

Climate Change, Mass Migration and the Military Response

by Paul J. Smith

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***Abstract:** The displacement of thousands of U.S. Gulf Coast residents in the aftermath of Hurricane Katrina is emblematic of a human migration challenge that will likely become more severe in the years and decades ahead. The Intergovernmental Panel on Climate Change (IPCC) predicts that climate change will manifest in dramatic ways-extreme weather events, droughts, heat waves, increased cyclone (hurricane, typhoon) activity, sea level rise, etc.-and some of these effects may induce large scale human migration, both within and among countries. The increasing trend of environmental migrants is clashing with widespread anti-immigrant sentiment in both developed and developing countries around the world. Some countries are describing migration-and particularly unauthorized international migration-as a “security threat” and are turning to military forces to deter or manage the human flows, a trend that is likely to grow.*

On August 29, 2005, Hurricane Katrina, a category three storm with peak winds in excess of 200 kilometers per hour, slammed into the Gulf Coast of the United States. The bulk of its energy was directed at Louisiana and Mississippi. New Orleans, with its flawed and vulnerable levee system, suffered extensively from the storm’s winds and storm surge. Overall, Hurricane Katrina generated more than \$34 billion in damage, “making it the most expensive natural disaster in U.S. history.”¹ With more than 1,300 deaths, Katrina generated the highest number of storm fatalities since 1928.

Hurricane Katrina’s impact on human displacement was equally devastating. Stimulated by various offers of assistance from federal, state and private organizations, tens of thousands of Katrina “migrants” resettled to over 1,042 shelters in 26 states and the District of Columbia. Overall, between

¹ Steve Ballou, “National Hurricane and Coastal Development: Proactive Policies Needed,” *Fire Engineering* (May 2006), p. 209.

100,000 to 300,000 Louisiana residents alone may have been displaced permanently as a result of Hurricane Katrina and, to a lesser degree, Hurricane Rita, which struck about a month later. In neighboring Mississippi, approximately 160,000 schoolchildren were forced to resettle after Hurricane Katrina. More than a year after the disaster, a quarter of a million people had yet to return to their homes along the Gulf Coast.

This displacement of tens of thousands of New Orleans (and other Gulf Coast) residents following Hurricane Katrina is symbolic of a larger trend occurring throughout the world. As climate change and its associated processes result in more intense storms, sea level rise or other cataclysmic environmental events, as some scientific studies are predicting,² these events are likely to generate large numbers of environmental migrants or refugees.³ Migration may increase “as populations on the margin begin to seek less vulnerable livelihoods in new places or as they are potentially forced from their homes by catastrophes.”⁴ The world by 2010, according to one assessment, may have to cope with as many as 50 million people escaping the effects of environmental deterioration.⁵ China may see as many as 20 to 30 million environmental migrants by the year 2020.⁶

Historically, climate change and human migration have been inextricably linked. Natural climatic variation has been a driving force behind human migration for many thousands of years. Moreover, climate shifts often occur within the context of preexisting social, demographic or economic

² “IPCC, 2007: Summary for Policymakers,” in S. Solomon et. al. (eds), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK: Cambridge University Press, 2007). See also Gerald A. Meehl, et.al., “Climate Change Projections for the Twenty-First Century and Climate Change Commitments in the CCSM3,” *Journal of Climate* (June 2006), p. 2597; Anthony J. McMichael, et.al., “Climate Change and Human Health: Present and Future Risks,” *Lancet* (March 11, 2006), p. 859.

³ The term “environmental refugee,” while popular in the print media and some scholarly sources, has no legal basis according to the 1951 United Nations Convention on Refugees and its 1967 Protocol, which places emphasis on “persecution.” Thus, this essay will use the more generic “environmental migrant” which may include both internally displaced persons, as well as international migrants who are displaced for environmental reasons. Although some countries and organizations have campaigned for a broader international legal definition of “refugee” (which might include individuals forced to move across international borders as a result of environmental causes), the 1951 Convention, with its emphasis on persecution, “is still ruling the common psyche and governmental policies.” See Ashok Swain, “Environmental migration and conflict dynamics: focus on developing regions,” *Third World Quarterly* (1996), p. 964.

⁴ Nathan E. Hultman and Alexander S. Bozmoski, “The Changing Face of Normal Disaster: Risk, Resilience and Natural Security in a Changing Climate,” *Journal of International Affairs* (Spring/Summer 2006), p. 33–34.

⁵ “Environmental Asylum,” *Environment* (March 2006), p. 6.

⁶ Statement of Elizabeth C. Economy, C.V. Starr Senior Fellow and Director, Asia Studies, Council on Foreign Relations, Committee on House International Relations, Subcommittee on Asia and the Pacific, reported in *FDCH Congressional Testimony*, September 22, 2004.

challenges. Astri Suhrke argues, for instance, that “environmental degradation appears as a proximate cause of migration, while the underlying factors are population pressures and patterns of resource use.”⁷ In light of projected demographic trends in the decades ahead, such large-scale population movements—spurred by climate change and its related processes—will most likely pose security challenges for states, particularly if they entail the crossing of international borders.

More significantly, as states contend with these climate-related disasters, or feel overwhelmed by what they perceive as “uncontrolled” migration, many will turn to military forces to deal with the challenge. In 1994, the U.S. Defense Department implemented Operation Sea Signal to manage a surge of migration from Haiti and Cuba, which was driven largely by economic and political factors. A variant of Operation Sea Signal may become the standard in the future, particularly as climate change-related disasters become more severe and spark mass migration on an ever larger scale. Traditional military planners may resist such non-warfighting roles and assignments, but the scale of destruction and resulting instability will likely require such deployments.

