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On Shaky Ground: The Political Impact of Natural Disasters in Central America

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On Shaky Ground: The Political Impact of Natural Disasters in Central America

by

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Abstract

While the occurrences of natural disasters are beyond human control, they require that states and individual citizens interact with them before and after they happen. This thesis aims to identify how natural disasters can act as political agencies, and specifically identify certain existing social conditions that increase the chances that natural disasters will serve as catalysts for political change. The thesis will focus on Central America's experience with natural disasters during the 20th century.

Introduction

In geographic terms, Central America is an isthmus joining together the enormous North American and South American landmasses. It sits at the fractious junction of four tectonic plates and has historically been the site of countless volcanoes and earthquakes. This, combined with any equally uneasy and devastating history of hurricanes, affords Central America the distinction of existing in perhaps the most naturally destructive area in the world.

Central America has another more recent legacy of destruction, brought forth by the violent social upheaval that occurred in many of the Central American countries during the latter part of the 20th century. During this period rebel factions led insurgencies against the central powers of the states. While not all nations of Central America were embroiled in the all-out civil conflict of Guatemala, Nicaragua, or El Salvador, suffice it say that the entire region caught fire. The reason for juxtaposing these histories of a region being ripped apart at the seams, both by nature and by man itself, is to draw attention to the unique relationship between the calamitous political events of the seventies and eighties and the natural disasters that took place during this time frame. The Managua, Nicaragua earthquake of 1972, the Guatemalan earthquake of 1976 and the San

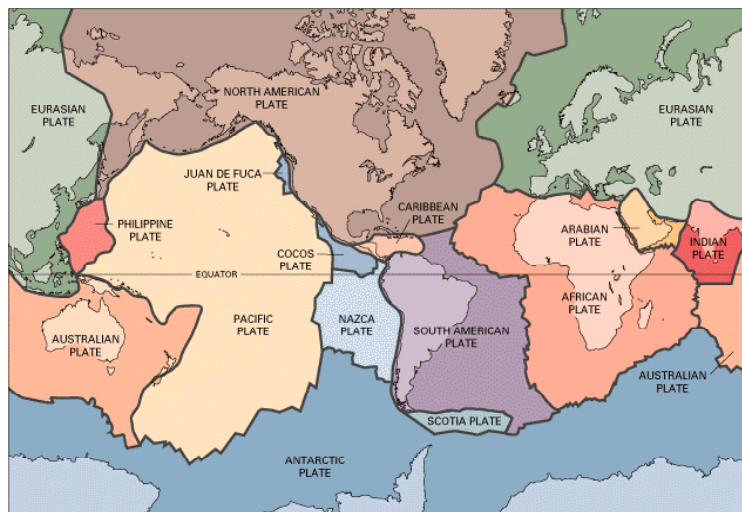
Salvador, El Salvador earthquake of 1986 occurred at critically important times during the civil unrest that plagued each country. Furthermore, Costa Rica, Honduras, and Mexico (admittedly not a Central American country) each experienced periods of political unrest along with concurrent natural disasters, although theirs did not devolve into social violent conflict.

The purpose of this essay is to use the shared experience of natural disaster as a lens through which to analyze this roughly twenty-year period in Central American political history. In analyzing this close association, it appears that there is a causal relationship that goes beyond simply saying that natural disasters are politically relevant because they exacerbate the existing situation. By looking at the historical records of each country it can be argued that natural disasters had a unique, discernable impact on the political landscape of their respective countries, based in large part on the existence of social conditions that made the occurrence of natural disasters so politically consequential. The argument moves beyond overly simplistic socioeconomic arguments and *post hoc ergo propter hoc* arguments that do not supply sufficient causal information in the way of explaining specifically how the natural disasters contributed to the political and social unrest of the period. I shall argue that natural disasters acted as catalyst for sociopolitical change in Central America and that these disasters opened up a space in which various groups were made aware of the ‘unnatural’ social dynamics at play in the region.

Natural Disasters in Latin America: A Brief History

For the purposes of both background and thoroughness, an understanding of the history of natural disasters and their effects on Latin America, and Central America in particular, is essential for moving forward with the more specific and analytical look at the 1970s and 1980s. Grasping the long history of natural calamity in Central America is essential to contrasting the events of the twentieth century with the overall historical record.

