

Environment, Security and Environmental Refugees

Laura Story Johnson*

Migration takes many forms: temporary and permanent; between and within countries; legal and illegal; forced or voluntary; to cities or suburbs; for tourism or to escape persecution; for economic gain or at the point of a gun; daily commuting or in search of food. One thing in common is that all are on the increase. The world is on the move, and the environmental causes and consequences are profound.¹

INTRODUCTION

In 1989 at an American Institute of Biological Sciences meeting, Mostafa K. Tolba, then Executive Director of the United Nations Environmental Programme (UNEP), warned that “as many as 50 million people could become environmental refugees” without coordinated meaningful international action to safeguard the global environment.² In 1999, the chairman of the World Water Council argued that “more people flee due to environmental problems than due to war,” and estimated the number of environmental refugees in the world to be 25

* Laura S. Johnson, B.A. Columbia University 2002, M.A. Fletcher School of Law & Diplomacy 2006, J.D. University of Iowa College of Law 2010.

¹ Paul Harrison & Fred Pearce, *Migration and Tourism*, in AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE ATLAS OF POPULATION & ENVIRONMENT 87 (2000).

² Mostafa K. Tolba, *Our Biological Heritage Under Siege, Address Given at American Institute of Biological Sciences 1989 Meeting*, in 39 BIOSCIENCE 725, 727 (1989).

million, warning that this number would quadruple by 2005.³ Also in 1999, Grover Foley wrote that "Climate change, at a conservative estimate, will increase the number of environmental refugees six-fold over the next fifty years: from 25 million to 150 million."⁴ In October 2005, the United Nations University (UNU) warned that the world may have to deal with as many as 50 million environmental refugees by the year 2010.⁵ In May 2005, Professor Norman Myers wrote: "There is a new phenomenon in the global arena: environmental refugees."⁶ Warnings of an encroaching "environmental refugee crisis" have peppered the news and academic articles in recent years, with increasing global environmental degradation forcing individuals to migrate across borders. While environmental degradation and crisis are both causes and consequences of migration, defining an "environmental refugee," let alone determining how many environmental refugees there may be in the world, is extremely challenging. Environmental refugees are not recognized as refugees in international law, and clear distinctions between environmental

³ World Information Centre on Environmental Refugees, *Living Space for Environmental Refugees*, <http://www.liser.org/> (scroll down to section entitled "Environmental Refugees") (last visited Mar. 6, 2006).

⁴ Grover Foley, *The Looming Environmental Refugee Crisis*, 29 *THE ECOLOGIST* 96 (1999).

⁵ ACUNU.org, *Millennium Project: Emerging Environmental Security Issues*, www.acunu.org/millennium/env-scanning.html (follow "October 2005" hyperlink; then scroll down to subsection entitled "UNU Calls for International Framework for Environmental Refugees") (last visited Mar. 6, 2006).

⁶ Norman Myers, *Environmental Refugees: An Emergent Security Issue, Paper for Session III - Environment and Migration - of the 13th Economic Forum 1* (May 22, 2005).

refugees and economic migrants are difficult to decipher. There are a myriad of linked causalities which force individuals to migrate, and environmental disaster and degradation play enormous roles in displacing individuals around the world.

In today's globalizing world, with intensification in the flows of individuals across borders, refugees have been increasingly linked to security issues. Refugees can constitute security threats in many different dimensions. For example, Mills and Norton list: the individual human security of the refugees, the human security of the original residents in the areas to which refugees move, societal security, the national security of the state, and international security.⁷ For refugees, and for the environmental refugee in particular, environmental security must be added to this list. Environmental refugees are of concern to both *environmental security* and to *environment & security*. Environmental security, or the security of the environment, is an issue linked to environmental refugees, as "high rates of migration may denote a serious environmental crisis in the source region – and can trigger environmental degradation in the receiving area."⁸ Environmental refugees are also a security issue linked to environment. As Myers states:

⁷ Mills and Norton examine the history of the Rwandan genocide of 1994, with "roots, at least partly, in the displacement of thousands of Rwandan refugees." The authors detail how extremely large refugee flows can sometimes lead to, or at least help create, conditions for massive insecurity. Kurt Mills & Richard J. Norton, *Refugees and Security in the Great Lakes Region of Africa*, <http://homepage.mac.com/vicfalls/civilwars.html> (last visited Mar. 2006).

⁸ Harrison & Pearce, *supra* note 1, at 87.

