



## Integrated Strategies To Minimize The Socio-Economic Impacts On Climate Change Refugees

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### Abstract

Migration is one of the most challenging consequences that residents, as well as local and national governments, face due to climate change. Flooding, deforestation, erosion and a rising sea-level are the primary causes of displacing populations. In addition, securing adequate nutrition and managing drought and salt water intrusion, impacts the sustainability of fledgling communities. Their ability to flourish depends on adaptability to a new environment, utilizing resources maximally and the resilience to rebuild their lives after destruction. This paper outlines a legal and institutional framework to respond to climate-induced human migration. Appropriate responses from the developed world whose industrial emissions are majorly responsible for hastening climate change, plays a critical role in preventing a global humanitarian crisis. The concept of 'climigration' has been the topic of recent debate. Robin Bronen concluded that 'climigration' has indeed played a pivotal role in permanent relocation of various societies secondary to a rising sea-level. Steven Castles also agrees that third world ecological ruin is crucial in people fleeing their homes, and Lori Hunter hypothesized that demographers can play a vital role in population distribution related to environmental hazards. The above statements consolidate that climate related migration is indeed a very real problem. In developing countries migration has become commonplace because of politically fragile and poor economies. Vast populace is frequently displaced by natural calamities like flood, tropical cyclone and river bank erosion. People thus dislocated and lost their natural habitat are forced to migrate to new locations, usually to urban slums. These are areas where health suffers drastically due to poor sanitation, insufficient food supply and lack of other livelihood opportunities, resulting in acute poverty of the migrants. When frustration creeps in they tend to indulge in crimes, drugs and violence. They sell themselves to be used by vested interest groups, e.g. corrupt politicians and mighty corporate bodies. Disruption of peace and social harmony thus become widespread, sometimes stretching beyond boundaries. As the 'equality principle' contained in the United Nations Framework Convention on Climate Change (UNFCCC) contemplates, two major strategies need be evolved in dealing with climate change refugees: mitigation and adaptation. With regard to developing countries this will mean that the first one should address the causes of such displacements and ways to prevent them, while the latter should aim to reinforce the ability of societies and ecosystems to cope with and adapt to climate change risks. Climate change adaptation includes wide range of actions, including improvement of disaster planning, relocation of population from the risk areas, and their rehabilitation with proper care. Victims of such natural disasters require economic and political stability in order to restore their homes in their country. Government and non-government organizations must take preventative and protective measures to support them. If governments fail to do so, people are forced to re-establish themselves in alternative locations. Systems and procedures have to be established in order to identify those who are

in genuine need of Permanent Secured Habitat. We must ensure that any measures taken by governments to curb immigration do not prevent refugees from receiving the support to which they are morally entitled. A detailed understanding regarding the roles and responsibilities of the different sectors that are involved in aiding and intercepting people at sea and other migrant points is necessary. Accelerated global climate change will play a more prominent role in migration which was once embedded in complex political, social and economic factors. Preventing an outpouring of 'homeless' populations will require integrated strategies for their sustenance. The solution to the problem of climate associated migration can only be addressed by attacking the root cause, and then providing sanctuary and aid for those areas and communities already affected. This paper will analyze and discuss in more detail the above outlined principles, hypotheses and will be suggesting ways in which to improve dealing with climate change refugees.

**Keywords:** Migration, Refugee, Climigrant, Socio-economic State, Adaptation, Bangladesh.

## Introduction

Migration, whether permanent or temporary, has always been a traditional response or survival strategy of people confronting the prospect, impact or aftermath of disasters. (Hugo, 1996). Although there had been technological and scientific advances in prediction and mitigation, we have observed serious increase in both mortality and economic losses from disasters since 1960, in particular in the developing countries. Climate induced changes are increasing in impact and scope through the combined effects of economic, social, demographic, ideological and technological factors. Migration is one of the most challenging consequences that residents, as well as local and national governments, face due to climate change. Flooding, deforestation, erosion and a rising sea-level are the primary causes of displacing populations. In addition, securing adequate nutrition and managing drought and salt water intrusion impacts the sustainability of fledgling communities. Their ability to flourish depends on their adaptability to a new environment through maximum utilization of resources and the resilience to rebuild their lives after destruction. Appropriate responses from the developed world, whose industrial emissions are principally responsible for hastening climate change, play a critical role in preventing a global humanitarian crisis. This paper outlines a legal and institutional framework to respond to climate-induced human migration.