As mentioned in the introduction, Central America rests at a critical juncture of four plates: the northernmost point of the Nazca plate, the eastern edge of the Cocos plate, within the Eastern side of the Caribbean plate, and the southeastern edge of the vast North American plate (Figure 1).



The combination of being located at such a seismically active area and acting as a brittle link between the much larger American continents creates a geological situation unfortunately well-suited for any number of seismically related catastrophes: namely volcanoes, earthquakes, and any related tremors or mud slides.

While earthquakes have rightfully garnered the most attention when looking at the history of natural disasters in Latin America, and will continue to do so in the latter

sections of this thesis, neglecting the history of other calamities in a historical sense would detract from generating a complete history of disasters in Latin America.

Hurricanes have played a major role in the development of Central America and the Caribbean. Before the technological age of weather satellites and course prediction, the beginning of hurricane season signaled the start of a season of perpetual worry for all of Central America and the Caribbean. Losses to hurricanes during these times, both in terms of lives lost and the physical damage to infrastructure and agriculture are difficult to fathom. A 1780 storm that hit Jamaica killed around 15,000 slaves. In 1780, the deadliest on record, some 30,000 died during the hurricanes season. While it would be easy to blame such a statistic on the lack of warning, that a desire must be tempered by modern examples, namely that in 1998 Hurricane Mitch killed 18,000 Hondurans (Miller 2007, 119-121).

The aftermath of storms guaranteed months if not years of recovery for the survivors and the necessary industries. Diego Fernandez Herrera, a Cuban planter described the aftermath as such, “I no longer see the forests or the numerous pine trees. Nothing of the banana plants. All the coffee trees have been obliterated. The ripened fruit is enveloped in muck and weeds” (Miller 2007: 121). Hurricanes were particularly bad given the economic structures of most Central American and Caribbean colonies. At that time, colonial economies were based primarily on exporting a few very lucrative cash crops. When an economy is predicated on such unvaried crops, the crushing blow of a hurricane can greatly harm the viability of an island. When one considers that coffee, sugar, bananas and tobacco, all-important new world crops, were among the most fragile,

then the hurricane posed a threat that was disastrous to both the population and the economy.

Another natural disaster less commonly recognized natural hazard is the epidemic. Early Latin American history is dotted with instances of citizens confronting mass disease. Epidemics have affected the populations of Latin American countries in two distinct ways. Epidemics harm populations by infecting large portions of the populations. Agricultural diseases also cause severe but indirect harm by creating conditions conducive to famine. Thus, epidemics have a visible impact on the way societies have coped with strife in much the same way as more visible natural disasters. The disease most closely associated with the development of Latin America during the colonial period was yellow fever, which was brought on by infected mosquitoes and tropical climates where temperatures never dropped far enough to stop an outbreak from becoming an epidemic. In his book on the environmental history of Latin America Shawn Miller notes that the new world was effectively conquered by diseases in the 16th century but that they had a profound impact on the independence movements, first in Haiti then elsewhere. He notes that after the initial success of the British to capture Port-Au-Prince in 1793, some 50,000 British regulars died as a result of yellow fever, and the French under Napoleon sustained catastrophic casualties of 80 percent mainly as a result of yellow fever (Miller 2007, 113).

While yellow fever might have assisted some during the independence movements it has since only acted as a deterrent to achieving long-term growth. Along with tapeworms, typhus, and tuberculosis it had a critical impact on the social and political development of Latin America since the mid-19th century. In his investigation

into the various epidemics of 18th century Mexico, Murdo MacLeod looks at three epidemics and considers their impact on the subsistence agricultural that was common amongst the peasantry of that period. He cited research on the cyclical relationship between epidemics and fluctuations in the price of maize. In the year of 1785, known commonly as the “año de hambre,” disease killed a large portion of the peasantry. The workforce was reduced by such a large percentage that the price of corn rose dramatically. The spike in prices created unfavorable conditions for those who were spared. While not as quick to develop as a volcano or earthquake, and not as awe inspiring as a hurricane, epidemics still represent a type of natural disaster that can be incredibly destructive to a region or even an entire country both in terms of human cost and its long-term effects on the economy.