The Emerging Century of International Migration

As climate change plays an increasingly important role in stimulating population movements, most likely it will accelerate a human migration phenomenon already underway. On November 9, 1989, the Berlin Wall (built in 1961 to stem East Germans from exiting to the West) ceased to be a constraint to freedom of movement on the European continent. The Berlin Wall was symbolic of the barriers to emigration from the Soviet Bloc that characterized the Cold War period. From that day forward, the international movement of people would enter a new era.

From a global perspective, the end of the Cold War accelerated a trend that had begun, in a significant way, in the mid-1960s. The number of international migrants more than doubled from 75 million in 1960 to about 191 million in 2005.⁸ Today, the roughly 191 million individuals characterized as international migrants encompass a vast category including “legal immigrants

⁷ Astri Suhrke, “Environmental Degradation and Population Flows,” *Journal of International Affairs* (Winter 1994), p. 479.

⁸ *Trends in Total Migrant Stock: the 2005 Revision* (New York: Department of Economic and Social Affairs, United Nations, February 2006), p. 1; Also, the 191 million number refers to the stock of migrants in the population (individuals already living in a receiving state) and not the annual flow (influx or exit), which is typically between 2 to 4 million per year. See Philip Martin and Jonas Widgren, “International Migration: a Global Challenge,” *Population Bulletin* (Washington, DC: Population Reference Bureau, Inc., April 1996), p. 5.

and temporary workers, other visa-holders, illegal immigrants, asylum-seekers, and refugees.”⁹

About a third of the 191 million international migrants today have moved from one developing country to another (so-called “South-to-South” migration), while another third have moved from developing to developed countries (“South-to-North” migration). This fact reinforces the important economic role that international migrants have played in economic development and wealth redistribution, particularly through the power of financial remittances. According to recent estimates, migrants send more than \$232 billion back to their homes, with \$167 billion of that amount directed exclusively to developing countries.¹⁰

Transnational organized crime syndicates add another important dimension to international migration. As countries adopt increasingly strict immigration policies, they are creating significant opportunities for criminal entrepreneurs. Migrant smuggling and human trafficking—considered distinct but related phenomena¹¹—have emerged as multi-billion dollar criminal industries. Migrant smuggling from Mexico to the United States earns \$6-9 billion annually,¹² while global earnings from people trafficking may exceed \$30 billion per year.¹³

Broad economic and demographic asymmetries drive these migration trends around the world, particularly between developed and developing countries. One of the starkest of these asymmetries lies within the realm of population growth. Between now and the year 2050, global population growth is expected to rise from 6.555 billion to 9.243 billion. But the real story is where this growth will occur. Population growth in more developed countries is expected to increase from 1.216 billion to 1.261 billion by the year 2050, an increase of just 45 million individuals. By contrast, population growth in developing countries will increase from 5.339 billion to 7.982 billion in 2050, an increase of 2.643 billion individuals.¹⁴

⁹ *Growing Global Migration and its Implications for the United States: NIE 2001-02D* (Washington DC: National Foreign Intelligence Board, March 2001), p. 11.

¹⁰ “International migration facts and figures,” (United Nations: International Migration and Development Factsheet).

¹¹ According to the International Organization of Migration (IOM), migrant smuggling usually involves an agreement between the migrant and the smuggler; this agreement usually involves a payment for the smuggling services and typically an organized criminal group is involved. Human trafficking, on the other hand, involves the “recruitment, transportation, transfer, harboring, or receipt of persons” by means of force (or the threat of force). Typically human trafficking is associated with the sex industry. See IOM Factsheet “Irregular Migration,” available at <http://www.iom.int/jahia>.

¹² Oscar Becerra, “Mexican people-smuggling trade worth billions,” *Jane’s Intelligence Review*, December 1, 2004 [electronic edition].

¹³ Zoran Kusovac, “Stemming the flow of people-smuggling at sea,” *Jane’s Navy International*, May 1, 2002 [electronic edition].

¹⁴ *2006 World Population Data Sheet* (Washington, DC: Population Reference Bureau, 2006), p. 5.

In addition to population growth, other “push” factors include poverty, unemployment, criminal violence, and political instability. Push factors in sending states often coincide with positive “pull” factors in receiving states, such as higher wages, job opportunities, stable political environment and so on.

Another key migration facilitator is the presence of social or family networks. Such networks bolster migration by providing information to the potential migrant regarding opportunities in the receiving state. They can also reduce travel costs by providing information regarding cheap routes or effective smugglers. In addition, they can lessen “assimilation shock” in the receiving state. Such networks can act concurrently with—or independently of—other factors that may stimulate migration.

As a consequence of growing “push” and “pull”—demographic, economic and social—factors, the twenty-first century is fast emerging as the “the age of migration.”¹⁵ As climate change (and its associated processes) emerges as a causal factor in domestic and international migration events, its effects are likely to profoundly exacerbate migration trends that are already evident. A U.S. National Intelligence Estimate (NIE) report in 2001 stated that “during the next 15 years, globalization, demographic imbalances between OECD and developing countries, and interstate and civil conflicts will fuel increasing international migration, much of it illegal.”¹⁶

State Responses to International Migration

Although driven by the collective decisions of millions of individuals, international migration inevitably requires state involvement. States, after all, have ultimate control over “rules of entry.” Border security—and the ability to decide who comes in and who is excluded—is an essential aspect of state sovereignty. Moreover, the decision of a state to adopt either liberal or restrictive immigration policies is driven by a number of factors. One of these is the perception of whether immigration is manageable (and beneficial to the state) or out of control and, thus, adverse to the interests of the state.

