trade and Industry (Hydrology Unit), 2000

\textsuperscript{18} Royal Government of Bhutan (National Environment Commission), 2006.

\textsuperscript{19} Royal Government of Bhutan (National Environment Commission), 2006.


\textsuperscript{21} Bhutan Disaster Knowledge Network, 2009
Moreover, **cyclones** also constitute an important threat factor in Bhutan. In the past, Bhutan has regularly been affected by damages induced by cyclones. The cyclone 'Alia' that occurred in May 2009 destroyed public infrastructure buildings, such as roads, irrigation and drinking water facilities, as well as houses and farmlands\(^{23}\).

Bhutan's environment is one of the best preserved in Asia with clean air, water and primeval forests. However, the high demographic growth, unplanned urban migrations, increased population density in cities, rapid rise in imports of cars, and increasing demand for fuel wood, roads and building construction, are predicted to have many negative effects on environmental assets, which can reinforce Bhutan's vulnerability to climate change\(^{24}\).

In addition, significant environmental and hydropower generation projects have been affected by the use of watersheds, change in land use patterns from agriculture and forestry to industry, roads, townships, mines and quarries\(^{25}\). Air quality, which is considered among the best in the region, is also threatened because of the accelerated growth in the industrial sector over the last five years.

### Table 2. Earthquakes in Bhutan\(^{22}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Location of epicenter</th>
<th>Magnitude (Richter scale)</th>
<th>Damages in Bhutan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1897 (June 12)</td>
<td>80 Km south of Bhutan in Rangjholi (Assam, India)</td>
<td>8.7</td>
<td>Catastrophic, destroyed Punakha &amp; Lingzhi Dzong, damaged Wangdi, Trongsa, Jakar and Tashichhodzong</td>
</tr>
<tr>
<td>1906 (May 12)</td>
<td>Bhutan-China-India border</td>
<td>6.5</td>
<td>No information</td>
</tr>
<tr>
<td>1910 (August 13)</td>
<td>North of Punakha</td>
<td>5.7</td>
<td>No information</td>
</tr>
<tr>
<td>1934</td>
<td>Bihar, India/Nepal border</td>
<td>8.3</td>
<td>No information</td>
</tr>
<tr>
<td>1941 (January 21)</td>
<td>West of Trashigang</td>
<td>6.75</td>
<td>No information</td>
</tr>
<tr>
<td>1947</td>
<td>Bhutan</td>
<td>7.9</td>
<td>No information</td>
</tr>
<tr>
<td>1980 (November)</td>
<td>Bhutan</td>
<td>5.5</td>
<td>No information</td>
</tr>
<tr>
<td>1988 (July)</td>
<td>Bhutan</td>
<td>6.6</td>
<td>No information</td>
</tr>
<tr>
<td>1988 (December)</td>
<td>Bhutan</td>
<td>4.9</td>
<td>No information</td>
</tr>
<tr>
<td>2003 (March 26)</td>
<td>Ganitsawa-Paro, Bhutan</td>
<td>5.5</td>
<td>Minor cracks in some of the buildings in Thimphu</td>
</tr>
</tbody>
</table>

\(^{22}\) Ministry of Home and Cultural Affairs (Department of Local Governance), 2005
\(^{23}\) European External Action Services. April 2010
\(^{25}\) Ibid.
\(^{26}\) Ibid.
\(^{27}\) Ibid.
1.2.3. Vulnerability and Adaptation Strategies

Several sectors are particularly at risk in the country. A key vulnerable sector is the **forestry and biodiversity** sector, which will be affected by:

1) Droughts, as well as increased lightning risks, triggering forest fires;

2) Decrease in the number of endemic species / change in the phenological characters of plants;

3) Change in the migratory patterns of the transboundary wildlife.

All of these vulnerabilities will consequently induce degradation and loss of the forest ecosystem and reduction of alpine range lands. Moreover, a rise of vector-borne disease in

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Figure 1. Anomaly of monthly average precipitation and mean temperature from the 1990-2003 mean\(^{28}\).

\(^{28}\) Ibid.
wildlife is predicted because of the increase of temperature increase\textsuperscript{29}.

The second key vulnerable sector is \textbf{agriculture}, which will be affected by:

1) Crop yield instability. Indeed, loss of production and quality (due to variable rainfall, temperature, etc.) are expected. There is even a risk of extinction for some crop species (traditional crop varieties).

2) Decrease in soil fertility because of the erosion of top soil and runoff. Loss of arable land because of flash floods, landslides and rill & gully formations.

3) Crop yield loss and deteriorated productions (flowers & fruit/vegetable) due to incessant heavy rains and hailstorms.

4) Delayed sowing because of late rainfall. Damage to crops by sudden early (paddy) and late spring (potato) frost.

5) Spread of pests and diseases in the fields and during storage, where they were previously unknown

6) Damages to road infrastructures\textsuperscript{30}.

Furthermore, natural disasters will increase, damaging particularly the following infrastructures:

1) Hydropower systems (generation plants, transmission and distribution infrastructure) – a substantial export product;

2) Industrial estates, infrastructures and human settlements in urban, sub-urban and rural settlements;

3) Historical and cultural monuments (dzongs, monasteries, chortens, etc);

4) Public utilities (roads, bridges and communications)\textsuperscript{31}.

\textbf{Water Resources and Energy} will also be particularly vulnerable:

1) The electricity production/exports will be affected by changing rainfall patterns;

2) The irrigation schemes’ productivity/ agricultural crop yields will be affected by the increased sedimentation of rivers, water reservoirs and distribution network;

3) The increasing soil erosion will affect the ability of catchment areas to retain water/increased runoffs;

4) Finally, water quality will also deteriorate\textsuperscript{32}.