In developing countries, migration has become commonplace because of politically fragile and poor economies. Victims of natural disasters require economic and political stability in order to restore their homes in their country. Government and non-government organizations must take preventative and protective measures to support them. If governments fail to do so, people are forced to re-establish themselves in alternative locations.

Systems and procedures have to be established in order to identify those who are in genuine need of permanent secured habitat. We must ensure that any measures taken by governments to curb immigration do not prevent refugees from receiving the support to which they are morally entitled. A detailed understanding regarding the roles and responsibilities of the different sectors that are involved in aiding and intercepting people at sea and other migrant points is necessary. This paper will analyze and discuss in more detail the above

outlined principles, hypotheses and will be suggesting ways in which to improve dealing with climate change refugees.

Accelerated global climate change will play a more prominent role in migration which was once embedded only in complex political, social and economic factors. Preventing an outpouring of homeless populations will require integrated strategies for their sustenance. The solution to the problem of climate associated migration can only be addressed by attacking the root cause, and then providing sanctuary and aid for those areas and communities already affected.

## Background

In the face of climate-related environmental change such as the decline of productive agricultural land, rural residents may be forced to migrate in search of work. Migrants who find work often remit portions of their salary back home. Their families in the home communities may use the remittances to buy substitutes for goods previously produced or harvested from the local environment. A link between migration and climatic factors, such as temperature and precipitation, has been documented in several rural regions of developing countries.

A climate refugee is someone displaced by climate change induced environmental disasters. Such disasters are the result of incremental and rapid ecological change and disruption that include increased droughts, desertification, sea level rise, and the more frequent occurrence of extreme weather events such as hurricanes, cyclones, floods and tornados. The term *climate refugee* is no longer seen as an appropriate term, and has now largely been substituted by *environmental migrant*. Many people have raised objections to the use of the term 'refugee' in a climate context as it becomes mixed up with the legally defined term in the Refugee Convention of 1951. This Convention classifies refugees as those who are fleeing from violence and political intimidation.

With the certainty of global warming, the term "climate refugees" is gaining popularity at a global scale. The term climate-refugee implies a mono-causality that one rarely finds in human reality. Climate change impacts will contribute to an increase in forced migration. The impacts depend not only on natural exposure but also on the vulnerability and resilience of the areas and particularly the people in respect to their capacities to adapt. It will have several impacts on the environment, which in turn can impact into conflict. Gradual environmental degradation and slow onset of disasters such as drought are likely to trigger due to climate change. Most vulnerable are developing countries where large sections of the population live directly from agriculture, predominantly in the form of subsistence farming.

## Types of Migration

*Forced Migration* is "a general term that refers to the movements of refugees and internally displaced people (those displaced by conflicts within their country of origin) as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine, or development projects."

*Conflict-Induced Displacement* occurs when people are forced to flee their homes as a result of armed conflict including civil war, generalized violence, and persecution on the grounds of nationality, race, religion, political opinion or social group.

*Development-Induced Displacement* occurs when people are compelled to move as a result of policies and projects implemented to advance 'development' efforts. Examples of this include large-scale infrastructure projects such as dams, roads, ports, airports, urban clearance initiatives, mining and deforestation, and the introduction of conservation parks, reserves and biosphere projects.

*Disaster-Induced Displacement* occurs when people are displaced as a result of natural disasters (e.g. floods, volcanic eruptions, landslides, earthquakes), environmental change (e.g. deforestation, desertification, land degradation, global warming) and human-made disasters (e.g. industrial accidents, radioactivity). People experiencing this type of displacement are often referred to as "environmental refugees" or "disaster refugees".