All in all, the issue of environmental refugees promises to rank as one of the foremost human crises of our times. . . . While it derives primarily from environmental problems, it generates myriad problems of political, social and economic sorts. As such, it could readily become a cause of turmoil and confrontation, leading to conflict and violence.⁹

The relationships between environmental refugees and security – both environmental security and security linked to environment – will be examined in this article. The research question serving as the premise for this article is three-fold. First this article will question if environmental refugees are a global security issue and will individually examine national security, societal security, human security and environmental security. The cases of Sardar Sarovar (national and societal security), Vanuatu (human security) and Tanzania (environmental security) will be used to illustrate the multidimensional security issues connected to environmental refugees. Second, with a focus on human security, the discussion will question if environmental refugees should be afforded recognition and thereby international assistance and protection in international law. Finally, with a look to the future, this article will briefly examine legal and policy options to address the interrelated issues of environmental refugees and security, focusing on root causes and questioning what solutions exist to assist and protect environmental refugees while at the same time ensuring environmental security.

THE INTERNATIONAL REFUGEE REGIME

In the aftermath of World War II, millions of individuals were uprooted from devastated cities and landscapes across Europe. “In a

⁹ Myers, *supra* note 6, at 3.

spirit of empathy and humanitarianism, and with a hope that such widespread suffering might be averted in the future, nations came together. . . and codified binding, international standards for the treatment of refugees and the obligations of countries towards them.”¹⁰ Humanitarian law was introduced to protect and assist individuals who were defined as refugees.¹¹ Refugee rights were secured in the resulting 1951 Convention Relating to the Status of Refugees (henceforth the 1951 Geneva Convention) and furthered with the 1967 Protocol Relating to the Status of Refugees.¹² Article One of the 1951 Geneva Convention defines a refugee as an individual who:

owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.¹³

¹⁰ Marilyn Achiron, *A 'Timeless' Treaty Under Attack*, 2 REFUGEES 6 (2001), available at <http://www.unhcr.org/3b5e90ea0.pdf>.

¹¹ See B.E. Harrel-Bond & E. Voutira, *Anthropology and the Study of Refugees*, 8 ANTHROPOLOGY TODAY 6, 7 (1992). For a detailed development of the definition of “refugee,” see Michael G. Wenk, *The Refugee: A Search for Clarification*, 2 INT’L MIGRATION REV. 62 (1968).

¹² See Convention Relating to the Status of Refugees, July 28, 1951, and Protocol Relating to the Status of Refugees, Jan. 31, 1967, reprinted in UNCHR Convention and the Protocol Relating to the Status of Refugees (2007), available at <http://www.unhcr.org/3b66c2aa10.pdf>.

¹³ Convention Relating to the Status of Refugees art. 1, July 28, 1951, available at <http://www.unhcr.org/3b66c2aa10.pdf>.

The 1951 Geneva Convention laid the framework and foundation for the international refugee regime. Parties to the 1951 Geneva Convention, obliged to carry out the provisions of the Convention, agree that they will secure the basic human rights of refugees (through such measures as asylum) and that they will not forcibly return individuals to countries where they face persecution – an act known as refoulement. The principle of non-refoulement has a basis in customary international law and is binding on all states. The Office of the United Nations High Commissioner for Refugees (UNHCR) was established in tandem with the 1951 Geneva Convention and is mandated to coordinate and lead international action to protect and assist refugees.

Since 1951, the international refugee regime has developed and evolved, expanding to provide a basic foundation for the assistance and protection of a greater encompassing category: that of forced migrants.

Protection itself has been the story of a constant evolution over many centuries, but today's climate is particularly challenging and complex. Current global migration patterns, in a world rapidly shrinking because of improved communications, involve not only refugees and asylum seekers, but also the often interlinking movements of millions of economic migrants seeking a better way of life, as well as human traffickers and their multi-billion dollar business. The 1951 Refugee Convention remains the cornerstone of refugee protection, but UNHCR has launched a series of initiatives both to strengthen the treaty and to search more vigorously for permanent and safe solutions for the world's uprooted peoples.¹⁴

¹⁴ U.N. High Comm'r for Refugees [UNHCR], *Protecting Refugees: Questions & Answers*, http://www.unhcr.se/en/Protect/faq_protect_ref_en.html (last visited Mar. 7, 2006).

Migration, or voluntary migration, can be defined as movement from one locality to another, or a movement to pursue other opportunities. Migration is characterized by a *decision* to migrate. Forced migration, as defined by the International Association for Forced Migration (IASFM) is “a general term that refers to the movements of refugees and internally displaced people (people displaced by conflicts) as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine, or development projects.”¹⁵ Forced migrants around the world, whether refugees, internally displaced persons (IDPs), or environmental refugees, fall under the auspices of the international refugee regime. However, the international refugee regime, based on the 1951 Geneva Convention, has a specific definition for a refugee that does not include IDPs or refugees who flee for reasons outside the 1951 definition. Thus the framework and foundation for today’s international refugee regime is under great strain. Arguably the international refugee regime does not meet the needs of today and must evolve to encompass the new problems and challenges of forced migration. As Rosemarie Rogers notes, “We are today in a new era with respect to issues of forced migration.”¹⁶ The international refugee regime secures individual human rights through governments. Individuals who are unable to turn to their own governments for protection (refugees) and who therefore need

¹⁵ Forced Migration Online: Frequently Asked Questions (FAQ), <http://www.forcedmigration.org/faq/#fm> (last visited Mar. 2, 2010).