Finally, the \textbf{health} sector will also be heavily affected:

1) The frequent flash floods, GLOF and landslides will probably lead to important losses

\textsuperscript{29} Royal Government of Bhutan (National Environment Commission), 2006. « Bhutan National Adaptation Programme of Action ». UNFCCC. \texttt{http://unfccc.int/resource/docs/napa/btn01.pdf}

\textsuperscript{30} Ibid.

\textsuperscript{31} Ibid.

2) Vector-borne tropical diseases (malaria, dengue, diarrhoea) will spread into more areas higher elevations under a warming climate (higher elevations).

3) Finally, the loss of drinkable water resources will increase the number of water borne diseases\textsuperscript{34}.

In light of these key vulnerabilities, a National Adaptation Programme of Action (NAPA) has been developed by the Royal Government of Bhutan in 2006.

The objectives of the document are the following:

- first, identify urgent and immediate projects and activities that can help communities adapt to the adverse effects of climate change;
- second, seek synergies and combinations with existing Multilateral Environment Agreements (MEAs) and developmental activities with an emphasis on the impacts of climate change;
- and third, integrate climate change risks into the national planning process\textsuperscript{35}.

1. 3. Political Context

Although Bhutan has never been colonized, it was considered as less than sovereign by the British Raj (and then India) for their own geopolitical interests. In recent years, major political changes happened in Bhutan, which transformed itself from an absolute monarchy (from 1907 to the 1950s) to a constitutional monarchy, with a democratic Government\textsuperscript{36}.

The King of Bhutan is the head of State. Executive power is vested in the Council of Ministers, headed by the Prime Minister. The legislative power is exercised by the bicameral Parliament. Bhutan's transition to democracy began in December 2007, when an election was held for the upper house of the new bicameral parliament. The first general elections, took place on 24 March 2008. Voter participation in these elections was high, with a 79.4% turnout, and the Bhutan Peace and Prosperity Party DPT (Druk Phuensum Tshogpa), led by the former Prime Minister Jigme Y. Thinley, won and therefore formed the first Democratic Government of Bhutan\textsuperscript{37}.

However, the country is still challenged regarding the respect of constitutional rights and equal opportunities for all Bhutanese. In particular, a very important issue for the country lies in the fate of thousands of refugees living in camps in Nepal\textsuperscript{38}.

Bhutan is divided administratively into 20 dzongkhags (districts) and 205 geogs (the smallest administrative unit within a district), and government has been increasingly decentralised since the 1980s\textsuperscript{39}. The National Assembly also passed the \textit{Local Government Act} (2007), which legalizes the constitutional principle of decentralised governance and therefore requires the formation of local governments for the development, management and

\textsuperscript{33} Ibid.
\textsuperscript{34} Royal Government of Bhutan (National Environment Commission), 2006, op. cit.
\textsuperscript{35} Ibid.
\textsuperscript{36} European External Action Services, April 2010.
\textsuperscript{37} Ibid.
\textsuperscript{39} Ibid.
Moreover, Bhutan is well-known for putting happiness as a policy objective. The Government set up the Gross National Happiness Commission (GNHC), which involves the former Planning Commission and the Committee of Secretaries. Furthermore, the Bhutan Development Index, which seeks to measure changes in Gross National Happiness (GNH), through aspects from the socio-economic development, preservation of culture and the environment, and good governance, is a core objective of the government for the period 2008-2013.41

At the regional level, Bhutan is a member of regional organisations such as the South Asian Association for Regional Cooperation (SAARC42), the South Asia Free trade Area (SAFTA) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Although it is one of SAARC’s smallest members, Bhutan is a very proactive member. Bhutan has a close relationship with neighbouring India, but membership of SAARC, SAFTA and BIMSTEC also supports the country to undertake its regional agenda.43

1. 4. Human Rights

Key human rights issues are related to the regulation of religion and discrimination against the Nepali-speaking minority.

1) Freedom of Religion:

Mahayana Buddhism is the state religion, although in the southern areas many citizens openly practice Hinduism.

While the Constitution provides for the freedom of religion, the Government remains opposed to religious gatherings of non-Buddhists and does not allow construction of non-Buddhist places of worship, neither non-Buddhist missionaries to work in the country.44

Proselytism is prohibited and forced conversion is addressed in the draft Constitution. Article 7 as: “No person shall be compelled to belong to another faith by means of coercion or inducement.”45

2) National/Racial/Ethnic Minorities:

During the 1980s, the Southern, Nepali-speaking Bhutanese became considered by the government as a threat to the political order. They continue to face significant discrimination today.

In 1985, a new Citizenship Act required the entire southern population to give documentary evidence of legal residence in 1958 (i.e. date of the Nationality Law of Bhutan). People who could not provide this evidence could be declared non-national.46 In addition, in 1989 all Bhutanese became liable to a fine or imprisonment if they ventured out in anything other than the Northern traditional costume, and the Nepali language was removed from the school...
programme the same year\textsuperscript{47}.

In the late 1990s, public demonstrations against these policies arose in all Southern districts. As participants of those demonstrations were considered as ‘anti-nationals’ by the government, several thousands of Southern Bhutanese were imprisoned for many months in primitive conditions; in addition more than two thousand were physically abused during the imprisonment time and very few were officially charged or stood trial. Many of the released prisoners declared that their houses had been demolished and their families had been forced to flee the kingdom\textsuperscript{48}.

Moreover, although the government claims Nepali-speaking Bhutanese are proportionally represented in civil service and government jobs, there seems to be an important discrimination in employment regarding this minority\textsuperscript{49}.

Furthermore, Nepali as a second language was neither required nor accessible to students (English and Dzongkha languages are the only languages taught in all schools), though some instruction in Nepali appears to have been permitted during the year. The Committee on the Rights of the Child therefore addressed concern about the rights of the Nepali-speaking minority to practice their own culture, religion and language\textsuperscript{50}.