Earthquakes have proven to be the most destructive natural disasters in recent history, and because of their immediacy have the most potential to be politically consequential, but more on that later. Managua, Nicaragua alone was struck three times in less than a century by calamitous earthquakes, first in 1885 then in 1931 and once again in 1968. The 1972 earthquake that concerns much of this thesis was simply another entry in Managua’s long and destructive seismic history. Antigua, the first capital of Guatemala, was destroyed by earthquake in 1773. Guatemala City has also been subject to frequent earthquakes and was most severely hit by paralyzing large earthquake in 1917.

Nicaragua and Guatemala are not alone in Central America; the USGS has documented three major earthquakes since the beginning of the 20th century in El Salvador not including the 1986 San Salvador quake. Furthermore, colonial record

keepers maintained meticulous account of the destruction of their churches and cathedrals. From those records it is possible to document dozens and dozens of earthquakes, large and small, which have affected Central America. Clearly, Central America's experience with disaster is not limited to recent history. Given these facts, such a past should have been critical in preparing its citizens and leaders for the possibility of disaster.

Can a Disaster be a Political Force?

Natural disasters are by no means the guarantor of political upheaval or even a measured change; otherwise the brief history discussed above would contain countless tails of coups and bloody insurgencies. Therefore the stated aim of this thesis is to determine why natural disasters played a particularly important political role in Central America during this roughly twenty-year time period. Natural disasters are politically consequential, in that their occurrence usually necessitates some sort of governmental response on behalf of the battered people (Pelling and Dill 2006). Given certain political and social conditions natural disasters can take the form of a political actor and create conditions favorable for some degree of political change.

A strict interpreter of the term political actor would likely scoff at such an assertion, arguing that political actors by their definition *choose* one course of action over another option or series of options. Because a natural disaster is not rational, or for that matter even sentient, it cannot be a political actor. While natural disasters cannot choose

where and when to strike or whom to affect disproportionately relative to others, if a more abstract understanding of the term actor can be understood, then its relationship to the nature of disasters will become more clear. In trying to grasp the idea of natural disasters as political actors, it is best to think of disasters in terms of potential and kinetic energy. In political terms, natural disasters that have yet to occur are best thought of as potential energy. In Central America, perhaps the most disaster prone area in the world, this “potential energy” is a looming, pervasive presence in the collective conscience of the region. For its residents and its leaders, the constant specter of natural disasters creates a “not if but when” understanding of these natural forces. Because of this, natural disasters, in their role as potential energy, can be imagined as boulders stacked above a cliff that have the demonstrated potential to fall, and thus converted into kinetic energy. If this happens and the existing political regime handles the implications well, as is more often than not the case, then the disaster as kinetic energy has little catalyzing effect. But if man-made social dynamics, in themselves quite hazardous, are present then natural disasters can catalyze decisive political change. Their capacity to do so is rare and unparalleled. This notion is supported by Pelling and Dill who write that, “Anecdotal evidence suggests that the socio-political and cultural dynamics put into motion at the time of catastrophic ‘natural’ disasters create the conditions for political change—often at the hands of a discontented civil society” (Pelling and Dill 2006, 1).

As a stand-in for a human actor, the natural disaster is most closely associated with a whistle blower, shining a massive light on the inner-workings and social dynamics of a state. While some might feel that this is an exaggeration or anthropomorphized, the ability to expose or create a space for social dialogue that could set in motion political

reaction is difficult to dispute. Understanding the pre-existent qualities that make the metaphorical transfer of energy from potential to kinetic politically disruptive helps to cultivate a more specific and academically viable understanding of natural disasters as political actors. The following three characteristics, if present as they were in Central America during the mid to late 20th century, tend to indicate that a natural disaster will have a discernable political impact that can lead elements within a state towards action.

(1) The developmental between the core of the state and its vast periphery, often referred to as the primate city model, can exacerbate standing economic mores and make post-disaster operations untenable and sometimes unattractive to those in power. (2) Existing corruption combined with an influx of relief money tend to make transgressions publicly visible and have disastrous effects on a leadership's base. (3) Collective action taken by citizen's groups and community leaders is historically mistrusted and thought of as threatening to the state. (Pelling and Dill 2006, 3-5)

I will approach each of these three characteristics with aid from the overall historical record and existing scholarly work. For the most part, the examples will be drawn from the three states whose experience with natural disasters during this time period led to militarized intrastate conflict (Nicaragua, Guatemala, and El Salvador), as they are the clearest examples of the full realization of disasters as political actors. I shall also use the experiences of Costa Rica and Honduras as well as other states outside of Central America, namely Mexico and its earthquake of 1985.