¹⁶ Rosemarie Rogers, *The Future of Refugee Flows and Policies*, 26 INT’L MIGRATION REV. 1112, 1112 (1992).

international assistance are dependent upon foreign governments and international agencies to secure their basic rights.

Governments remain the major actors with respect to forced migrants. They create the refugees and internally displaced. They take back refugees and permit or help internally displaced to return to a normal situation after a reconciliation has occurred or the government has changed. Other governments grant asylum to refugees and/or make funds available – bilaterally or through international institutions – to support refugees in asylum countries and to effect permanent solutions to refugee problems through returns, through permanent integration into countries of first asylum, or through third country resettlement. Increasingly, governments have been willing to intervene in the affairs of other countries to forestall the creation of forced migrants or to assist and protect internally displaced populations.¹⁷

As governments are the major actors with regard to forced migrants, forced migrants have become dealt with via state migration policy. Controlling migration policy – regulating who comes in and who leaves a country – is a critical element of the sovereignty of a state. Migration has moved to the top of political agendas around the world, and migration policy has evolved into a focus of security. As Edward Newman writes, “the question of how governments regulate immigration and define categories of immigrants has, over time, led people to view migration as an issue related to the security both of the state and of existing citizens and legal residents.”¹⁸ Newman continues, arguing that refugees are talked about in relation to the issue of

¹⁷ *Id.* at 1114.

¹⁸ Edward Newman, *Refugees, International Security, and Human Vulnerability: Introduction and Survey*, in *REFUGEES AND FORCED DISPLACEMENT: INTERNATIONAL SECURITY, HUMAN VULNERABILITY AND THE STATE* 4 (Edward Newman & Joanne van Selm eds., New York: U.N. Univ. Press 2003).

security “not only as people in need of protection and assistance but also as potential threats to national security and even as a potential source of armed terror.”¹⁹ As governments are also responsible for defining categories of immigrants beyond their obligations under the 1951 Geneva Convention, without a firm definition in international law for forced migrants outside of the 1951 definition, individuals who are internally displaced or displaced for reasons not addressed in the 1951 Geneva Convention are particularly vulnerable and at risk of having their basic rights violated.

Environmental refugees fall into this category, lacking an agreed-upon definition and recognition in the international refugee regime. In 2002, Andrew Simms, policy director of London’s New Economics Foundation argued “that the term ‘persecution’ should be applied not only to persons suffering political or other officially defined harassment, but also to those ‘forced to live in worsening poverty on land that without warning could flood, or turn to dust.’”²⁰ In 2005, the UN under Secretary-General Hans van Ginkel “emphasized the need to prepare now ‘to define, accept and accommodate this new breed of ‘refugee’ within international frameworks.”²¹ However, the incorporation of environmental refugees into the international refugee regime is a hotly contested and debated issue. In 2004, Ruud Lubbers, then the UN High Commissioner for Refugees, argued that there is no

¹⁹ *Id.* at 17.

²⁰ Ray Wilkinson, *A Critical Time for Refugees and their Environment*, 127 REFUGEE MAG. 2, 12 (2002).

²¹ ACUNU.org, *supra* note 5.

such thing as an “environmental refugee.”²² UNHCR contends that whereas refugees can not turn to their own governments for protection, as states are often the source of their persecution, “those fleeing natural disasters continue to enjoy national protection whatever the state of the landscape. Therefore, in order not to cloud the distinction between the two groups, those fleeing for environmental reasons should be considered ‘environmental migrants.’”²³ Whether or not individuals are labeled environmental refugees or environmental migrants, what is inescapable is the fact that a growing number of individuals around the world are being forcibly displaced by environmental disasters, development projects that irreversibly alter the environment, and environmental degradation. These individuals are moving to save their lives and to preserve their human rights. This article will refer to these individuals as environmental refugees. Whether or not environmental refugees should be incorporated into the international refugee regime will be returned to momentarily. First environmental refugees, for the purposes of this article, must be defined and the links between environmental refugees and economic migrants will be discussed.

ENVIRONMENTAL REFUGEES

Essam El-Hinnawi first defined environmental refugees as:

those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked

²² BBC News, *Refugees and Migrants: Defining the Difference*, http://news.bbc.co.uk/2/hi/in_depth/3516112.stm (last visited Mar. 9, 2010).