Routine international migration is less likely to evoke an adverse response by the receiving state. This international migration—which can be thought of as chronic, structural asymmetric migration—is characterized by its regular or reasonably predictable patterns. It is driven by the chronic “push” and “pull” factors described above. It also includes migration facilitated by labor brokers and smugglers, who, despite their often abhorrent or predatory

¹⁵ This is an extension of Hania Zlotnik’s assessment that the late twentieth century was the “age of migration.” See Hania Zlotnik, “International Migration 1965-96: an Overview,” *Population and Development Review* (September 1998), p. 429.

¹⁶ *Growing Global Migration and its Implications for the United States: NIE 2001-02D* (Washington DC: National Foreign Intelligence Board, March 2001), p. 3.

practices, can serve a useful role by providing a service and facilitating transfer. Structural asymmetric migration is characterized by specialized agencies that oversee or regulate immigration matters. As long as the migration is viewed as beneficial to (or at least manageable by) the receiving state, it is likely to evoke little alarm, even when it is deemed “illegal.” This seems to be the case with elites within the United States.

By contrast, acute, disruptive migration events—sometimes referred to as “mass migration”—are viewed quite differently by states (particularly the receiving state). Massive population displacement within a state or a sudden out-pouring of migrants from one country into another would characterize this category of migration. Fidel Castro’s instigating the Mariel boatlift in 1980 was clearly a case of acute disruptive migration. At the height of this mass migration—roughly from April to September 1980—more than 123,000 Cubans (including at least 1,500 former prisoners) reached the United States, as part of the so-called “freedom flotilla.”

Disruptive migration events can be stimulated by wars, civil conflict, economic collapse, natural disasters, famines, or other causes. They tend to be chaotic and, as their name implies, disruptive. When Malaysia faced an influx of thousands of Indonesians fleeing that country’s economic crisis in 1998, it responded by implementing a large sea and air operation along the Malacca Straits to deter thousands of illegal immigrants.

In some cases, countries characterize routine migration trends as disruptive when their pattern suddenly changes. For example, a routine migration pattern or route may experience a sudden upsurge in quantity—beyond what the receiving state deems acceptable—or the migration may be associated with some dramatic event. When the *Golden Venture* human smuggling vessel, with its roughly 300 Chinese passengers, ran aground on a sandbar in June 1993 near Queens, New York—only miles from midtown Manhattan—the issue of human smuggling from China was suddenly catapulted to the top of the nation’s political agenda. What normally would have been an immigration matter immediately became a U.S. National Security Council concern.¹⁷

The media, particularly in the information age, plays a role in acute, disruptive migration events. Disruptive migration episodes receive far greater media attention than routine migration. In turn, media coverage—and particularly television—tends to promote the host state’s alarm. More significantly, media coverage can contribute to a psychological atmosphere within the host state suggesting that the country is being overwhelmed by uncontrolled immigration. Even when civilian authorities can manage these human migrant flows, the ambient sense of panic often fosters a siege mentality and may spur

¹⁷ Paul J. Smith, “Global Migrant Trafficking: a Global Challenge,” in Paul J. Smith (ed.), *Human Smuggling: Chinese Migrant Trafficking and the Challenge to America’s Immigration Tradition* (Washington DC: Center for Strategic and International Studies, 1997), p. 2.

governments to opt for the “course of last resort” (i.e. employing strong security or military responses). Climate change, ethnic conflict, state failure are among the many factors that could contribute to these crises. From a state response perspective, moreover, it is this acute, disruptive category of migration that is most likely to evoke security responses.

Immigration in this context is transformed from a law enforcement “low politics” issue into a “high politics” matter with international relations implications.¹⁸ In extreme cases, military force may be deployed to manage unwanted immigration. Facing rising public pressure, government authorities may view the military as its “symbolic policy instrument”¹⁹ that conveys that both the government is still in control and border security is being maintained.

Climate Change and the Future of International Migration

In October 1998, Hurricane Mitch, which at its peak was a category five storm, slammed into Central America, devastating a number of countries, particularly Honduras and Nicaragua. Heavy rains pummeled the region as the storm weakened and stalled over the Gulf of Honduras. Overall, more than nine thousand people were killed, while three million were left homeless. About 4.2 million Honduran residents (or roughly 70 percent of the entire population) were left without water.²⁰ Total direct damage reached \$8 billion, including the “destruction of social and economic infrastructure such as transportation routes, villages, schools, and crops.” The storm was considered “the most destructive disaster in the Hemisphere’s recorded history.”²¹

Like Hurricane Katrina in the United States, Hurricane Mitch had a disproportionate effect on poorer individuals in the countries hit. One scholar noted that Hurricane Mitch taught “an important lesson concerning the linkages between poverty, wealth and environmental degradation in Latin America.”²² This raises an important point for the future: the disastrous

¹⁸Peter Andreas, “The Escalation of U.S. Immigration Control in the Post-NAFTA Era,” *Political Science Quarterly* (Winter 1998/1999), p. 592.