\section*{1. 5. Migration}

\subsection*{1. 5. 1. Demographic Context}

Bhutan population comprises 50\% of Bhome, 35\% of ethnic Nepalese (which includes Lhotsampas - one of several Nepalese ethnic groups), and 15\% of indigenous or migrant tribes.

The population growth rate is about 1,17\%, according to the 2012 estimates. The median age of the population is about 25,3 years and in 2010, 35\% of the population was living in urban areas, with a majority of Bhutanese living in the capital Thimphu (89,000 in 2009). The net migration rate is 4,8 migrants for 1000 inhabitants\textsuperscript{51}.

\subsection*{1. 5. 2. Current Migration Situation in Bhutan}

A total of 145,532 Bhutanese were international migrants in 2010 – this is about 15\% of the total population. Key destinations for these migrants were Nepal (136,882 migrants), India (8,086 migrants), France (272 migrants), Australia and Canada (146 migrants each). On the other hand, there were 34,986 international migrants in Bhutan in 2010, coming from the Russian Federation (17,666), China (10,577), Kazakhstan (3,388), the Republic of Korea (1,770) and the United States of America (1,585)\textsuperscript{52}. This means that the migrant population represents less than 5\% of the total population.

Furthermore, refugees represent an important share of the international migration of the Bhutanese population. There were 74,941 in 2010, from which 74,536 took refuge in Nepal\textsuperscript{53} - most of these refugees were Southern, Nepali-speaking Bhutanese, who faced significant discrimination.

\begin{thebibliography}{9}
\bibitem{47} Ibid.
\bibitem{48} Ibid.
\bibitem{49} Ibid.
\bibitem{50} Ibid.
\bibitem{51} Ibid.
\bibitem{52} Asia-Pacific Migration and Environment Network, 2012
\end{thebibliography}
The remittances inflows rose from US$ 2 million in 2006 to US$ 5 million in 2010. The amount of remittances outflows is much more important, reaching US$ 82 million in 2010. The importance of remittances in the Bhutanese economy is thus relatively low, representing 0.3% of the GDP in 2010\textsuperscript{54}.

1. 5. 3. Internal Migration

Thimphu has received the highest number (54,685) of life-time migrants, followed by Chhukha (25,951) and Sarpang (17,997) among the dzongkhags\textsuperscript{55}.

In total, it is estimated that 111,770 life-time migrants have moved from rural to urban areas, while 19,992 have moved from urban to rural areas.

The principal drivers of migration include\textsuperscript{56}:

1) Family move (e.g. due to job transfer, business, resettlement, etc.): 31.5%
2) Employment: 16.5%
3) Education/training: 14.6%
4) Marriage: 10.5%
5) Transfer of work place: 9.9%
6) Visiting: 6.6%
7) Resettlement: 3.4%
8) Others: 7.0%\textsuperscript{57}

1.6. Interim conclusions

Bhutan is a very small, land-locked country, which doesn’t receive much attention from international policy-makers and media. The country will be heavily affected by climate change, and the risk of glacial lake outburst remains very high. Migration is very common: about 15% of the total population lives abroad, while another 10% has migrated internally from rural to urban areas. Bhutan is also a young democracy, and discrimination against the Nepali-speaking remains high: most of the refugees who have fled Bhutan are members of this minority.

\textsuperscript{54}Ibid.
\textsuperscript{55}The World Food Programme. « Migrations ». http://www.foodsecurityatlas.org/btn/country/demography/Migrations
\textsuperscript{56}Ibid.
\textsuperscript{57}The World Food Programme. « Migrations ». http://www.foodsecurityatlas.org/btn/country/demography/Migrations
2. Legal, Normative and Institutional Frameworks and the Role of the EU

2. 1. International normative and institutional framework: management and protection of internal and external migration and displacement

Bhutan became member of the United Nations in 1971. However, Bhutan does not have diplomatic relations with any of the permanent members of the UN Security Council, including the United States. It has ratified several human rights and international instruments related to international migration.

2. 1. 2. International Human Rights Law and international instruments related to international migration

Bhutan ratified the following treaties:

- the Geneva Convention (1949) on January 10th, 1991
- the International Labour Organisation (ILO) Migration for Employment Convention (1949)
- the Geneva Convention related to the Status of Refugees (1951)
- the Protocol related to the Status of Refugees (1967)
- Bhutan signed but didn’t ratify the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) (1966) on 26 March 1973
- the ILO Migrant Workers Convention (1975)
- the UN Migrant Workers Convention (1990)
- the Migrant Smuggling Migrant Protocol (2000)
- Bhutan signed but did not ratify the Convention on the Rights of the Persons with Disabilities (2006) on 21 September 2010

However, Bhutan did not ratify the following treaties:

- ICCPR International Covenant on Civil and Political Rights (1966)
- Convention of the Rights of all Migrants Workers on Members of their Families (1990)
- CAT Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984)
ITPC Indigenous and Tribal Peoples Convention (1989)

2. 1. 3. International Climate and Environmental Law
Bhutan has also ratified the major treaties in Climate and Environmental Law, such as:

- the United Nations Framework Convention on Climate Change (1992), on August 26th, 2002
- the Kyoto Protocol (1997) on August 26th, 2002

2. 2. Regional Normative and Institutional Framework: Management and Protection of Internal and External Migration and Displacement

2. 2. 1. Bilateral relationship between India and Bhutan

A Treaty of Friendship was signed between the two parties in 1865 (British India), and revised in 2007. This treaty strengthens Bhutan's status as an independent and sovereign nation.

The Article 7 of the 1949 Treaty of Friendship states that « All Bhutanese subjects residing in India territories shall have equal justice with Indian subjects and that Indian subjects residing in Bhutan shall have equal justice with the subjects of the Government of Bhutan ».

