

## Climate Change and Immigration: Warnings for America's Southern Border

Lindsey R. Ross

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Each year, thousands of Latin American immigrants enter the United States illegally. A majority have travelled north because they are unable to adequately provide for themselves and their families in their native countries. Many also migrate to escape low-intensity conflict and political instability at home. If, as projected, climate change devastates the continent's vast tropic and sub-tropic regions—mainly affecting impoverished and politically unstable communities—with increasingly frequent and severe storms, flooding, droughts and heat waves, the pressure on our southern neighbors to reach friendlier environments in the United States will only grow stronger.

With nearly 4 million undocumented immigrants arriving within the last decade,<sup>1</sup> an immense amount of pressure is placed on our federal, state, and local law enforcement agents charged to stem this flow, especially in the post-9/11 world. Climate migrants, adding to the number presently crossing into the country illegally, will surely place heightened stresses on communities along America's nearly 2,000-mile long border with Mexico,<sup>2</sup> particularly on the border patrols which are already spread too thin.

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<sup>1</sup> Michael Hofer, Nancy Rytina, and Bryan C. Baker, *Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2009*, prepared at the request of the U.S. Department of Homeland Security, January 2009.

[http://www.dhs.gov/xlibrary/assets/statistics/publications/ois\\_ill\\_pe\\_2009.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2009.pdf) (accessed June 14, 2010).

<sup>2</sup> U.S. Customs and Border Control, *Snapshot: A summary of CBP facts and figures*, April 2010. <http://www.cbp.gov/linkhandler/cgov/about/accomplish/snapshot.ctt/snapshot.pdf> (accessed June 5, 2010).

*Lindsey Ross is a policy analyst for climate security at ASP.*

## Climate Change Consequences may be Severe in Latin America

**Global warming's effects have already begun to place strains on the Latin American population.**

As a result of intense droughts in 2005, one in six countries worldwide faced food shortages. Among the significantly affected were Cuba, Guatemala, Honduras, and Nicaragua;<sup>3</sup> over seven percent of the illegal immigrant population in the United States arrive from Guatemala and Honduras alone.<sup>4</sup>

Severe storms, soil erosion, and runoff have already taken a significant toll on Latin American economies and the ability of countries in the region to produce agricultural goods. Of the 20,000 to 50,000 km<sup>2</sup> of land lost to degradation around the world each year, Latin American, African and Asian lands have been affected two to six times more than European and North American nations.<sup>5</sup> Runoff threatens to contaminate much of Latin America's water supply. In Bolivia, Peru, and Ecuador, many rivers have been declared "biologically dead."<sup>6</sup>

Water contamination and droughts currently contribute to the resource scarcity that plagues the region. According to the UN Food and Agriculture Organization, 53 million people in Latin America and the Caribbean have inadequate access to food.<sup>7</sup>

## Global Warming will Exacerbate already Existing Scarcities

**In the years to come, climate change will exacerbate existing challenges and hit hardest those impoverished communities already struggling to access adequate resources.**

### Declining Agricultural Yields

The number of Latin Americans without adequate sustenance will likely escalate as crop yields and livestock productivity drop.<sup>8</sup> By 2050, agricultural productivity is projected to decrease in Argentina and Brazil by seven and 10 percent, respectively.<sup>9</sup> Agricultural exports will decrease, placing additional stress on regional governments as the gross domestic product and balance of trade of each affected state is negatively impacted. In Brazil, the agriculture sector generates \$250 billion annually. Soy production,

<sup>3</sup> Jon Vidal and Tim Radford, "One in six countries facing food shortage," June 30, 2005. <http://www.guardian.co.uk/world/2005/jun/30/science.famine> (accessed August 2, 2010).

<sup>4</sup> Hoefel et al.

<sup>5</sup> United Nations Environment Programme, *Global Environment Outlook: environment for development (GEO-4), Chapter 3: Land*, ed. Mohamed Kassas, 2007. [http://www.unep.org/geo/geo4/report/03\\_Land.pdf](http://www.unep.org/geo/geo4/report/03_Land.pdf) (accessed June 14, 2010).

<sup>6</sup> "Oxfam finds critical problems of water supply pollution – Regional," *Business News Americas*, March 19, 2009. [http://www.bnamericas.com/content\\_print.jsp?id=471934&idioma=I&sector=4&type=NEWS](http://www.bnamericas.com/content_print.jsp?id=471934&idioma=I&sector=4&type=NEWS) (accessed June 14, 2010).

<sup>7</sup> Food and Agriculture Organization of the United Nations, *Hunger*, 2010. <http://www.fao.org/hunger/en/> (accessed June 14, 2010).

<sup>8</sup> Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Synthesis Report*, 2007. [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf) (accessed June 14, 2010).