Primate City: The Core/Periphery Dilemma

The term primate city is related to the notion of urban primacy. It refers to a city, usually the capital, whose population and share of the country's industry, capital and labor dwarf the next closest city and usually appear to be generations if not a whole century removed from the rural areas. Thus the country is arranged around a singular urban core and a vast rural periphery. This kind of structure if imagined anatomically, would resemble a gigantic, overgrown head attached to a small and shriveled body (Portes 1990, 1). The primate city arrangement is for the most part a developmental policy that disproportionately affects Latin American countries (Browning 1958, 114). The idea of the primate city was first identified by Geographer Mark Jefferson in 1938 and he thought that this primacy could be achieved in a number of ways, but once it happened, "This mere fact gives it an impetus to grow that cannot affect any other city, and it draws away from all of them in character as well as in size...it becomes the primate city" (Browning 1938, 227). As a developmental strategy it is untenable and has been justifiably criticized by a host of modern geographers. This status was nothing new to Latin American countries, but it was accelerated by changing agricultural policies. Alejandro Portes writes that, "In Latin America, in particular, the population was becoming rapidly urbanized but the process was said to be distorted, in a number of ways, by the common condition of underdevelopment in which these countries found themselves" (Portes 1990, 1). In developmental terms the governments in Latin America that experienced this were attempting to run before they had fully learned to walk.

It is important to understand the reasons for this path towards such lop-sided urban development and the increased divide between core and periphery. Much of the population increase associated with the primate city is rooted in the changing agricultural

policies and practices of Central American countries. Agricultural became more centralized and export-oriented, for instance in Nicaragua during the seventies, “1.4 percent of farms larger than 350 hectares contained 41.2 percent of the cultivated land, but some sixty thousand campesinos [peasants] owned no land at all. Small farms (less than four hectares) account for 36.8 percent of Nicaragua’s farms but occupied 1.7 percent of cultivated land” (Booth 1991, 43). What these statistics show is the culmination of a steady decline in the plot-size of subsistence cultivators and an increase in the amount of land cultivated by larger agricultural outfits. These large cultivators could not absorb all the displaced labor that could no longer survive on subsistence agriculture. This resulted in a migration towards the urban centers, and in the case of Central American countries, only one such city existed. This forced the singular urban hub, i.e. the primate city, to absorb the populations. Most cities were unable to do so, “[Migration] took place without the creation of a sufficient labor absorptive capacity either in the new modernized farms or in the urban industry. The first scarcity was the source of the migration itself, the second led to the growth of a vast ‘marginal space’” (Portes 1990, 2).

The primate city arrangement and the split between core and periphery presents a number of structurally and developmentally difficult realities for the Central American cities in question, and these realities can become politically disastrous when highlighted by a natural disaster. The primate city structure is not good for national resiliency, meaning the primate city does not have the resources to project out into damaged rural areas. Countries like Nicaragua, El Salvador and Guatemala, with their poorly paced developments during the 20th century, did not have the appropriate operational outposts

placed in the rural periphery to adequately offset such intensive urban primacy. A disaster affecting the primate city itself, as in Managua in 1972 is equally disastrous in illuminating the country's shortcomings, because the government has no means of temporarily replacing the vast resources centered in the primate city. Because the rural periphery is so dependent on the services and institutions of the primate city, rural populations that are not affected in an immediate physical sense by the natural disaster will inevitably feel the ramifications of the hazard on the primate city (Linsky 1958, 507).

Accounts to primate city theories suggest that primate cities will only exist when the territory or geographic extent of a country is not so great as to over-stretch the primate city's ability to adequately deliver resources to the periphery, otherwise a secondary urban center will most likely develop to help shoulder the burden (Linsky 1958, 507). But such a development requires the initiative of the national governments to develop other areas, thus the relevant agents must choose to act along those lines. In this sense the overall territorial size of a city must be small enough for one the critical forces in a city to project services. This explanation is inadequate because it fails to take into consideration the extent to which a burdensome physical geography, which is typical of Central America, and vastly underdeveloped roads are area multipliers that expand the territorial size of a nation in terms of its government's ability to project outwards into the rural periphery.