There also exists a bilateral agreement between the Bhutanese and Indian Government that authorizes citizens from both countries to travel in the other nation without visa or passport.

2. 2. 2. Bilateral relationship between the People’s Republic of China and Bhutan

Bhutan has no diplomatic relations with the People’s Republic of China. Indeed, the border between Bhutan and China has been closed since the invasion of Tibet in 1959, which causes an increase of refugees. The border notably remains undelineated. However, the signing of a 1998 agreement on border peace and tranquility, which was the first bilateral agreement between China and Bhutan, has improved relations between the two nations.

2. 2. 3. Bilateral relationship between Nepal and Bhutan

The relations between Nepal and Bhutan have been formally established since 1983. The presence of Bhutanese refugees residing in seven UNHCR camps in eastern Nepal (from 85,000 to 107,000 people) creates major tensions between the two countries. Although most refugees claim Bhutanese nationality, Bhutan holds that they are "voluntary emigrants" and deny their refugee status. Most of these refugees are Lhotshampa-Nepali speaking Hindus of Nepalese descent who used to live in Bhutan, and several insurgent groups (some of them have Maoist affiliations), who have arisen from the refugee camps, and are accused...

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58 UNHCR, 2013
59 Ibid.
by the Bhutanese security forces of having conducted a series of bombings in Bhutan before the 2008 parliamentary elections.

The Ministerial Joint Committee (MJC) between Nepal and Bhutan, which was formed in 1993, aimed at resolving this crisis. Because the MJC has not been able to meet since 2003, Nepal has requested Bhutan «to revive the committee and resume dialogue for the dignified repatriation of Bhutanese refugees to their homeland».

Since November 2007, the Government of Nepal developed a third country resettlement program under the auspices of UNHCR, after several years of unfruitful talks. The eight countries allowing the settlement are the United States, Australia, Canada, Norway, New Zealand, Denmark, the UK and the Netherlands. There are currently around 41,000 Bhutanese Refugee living in two camps (Beldangi and Sanishchare) of Jhapa and Morang districts. At the end of October 2012, 73,153 Bhutanese refugees have departed under the third country resettlement program. The United States, for example, agreed to resettle 60,000 Bhutanese refugees.

However, Nepal continues to claim that the third country settlement is not a permanent resolution of the issue, rather just a palliative measure. It maintains that «all Bhutanese refugees have their inalienable right to return to their homeland with honour and dignity».

2. 2. 3. Interregional cooperation in the context of climate change

Bhutan is part of many regional organisations. The South Asian Association for Regional Cooperation (SAARC) is leading regional climate change action, among many other aspects that it deals with. Established on 8 December 1985, the organisation includes Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.

In recent years, the Members States of the SAARC tried to reinforce cooperation on climate change. Since 1987, the Heads of State of the organisation reiterated «the need to strengthen and intensify regional cooperation to preserve, protect and manage the diverse and fragile eco-systems of the region including the need to address the challenges posed by climate change and natural disasters».

Indeed, SAARC set up several events, agreements and programmes that are linked with climate change, including the following:

- The meeting of the SAARC Environment Ministers. Out of the Eighth Meeting of the SAARC Environment Ministers (New Delhi, October 2009), the Delhi Statement on Cooperation in Environment was adopted. It analyses «many critical areas that need to be addressed and reaffirms the commitment of Member States towards enhancing regional cooperation in the field of environment and climate change». The ninth meeting took place in Thimphu (Bhutan) on 19 May 2011.

- The Technical Committee on Environment and Forestry. It has been established since 1992, and met three times since 2004. It is involved in three areas: environment, forestry and natural disasters. It is responsible for examining the recommendations of the Regional Study of the Causes and Consequences of Natural Disasters and the Protection and Preservation of the Environment, develop measures for immediate action and deciding modalities for the implementation. The Committee

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63 Ibid.
64 Ibid.
65 SAARC, 2009.
66 Ibid.
67 Ibid.
is also charged of including within its preview the Regional Study on Greenhouse Effect and Its Impact on the Region.\(^{68}\)

- The **SAARC Environment Plan of Action**. It has been established in 1997 and allowed to implement several key organisations and measures, including the following:

  - The **SAARC Coastal Zone Management Center (SCZMC)**. Established in the Maldives in 2004, it aims to promote cooperation in planning, management and sustainable development of coastal zones, including research, training and awareness in the region.

  - The **SAARC Disaster Management Center (SDMC)**. It was established in New Delhi in October 2006. It is charged to provide policy advice and enhance capacity building on strategic learning, research, training, system development, expertise promotion and exchange of information for effective disaster risk reduction and management.

  - The **SAARC Forestry Center (SFC)**. It was established in Thimphu in 2007 to promote the protection, conservation and sustainable use of forest resources through research, education and coordination among Member States.

  - The **SAARC Meteorological Research Center (SMRC)** was established in Bangladesh.

  - The **South Asia Environment Outlook (SAEO)** has been agreed between Member States in collaboration with the United Nations Environment Programme (UNEP). It was launched out of the Eighth Meeting of the SAARC Environment Ministers (New Delhi, 20-21 October 2009).