<sup>9</sup> Daniel Lewis, "Climate to Slash Farm Exports Heavily," *Sydney Morning Herald*, December 7, 2007. <http://www.forecaster.com.au/forecaster-articles/2007/12/7/climate-to-slash-farm-exports-heavily/> (accessed June 14, 2010).

a major export of the country, will drop by 20 percent by 2020, and coffee by 10 percent.<sup>10</sup> Northeast Brazil, an extremely impoverished region of the country, is expected to lose one-third of its economy. Of course, some crops thrive in warmer temperatures,<sup>11</sup> but higher temperatures create more problems than benefits, eradicating certain staple foods – like cassava, for example.<sup>12</sup> Decreased production at home will lead to increased imports, further stressing Latin American economies.

### **Decreasing Water Supply**

A decreasing water supply will also cause an array of significant strains on the Latin American population. In the last 40 years, for example, global warming has caused an increased rate of glacial melting and a drop in the Amazon water level both by 20 percent.<sup>13</sup> The 2007 Intergovernmental Panel on Climate Change (IPCC) reported (with very high confidence) that glacier melt in Latin America has been occurring at a faster rate since the release of the Third Assessment Report, and (with high confidence) that inter-tropical glaciers of the Andes will disappear over the next two decades.<sup>14</sup> This intensified rate of melting and changes in precipitation patterns will diminish the water supply in Latin America<sup>15</sup> during a time of higher population growth and increased irrigation need that will boost demand. In March 2009, Bolivia and Peru were already showing signs of water shortages.<sup>16</sup> Receding water levels further inhibit crop growth, not to mention deplete drinking water, leaving Latin American's with another reason to migrate.

### **Flooded Coastal Areas**

Most affected by climate change will be those living in coastal areas.<sup>17</sup> During hurricane season, millions to our south are left homeless for extended periods of time. Partly attributed to sea-level rise and warmer waters, severe storms are projected to increase in severity and frequency, likely forcing communities from their homes permanently—particularly affecting many Caribbean islands that are in jeopardy of being submerged – both partially and completely.<sup>18</sup> Panama's Kanu are already being forced to leave ancestral homelands in the Caribbean.<sup>19</sup>

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<sup>10</sup> Raymond Colitt, "Climate change threatens Brazil's rich agriculture," *Reuters*, October 2, 2009. [http://www.reuters.com/article/idUSN18203584.CH\\_.2400](http://www.reuters.com/article/idUSN18203584.CH_.2400) (accessed June 14, 2010).

<sup>11</sup> IPCC, *Climate Change 2007: Synthesis Report*.

<sup>12</sup> Colitt.

<sup>13</sup> "Oxfam finds critical problems of water supply pollution – Regional," *Business News Americas*.

<sup>14</sup> IPCC, *Climate Change 2007: Working Group II: Impacts, Adaption and Vulnerability*, 2007. [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg2/en/ch13s13-2-4.html](http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch13s13-2-4.html) (accessed June 14, 2010).

<sup>15</sup> IPCC, *Climate Change 2007: Synthesis Report*.

<sup>16</sup> "Oxfam finds critical problems of water supply pollution – Regional," *Business News Americas*.

<sup>17</sup> IPCC, *Climate Change 2007: Working Group II*.

<sup>18</sup> Alexandra Deprez, *Climate Migration in Latin America: A Future 'Flood of Refugees' to the North?*, Council on Hemispheric Affairs, 2010. <http://www.coha.org/climate-migration-in-latin-america-part-1/> (accessed June 14, 2010).

<sup>19</sup> Sean Mattson, "Rising Sea drives Panama islanders to mainland," July 12, 2010. <http://www.reuters.com/article/idUSTRE66B0PL20100712> (accessed August 2, 2010).

## Tensions have Surrounded Natural Resources in Latin America for Decades

**The consequences of resource scarcity in Latin America are grave. If history is any indication, climate change will exacerbate existing tensions and political and social instability—and contribute to the increase in migrants to the United States.**

Resource conflicts are common in Latin America. Land disputes are at the center of violent histories in countries such as Guatemala and El Salvador. Governments have proven incapable of effectively responding to social unrest and inequality.<sup>20</sup> As a result, in Colombia, thousands have relocated both internally and throughout neighboring countries.<sup>21</sup> Salvadorans constitute five percent of unauthorized immigrants in America.<sup>22</sup>

Ten percent of Mexicans born south of the border have relocated to the United States.<sup>23</sup> Over the last decade, the undocumented Mexican population in the United States has grown by 42 percent.<sup>24</sup> While other factors are certainly at play, much of this has to do with preexisting tensions and low-intensity conflict over dwindling natural resources and their unequal distribution.

As climate change continues, these burdens and tensions can be expected to deepen and expand. Social instability and a clamoring for resources may further weaken unstable governments in Latin America—many of which (such as Honduras) already experience significant political instability, producing an environment ripe for migration.