¹⁹Douglas S. Massey, “International Migration at the Dawn of the Twenty-First Century: The Role of the State,” *Population and Development Review* (June 1999), p. 314.

²⁰*Honduras: Assessment of the Damage Caused by Hurricane Mitch, 1998* (United Nations Economic Commission for Latin America and the Caribbean—ECLAC), p.11.

²¹Prepared Testimony of Carl Leonard, Deputy Administrator, US Agency for International Development, Bureau for Latin America and the Caribbean, before the U.S. Senate Foreign Relations Committee, Subcommittee for the Western Hemisphere, reported in *Federal News Service*, July 25, 2000.

²²Prepared Testimony of Billie R. Dewalt, Director, Center for Latin American Studies, Distinguished Service Professor of Public and International Affairs, University of Pittsburgh, before the U.S. Senate Foreign Relations Committee, Subcommittee on Western Hemisphere, The Peace Corps, Narcotics and Terrorism, reported in *Federal News Service*, July 25, 2000.

consequences of major storms—whether linked to climate change or not—are often compounded by preexisting demographic, social and economic challenges, such as overpopulation and poverty.

In addition, Hurricane Mitch had a significant influence on migration trends in the region. First, the storm displaced at least 3 million people (either within countries or within the region).²³ In addition, a World Bank report noted that relief agencies witnessed an increase in male emigration, particularly from Honduras and Nicaragua.²⁴ As a result of the Hurricane's destruction, many immigrants made the harrowing journey toward the United States. One U.S. government agency estimated that about 80,000 Hondurans had left the country, many headed toward the United States.

As Central American hurricane-related migrants passed through Mexico, many reported being beaten or robbed by Mexican immigration officials or police. Fortunately for the migrants, the U.S. government adopted a lenient position toward their plight; some were allowed to enter the United States even though they did not qualify for temporary refuge. Moreover, the Clinton administration granted temporary protected status to thousands of undocumented Honduran and Nicaraguan migrants already in the United States.

Migration as a response to environmental change is not surprising. A devastating drought in Kenya during the 1996-1997 period, for example, spurred mass migration of people and livestock to neighboring Somalia and Ethiopia. In December 2000, the United Nations High Commission for Refugees reported in Afghanistan that a "cruel drought that has endangered the lives of hundreds of thousands of people" had prompted the mass migration of thousands of Afghan citizens to refugee camps within the country as well as to neighboring Pakistan.²⁵ In 1999, the International Federation of the Red Cross issued a report noting that environmental refugees fleeing drought, floods, deforestation, and degraded land totaled 25 million worldwide in 1998 "outnumbering those displaced by war for the first time."²⁶

It remains uncertain whether Hurricane Mitch was tied to larger climate change trends. Nevertheless, it serves as a potential example for climate-related events that will affect areas with large populations in the future. The influence on migration trends can be long-term, particularly if the storm's destruction strikes at the heart of a country's development infrastructure.

²³ Prepared testimony of John P. Leonard, Deputy Assistant Secretary, Bureau of Western Hemisphere Affairs, U.S. Department of State, Before the House International Relations Committee, Subcommittee on Western Hemisphere Affairs, *Federal News Service*, February 24, 1999.

²⁴ "Hurricane Mitch—the gender effects of coping and crises," *The World Bank: PREM-notes*, n. 57, August 2001.

²⁵ "Massive migration from Afghanistan," *The Hindu*, December 23, 2000; "Afghan refugee pouring into Pakistan: UNHCR," *The Press Trust of India*, October 20, 2000.

²⁶ Paul Brown, "More Now Flee Environment than Warfare," *The Guardian* (London), June 24, 1999, p. 16.

Hurricane Mitch was described by one U.S. official as not merely a single humanitarian disaster, but an event that destroyed years of development progress.²⁷ In other words, “what took decades to build was washed away in a few hours or days.”²⁸ This is consistent with experiences in other parts of the world. In Mozambique, for example, devastating floods in 2000 (associated with tropical cyclones) resulted in a reduction in that country’s growth rate from 8% to 2.1%.²⁹

As climate change-related events potentially become more severe, the number of international migrants may increase dramatically. In February 2007, the Intergovernmental Panel on Climate Change (IPCC) issued a summary report for policymakers that asserted that “warming of the climate system is unequivocal.” This assertion was based on scientific observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, as well as a global rise in average sea level. The IPCC specifically listed three climate change-related processes that are most directly associated with human migration or population displacement: drought incidence, increased cyclone (hurricane and typhoon) intensity and sea level rise.³⁰

Regarding droughts, the IPCC reports that since the 1970s, droughts have become more intense and have occurred in wider areas.³¹ Climate change is likely to continue this trend; “Drought-affected areas will likely increase in extent.”³² Increased drought will degrade agricultural land, increase the risk of wildfire and foster water and food insecurity. Moreover, drought may be compounded by extreme weather events, such as heat waves. The IPCC predicted that it is very likely “that hot extremes, heat waves and heavy precipitation events will continue to become more frequent.”

²⁷ Prepared Testimony of Carl Leonard, Deputy Administrator, US Agency for International Development, Bureau for Latin America and the Caribbean, before the U.S. Senate Foreign Relations Committee, Subcommittee for the Western Hemisphere, reported in *Federal News Service*, July 25, 2000.