  - The **SAARC Convention on Cooperation on Environment** as stipulated under Item 17 (Legal Framework) of the Action Plan was signed during the Sixteenth SAARC Summit (Thimphu, 28-29 April 2010).\(^{69}\)

- The **Dhaka Declaration on Climate Change** (3 July 2008). This declaration requires Member States to carry out activities that « promote advocacy programs and mass awareness on climate change; cooperation in capacity building including the development of Clean Development Mechanism projects and DNA and on incentives for removal of greenhouse gas by sinks, and exchange of information of best practices, sharing of the results of research and development for mitigating the effects of climate change and undertaking adaptation measures, and for enhancing south-south cooperation on technology development and transfer, as per established SAARC norms; and to initiate and implement programmes and measures as per SAARC practice for adaptation for dealing with the onslaught of climate change to protect the lives and livelihood of the people. It also calls upon the Annex-I countries to fulfill their commitments as per the UNFCCC for providing additional resources ».\(^{69}\)

- The **SAARC Action Plan on Climate Change** (2009-2011) emphasizes seven thematic areas of cooperation linked with: adaptation; mitigation; technology transfer; finance and investment; education and awareness; management of impacts and risks; and capacity building for international negotiations. The Action Plan enumerates the areas of: capacity building for CDM projects; exchange of information on disaster preparedness and extreme events; exchange of meteorological data; capacity building and exchange of information on climate change impacts (e.g. sea level rise, glacial melting, biodiversity and forestry); and mutual consultation in international negotiation process as the Priority Action Plan.\(^{70}\)

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\(^{68}\) Ibid.

\(^{69}\) SAARC, 2009.

\(^{70}\) Ibid.
• The Heads of State or Government of SAARC adopted out of the sixteen SAARC Summit (Thimphu, 28-29 April 2010), the Thimphu Statement on Climate Change. It develops a number of important initiatives at the national and regional levels « to strengthen and intensity regional cooperation to address the adverse effects of climate change in a focused manner »\textsuperscript{71}. The Thimphu Statement established the Inter-governmental Expert Group on Climate Change is concerned, which is charged to supervise, review progress and make recommendations to facilitate the implementation of the Thimphu Statement.

• During the Seventeenth SAARC Summit held on 10-11 November 2011 in Addu City (Maldives), the SAARC Agreement on Rapid Response to Natural Disasters was signed by the Foreign Ministers of the respective Member States\textsuperscript{72}.

At the outcome of this Summit, the SAARC Convention on Cooperation on Environment was also signed by the Ministers of Foreign/External Affairs of Member States. The Convention provides for « cooperation in the field of environment and sustainable development through exchange of best practices and knowledge, capacity building and transfer of eco-friendly technology in a wide range of areas related to the environment »\textsuperscript{73}. The Governing Council, which is formed with the Environment Ministers of Member States, is responsible for the implementation of the Convention, This Convention will enter into force after it has been ratified by all Member States.

• Furthermore, a Goodwill Ambassador for Climate Change, Mr. Appa Sherpa, twenty time Everest Summiteer was responsible between May 2010 and May 2012 to advocate and produce awareness raising campaigns about the negative impacts of climate change; promote support among various stakeholders to cooperate to address the threats posed by climate change; disseminate the work being done by SAARC in the area of climate change; and underline the need to ensure timely implementation of both the Thimphu Statement on Climate Change and the Dhaka Declaration and SAARC Action Plan on Climate Change (2008-2011)\textsuperscript{74}.

• SAARC is also involved in climate change as it is a partner with many intergovernmental organisations. It has signed Memoranda of Understanding with the South Asia Cooperative Environment Programme (SACEP) in July 2004; United Nations Environment Programme (UNEP) in June 2007; and the United Nations International Strategy on Disaster Reduction (UNISDR) in September 2008. SAARC was also accredited as an Observer with the United Nations Framework Convention on Climate Change (UNFCCC) process at COP 16 (Cancun, Mexico, 29 November-10 December 2010)\textsuperscript{75}.

\textsuperscript{71} Ibid.
\textsuperscript{72} SAARC, 2009.
\textsuperscript{73} Ibid.
\textsuperscript{74} Ibid.
\textsuperscript{75} Ibid.
2. 3. Bhutan Normative and Institutional Framework: Management and Protection of Internal and External Migration and Displacement

2. 3. 1. Constitutional Rights Relevant for Environmentally-related Migration and Displacement

The Constitution of the Kingdom of Bhutan was officially adopted on 18 July 2008. The article 7 lays down the right and protection of displacement and internal and external migration as it declares « a Bhutanese citizen shall have the right to freedom of movement and residence within Bhutan »\(^76\). With regard to the access of land, the same article claims that « a Bhutanese citizen shall have the right to own property, but shall not have the right to sell or transfer land or any immovable property to a person who is not a citizen of Bhutan, except in keeping with laws enacted by Parliament. » The article further states that « a person shall not be deprived of property by acquisition or requisition, except for public purpose and on payment of fair compensation in accordance with the provision of the law ». The protection of the environment has also an important status in the Constitution. Indeed, the article 5 only indicates that « it is the fundamental duty of every citizen to contribute to the protection of the natural environment, conservation of the rich biodiversity of Bhutan and prevention of all forms of ecological degradation including noise, visual and physical pollution through the adoption and support of environment friendly practices and policies ».\(^77\)

The same article states that « the Government shall ensure that, in order to conserve the country’s natural resources and to prevent degradation of the ecosystem, a minimum of sixty percent of Bhutan’s total land shall be maintained under forest cover for all time ». It indicates as well that « Parliament may enact environmental legislation to ensure sustainable use of natural resources and maintain intergenerational equity and reaffirm the sovereign rights of the State over its own biological resource. »

2. 3. 2. The Disaster Management Organisational Structure

The Disaster Management Division was established under the Ministry of Home and Cultural Affairs at the end of the year 2004. There are three Departments under the Division: the Preparedness and Mitigation, the Relief and Reconstruction and the Response and Early Warning departments (Fig. 2).\(^78\)

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\(^77\) Ibid (p. 11).

The on-going projects undertaken by the Disaster Management Division include:

- An **Earthquake Risk Reduction Project** which is implemented by the Ministry of Works and Human Settlement. The project has been initiated by SAARC. Its goal is to review existing building codes, set up retrofitting models, raise awareness and produce disaster management plans in three pilot districts.