Olson and Olson make note this infrastructural limitation in Guatemala, "The road system of Guatemala is characterized, like most of those in Latin America, by a primary route between towns but few, if any, secondary routes... Basically such services are a 'modern' overlay on a primitive base" (Olson and Olson 1977, 76). Olson and Olson

contend that these limitations exist with regard to utilities and communications and that once the few major linkages were ruptured little could be done in the peripheral regions except wait. The mention of a “modern overlay on a primitive base” is important because it highlights the inadequate expansion of services towards the periphery that make the lop-sided development of the primate city so unwieldy during and immediately after a natural disaster and can lead to a break-down of the national power’s ability to effectively govern.

Natural hazards create a space for the breakdown of the archaic primate city developmental model in two ways: from the core out towards the periphery and from the periphery inward towards the core. The great San Salvador earthquake of 1986 as well as the Managua earthquake of 1972 are examples of the former, while the Guatemala earthquake of 1976 is an example of the latter.

The population of Managua increased from 100,000 people to 500,000 thousand in 22 years (Bommer 1985, 273). This push to the city, driven by the changing agricultural realities that were discussed earlier, did not parallel the expansion of the city’s ability to provide services for either the residents of Managua or the residents of the rural periphery. Managua itself was disproportionately developed in that its residents were economically as well as socially quite different, “North American and European food stuffs might be purchased in a modern, shiny supermarket, and *iguana pitahaya* might be bought from wicker baskets in the Mercado Central. Wood shanties sheltered thousands in the shadow of high-rise bank buildings. The now-dead heart of Managua was archetypical of the contrast in the developing world” (Kates et al 1973, 982). What this illustrates is that modernization occurred in spurts. This is common for most developing

countries and difficult to control from a governmental standpoint, but such uneven economic development embarked on by the national leadership, creates potentially disastrous circumstances for the continuity of the social hierarchy after a natural hazard.

The 1972 earthquake decimated Managua, leaving some 75% percent of housing destroyed, more than 200,000 homeless, and over 90% percent of industry atrophied (Bommer 1985, Kates et al 1973). In San Salvador similar figures emerged from the 1986 earthquake, some 1,500 citizens died and 200,000 were made homeless (USGS). These statistics all point to the inherent problems of primate cities, namely over-centralization and uneven development. Nicaragua at the time of the 1972 earthquake had two million people. As a result of this disaster roughly 10 percent of its industrial capacity, 50 percent of the commercial property, and an astounding 70 percent of the governing capabilities were rendered permanently defective (Kate et al 1973, 985). Thus, a natural disaster such as an earthquake, that directly affects a primate city, also cripples the entire nation-state apparatus to a far greater degree than in a country that with more diffused urbanization and even development.

As previously mentioned, the Guatemala earthquake was a disaster that affected a wider geographical area and not was not necessarily as bad in the capital city. For instance, casualties were reported in 17 out of 22 departments. Thus, the Guatemala earthquake disproportionately affected the rural, primarily native population. Guatemala City was some ten times the size of the next largest city in 1976 and, like San Salvador and Managua, it too was the seat of the majority of the nation's wealth and critical infrastructure. Despite the primate city not being severely struck by the 1976 earthquake, Guatemala had pursued such uneven urbanization and over-centralization of its critical

infrastructure that even an unblemished Guatemala City could not have adequately extended services to the 17 departments that reported casualties. One description of the country accurately detailed this core-periphery split, “It is conventional wisdom that one goes back in time 200 years upon leaving the capital going 100 miles or less into the rural areas. This is a classical Latin American pattern, reinforced in Guatemala” (Olson and Olson 1977, 70). It is also a classic colonial pattern, and the predominance of the single urban core in Latin America is considered by some to be an extension of this legacy. Aside from rudimentary roads, Guatemala also had drastically scant medical coverage throughout its rural areas. A disaster the size of the 1976 earthquake, which measured a 7.5 on the Richter scale, would have required a thoroughly broad supply of doctors, however none such existed, “In 1960 Guatemala had one doctor for every 4,644 inhabitants; by 1975 there was one physician for every 9,000” (Landau 1993, 176). Additionally some 60 percent of the population was illiterate, so any written attempt to alert rural residents to proper procedures at the nearest medical facility would have been for naught. Those statistics exemplify over-centralization and uneven development at the individual scale. This diverts attention away from development of the nation-state as a whole and focuses instead on a single locus of power hoping that the deliberately maligned periphery will naturally follow suite. This points to the erection of a cognitive wall that separates leadership housed in the urban core and the others who exist beyond city proper. In the case of Central America, the existence of this dichotomy created social dilemmas associated with the primate city model and natural disasters that require specific mentioning, separate from the structural and developmental shortcomings.