²³ *Id.*

environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life. By 'environmental disruption' in this definition is meant any physical, chemical and/or biological changes in the ecosystem (or resource base) that render it, temporarily or permanently, unstable to support human life.²⁴

An environmental refugee is an individual who is "displaced owing to environmental causes."²⁵ El-Hinnawi described three major types of environmental refugees:

- 1) those temporarily dislocated due to disasters, whether natural or anthropogenic;
- 2) those permanently displaced due to drastic environmental changes, such as the construction of dams; and
- 3) those who migrate based on the gradual deterioration of environmental conditions.

As an additional but smaller category, he included those people who were displaced by the destruction of their environment as an act of warfare.²⁶

²⁴ Essam El-Hinnawi, *Environmental Refugees* 4 (Nairobi: U.N. Environmental Programme 1985).

²⁵ U.N. Statistics Div., *Environmental Glossary*, www.unstats.un.org/unsd/environmentgl/gesform.asp?getitem=473 (last visited Mar. 8, 2010).

²⁶ Diane C. Bates, *Environmental refugees? Classifying Human Migrations Caused by Environmental Change*, 23 *POPULATION & ENV'T* 465, 469 (2002). Bates further classifies environmental refugees, distinguishing based on "criteria related to the characteristics of the environmental disruption, including 1) its origin (natural or technological); 2) its duration (acute or gradual); and 3) whether or not migration was a planned outcome of the

While environmental refugees may not need protection from persecution or violence, they are individuals who are unable to return to their homes, individuals who have been uprooted by causes beyond their control. While most environmental refugees move internally, displaced within their countries of origin, some environmental refugees are crossing international borders.²⁷ As Graeme Hugo writes:

Historically the vast bulk of migration caused by environmental change has occurred within national boundaries, as have the environmental effects initiated by population movements. Nevertheless, the international dimensions of this relationship have been neglected until recently. Moreover . . . the dimension is of increasing scale and significance in concert with the accelerating pace of globalization processes.²⁸

The accelerating pace of globalization has also facilitated migration flows for economic reasons. Environmental refugees are inextricably linked to economic migrants, a category of individuals that is also sometimes termed “economic refugees.”

This article shares the claim of UNHCR, that individuals who migrate for economic reasons are more appropriately understood as economic migrants than as “economic refugees.” As UNHCR notes, “An economic migrant normally leaves a country voluntarily to seek a better

disruption.” Bates provides a detailed discussion of the varying types and situations of environmental refugees. For a discussion of the specific environmental factors that precipitate movements, see Susan F. Martin, *New Issues in Refugee Research: Global Migration Trends and Asylum*, 7-8 (UNHCR, Working Paper No. 41, Apr. 2001). For a typology of environmentally related disasters, see Appendix A.

²⁷ Martin, *supra* note 26, at 7.

²⁸ Graeme Hugo, *Environmental Concerns and International Migration*, 30 INT’L MIGRATION REV. 105 (1996).

life. Should he or she elect to return home they would continue to receive the protection of their government. Refugees flee because of the threat of persecution and cannot return safely to their homes in the prevailing circumstances.”²⁹ Recognizing individuals as “economic refugees” would create a situation in which individuals would have to be classified according to whether or not they are truly unable to make a living in their home country. Classifying between individuals who were “forced” economic migrants and voluntary economic migrants would be overwhelmingly challenging, if not impossible, for the international community. The international refugee regime depends on the willingness of states to provide assistance and protection to non-citizens who meet the definition of a refugee. Providing assistance and protection to “economic refugees” would perhaps destroy an already strained international refugee regime. As Newman writes, “Mass displacement owing to generalized violence and conflict or civil war, or war-related conditions such as famine and homelessness, has strained the application of [the 1951 Geneva Convention definition.] Economic migrants further blur the definitions; there are often not clear distinctions.”³⁰ As will be argued in this article, encompassing environmental refugees into the international refugee regime may delegitimize an already pressured system. Adding the category of “economic refugees,” recognizing how many economic migrants there are in the world and questioning how many of them would meet the “economic refugee” definition, would completely overburden an already politicized and encumbered system.

²⁹ UNHCR, *supra* note 14.

³⁰ Newman, *supra* note 18, at 6.

There are not clear distinctions between the different categories of migrants; fluidity exists between all categories. The causalities of displacement are complex and interrelated. Special links do exist between environmental refugees and “economic refugees” – economic migrants – which must be taken into consideration. According to El-Hinnawi’s criteria, the third category of environmental refugees – those who migrate based on the gradual deterioration of environmental conditions – may be the closest to economic migrants. As environmental degradation causes livelihood degradation, an individual may be both an environmental refugee and an economic migrant. Arguably in places where the environment is so destroyed that individuals are unable to forge a livelihood, an individual may be *forced* to leave to seek a better life. However, individuals who are displaced due to environmental and/or economic reasons are not recognized as refugees in the current international refugee regime.