To the degree that disasters force people to relocate either temporarily or permanently, disaster victims have been seen as a subset of the category of environmental refugees, a term that has generated a considerable amount of recent debate. As associated with disasters, the phenomenon of forced migration is also complex. Unless explicitly limited to referring to permanent, involuntary transfer to distant locations, the concept of forced migration refers to a variety of demographic movements, such as:

- Flight – escape
- Evacuation – removal of people from harm's way
- Displacement – the uprooting of people from a home ground
- Resettlement – relocation of people to new homes
- Forced migration – people must move to a new and usually distant place

### **Climigration**

"Climigration" is the word that best describes forced migration due to climate change. It results from on-going climate-induced ecological changes in a community's environment that severely impact infrastructure, such as health clinics and schools, as well as the livelihoods and well-being of the people residing in the community. Climigration occurs when a community is no longer sustainable for ecological reasons. It differs from migration caused by catastrophic random environmental events. Climigration is forcing communities to permanently relocate, which means there is no ability to return home. For these reasons, a set of guiding principles and an institutional framework based on human rights doctrine need to be created. The end game is to address the specific circumstance of climigration and ensure resilience of communities forced to migrate. The experience of Alaskan indigenous communities is guiding the creation of these principles and the institutional response.

### **Opinion from Scholars**

The concept of 'climigration' has been the topic of recent debate. Robin Bronen concluded that 'climigration' has indeed played a pivotal role in permanent relocation of various societies secondary to a rising sea-level. Steven Castles also agrees that third world

ecological ruin is crucial in people fleeing their homes, and Lori Hunter hypothesized that demographers can play a vital role in population distribution related to environmental hazards. The above statements consolidate that climate related migration is indeed a very real problem.

The humanitarian crisis in Alaska clearly demonstrates the need to create clear guidelines so that governments can protect and assist the communities forced to migrate due to climate change. Alaska is the logical place to develop climigration principles that can serve as a model for other regions because of the rapid pace of climate change, the inevitability of permanent displacement in many cases, and the large number of communities where this issue must be addressed in the coming years.

There is no agreed definition and typology of environmental refugees or migrants. Two of the most well-known definitions of environmental refugees are given by El-Hinnawi and Myers.

### **Environmental Refugees**

*(These are) "People who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption that jeopardized their existence, and has seriously affected the quality of their life. By 'environmental disruption' in this definition is meant any physical, chemical or biological changes in the ecosystem unsuitable to support human life".*

*(These are) "Persons who no longer gain a secure livelihood in their traditional homelands because of what are primarily environmental factors of unusual scope."*

Guiding Principles on Climigration, based on human rights doctrine, need to be developed. Refugee law, the Universal Declaration of Human Rights, the Guiding Principles on Internal Displacement and the recently adopted Universal Declaration on the Rights of Indigenous Peoples provide a theoretical basis for creating these principles. However, none of these legal documents address the complex and unique social, economic and political crises of populations facing climigration. Guiding Principles of Climigration will ensure that the social, economic and cultural human rights of individuals and the communities forced to migrate are protected during displacement as well as during resettlement. Forced migration creates significant stress and adverse impacts on the health and well-being of those forced to leave their communities. These adverse consequences can be minimized only if the affected community is a key leader in the relocation process and culturally and linguistically appropriate mechanisms for participation and consultation are fundamental components of the relocation process.

### **Environmentally Displaced Persons and Environmental Migrants**

The term "*environmentally displaced persons*" would be contrary to "*climate refugees*" and "*environmental refugees*" not be dependent on location and could be used to describe those that are internally displaced as well as the refugees. "Environmentally displaced persons" has been defined as "persons who are displaced within their own country of habitual residence or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of their displacement, although not necessarily the sole one." While this term emphasizes the force element, International Organization for



Migration (IOM) has suggested a broader working definition of “environmental migrants” as “persons or groups of persons who for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad.”