- Through a workshop, the division is currently producing a **draft disaster management act and national disaster management planning guidelines**. The workshop will be also the occasion for the participants to review the tentative capacity building strategy. A formulation of a comprehensive community based disaster management manual will be notably formulated.

- The division is also in the process of producing **school disaster management planning guidelines**, which will be endorsed by all district education officers and head teachers. The division would also drives the formulation of school disaster management plans for each school.

- The Division is also currently **formulating a GEF funded project with UNDP** with the Department of Geology and Mines. This project aims to reduce water levels of a potentially dangerous lake, implement an early warning system in the vulnerable valleys, increase awareness and produce disaster management plans for the pilot districts.

2. 3. 3. Adaptation Strategies to Climate Change

Bhutan has undertaken a number of climate change programmes, projects and activities

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since its ratification of the UNFCCC in August 1995\textsuperscript{80}. The main governmental programmes presenting key climate change adaptation strategies and priority fields in this area are the \textit{First and Second National Communication to the United Nations Framework Convention on Climate Change}, the \textit{National Adaptation Programme of Action}, the \textit{National Disaster Risk Management Framework} and the \textit{Common Country Programme Action Plan}.

1) The \textbf{First National Communication to the United Nations Framework Convention on Climate Change} has been submitted in 2000 to the United Nations Framework Convention on Climate Change (UNFCCC). The second was submitted in 2011\textsuperscript{81}.

2) The \textbf{National Adaptation Programme of Action (NAPA)}. It was submitted to the UNFCCC in 2006. The NAPA was conceived within the framework of the Royal Government of Bhutan’s sustainable development Five-Year Plan (FYP). Bhutan’s National Environment Commission (NEC) is in charge of guiding and coordinating the implementing sector agencies (ministries). It is responsible for monitoring the ‘climate change adaptation’ components within the projects. The major donor for the programme is the Global Environment Fund and the implementing agency is the UN Development Programme\textsuperscript{82}.

In the document, the priority areas are classified along with the following hierarchy:

1) Loss of life and livelihood  
2) Human health  
3) Food security and agriculture  
4) Water availability, quality and accessibility  
5) Impact on vulnerable groups  
6) Essential ‘Infrastructure’, including also Cultural Heritage (Dzongs, etc.)  
7) Cost of the Project  
8) Biological diversity  
9) Land use management and forestry  
10) Other environmental issues (natural attractions, forest, land erosion, slope stability, etc.)\textsuperscript{83}.

Regarding these priority areas, a number of projects shall be established in the frame of this programme, including\textsuperscript{84}:

- A \textit{Disaster Management Strategy – planning for food security and emergency medicine to vulnerable communities} : this project goal is to plan and set up components of the national disaster management strategy, especially regarding the emergency food security, medicines and first aid in few pilot districts in eastern Bhutan.

- \textit{Artificial Lowering of Thorthomi Lake} : the main objective of the project is to lower the

\begin{flushright}
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water level of the Thorthormi Lake, through the implementation of an artificial channel- which will widen the existing outlet channel.

- **Weather Forecasting System to serve Farmers and Agriculture**: its objective is to implement a weather forecasting office (WFO) which will be supported with necessary equipment and manpower to provide weather and seasonal forecasts for guiding production decisions of the farmers; and to provide an agrometeorological early warning system to cope with inclement weather conditions and provide special advisories at different production stages.

- **Landslide Management and Flood Prevention (Pilot Schemes in Critical Areas)**: This project aims to forecast and provide adapting responses in major landslide affected areas of Bhutan. The critical areas under the project are: the landslide prone areas of Chaskar (Mongar) and Ramjar (Trashiyangtse), and the critical road links from Phuentsholing- Thimphu, and Riju-Rangjung highways.

- **Flood Protection of Downstream Industrial and Agricultural Area**: the goals of the project are to provide a preventive action in major landslide and flood affected areas of the country (Pasakha Industrial areas, and the fertile agricultural land of the Taklai river basin) to prevent these areas from becoming both dangerous for human livelihood and infertile for crop productions.

- **Rainwater Harvesting**: this project aims to protect farmers against water shortages during dry periods and irregularities in the monsoon rainfall, by enhancing household food security and income of farmers located in vulnerable areas.

- **GLOF Hazard Zoning (Pilot Scheme - Chamkhar Chu Basin)**: the main objective of this project is to produce a hazard zonation map for GLOF (from Khaktang to Chamkhar town) in areas which contain the main settlements and developmental activities.

- **Installation of Early Warning Systems on the Pho-chu River Basin**: the main objective is to set up a flood warning station on the Pho-chu river basin-specifically above Samdingkha (15-20 km above Punakha) to be able of warning Punakha of a GLOF in about ten minutes.

- **Promote community-based Forest Fire Management and Prevention**: the project seeks to promote the capacity of Department of Forests and rural people to cope with forest fire through the use of appropriate tools and technology.

3) **The National Disaster Risk Management Framework (NDRMF)**. Endorsed in 2006, it is the first comprehensive multi-stakeholder strategy that deals with the disaster management in the country. The NDRMF integrates priorities identified in the **Hyogo Framework for Action (HFA)** through the eight following components:

   **a) Establishment of institutional and legislative frameworks**

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85 The HFA priorities are: «Promoting a disaster risk management approach instead of an ad hoc reactive approach to dealing with disasters; Recognizing respective roles of different organizations in disaster risk management; and establishing linkages between disaster risk management and the other ongoing activities in different development sectors»

- Implementing decentralized multi-disciplinary coordination mechanisms:

At the National level, along with the King, the Cabinet with the Prime Minister as the Chairperson is the highest decision-making body. Under the Cabinet, the National Committee for Disaster Management (NCDM) is the highest executive body chaired by a Cabinet Minister for a period of one year. The committee is composed of the Secretaries of all Ministries.