ENVIRONMENTAL REFUGEES: A GLOBAL SECURITY ISSUE?

Environmental refugees are of concern to both to the security of the environment and the link between global security and the environment. Under environment and security, security can be understood as threefold: national security, societal security and human security. National security is the security of the territorial state. Societal security is the security and stability of society. And human security “condenses the meaning of a regime oriented towards securing the life and basic needs of individuals within and across boundaries.”³¹

³¹ Finn Stepputat, *Refugees, Security and Development: Current Experience and Strategies of Protection and Assistance in REGION OF ORIGIN 3-4* (Danish Inst. for Int'l

Human security is the security of the individual. Finn Stepputat provides a useful clarification of the three concepts of security.

Concept	Referent	Threatened Value	Threat
National security	The State	Sovereignty and territory	Other states
Societal security	Nations Social Groups	National identity	Migrants Foreign cultures
Human security	Individuals Humanity	Quality of life Survival	Globalization Terrorism Pollution Own stakes ³²

National security and societal security are closely connected. Environmental refugees are of concern to national and societal security as environmental refugees flee their homes *en masse*. Karen Jacobsen defines a “refugee influx” or a “mass influx of refugees” as:

that which occurs when, within a relatively short period (a few years), large numbers (thousands) of people flee their places of residence for the asylum country. There are many possible causes of mass flight, including civil war and insurgency, ethnic or religious persecution, environmental disaster, and famine. In cases such as civil war and environmental disaster, refugees do not flee their governments but rather the violence, disorder, and lack of resources created by the crisis.³³

Stud., Working Paper 2004/11, 2004), available at <http://www.diis.dk/sw4919.asp>.

³² *Id.* at 5.

³³ Karen Jacobsen, *Factors Influencing the Policy Responses of Host Governments to Mass Refugee Influxes*, 30 INT’L MIGRATION REV. 655, 657 (1996).

Mass influxes of refugees into the territory of a state, and into a society, have the potential to create turmoil and confrontation, possibly leading to conflict and violence.

ENVIRONMENTAL REFUGEES & NATIONAL AND SOCIETAL SECURITY

Environmental refugees are considered to be a national and societal security issue because mass influxes of individuals into a society, and into a state, have the potential to create civil unrest and conflict. As Myers writes:

Immigrant aliens present abundant scope for popular resentment, however unjust this reaction. In the wake of perceived threats to social cohesion and national identity, refugees can become an excuse for outbreaks of ethnic tension and civil disorder, even political upheaval.³⁴

Stepputat notes that “The general perception of refugees as a security threat, which increased in the wake of the end of the Cold War, has been nurtured by a number of high-profile cases, including the Afghan and the Rwandese refugee exodus.”³⁵ National and societal security can be “threatened” by environmental refugees whether they cross international borders or not. In other words, environmental refugees are a security issue from the perspective of a nation/society controlling its borders, as well as a nation/society facing an internal security threat. Development projects which permanently alter the environment may also cause the mass exodus of environmental

³⁴ Myers, *supra* note 16, at 3.

³⁵ Stepputat, *supra* note 31, at 12. Stepputat divides the threats which are commonly perceived by host governments into two larger categories – direct and indirect security threats – and discusses these perceived threats in detail. *Id.* at 10–13.

refugees from an area. This can be a national/societal security concern as the distressed and vulnerable displaced individuals react to their displacement and, if displaced, move into new areas, causing unrest and instability. To illustrate the relationship between environmental refugees and national/societal security, the Sardar Sarovar dam case will be briefly examined.

The Sardar Sarovar dam is a long-standing project, and conflict, that started in the 1960s.³⁶ The dam is a development project displacing millions of individuals from the Narmada River Valley in India. In the late 1970s, “the dam received funding from the World Bank, leading to the emergence of a first period of activism by local individuals under the leadership of the Narmada Bachao Andolan (NBA).”³⁷ The activism and protests led to withdrawal by the World Bank in 1993, and the filing of a public interest litigation in the Indian Supreme Court by the NBA. In 2000, the Supreme Court ruled that the dam “should be built as long as resettlement and rehabilitation was effectively undertaken,” shifting the issue back to a political struggle.³⁸ The Sardar Sarovar dam case has become a political struggle and a cause of civil unrest for over thirty years. As Arundhati Roy elaborates:

In India over the last ten years the fight against the Sardar Sarovar dam has come to represent far more than the fight for one river.

³⁶ For a complete and fascinating account of the Sardar Sarovar dam, see Arundhati Roy, *The Greater Common Good*, in *THE COST OF LIVING* 7 (1999).