The Guiding Principles will also affirm that families and tribes remain together during the relocation process. For indigenous communities, tribal relationships are essential to cultural identity. The relocation process must ensure that socio-cultural institutions remain intact. The Guiding Principles must also ensure that subsistence rights and the customary communal rights to resources are protected and that the relocation process is framed with the intent to improve income strategies. The Guiding Principles will also affirm the human rights principles regarding access to safe and sanitary housing, potable water, education and other basic amenities. The living standards of the affected communities must not be diminished in the relocation process and must implement sustainable development opportunities as part of the relocation process. In this way, the relocation process will enhance the resilience of communities by addressing socio-economic issues that are currently contributing to the vulnerability of communities.

Creating an international institutional framework of response to migration caused by climate change is the next essential step that needs to be taken by the international community. Debates about the number of people forced to migrate delays the creation of institutional response mechanisms and ensures that a global humanitarian crisis will occur. The institutional response requires the identification of continua of conditions that cause communities to migrate for environmental reasons.

The first continuum will identify the environmental causes of flight. Climigration will be at one end of the continuum when no other environmental issue, such as overgrazing, is causing the community to relocate. At the other end of the environmental displacement continuum, factors such as overuse of resources will be included. This continuum will define the variety of environmental factors that can force communities to migrate. Accurately defining the cause of the environmental displacement is critical in order to ensure that the institutional response is appropriate.

The second continuum will define the institutional response and will incorporate factors, such as the temporal nature of the displacement and the site of the relocation, i.e., whether international, state and local borders are crossed that impact the ability of the community to resettle in a particular location. The institutional framework created will mirror the environmental displacement continuum to ensure that the humanitarian response is appropriate. For example, the agencies that have traditionally provided “disaster relief” and erosion control will continue to engage in these activities until it is determined that relocation must occur to protect the life and well-being of the community. At this point, the community, along with tribal, state and federal governments, will shift their focus to create a relocation process.

Impact of natural disasters particularly on migrant communities heightened vulnerabilities and lack of access to assistance. Both regular and irregular migrants face increased vulnerability at times of natural disaster. At times of crisis, they may become forgotten, hidden groups unplanned for in the disaster response. They may even miss out on humanitarian assistance

and support, be unable to reclaim the bodies of dead relatives, and have difficulties in re-establishing their legal identity and recovering permits and authorizations. When migrants are irregular, as the case of the Myanmarese in Thailand shows, this situation may arise through their own fears of coming forward for assistance or be a consequence of state neglect, or even the exclusion of migrant groups from aid efforts.

Effects of natural disasters on migration pattern due to socio-economic changes might undermine pre-disaster development levels. Natural disasters may lead to migratory flows out of affected areas. This is to be expected in areas where the calamity has left social and economic destruction in its wake. The Tsunami case studies show some indications of interest in economic migration among affected populations, who had been internally displaced on a large scale close to the affected areas, but numbers of actual émigrés appear limited and a mass exodus never occurred. This may be so for a variety of reasons, including the degree to which humanitarian assistance was able to cushion the blow caused by the Tsunami. There were also examples of some movements into affected areas, e.g. in Sri Lanka, migrant relatives returning home to provide support and highlighting potential problems of returnee re-integration. New migrants also arrived, e.g. Myanmarese migrant workers came to the coastal areas of Thailand in search of work in reconstruction, leading to questions of migrants' rights, labor exploitation and protection.

### Legal Framework for Climate Refugees

The right to life is protected in both the UDHR and the ICCPR. Article 3 of the UDHR provides 'everyone has the right to life, liberty and security of person'. The modern human rights system is founded in international law. It traces back to, and is based upon, the Universal Declaration of Human Rights (UDHR) which was adopted by the General Assembly of the United Nations on 10 December 1948. The human rights enshrined in the UDHR have been further articulated in subsequent human rights treaties. Most relevantly in this aspect is the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR). Australia is a party to both of these instruments. However, as the major human rights treaties were developed before climate change was understood to be a looming threat to human security, the environmental dimension of these rights has not been extensively articulated and the precise connection between climate change and the international human rights law system is as yet inadequately developed. The protection of the environment is 'a vital part of contemporary human rights doctrine and a *sine qua non* for numerous human rights, such as the right to health and the right to life'. Current legal instruments and trends in relation to environment law are insufficient to support the existence of a clear and specific right to an environment of a particular quality in international law.