Natural hazards can act as catalyst in creating a resentment amongst affected populations who were subject to the inadequacies of the primate city model. Disasters act politically with regard to the primate city arrangement by monetarily collapsing the gap between the urban core and the rural periphery, creating a space for the unforeseen interaction of disparate social groups that were kept separate by government development policies. Roger Peterson, a scholar of civil conflict proposed a theory of resentment in his book *Understanding Ethnic Violence* in which a modernizing force alters or removes political institutions and by doing so creates a space in which to examine the social hierarchy. It is from this space or vantage point that a group or imagined community can assess the relative justness of their position, as Peterson writes, “Resentment is the intense feeling that status relations are unjust, combined with the belief that something can be done about it” (Peterson 2002, 51). While Peterson’s theory does not seamlessly align with the examined situations in Central America it does lend adequate background for identifying social dilemmas associated with urban primacy and the occurrence of natural disasters. Natural disasters like earthquakes create a vacuum in the political arena. Additionally, depending on the affected areas (meaning whether it affects the primate city or the rural periphery) there is either migration out of the city into the rural areas or from the rural areas towards the primate city. Both actions lead to the temporary physical clustering of the two population cleavages. It is in this altered spatial arrangement that the communities, as Peterson calls them, are able to judge the properness of their place in the hierarchy. As one would imagine, given the over-centralization of development and demonstrated lack of concern for the rural periphery, resentment emerges as the predominant emotion.

Olson and Olson writing shortly after the 1976 earthquake in Guatemala reported of the unwilling closeness that resulted in the coming together of Indian and *ladino* culture (Olson and Olson 1977, 71). This is supported by the fact that some 300,000 homeless were forced to collect around the capital city in ad lib housing in the immediate aftermath of the quake (Landau 1993, 176). The spirit of resentment that existed in Guatemala City during this period of naturally coerced migration towards the primate city is described well by Olson and Olson, “The disaster laid bare and increased many tensions inherent in Guatemalan society. Many friction points between Indian and *ladino* that were hidden or sublimated by public avoidance are coming to the surface as a result of the earthquake” (Olson and Olson 1977, 71). This idea of laying bare what was once deliberately obscured highlights the natural disaster as a potential catalyst for political change.

The Managua earthquake of 1972 created similar feelings of resentment that were heightened if not brought on by the disparity between the core and the periphery. Scholars have remarked that Nicaragua at the time of the quake exhibited qualities of a split identity, not unlike Guatemala, in which two separate cultures existed in one nation-state and for that matter, one capital city. Kates and other write that:

“Everywhere the poor can see what they might have but can’t afford. When, then, in the middle of the night the walls come tumbling down and windows shattered and the affluent, in the form of hired guards and national guard, were not there to protect these much-desired possessions, the result was almost inevitable” (Kates et al 1973, 988).

It is important to remember that Kates wrote this description only a year after the Managua earthquake, so his understanding of the wildly different cultures was not aided

by significant hindsight. What it displays is that the social structure of the primate city development, this split identity existed in much the same latent state as it did in Guatemala. In El Salvador, the notorious “fourteen families” (albeit, an exaggeration), who were the center of capital and power in the country, have embodied the separation between the urban core of San Salvador and the rural periphery. This split, which existed for decades and forced scores of El Salvadorans to migrate to favela-style towns on the outskirts of town as a result of over-urbanization, was more effectively highlighted by the earthquake itself, than by on-going protracted civil war (Petifford 1995, 153).

In Petersen’s book the research is focused on Eastern Europe, so he strongly argues for the decoupling of politics and economics when dealing with resentment as the origin of conflict (Petersen 2002, 51). The structural dichotomy of the core and periphery provides a means by which socioeconomic standing can be seen as the parameters around which an imagined community is formed.