³⁷ Int'l Env'tl. L. Res. Centre, *The Sardar Sarovar Case (Narmada River)*, www.ielrc.org/india/narmada.php (last visited Feb. 25, 2009).

³⁸ *Id.*

This has been its strength as well as its weakness. Some years ago, it became a debate that captured the popular imagination. That's what raised the stakes and changed the complexion of the battle. From being a fight over the fate of a river valley it began to raise doubts about an entire political system. What is at issue now is the very nature of our democracy. Who owns this land? Who owns its rivers? Its forests? Its fish? These are huge questions. They are being taken hugely seriously by the State. They are being answered in one voice by every institution at its command – the army, the police, the bureaucracy, the courts. And not just answered, but answered unambiguously, in bitter, brutal ways.³⁹

The Sardar Sarovar dam case illustrates how environmental refugees, individuals, in this case, displaced by a massive development project (a man-made environmental change), can become a security threat for society and for the state. The civil unrest brought about by the Sardar Sarovar dam divided society; claims that the NBA – “a handful of activists” – were “holding the nation to ransom” demonstrated that even the protesters were divided,⁴⁰ and resulted in the area around the dam at times necessitating martial law. The conflict that evolved from the displacement of millions of individuals, or environmental refugees, erupted into national and societal unrest lasting for decades. Civil unrest, which has the potential to lead to political upheaval, threatens the security of both society and of the state. The case of the Sardar Sarovar dam is a case of an internal security threat linked to environmental refugees, but such threats can also materialize across international borders. Refugee camps and shantytowns where environmental refugees resettle may foster civil disorder, pandemics

³⁹ Roy, *supra* note 36, at 9.

⁴⁰ *Id.*

and political extremism which threaten the security of society and the security of the state.

ENVIRONMENTAL REFUGEES & HUMAN SECURITY

Sabina Alkire writes that the "objective of human security is to safeguard the vital core of all human lives from critical pervasive threats, in a way that is consistent with long-term human fulfillment."⁴¹ Environmental refugees face such critical pervasive threats. According to M.E. Olson

Refugees differ from other, spontaneous or sponsored migrants, largely in the circumstances of their movement out of one area to another, and the effects these have on them in the settlement and adjustment phases of their relocation. Refugees are forced to leave their homes because of a change in their environment which makes it impossible to continue life as they have known it. They are coerced by an external force to leave their homes and to [move] elsewhere.⁴²

Environmental refugees face the destruction of their livelihoods. As Andrew E. Shacknove writes, a refugee "is a person fleeing life-threatening conditions."⁴³ Environmental refugees face, and flee, life-threatening conditions through environmental disaster, environmental

⁴¹ Sabina Alkire, *Conceptual Framework for Human Security 1* (Feb. 16, 2006) (unnumbered working paper for Comm'n on Human Sec.), available at www.humansecurity-chs.org/activities/outreach/frame.pdf (providing a working definition of human security and shows how human security can form the basis for operational responses by many different institutions).

⁴² M. E. OLSON, *Refugees as a Special Case of Population Redistribution*, in *POPULATION REDISTRIBUTION: PATTERNS, POLICIES AND PROSPECTS*, UN FUND FOR POPULATION ACTIVITIES (L.A.P. Gosling and L.Y.C. Lim eds., New York 1979).

⁴³ Andrew E. Shacknove, *Who is a Refugee?*, 95 *ETHICS* 274 (1985).

displacement and environmental degradation. To illustrate the relationship between environmental refugees and human security, the case of Vanuatu will be briefly examined.

In Vanuatu, a Pacific island chain, an entire village was displaced due to climate change in December, 2005. The villagers from the community of Lateu became environmental refugees when they were forced to relocate "higher into the interior of Tegua, one of [Vanuatu's] northern most provinces, after their coastal homes were repeatedly swamped by storm surges and aggressive waves linked with climate change."⁴⁴ In recent years, due to the high rates of flooding, the villagers faced increased malaria and skin diseases among children (with the increase in standing water for mosquitoes), accelerated erosion rates, a breaching of natural defenses against the high tide (such as coral reef) resulting in the destruction of agricultural land and the deterioration of safe drinking water as their displacement forced them away from fresh water springs. The Lateu villagers are a tragic example of environmental refugees who faced life-threatening conditions – threats to their human security.

ENVIRONMENTAL REFUGEES & ENVIRONMENTAL SECURITY

Environmental refugees are also of concern to the security of the environment. Environmental refugees who are displaced are often concentrated in fragile or marginal environments, and "the potential contribution to environmental degradation" can be seen as a threat to

⁴⁴ Press Release, UNEP, Arendal, Pacific Island Villagers First Climate Change "Refugees," (Dec. 12, 2005), available at <http://www.grida.no/news/press/1533.aspx>.

environmental security.⁴⁵ In a sense, a cycle is created where environmental degradation/disaster creates environmental refugees, who most frequently move to low-income, marginalized environments, causing further environmental degradation. To illustrate the relationship between refugees and environmental degradation, the case of Tanzania will briefly be discussed.