In international law, when a state ratifies an international human rights instrument it undertakes to ensure that the standards contained therein are upheld vis-à-vis those within its territory or subject to its jurisdiction. All organs of the state are responsible for the implementation of international human rights instruments – the executive, the government, the legislature and the judiciary. As Australia has ratified all the major human rights instruments, it is subject to the monitoring and enforcement mechanisms that form part of the international human rights system. The failure to meet its obligations in the climate change

context could, for instance, lead to complaints being lodged against Australia with the UN treaty monitoring bodies.

Human rights instruments impose broad obligations upon signatory states. By ratifying an international human rights instrument, Australia has agreed to *respect, protect and fulfill* the rights contained within it. The obligation to respect means Australia must refrain from interfering with or curtailing the enjoyment of human rights. The obligation to protect requires Australia to protect individuals and groups against human rights abuses – whether by private or government actors. The obligation to fulfill means that States must take positive action to facilitate the enjoyment of basic human rights. Thus irrespective of the *cause* of a threat to human rights Australia still has positive obligations to use all the means within its disposal to uphold the human rights affected. The positive nature of state obligation, in the context of environmental harm, has been considered in a number of cases in the European Court of Human Rights.

Although climate change is occurring and will continue, governments have undertaken little policy action to reduce climate-related migration, particularly in rural regions of less developed countries. Such policies need not be climate-specific, but could serve to enhance families' livelihood options, making them more resilient if their resource-base changes. In this way, development efforts and programs to reduce poverty will lessen livelihood vulnerability, ultimately reducing the need for families to migrate because of climate change.

In addition to practical implications, there are ethical dimensions to the link between climate change, poverty, and migration. Although residents of less industrialized countries have contributed little to climate change, they are going to suffer disproportionately from the effects. The disadvantage already characterizing resource-dependent rural households may be exacerbated in the face of future changes in regional precipitation and temperature patterns.

Environmental factors have long had an impact on global migration flows, as people have historically left places with harsh or deteriorating conditions. However, the scale of such flows, both internal and cross-border, is expected to rise as a result of accelerated climate change, with unprecedented impacts on lives and livelihoods. Such migration can have positive and negative effects on both the local coping capacity and the environment in areas from which these migrants originate, as well as in their temporary or permanent destinations.

In the cross-cutting area of migration, climate change and environmental degradation, IOM addresses linkages between the environment and climate change on the one hand, and human settlement and population movement on the other from a human mobility perspective.

Migration, climate change and environmental degradation are interrelated. Just as environmental degradation and disasters can cause migration, movement of people can also entail significant effects on surrounding ecosystems. This complex nexus needs to be addressed in a holistic manner, taking into account other possible mediating factors including, inter alia, human security, human and economic development, trade, livelihood strategies and conflict. Migration often seems to be misperceived as a failure to adapt to a changing environment. Instead, migration can also be an adaptation strategy to climate and environmental change and is an essential component of the socio-environmental interactions



that needs to be managed. Migration can be a coping mechanism and survival strategy for those who move. At the same time, migration, and mass migration in particular, can also have significant environmental repercussions for areas of origin, areas of destination, and the migratory routes in between and contribute to further environmental degradation.

### **Human Rights Response to Adaptation**

Recognizing that climate change is likely to continue even with successful mitigation measures, governments have been providing financial and other forms of support to affected communities so that they can adapt to the impact of changing conditions. Adaptation measures, taken in advance, can reduce the risks and limit the damage caused by climate change. The United Nations Framework Convention on Climate Change (UNFCCC) provides that all Parties must formulate and implement national or regional programs, which contain measures to facilitate adequate adaptation to climate change.