²⁸ Prepared testimony of the Honorable Mark L. Schneider, Assistant Administrator for Latin America and the Caribbean, U.S. Agency for International Development, Before the House Committee on International Relations, Subcommittee on Western Hemisphere Affairs, reported in *Federal News Service*, February 24, 1999.

²⁹ Richard Washington et.al., “African Climate Change: Taking the Shorter Route,” *Bulletin of the American Meteorological Society* (October 2006), p. 1,355.

³⁰ “IPCC 2007: Summary for Policymakers,” in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva: IPCC, 2007), pp. 4, 12.

³¹ “IPCC, 2007: Summary for Policymakers,” in S. Solomon et. al. (eds), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK: Cambridge University Press, 2007), p. 8.

³² “IPCC 2007: Summary for Policymakers,” in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva: IPCC, 2007), p. 5.

Second, regarding hurricanes and typhoons, the IPCC predicted that “[b]ased on a range of models, it is *likely* that future tropical cyclones (typhoons and hurricanes) will become more intense, with larger peak wind speeds and more heavy precipitation associated with ongoing increases of tropical sea surface temperatures.” In addition to their greater intensity, storms are likely to track beyond traditional target zones for intense storms: “Extra-tropical storm tracks are projected to move poleward, with consequent changes in wind, precipitation, and temperature patterns, continuing the broad pattern of observed trends over the last half-century.”

The third major climate change process that will influence migration trends is sea level rise. The IPCC asserts that “both past and future anthropogenic carbon dioxide emissions will continue to contribute to warming and sea level rise for more than a millennium, due to the time scales required for removal of this gas from the atmosphere.” As seas warm, thermal expansion—the process in which water expands as it gains in temperature—is expected to contribute about 50 percent of the projected rise in sea levels, while glacial melt will contribute the remainder.³³

Sea-level rise directly clashes with one of the prevailing demographic trends in much of the developing world: human settlement and urbanization in and around coastal zones. As one analyst has observed, since about two-thirds of the world’s population lives within 100 kilometers of the coast and since 30 or the world’s 50 largest cities are located along or near the coast, “the potential for population displacement from a significant rise in sea level is considerable.”³⁴ In addition, many coastal cities are growing rapidly. Dhaka, Bangladesh, which once had only 3.5 million people in 1951, now has more than 13 million. Mumbai (Bombay) India had an estimated population of 17 million in 2004 and is receiving “more than 250,000 rural-to-urban emigrants” every year.³⁵

The consequences of sea-level rise are likely to be devastating for many countries, particularly poorer ones. In Bangladesh, it is estimated that a one-meter relative rise of sea level will likely result in “17.5 percent of the country [being] inundated, displacing 13 million people.”³⁶ Many island states are so anxious about sea-level rise that they are negotiating resettlement rights with their larger, less vulnerable neighbors. The Pacific island state of Tuvalu, for instance, has appealed to both Australia and New Zealand to resettle the country’s entire population in the event that evacuation becomes necessary.³⁷

³³ Steve Ballou, “National Hurricane and Coastal Development: Proactive Policies Needed,” *Fire Engineering* (May 2006), p. 210.

³⁴ Graeme Hugo, “Environmental Concerns and International Migration,” *International Migration Review* (Spring 1996), p. 119.

³⁵ Jim Montavalli, et.al., “Cities of the Future,” *E Magazine* (September/October 2005), p. 28.

³⁶ “Bangladesh is used to coping but rising seas pose new dangers,” *Climate.org* [from Climate Alert March–April 1995].

³⁷ CIA: *The World Factbook: Tuvalu*, CIA World Fact Book, 2006; See also, Anna Gosline and Rachel Nowak, “Where will they go when the sea rises?” *New Scientist* (May 2005), p. 8–9.

The Securitization of Migration and the Inevitable Military Response

In 1994, the United States faced a sudden upsurge of thousands of migrants on boats and rafts, originating from two nearby countries: Haiti and Cuba. Haitian migration was stimulated by political instability, violence and other factors, while Cuban migration, the largest since the Mariel boatlift of 1980,³⁸ was the result of several contributors, including economic privation, attractive immigration laws directed at Cuban nationals, and an alleged attempt by the Cuban government to coerce and embarrass the United States regarding the latter's policies toward Cuban migrants.

The massive flow of migrants prompted the United States to implement a number of military operations to deter and manage the influx. The first was Operation Sea Signal which involved both Coast Guard and U.S. Naval Ships whose mission was "basically a search and rescue operation" conducted 25 to 30 miles off the coast of Cuba, north of Havana. More than 30 Coast Guard vessels and ten U.S. Navy ships were involved in the operation.³⁹ U.S. Coast Guard or Navy ships also intercepted roughly 14,000 Haitians as they attempted to sail to the Florida Coast.

A Sea Signal component operation, known as Joint Task Force 160, involved temporarily housing the migrants at the U.S. Naval base in Guantanamo, Cuba and other areas. Approximately 8,000 U.S. military personnel constructed or managed migrant camps in Cuba, Panama and Suriname "to handle 47,500 migrants."⁴⁰ In Panama alone, U.S. armed forces housed over 8,700 Cuban migrants.⁴¹ Ultimately, a series of U.S. government actions, including restoring President Jean-Bertrand Aristide to the Haitian presidency and negotiating directly with the Cuban government, stemmed the exodus and led to the repatriation or resettlement of the remaining incarcerated migrants.