Tanzania is a country hosting thousands of refugees from neighboring countries, with many refugee camps operating in western Tanzania since 1994. UNHCR notes that "across all locations, environmental problems commonly observed include deforestation (for fuel, construction and cultivation), soil erosion, water depletion and water contamination."⁴⁶ Furthermore, in western Tanzania some of the areas selected for refugee relocation are near to protected areas (such as game reserves and forest reserves) where environmental degradation results through encroachment into these areas. Tanzania is an example that demonstrates how refugees contribute to environmental degradation, thereby threatening environmental security.⁴⁷

⁴⁵ Richard Black, *Forced Migration and Environmental Change: the Impact of Refugees on Host Environments*, 42 J. ENVTL. MGMT. 261, 262 (1994).

⁴⁶ UNHCR, *International Workshop on Practising and Promoting Sound Environmental Management in Refugee/Returnee Operations*, Geneva, Switz., Oct. 22-25, 2001, *Environmental Challenges in Camp Establishment and Management* 78 (prepared by Grace Mungwe).

⁴⁷ See Curtis J. Paskett, *Refugees and Land Use: The Need for Change in a Growing Population*, 53 J. SOIL & WATER CONSERVATION 57 (1998) (citing further examples of refugees contributing to environmental degradation); see also Harrison & Pearce *supra* note 1, at 87 ("Up to 10 million

These three extremely brief case studies demonstrate how environmental refugees are connected to security at four levels: national, societal, human and environmental. Environmental refugees are a global security issue. However, it is extremely important that in examining environmental refugees from the point of view of security, environmental refugees *as individuals* are not viewed as a security threat. As Stepputat warns, "there is a very short step from the association between population movements resulting from internal disorder, and threats to international peace and security, as formulated in UN Chapter VII, to seeing refugees themselves at the threat."⁴⁸ While mass movements of environmental refugees raise security concerns, the individual environmental refugee, whose human security is threatened, is not the threat. The individuals are not the security issue. Environmental refugees are individuals who are the outcome of environmental degradation, transformation and crisis. Thus environmental refugees must not be treated as the problem; the problems lie with the root causes displacing environmental refugees.

people fled drought and famine in the Sahel region of Africa in the 1970s and 1980s, settling in wetter coastal regions, including neighboring countries. At least half of them never returned home. In Mauritania, environmental degradation has helped to force the proportion of the total population living in the coastal zone from 9 to 41 percent since 1968. In the 1980s, land scarcity caused by a fast-rising population in Bangladesh led to conflicts that drove 12 to 17 million Bangladeshis into neighboring Indian states of West Bengal and Assam. Millions fled Rwanda in the 1990s during ethnic conflicts triggered in part at least by the country's poverty, water scarcity and declining soil fertility, all stemming from its very high population density of 400 people per square kilometer.").

⁴⁸ Stepputat, *supra* note 31, at 6.

Addressing these root causes, and providing environmental refugees with assistance and protection is the only sustainable means to address the multifaceted issues of security and environment.

EXPANDING THE 1951 GENEVA CONVENTION?

In 2005, the UN Under-Secretary-General Hans van Ginkel “emphasized the need to prepare now ‘to define, accept and accommodate this new breed of “refugee” within international frameworks.’”⁴⁹ Expanding the 1951 Geneva Convention to include environmental refugees as a means to afford assistance and protection to individuals displaced owing to environmental causes has been oft suggested by academics and professionals alike. However, as Diane C. Bates notes, “So many people can be classified under the umbrella of ‘environmental refugee’ that critics question the usefulness of the concept.”⁵⁰ As has been discussed, the international refugee regime is already overburdened and stressed. Asylum has become an extremely politicized policy option, and asylum systems in the developing world are overloaded.

Using the term “environmental refugee” to refer to all people forced to leave their homes because of environmental change loses the distinctive need of refugees for protection. It blurs the respective responsibilities of national governments towards their citizens and of the international community towards those who are without protection. It also impedes a meaningful consideration of solutions and action on behalf of the different groups.⁵¹

⁴⁹ ACUNU.org, *supra* note 5.

⁵⁰ Bates, *supra* note 26, at 466.

⁵¹ Sadako Ogata, U.N. High Comm'r for Refugees, at the Swiss Peace Foundation, Geneva (Oct. 30, 1992), available at <http://www.unhcr.org/print/3ae68fad20.html>.