### What this Means for Americans

**Considering the already established routes between Latin American countries and the United States, climate migrants from these countries will likely seek refuge in the United States.**<sup>25</sup>

Many Latin Americans already seek a better life in the economically and politically stable United States, escaping resource scarcity and the inability to make a living at home. Many experts attribute the recent decline in the number of illegal immigrants entering the United States to a weaker American economy

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<sup>20</sup> Cristóbal Kay, “Land, Conflict, and Violence in Latin America,” *Peace Review* 19, no. 1 (2007), pp. 5-14.

<sup>21</sup> Maya Wilson, *Colombia: Latin America’s, if not the World’s, Capital of Internally Displaced People*, Council on Hemispheric Affairs, May 4, 2010. <http://www.coha.org/colombia-latin-america%E2%80%99s-if-not-the-world%E2%80%99s-capital-of-internally-displaced-people/> (accessed June 15, 2010).

<sup>22</sup> Hoefler et al.

<sup>23</sup> Jeffery Passel and D’Vera Cohn, *Mexican Immigrants: How Many Come? How many Leave?*, Pew Hispanic Center, July 22, 2009. <http://pewhispanic.org/reports/report.php?ReportID=112> (accessed June 15, 2010).

<sup>24</sup> Hoefler et al.

<sup>25</sup> Deprez.

with fewer jobs; as the economy recovers, immigration is likely to return to (or exceed) pre-2008 levels.<sup>26</sup> Yet even with the decline, Latin Americans and Caribbean islanders make up 54 percent of America's immigrant population today.<sup>27</sup> A majority arrive illegally; for example, approximately 80 to 85 percent of Mexican migrants are undocumented,<sup>28</sup> making up 62 percent of the illegal population.<sup>29</sup>

More problematic is that the number of criminals and “special interest aliens” (potential terrorists from countries that are home to known networks)<sup>30</sup> entering the country has increased several-fold in recent years. Recent assessments have found that Mexican drug cartels gross millions of dollars annually smuggling these immigrants into the country. Many cartels even specialize in the trade, and as more realize just how profitable it is, it is likely to grow as an industry. Between 2001 and 2006, the number of arrested illegal migrants arriving from countries of interest increased by 41 percent.<sup>31</sup>

**Securing our borders against such incursions is not easy, nor is it a small expense. Increasingly frequent crossings have proven more difficult to stop.**

Each day, across the country, the U.S. Customs and Border Protection (CBP) apprehends over 2,000 (arresting more than 100) for illegal entry into the United States.<sup>32</sup> The vast majority of these apprehensions occur on the U.S.-Mexican border—97% in 2008.<sup>33</sup> Additionally, CBP also processes nearly a million pedestrians at over 300 legal points of entry each day, and receives over 57,000 trucks and freight deliveries.<sup>34</sup>

Climate migrants will place an additional burden on communities along the U.S. southern border, law enforcement officers, and border patrols—agencies that are already short staffed, underequipped, and financially strained. This increase will cause three main problems.

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<sup>26</sup> Steven A. Camarota and Karen Jensenius, *A Shifting Tide: Recent Trends in the Illegal Immigrant Population*, Center for Immigration Studies, July 2009. <http://www.cis.org/IllegalImmigration-ShiftingTide> (accessed June 15, 2010).

<sup>27</sup> Demetrios G. Papademetriou and Aaron Terrazas, *Immigrants and the Current Economic Crisis: Research Evidence, Policy Changes and Implications*, Migration Policy Institute, January 2009. [http://www.migrationpolicy.org/pubs/lmi\\_recessionJan09.pdf](http://www.migrationpolicy.org/pubs/lmi_recessionJan09.pdf) (accessed June 15, 2010).

<sup>28</sup> Jeffrey S. Passel, *Estimates of the Size and Characteristics of the Undocumented Population*, Pew Hispanic Center, March 21, 2005. <http://pewhispanic.org/files/reports/44.pdf> (accessed June 15, 2010).

<sup>29</sup> Hofer et al.

<sup>30</sup> The countries of interest include, but are not limited to, Afghanistan, China, Iran, Iraq and Pakistan, with most arriving from China.

<sup>31</sup> Sara A. Carter, “Drug cartels smuggling illegals create security risk, officials say,” *Washington Examiner*, June 8, 2010. <http://www.washingtonexaminer.com/world/Drug-cartels-smuggling-illegals-create-security-risk-officials-say-95815904.html> (accessed June 15, 2010).

<sup>32</sup> U.S. Customs and Border Control.

<sup>33</sup> U.S. Department of Homeland Security, *Annual Report: Immigration Enforcement Actions: 2008*, July 2009. [http://www.dhs.gov/xlibrary/assets/statistics/publications/enforcement\\_ar\\_08.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/enforcement_ar_08.pdf) (accessed June 15, 2010).