However, the operation's enduring lesson was the military's indispensable role in what was essentially an immigration matter. In 1994, an editorial in *Jane's Intelligence Review* captured this sentiment when it noted that "the U.S. desire to halt the flow of immigrants . . . can hardly be

³⁸ Prepared Statement of General John J. Sheehan, Commander in Chief, United States Atlantic Command, before the House Appropriations Committee, reported in *Federal News Service*, March 8, 1995.

³⁹ Transcript of former U.S. Defense Secretary William Perry, "Text of White House Briefing on Cuban Refugees," *CNN (Cable News Network)*, Transcript # 483-3, August 24, 1994.

⁴⁰ Prepared Statement of Rear Admiral James B. Perkins, U.S. Navy Acting Commander in Chief, United States Southern Command on Military Posture, before the U.S. Senate Armed Services Committee, reported in *Federal News Service*, March 19, 1996; see also, David Bentley, "Operation Sea Signal: U.S. Military Support for Caribbean Migration Emergencies, May 1994 to February 1996," *Strategic Forum* (National Defense University), (May 1996).

⁴¹ Prepared Statement of Rear Admiral James B. Perkins, U.S. Navy Acting Commander in Chief, United States Southern Command on Military Posture, before the U.S. Senate Armed Services Committee, reported in *Federal News Service*, March 19, 1996.

exaggerated. The only obvious way to face the challenge has proven to be the use of military means.”⁴² The editorial further reasoned that immigration would clearly be on the security agenda in the years and decades ahead; this assessment, in fact, was prescient.

As international migration—and particularly acute, disruptive migration—has increased worldwide, governments have shown more willingness to turn to military forces to interdict or manage the flows. When the Norwegian freighter *MV Tampa* approached Australia in August 2001 with over 400 migrants aboard (the migrants had been rescued by the *MV Tampa* from a sinking migrant smuggling vessel that had originated from Indonesia), Australia responded by deploying Special Air Service (SAS) troops to prevent the freighter from landing at an Australian port.

Similarly, the European Union has authorized increased “sea patrols”—comprised of both naval, coast guard and other maritime security assets—to address the growing migrant influx arriving from the sea from Africa. The European Union’s new border security agency, Frontex, established in October 2005, regularly relies on or deploys military assets that belong to member states in border security missions. Spanish naval vessels regularly patrol the coast of the Canaries within the framework of joint European Union patrols. In October 2006, the Spanish government announced that it “does not rule out” the involvement of the Defense Ministry in its effort to deter illegal immigration “in Mauritanian, Senegalese and Cape Verdean waters, in support of the Interior Ministry.”⁴³ The Spanish government also announced plans to deploy military aircraft in Senegal and Mauritania “to stop boats carrying undocumented emigrants.”⁴⁴

Likewise, in November 2006, Portugal announced that it would deploy a naval vessel to patrol Guinea Bissau as part of a larger Frontex-directed project to deter illegal migration.⁴⁵ In December 2006, an Italian naval vessel intercepted a boat of 110 illegal migrants near the Mediterranean island of Lampedusa. In the United States, the U.S. House of Representatives in June 2006 allocated \$708 million to deploy 6,000 U.S. National Guard troops along the southwest border to thwart illegal immigration from Mexico.

The militarization of state responses to migration partially reflects a paradigm-shift in how international migration is being considered. What was once a social or labor issue has now transformed often into a security matter. Many countries around the world are characterizing international migration—

⁴² “Cuba Migrant ‘Invasion,’” *Jane’s Intelligence Review*, September 1, 1994.

⁴³ “Spain could use military aircraft to combat illegal immigration,” [Source: ABC website, Madrid, in Spanish 12 OCT 06], reported in *BBC Worldwide Monitoring*, October 12, 2006.

⁴⁴ “Spain plans to deploy planes to monitor West Africa emigrants,” *Deutsche Presse-Agentur*, October 23, 2006.

⁴⁵ “Portuguese Navy Corvette to Patrol Guinea Bissau Waters,” [Source: Diário de Notícias website, Lisbon, in Portuguese 22 Nov 06], reported in *BBC Monitoring International Reports*, November 22, 2006.

and particularly acute, disruptive migration—as a threat to national security.⁴⁶ In December 2006, for instance, Russian Prime Minister Mikhail Fradkov told a meeting of regional officials that “the problem of illegal migrants in our country causes serious concern [and] causes a threat to national security.”⁴⁷ Similarly, Angola’s Home Affairs Minister told a government gathering that illegal immigration was a “threat to national security.”⁴⁸ Michael Chertoff, the U.S. Homeland Security Secretary who in 2005 unveiled a new effort to use unmanned drones to patrol U.S. borders with Canada and Mexico, stated unequivocally that “illegal migration undermines our [American] national security.”⁴⁹

International migration is viewed as a security issue for many reasons, including the perceptions that migrants may be a social or economic burden, a threat to cultural identity, or a political threat to the host state, among others. In many industrialized countries, there is “acute sensitivity” regarding the racial, ethnic, and cultural characteristics of incoming migrants.⁵⁰ In addition, in a post 9/11 environment, immigrants now are viewed as possible agents or supporters of terrorism. In Europe, widespread angst over Muslim immigration reflects fears of the creation of a “state within a state.”⁵¹ As a result of 9/11, many developed countries—particularly in Europe—suspended plans to liberalize immigration policies. A Spanish official stated that “the fight against illegal immigration is also the reinforcement of the fight against terrorism.”⁵²

Public insecurity over migration—particularly acute, disruptive migration events—will pressure governments to resort to vigorous measures to ensure border security. Threat perceptions among the public increase “when immigration numbers grow and when there is [a] sense that control has been lost by government institutions responsible for managing international migration.”⁵³ Thus, as international migration is viewed increasingly as a security concern, governments will be under greater pressure to rely on their military forces.