At the local level, each of the twenty districts will have a district disaster management committee. The Chief Executive Officer of the district administration shall chair the district level committee and representation from all line ministries/sectors, non-government organizations and armed forces shall be included in the committee.

The elected head of the block administration with representation from relevant sectors and village level functionaries will chair the block disaster management committee in each block of the twenty districts.

- Legislative Frameworks:

The Ministry of Home and Cultural affairs is currently drafting the National disaster Management Act, the National Disaster Management Plan as well as the Guidelines for Disaster Management Planning at local levels.

\(b)\) **Hazard Vulnerability and Risk Assessment**

The government will also develop a multi-hazard atlas for the country, especially where most of the population are settled. The Department of Geology and Mines and the Ministry of trade and Industry have already produced hazard zonation for GLOF in three of the most vulnerable districts. The National Statistical Bureau has also completed household mapping for the entire country out of the nation wide Housing and Population Census.

As far as the risk assessment is concerned, especially for populated towns and capital which are prone to earthquakes, it is under process.

In order to inform the public and decision makers, the Ministry of Home and Cultural Affairs is currently collecting information on disaster occurrence, impacts and losses. Furthermore, the Ministry has initiated the formation of an inter-ministerial task force to regularly indicate the disaster risks and vulnerabilities, capacity needs assessment and to further developed hazard/risk maps for the entire country.

Finally, an integrated and comprehensive disaster management manual that would facilitate vulnerability risk assessment at the national and local levels and result in national and local disaster management plans, is currently under process by the Ministry.

\(c)\) **Early Warning System**

In Bhutan the development of early warning systems, especially in the case of Glacial Lake Outburst Flows (GLOF) is particularly needed. Indeed, as it was highlighted in the 1. 2. 1., 25 potentially dangerous glacial lakes could potentially cause significant damage downstream without the establishment of effective early warning systems.

At present Hydromet Services Division under the Department of Energy is in charge of hydropower planning, flood and weather forecasting, thanks to 10 hydrological stations and 33 rainfall stations that have been set up across the country.
Finally, the Ministry of Home and Cultural Affairs (MoHCA) in collaboration with Department of Geology and Mines (DGM) will pilot an automated early warning system in two districts.

**d) Disaster Preparedness Plans at all Levels**

As it was indicated earlier, the MoHCA plans to conduct a stakeholder workshop to discuss the draft national disaster management act and the draft national disaster management plan. Under the national plan, each sector and agencies will be charged of the production of their own disaster management plans. An Inter-Ministerial Task Force/Steering Committee will be charged of drawing guidelines for disaster management planning and capacity building at the local levels.

At the local levels and regarding their own vulnerabilities, the district disaster management committees and the municipal disaster management committees will be responsible for producing their own disaster management plans which should fit with the national plan.

**e) Mitigation and integration of disaster risk reduction in development sectors**

The sector plans should be developed in line with the national plan and include preventive, mitigation activities as well as reactive strategies to hazards.

Disaster impact assessment guidelines for development plan and projects are also planned to be developed by the government, ensuring the disaster risk reduction is part of development activities.

**f) Public Awareness and Education**

Awareness campaigns - that is on disaster risks and the importance of preparedness - have been conducted by the Ministry in 7 Districts and they were planned to cover 13 districts by 2008. To this aim, districts were required to elaborate a vulnerability assessment and form the district disaster management committee.

The community leaders were also responsible for the awareness programmes. The government also plans to include disaster management studies into the college programme (particularly the engineering schools) and also to come up with a curricula for primary schools.

**g) Capacity Development**

Because the national framework was only approved in 2006, there is still much to do for its institutionalization and accordingly Bhutan lacks capacity in terms of infrastructure, technological, institutional and human resources.

The Ministry of Home and Cultural Affairs, as the lead agency, will conduct a capacity needs assessment at the national and local levels in order to operationalize the national framework.

**h) Communication and Transportation**

Because Bhutan has a rugged and mountainous terrain, the country needs better transportation and communications systems for connecting vulnerable communities.

**4) The Common Country Programme Action Plan (CCPAP).** Through this development programme which was developed between the Government of Bhutan and the United
Nations System in Bhutan for the period 2008-2012, Bhutan is supported by the UN in its mitigation activities of the risks and effects of natural disasters and climate change.\textsuperscript{87}

This programme includes several key development needs, including: Poverty Reduction, Health, Education, Gender, Governance, as well as Environment and Disaster Risk Management\textsuperscript{88}.

The Environment Disaster Risk Management part includes:

« The Government recognizes the United Nations as a key partner in the area of energy, environment and disaster management. Key policy and regulatory frameworks for the protection and management of the environment have been implemented. Capacities of national institutes for ensuring sustainable livelihoods through environmental stewardship were promoted through formulation of a National Plan of Action for Global Environmental Management. Further, development of Biodiversity Action Plans, formulation and implementation of Integrated Conservation and Development Programme (ICDP) guidelines, and enhancement of nature and eco-tourism have contributed toward strengthening the strategic framework for biodiversity conservation, informing national strategies and highlighting experiences in an inclusive conservation approach. Preparation of national plans such as the National Green House Gas Inventory and the National Adaptation Strategy and Action Plan for Climate Change has generated awareness and facilitated Bhutan’s participation in Multilateral Environment Agreements (MEA) including the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity and the Convention on Combating Desertification »\textsuperscript{89}.