### **Impacts of Natural Disasters on different Socio-Economic Groups**

Those occupying the lower socio-economic tiers of society are more likely to be at risk of heightened loss and damage following natural disaster. This is the case in both developing and developed nations, as can be seen by the plight of low-income African American and migrant communities in the United States in the wake of Hurricane Katrina. Low-income groups are disproportionately affected due to habitation in inferior quality housing made of weak infrastructure and materials, limited choice over type and location of residence, and less-effective disaster prevention/response capabilities. Lower-income groups may have no choice but to ignore the hazard, may not be able effectively to anticipate it, or have to accept the risks, e.g. poor fishermen dependent on backwater fishing may have to live with the continual risk of flooding. Economically better off households are better able to protect themselves from the effects of natural disasters and have more resources, means and capabilities to re-establish themselves once disaster occurs. They may also have the financial resources and ability to leave the area, if only on a temporary basis. In less-developed countries in particular, the growth of urban slums<sup>34</sup> means that low-income groups often live on land that has either been reclaimed (silted riverbeds), located close to hazardous industrial plants (e.g. Bhopal) and transport infrastructures, and on unstable mountain slopes, marshlands and similar accident-prone environments. Many large cities often house large numbers of transient populations emanating from rural areas, with insecure social networks, experiencing social and political marginalization and lacking in resources and social welfare mechanisms, all of which increases their vulnerability to shocks placing them in a position of dependency on the government for early warning and support.<sup>35</sup> In rural areas, it is often the poorest who occupy the most marginal lands and rely on precarious and highly vulnerable livelihoods in areas prone to drought, flooding and other hazards. Local ecological and environmental change as a consequence of agricultural practices can itself create risk. The capacity of rural communities to cope has been undermined by the need to compete in a globalizing economy, which currently rewards specialization and intensification over diversity and sustainability. The effects of climate change also increase uncertainty and the complexity of risk for everyone, including landless laborers, small-scale farmers, and wealthy agriculturists and people whose livelihoods serve the rural economy. Blaikie et al. have described the progression of vulnerability as being caused by a variety of root causes such as:



- Limited access to power structures
- Resources and ideologies, political and economic systems
- Dynamic pressures (lack of local institutions, training, appropriate skills, local investments, local markets, freedom of expression, ethical standards in public life and rapid urbanization, population growth, deforestation, decline in soil productivity).
- Fragile physical environments
- Vulnerability of particular segments of the population (special groups at risk).
- Lack of appropriate and timely public action (e.g. lack of disaster preparedness and prevalence of endemic diseases).

### Importance for Bangladesh

Climate induced migration is anything but rare in Bangladesh, and this area requires detailed probing into the 'flavors' of such change. When we say climate, we might essentially refer to not only physical climate but also the political, social and economic climate – much of which has minimal natural and more human intervention. Natural disasters nonetheless are responsible for large scale human migration, but are grossly undermined due to their relative infrequent happening (in comparison to human-induced climate change).

The death toll from the monster cyclone Sidr that has struck Bangladesh is in the hundreds; but 16 years ago a similar cyclone killed over 140,000 people, and another one in 1970 killed around 500,000. The damage could have been much more serious. This time media the weather forecasting system and regional preparations worked very competently. Ten years ago weather forecasting systems were not so good. In the 1970s Bangladesh did not have the capacity to face such calamities. Now in every district there are disaster preparedness volunteers. They are out in the field talking to people, asking them to move to safer places. Announcements were broadcast over mosque loudspeakers to alert communities to the impending disaster. The damage could have been much more serious. This time the weather forecasting system and regional preparations worked very well. People have already been very active for the last two to three days.

Humans have played a more visible role in forcing local inhabitants to permanently or at least temporarily leave their environment. Critical assessment of these human-induced actions calls for due attention:

- Economic activities in Bangladesh are mostly centered in urban areas. As a result, city centers have become pivotal points of human migration. This has put a high pressure on real estate prices, predominantly in rental prices. Since there has been significant growth of jobs in these few urbanized areas, entrepreneurs are reluctant to explore the possibility of generating economic opportunity in other rural areas.
- Lack of best practices in agriculture has also caused the country to gradually lose its average land fertility. Very few companies (like British American Tobacco) have come up with visible commitment to preservation of land fertility through scientific crop rotation, "zero tillage" agriculture and so on. Since cultivable land in Bangladesh is now less



prolific, villagers are more and more indulging in non-agricultural economic activities like professional driving, office management, service sector (those not requiring formal education) and so on.