⁴⁶ Paul J. Smith, “Military Responses to the Global Migration Crisis: a Glimpse of Things to Come,” *The Fletcher Forum of World Affairs* (Fall 1999), p. 79.

⁴⁷ “Illegal immigration threatens national security: Russian PM,” *Agence France Presse*, December 11, 2006.

⁴⁸ “Illegal Immigration Hinders Economic Development—Home Minister,” *Africa News*, October 5, 2006.

⁴⁹ Paul Handley, “U.S. steps up drones use in sweeping crackdown on illegal immigrants,” *Agence France Presse*, November 3, 2005.

⁵⁰ Christopher Rudolph, “Security and the Political Economy of International Migration,” *American Political Science Review* (November 2003), p. 604.

⁵¹ Timothy M. Savage, “Europe and Islam: Crescent Waxing, Cultures Clashing,” *Washington Quarterly* (Summer 2004), p. 25.

⁵² Christopher Rudolph, “Security and the Political Economy of International Migration,” *American Political Science Review* (November 2003), p. 616.

⁵³ “World Migration and U.S. Policy” [conference report], *International Migration Review* (Winter 1994), p. 884.

Deployment of military forces will be limited most likely to two key situations: interdiction operations and migrant processing (including repatriation) operations. Interdiction operations, as noted earlier, are already a common occurrence in many parts of the world. In addition, migrant processing and repatriation operations have occurred in the context of large-scale migration emergencies. The U.S. military response to the Haitian and Cuban exodus of 1994 encompassed both of these elements; consequently, these operations may occur simultaneously in the same region or as part of a single migration episode.

A third scenario might be stabilization operations, particularly when a climate change-induced disaster generates the potential for mass migration. Africa, for instance, is expected to assume greater strategic importance to the United States, China and other major powers in the 21st century, primarily because of its oil and other critical resources. However, climate change is also likely to serve as a potential destabilizing force that will complicate engagement between major powers and African states. A report collectively issued in 2005 by key environmental NGOs argued that Africa is on the front line of climate change and that the disruption caused by the phenomenon “is having a dire effect on many people.”⁵⁴ In Nigeria, considered an anchor state in Western Africa, climate variability has helped to induce competition for resources among rival communal groups, thus increasing the potential for violence.

Theoretically, effective institutional or military responses could ameliorate the conditions that might spur internal population displacements or acute, disruptive international migration. However, countries have tended to respond to mass migration crises rather than attempt to prevent them. Similarly, states have been willing to fund humanitarian relief rather than engaging in peacekeeping or peacemaking efforts. This may be related to lack of political will; yet by allowing the crisis to grow, states must contend with large-scale migration, which creates its own set of humanitarian challenges, particularly for neighboring states that struggle with their own economic and demographic problems. As the Haitian and Cuban exodus of 1994 demonstrated, large-scale migration events can cause fear and a sense of threat within the receiving state, which can then generate additional political pressure on governments to engage military forces in a reactive manner.

Climate Change, Failed States and Terrorism

Another consideration related to climate change is the problem of weak or failed states, which are at high risk of being destabilized by climate change. Mass population movements (both internal and international) may be one mechanism through which this failure is triggered. Large and acute population movements may exacerbate internal social and ethnic tensions, or pose an enormous economic challenge that exceeds the host state's

⁵⁴ Fiona Harvey, “Africa ‘on front line of climate change,’” *Financial Times*, June 20, 2005, p. 7.

ability to manage. Thus, climate change-induced environmental migration may cause states that are already experiencing social and economic instability to reach a “tipping point” leading to instability or state failure. A National Intelligence Council report assessing key security trends through the year 2020 asserted that “weak governments, lagging economies, religious extremism, and youth bulges will align to create a perfect storm for internal conflict in certain regions.”⁵⁵

In addition, as climate change contributes to state weakness or failure—a more likely scenario for poor, developing countries plagued with preexisting social and economic problems—it could lead to additional security challenges for the world community. For example, the 2005 U.S. National Defense Strategy states that “the absence of effective governance in many parts of the world creates sanctuaries for terrorists, criminals, and insurgents.”⁵⁶ Such an environment may invite outside military intervention, although probably at a stage where military forces would be less welcome and less able to restore order or mitigate the underlying causes of state failure.

Bangladesh serves as a good example of a state struggling with potential terrorist threats, while at the same time being positioned directly in the crosshairs of likely future climate change events.⁵⁷ U.S. officials have described Bangladesh, the seventh most populous country in the world, as “a voice of moderation among developing countries, in the Islamic world and in South Asia.”⁵⁸ Bangladesh has been praised by the United States also for achieving “some impressive victories against extremists” as a result of the recent arrests of the leaders of a militant Islamist group known as *Jamaat ul Mujahideen Bangladesh* (JMB).⁵⁹

Simultaneously, however, Bangladesh suffers from state weakness resulting from bitter divisions between the two major political parties, corruption, criminality and economic challenges.⁶⁰ Climate change effects are likely

⁵⁵ *Mapping the Global Future: Report of the National Intelligence Council's 2020 Project* (Washington DC: National Intelligence Council, 2004), NIC 2004-13, December 2004, p. 14.