2.4. Development Cooperation

Despite the fact that Bhutan is one of the Least Developed Country (LDC), the country receives relatively little aid, compared to other LDC. Indeed, the part of Net Official Development Aid (ODA) in the Bhutanese GNI was about 9.0% in 2011. The top ten donors (2010-2011\textsuperscript{11} average) are the following: Japan (USD 38 million), AsDB Special Funds (USD 32 million), IDA (USD 22 million), Denmark (USD 13 million), Australia (USD 8 million), Austria (USD 4 million), IFAD (USD 4 million), Switzerland (USD 3 million), GEF (USD 3 million), Netherlands (USD 3 million).\textsuperscript{90}

2.4.1. The Japan-Bhutan relations

Diplomatic relations between Bhutan and Japan have been set up since 1986. Japan’s ODA has contributed to enhance the agricultural productivity and human resource development especially by Grant Aid and technical Cooperation\textsuperscript{91}.

1) Japan’s Grant Aid: It has focused on the areas of basic infrastructure and rural development since 1981. The total amount of grant aid for Bhutan of 2008 is 2.1 billion yen and the cumulative amount is 28.3 billion yen. Japan extended its first Non-Project Grant Aid to Bhutan in FY 2008.\textsuperscript{92}

2) Japan’s Technical Cooperation: Japan assists Bhutan in the human resources development. These areas are the following: agriculture and rural development, infrastructure development (roads, bridges, and power distribution), democratization
(decentralization), and improvement of administrative capacity and social services.

2. 4. 2. The Denmark-Bhutan Relations

The Ministry of Foreign Affairs of Denmark highlighted the key priority sectors (Tables 3 and 4) of the cooperation between the two countries for the period 2008-2013. These include: the social Sector, Environment, Urban Development and Good Governance sectors.

![Table 3](image)

**Table 3.** Sector Allocation of the Danish Development Assistance$^{93}$.

<table>
<thead>
<tr>
<th>Target</th>
<th>Baseline 2005</th>
<th>Target 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce proportion of people living under the national poverty line</td>
<td>31.7%</td>
<td>15%</td>
</tr>
<tr>
<td>(USD 0.9 per Day)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase net primary enrolment</td>
<td>65%</td>
<td>Near 100%</td>
</tr>
<tr>
<td>(Secondary level)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance enrolment of girls in tertiary education, girl/boy ratio</td>
<td>54% (2007)</td>
<td>80%</td>
</tr>
<tr>
<td>Enhance adult literacy rate, with special focus on empowerment of girls</td>
<td>53% (2007)</td>
<td>80%</td>
</tr>
<tr>
<td>and women</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce maternal mortality rate (per 100,000)</td>
<td>255</td>
<td>100</td>
</tr>
<tr>
<td>Access to safe drinking water</td>
<td>84%</td>
<td>&gt; 95%</td>
</tr>
<tr>
<td>Coverage of rural electrification</td>
<td>36%</td>
<td>84%</td>
</tr>
<tr>
<td>Increase in manufacturing and industries' contribution to GDP</td>
<td>8% (2004)</td>
<td>12%</td>
</tr>
</tbody>
</table>

*With a rapid enrolment rate for girls at both primary and secondary levels, Bhutan has moved faster than projected in the 9th FYP to achieving gender parity in primary and secondary school education with 93 and 98 girls for every 100 boys respectively in 2006.*

**Table 4.** Bhutan-Denmark development cooperation targets.

2. 4. 3. The EU-Bhutan Relations

The European Commission (EC) also assists Bhutan in its development goals, notably through its 2007-2013 Response Strategy.

The EC has been funding €8 million through the multi-annual indicative programme for the period 2007-2010 to support renewable natural resources and good governance. A further €2

$^{93}$ Ministry of Foreign Affairs of Denmark. 2008.
million was allocated for the following three years (2011-2013) for trade-related assistance. The three main focal sectors are the following ones:

1) **Renewable Natural Resources (RNR) Programme**: The EC support to the RNR sector would be equivalent to approximately 60% of the Country Strategic Paper (CSP) allocation.

This sector has always been the core of the EU-Bhutan cooperation. It aimed to reduce poverty through the development of agricultural production, income generation and market opportunities. These included support to the RNR extension services and watershed management. The EU also provided support for the revival of the traditional medicine sector through the development of both cultivation and collection of medicinal plants, enhancement of the production centre at the Institute for Traditional Medicine Services (ITMS) in Thimphu, and accordingly the increasing supply of traditional medicines and doctors within the country.

2) **Good Governance**: The EC support to the Good Governance sector would be equivalent to approximately 20% of the total CSP allocation.

The EU is indeed recently supporting the country in its efforts of decentralisation and democratisation, especially at the level of the sub-districts (Geogs). Working with other donors, notably Denmark, the EU will become a partner in the multi-donor funded RGoB-led Local Governance Support Programme, which is expected to strengthen the decentralisation process in the country.

3) **Trade Facilitation**: The EC funding would be approximately 20% of the total CSP allocation.

The EU assistance to Trade Development and Trade Capacity Building sector was already provided to the country under the first CSP (2002-2006). There is indeed a change in the consumption patterns and standards of Bhutanese society, which is underlined by the increasing demand for diversified and quality products. Although Bhutan is member of SAARC, SAFTA and BIMSTEC and is in the process of acceding to WTO.

### 3. Conclusion

As a small, mountainous country, Bhutan faces many specific challenges related to climate change, the most significant being the risk of glacial lake outbursts. In recent years, Bhutan has started to transform itself into a democracy, and has set up meaningful legislative and policy frameworks to address climate-related migration.

The country will need however to overcome some significant obstacles in the coming years. These include:

- the lack of climate and migration data. A better monitoring of both climate and migration trends would allow for better policies to address environmental migration ;
- the situation of human rights will need to improve, as the Nepali-speaking minority of the country continues to face severe discrimination ;

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95 Ibid.
- Relationships with China could also greatly improve – ideally, a relationship similar to the one with India should be a policy goal, and the open border between the two countries is an example to follow.

All in all, Bhutan seems relatively well-prepared to manage climate-related migration, but significant difficulties persist with regard to data collection and the human rights situation.
4. Literature

4.1 Books, Articles


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