- Historically a high number of people, each year, have been involved in cross border job-based migration. Such migrants have either continued renewing annual contracts with their employers, or have permanently left their hometowns because of less rewarding nature of traditional farming jobs. The issue with these immigrant laborers is that the initial cost of availing such jobs, due to lack of adequate governance and legal framework, goes much beyond what is on paper, thereby requiring families to sell off their assets and properties and also, in most cases, end up in loans. It is clear in plain eyes that these migrants are forced to opt for external economic opportunities predominantly due to the fact that their existing locations do not have the climatic favor that is conducive towards financially rewarding expansionary activities.
- Large-scale calamities are also responsible for forcing people to permanently relocate. Catastrophic events like cyclones have been instrumental for destroying accumulated wealth of countless farming families, leaving their farmlands uncultivable, or so not at an economically viable cost. Another aspect of this effect is the fact that people visiting family homes in villages during festivals tend to bring along their immediate and often distant family members to urban areas, thereby multiplying the aftermath of these calamities to an unmanageable and immitigable proportion. The obvious effect is indiscriminate growth of slums and squatters in buys urban areas.

Some aspects of the links between migration and disasters are already well known, and population movements due to environmental, geophysical and meteorological events, like desertification, hurricanes or floods, are a recurring feature of human life in most parts of the world. However, the issue of migration and the environment is likely to take on an added gravity in years to come with the recognition that climate change will in all likelihood lead to more natural disasters and freak weather events. The phenomenon of forced migration caused by climate change is a problem the world still remains ill prepared to face.

### **Conclusion and Recommendations**

Climigration is forcing communities to permanently relocate. There is no ability to return home. For these reasons, guiding principles and an institutional framework, based on human rights doctrine, need to be created to address the specific circumstance of climigration and ensure the resilience of communities forced to migrate. The experience of Alaskan indigenous communities is guiding the creation of these principles and the institutional response. The issue of climate refugees is starting to receive political recognition in the EU. The European Parliament adopted a declaration in June 2008 which sought to organize legal protection for the victims of climate events. If the international community starts to seek solutions to the problem the legal definition of climate refugees will first need to be decided as well as their rights to shelter and food within their own country and in foreign countries, in the case of stateless refugees. Unless progress is made on the international front, national governments in affected countries will feel increasing pressure to plan the relocation of their threatened communities, and developed nations will face growing demands to fund such relocations bilaterally and perhaps even to offer their own land for resettlement.

Adaptation proposals include:

- Installing more efficient irrigation measures;
- Creating wildlife corridors;
- Building more resilient housing;
- Guidance notes for urban planners;
- Improved disaster planning; and
- Amending local planning laws.
- Identifying and discussing loopholes in the legal system & how to address them
- Other measures to ensure moral treatment of climate refugees

**References:**

**Kates 1962, expanded by Fordham 1992;** in: Hunte, 2004: 10.

**Hunte, 2004:** 26.

**Bronen, Robin;** Alaskan communities' rights and resilience;

**Castles, Steven,** Migration as a factor in social transformation in East Asia; Centre for Asia Pacific Social Transformation Studies, University of Wollongong, Australia

**UNFCC** Report

**UNDP, 2004:** 5.

**UNDP, 2004:** 6

**The Progression of Vulnerability** – adopted from Blaikie et al – page 71, ISDR, 2004

**Working definition of the International Organization for Migration (IOM)**

**Afifi, T., Warner, K.** 2007 The Impact of Environmental Degradation on Migration Flows across Countries UNU-EHS working paper no. 3. Bonn.

**World Disasters Report 2001** International Federation of Red Cross and Red Crescent Societies. Accessed August 4, 2008

[http://www.artrocker.com/rrpedia/Climate\\_refugee](http://www.artrocker.com/rrpedia/Climate_refugee)