⁵⁶ *The National Defense Strategy of the United States of America* (Washington, DC: U.S. Department of Defense, March 2005), p. 3.

⁵⁷ Christian Le Miere, “Bangladeshi Islamists threaten government,” *Jane's Intelligence Review*, October 1, 2005 [Internet version].

⁵⁸ Prepared statement of Christina Rocca, Assistant Secretary of State for South Asian Affairs, before the House International Relations Committee, reported in *Federal Document Clearing House Congressional Testimony*, March 20, 2003.

⁵⁹ Statement of Richard Boucher, Assistant Secretary, Bureau of South and Central Asian Affairs, U.S. Department of State, before the Committee on House International Relations, Subcommittee on Asia and the Pacific, *CQ Congressional Testimony*, May 17, 2006.

⁶⁰ Prepared statement of Christina Rocca, Assistant Secretary of State for South Asian Affairs, before the House International Relations Committee, reported in *Federal Document Clearing House Congressional Testimony*, March 20, 2003. The Failed States Index produced by the Fund for Peace categorizes Bangladesh in its most serious (“alert”) category in terms of its potential to become a failed state. The index is based on 12 social, economic and political criteria.

to be added to this list, an assessment that should be expected given Bangladesh's history of environmental disasters. In 1991, for instance, Cyclone Marian slammed into the southeast coast of Bangladesh and killed more than 139,000 people, prompting a U.S. military humanitarian intervention known as Operation Sea Angel.⁶¹

Testifying before the U.S. Senate's Energy and Natural Resources Committee in 2005, John Houghton, former co-chairman of the Scientific Assessment for the IPCC from 1988-2002, specifically named Bangladesh as one in a group of countries that will suffer extensively from climate change effects.⁶² Millions of people are likely to be displaced. Some may attempt to enter India illegally, which could exacerbate tensions between New Delhi and Dhaka. Illegal migration has long been a festering problem in relations between the two states; some Indian politicians have described the influx of Bangladeshi nationals as a major threat to their country's security and have urged that India implement massive deportation measures.⁶³

Thus, instead of being the "valued South Asian partner in the war on terrorism"⁶⁴ that the U.S. government hopes for, Bangladesh is likely to be plagued by state weakness brought on by climate change and an array of preexisting internal social and economic challenges. Mass migration events could destabilize the government and stimulate tensions and conflict with neighboring states.

Conclusion

Climate change is emerging as a new variable—some might argue a "hypervariable"—in international security in the 21st century. History demonstrates that climate change is often associated with massive population shifts: "Migration on a permanent or temporary basis has always been one of the most important survival strategies adopted by people in the face of natural or human-caused disasters."⁶⁵ Within the milieu of unprecedented global population growth today—and further projected increases through 2050 and perhaps beyond—population movements will undoubtedly be viewed by

⁶¹ Paul A. McCarthy, *Operation Sea Angel* (Santa Monica, CA: RAND, 1994), p. 2.

⁶² Statement of Sir John Houghton, before the U.S. Senate Committee on Energy and Natural Resources, *CQ Congressional Testimony*, July 21, 2005.

⁶³ Praful Bidwai, "South Asia: Immigrant Issue Sours Indo-Bangladesh Relations," *IPS-Inter Press Service*, February 7, 2003; see also, "Advani lashes out at Congress over illegal immigration issue," *Hindustan Times*, April 7, 2006.

⁶⁴ Prepared statement of Christina Rocca, Assistant Secretary of State for South Asian Affairs, before the House International Relations Committee, reported in *Federal Document Clearing House Congressional Testimony*, March 20, 2003.

⁶⁵ Graeme Hugo, "Environmental Concerns and International Migration," *International Migration Review* (Spring 1996), p. 105.

many states as a significant security challenge. Consequently, there may be a growing tendency to respond militarily.

Yet military responses will likely come in different forms. If military forces are deployed for the purpose of engaging in humanitarian or search and rescue operations, for instance, their involvement may actually relieve the plight of the migrants and prevent further tragedy. If, on the other hand, military troops and assets are deployed solely for interdiction or enforcement, they may exacerbate the migrants' suffering. The longer term dilemma for states—and for the world in general—is how to accommodate the predicted surge in environmental migrants. This is not merely a logistical or immigration question, it is also a moral one. International migration can be a coping mechanism that provides relief to those suffering, as was seen in the case of the tens of thousands displaced by Hurricane Katrina.

However, by eliminating or restricting the migration “safety-valve,” receiving states may potentially perpetuate the human suffering initially brought about by climate change disruption. As Nathan Hultman and Alexander Bozmoski argue, climate change and its consequences will affect the entire globe, not just those who are residing in the immediate path of destructive processes. Thus, “populations unscathed by disasters or environmental stress will be responsible for some of the cost of recovery and, perhaps, for accommodating people migrating from the affected areas.”⁶⁶ Yet, it is not clear that governments have confronted this reality or prepared their publics for such imminent demographic shifts. As a result, when migration emergencies unfold, government responses are likely to be reactive and will, in some cases, involve the deployment of military forces.



⁶⁶ Nathan E. Hultman and Alexander S. Bozmoski, “The Changing Face of Normal Disaster: Risk, Resilience and Natural Security in a Changing Climate,” *Journal of International Affairs* (Spring/Summer 2006), p. 29–30.