Stephen Castles asks whether the concept of 'environmental refugee' is a dangerous "distraction from central issues of development and conflict resolution"⁵² and the answer of this article is yes. Incorporating environmental refugees into the international refugee regime by expanding the 1951 Geneva Convention would blur the responsibilities of governments and distract the international community from the root causes for environmentally forced migration. The complex relationship between environmental refugees and security already creates a risk that environmental refugees will be viewed as security threats themselves, providing a distraction from the causalities of their migration. Providing assistance and protection to environmental refugees under the 1951 Geneva Convention would merely be a temporary solution for the consequences of the problem, and would not address what is causing these individuals to be uprooted from their homes in the first place.

LOOKING TO THE FUTURE: ADDRESSING ROOT CAUSES

The relationship between refugees and the environment is a complex one, inter-woven and influenced by numerous other factors – political, ethnic, social and economic. An effective response must be a comprehensive one which helps to avert mass movements, as well as adequately respond to, and solve them when they do occur. An approach based on asylum alone will not be able to sustain humanitarianism in the face of massive population movements. It must be accompanied by strong measures in the

⁵² UNHCR, Evaluation & Policy Analysis Unit, *New Issues in Refugee Research, Working Paper: Environmental Change and Force Migration: Making Sense of the Debate*, 2 Working Paper No. 70 (Oct. 31, 2002) (prepared by Stephen Castles), available at <http://www.unhcr.org/3de344fd9.html>.

countries from which refugees originate in order to prevent and resolve refugee flows.⁵³

Environmental refugees pose great challenges to the international refugee regime. Recognizing that individuals are forced to move from their homes due to environmental causes does not depend on incorporation into the 1951 Geneva Convention. If the debate remains centered upon whether or not to call these individuals “environmental refugees” or “environmental migrants,” and whether or not they should receive official assistance and protection as refugees, the solutions will not progress to address the needs and challenges of today. Environmental refugees move for a multitude of complex reasons. Environmental disaster and environmental degradation can be both natural and man-made. Forced migration can be both international and internal. Environmental refugees – not as individuals, but as mass movements of people – are challenging to security at many levels. Perhaps the focus needs to be redirected. Perhaps the concentration on “refugee” in environmental refugee needs to be altered. Attention needs to be given to the “environment,” to the root causes forcing individuals to migrate. The environment needs to be taken into consideration at all points of the migration process. Policy responses need to be directed to migration before it happens, through sustainable development projects that do not displace individuals and through measures to protect and support the environment. Dowty and Loescher argue that “[a]cting early to avert refugee crises can be demanding, but it is considerably less expensive

⁵³ Ogata, *supra* note 51.

than dealing with the fallout of a full-blown and protracted crisis.”⁵⁴ Acting early to avoid environmental refugee crises means going further than just debating whether or not environmental refugees exist. Acting early requires more than just providing assistance and protection to environmental refugees after they have been displaced. Acting early necessitates creating an environmental focus in development, in international relations, in conflict resolution, and in the international refugee regime.

⁵⁴ Alan Dowty & Gil Loescher, *Refugee Flows as Grounds for International Action*, 21 INT’L SECURITY 43, 44 (1996).

Appendix A

TABLE I⁵⁵

TYPOLOGY OF ENVIRONMENTALLY RELATED DISASTERS

<i>Naturally Induced Disasters (NIDs)</i>		
Hurricanes	Tornadoes	Whirlwinds
Earthquakes	Volcanic Eruptions	Avalanches
Floods (freshwater)	Floods (saltwater)	Hail and Snow Storms
Fires	Electric Storms	Lightning
Droughts	Famines	Plagues
<i>Technologically Induced Disasters (TIDs)</i>		
Chemical	Nuclear	Oil Spills
Pollution (air)	Pollution (water)	Pollution (soil)
Explosions	Building Collapse	Rail or Airplane Crash
Dams (floods, etc.)	Mining Accidents	Power Cuts
Factory Accidents	Soil Exhaustion	Urban Dereliction
<i>Economically Induced Disasters (EIDs)</i>		
Deforestation	Crop Failure	Fishery Exhaustion
Mineral Exhaustion	Species Extinction	Human Redundancy
Population Clearances	Relocation	Structural Adjustment
<i>Politically Induced Disasters (PIDs)</i>		
War (external)	War (internal)	Terrorism
Apartheid	Ethnic Cleansing	Holocaust
Exile	Persecution	Rights Violations
Totalitarianism	Anarchy	Extremism/Intolerance
<i>Socially Induced Disasters (SIDs)</i>		
Ecological Extremism	Animal Rights Activism	Green Crusaders
Fanaticism	Excommunication	Jihad
Class War	Shunning	Boycott

⁵⁵ Graeme Hugo, "Environmental Concerns and International Migration," *International Migration Review*, Vol. 30, No. 1 (Spring 1996): 112.