<sup>34</sup> U.S. Customs and Border Control.

First, state and local governments in the southwest bear the brunt of the financial burden of border control. Inadequate state funding often requires sheriff's deputies to work overtime, which in turn causes high turnover rates.

Second, greater flow across the border also distracts law enforcement attention from violent criminal activities—both cross-border and in-state—which directly endangers the lives of citizens. In Texas, for example, Governor Rick Perry sought an additional \$25 million for border security,<sup>35</sup> but proposed cuts of over \$3 million for other criminal justice programs.<sup>36</sup>

Third, since securing the border is vital to our national interests and security, the federal government will be required to redirect its activities and monetary aid to the southern United States, which increases our vulnerability to other threats.

Steps have been taken to reinforce CBP. The Border Patrol's budget has increased from \$400 million in 1993 to \$3.5 billion in 2010, and the number of agents increased more than four-fold during that period, from 4,000 to 22,800.<sup>37</sup> In FY2009, CBP received 123 new Border Patrol agents and staff, totaling \$19.4 million.<sup>38</sup> Yet many criminals and potential terrorists remain at large,<sup>39</sup> and more resources are needed. President Barack Obama has responded to this problem by deploying an additional 1,200 National Guardsman and committing \$500 million for improved technology and training. But border communities and government officials remain unsatisfied, calling for additional funding and boots on the ground. Governor Perry has requested an additional 1,000 National Guardsmen for the Texas border alone.

## Conclusion

Directly and indirectly, resource scarcity will have negative impacts on the global population. Hungry populations, especially those in failing states, will seek refuge in environments that are more prosperous and less affected.

In Latin America, where government stability has long been a struggle, where violent non-state actors continue to harass the population at large, and where natural resources (particularly land usage) have been a source of contention for decades, the threats of climate change pose a particularly potent problem.

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<sup>35</sup> Governor Rick Perry, *Governor's Budget 2010-2011* (Texas, 2009). [http://governor.state.tx.us/files/press-office/Governors\\_Budget\\_2010-11.pdf](http://governor.state.tx.us/files/press-office/Governors_Budget_2010-11.pdf) (accessed June 15, 2010).

<sup>36</sup> Office of the Governor, *Biennial Plan for Reductions to the Appropriations for the 2010 - 2011 Biennium* (Texas, 2010). [http://www.lbb.state.tx.us/External\\_Links/Expenditure\\_Reductions/Governor\\_2010-11.pdf](http://www.lbb.state.tx.us/External_Links/Expenditure_Reductions/Governor_2010-11.pdf) (accessed June 15, 2010).

<sup>37</sup> Texas Border Coalition, *White Paper on Border Security*, November 13, 2009. [http://www.texasbordercoalition.org/Texas\\_Border\\_Coalition/Welcome\\_files/Texas%20Border%20Coalition%20White%20Paper%20on%20Border%20Security.pdf](http://www.texasbordercoalition.org/Texas_Border_Coalition/Welcome_files/Texas%20Border%20Coalition%20White%20Paper%20on%20Border%20Security.pdf) (accessed June 15, 2010).

<sup>38</sup> U.S. Customs and Border Control.

<sup>39</sup> Carter.

The United States is likely to be highly attractive to our southern neighbors seeking refuge. This is best evidenced by the current influx of illegal immigrants across our southern borders. As these factors are aggravated by dwindling resources and loss of land, American border patrols should expect to see increased traffic.

Addressing climate change is a crucial step in stemming and managing this potentially massive tide of immigration.

## **Building a New American Arsenal**

The American Security Project (ASP) is a bipartisan initiative to educate the American public about the changing nature of national security in the 21st century.

Gone are the days when a nation's strength could be measured by bombers and battleships. Security in this new era requires a New American Arsenal harnessing all of America's strengths: the force of our diplomacy; the might of our military; the vigor of our economy; and the power of our ideals.

We believe that America must lead other nations in the pursuit of our common goals and shared security. We must confront international challenges with all the tools at our disposal. We must address emerging problems before they become security crises. And to do this, we must forge a new bipartisan consensus at home.

ASP brings together prominent American leaders, current and former members of Congress, retired military officers, and former government officials. Staff direct research on a broad range of issues and engages and empowers the American public by taking its findings directly to them.

We live in a time when the threats to our security are as complex and diverse as terrorism, the spread of weapons of mass destruction, climate change, failed and failing states, disease, and pandemics. The same-old solutions and partisan bickering won't do. America needs an honest dialogue about security that is as robust as it is realistic.

ASP exists to promote that dialogue, to forge consensus, and to spur constructive action so that America meets the challenges to its security while seizing the opportunities the new century offers.



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