The critical failures of the primate city arrangement and its relationship to the to the catalyzing ability of natural disasters cannot be overstated. The core/periphery dilemma can lead to problems that are structurally and culturally irredeemable if tested by a natural disaster. Thus it is not necessarily the event that makes natural hazards so disastrous but the made-made social conditions already present. Furthermore, knowledge of the primate city and the phenomenon of over-centralization help to move beyond overly simplistic poverty-based arguments, and create a more complex, spatial understanding of resource and wealth allocation. Thus what is critically important is the spatial relationship between wealth, resources, and capital, not simply the tally of their respective amounts. The more popular but less applicable notion of income inequality

should be replaced, or at least augmented by, a more refined understanding of income and resource distancing as it applies to the spatial arrangement of wealth and poverty.

Corruption and International Aid

Corruption within the governments of Latin America and their peripheral vestiges has long been a stereotype of Latin America. A caricature that was brought into mainstream consciences by American humorist O Henry when he rather famously dubbed Central America a region of “banana republics” because of their history of ignored corruption on the part of semi-benevolent dictators (Pettiford 1996, 289). But as the countries became rapidly centralized leadership became more insular, out-of-touch, and frequently left to its own devices, which lead to greater and greater amounts of corruption.

When a country whose leadership is to some degree corrupt receives aid dollars from larger, developed donor nations, as is common practice immediately after a devastating natural disaster, the donation creates a public awareness that exists locally and internationally about the prudence with which the government allocates those millions of dollars. In a sense, the natural disaster and ensuing aid creates a space in which the government is forced to perform in a certain desired way. Despite the apparent obviousness of this implication, mismanagement of international aid for natural disasters has been the motivating factor in public outcry against corruption in particular, and leadership in general, in Central America. By creating a spotlight, the disaster and the ensuing negligent handling of funds can lead to a disastrous erosion of support amongst

the upper middle class and middle class. This can severely derogate from the support necessary for a government to hold a fractious nation together in the wake of a disaster.

Perhaps no country and no single man in Central America, or the entirety of Latin America is more synonymous with corruption than Anastasio Somoza Debayle. A detailed account of his corruption would likely fill scores of pages and wildly inventive calculations would be required to tally exactly how much he embezzled. Suffice it to say, his history of graft was well established before the Managua earthquake of 1972, and even if most of the Nicaraguan citizens had no hard proof, it was still a latent source of national discontent (Bommer 1985, 283). Immediately after the disaster Somoza erred in two main ways: he made the clean up a for-profit exercise irrespective of the desires of the people and international aid dollars disappeared into government coffers. With regard to the second point, by May of 1973 some 31.5 million dollars (USD) had been sent to Nicaragua and, once all aid money was received, the total peaked at 57 million dollars. Of that amount, only 16 million was ever accounted for and an enquiry into the apparent disappearance of the remaining 41 million was never undertaken (Bommer 1985, 274). Once the Somoza family was deposed the sum total of the Somoza family fortune totaled somewhere between 400 and 500 million dollars.

While the brazen embezzlement of aid dollars under the post-disaster spotlight did create consternation amongst Nicaraguan middle class, it did not create popular displeasure quite the way Somoza's mishandling of the clean-up process did. Immediately following the disaster, Somoza had most of the damaged parts of the city cordoned off and demolished without any discussion with the owners of the houses or stores. Furthermore, he charged the people whose properties were destroyed despite the

absence of their input in that decision (Reyes d'Escoto 1985). Also, after the earthquake Japan offered to handle much of the clean up, free of charge, provided it could keep any resources extracted from the process (this was because Japan is not particularly resource rich). Somoza chose a different direction, "The Nicaraguan government turned the offer down, and the work was carried out by Nicaraguan companies, many of which were at least partially owned by the President, who simply pushed the debris into Lake Managua" (Bommer 1985, 271).

Somoza further drove a wedge between himself and the Nicaraguan people by insisting on being the only dispenser of food, "All others had to cease doing it or else come under government supervision. As a result, it took much longer than usual for organization in the food distribution process to develop" (Kates et al 1973, 987). This point made by Kates and others essentially links the structural problem of over centralization with the issue of corruption as a result of the storm.

In Guatemala there was not the same kind of effusive pilfering as in Somoza's Nicaragua (Olson and Olson 1977, LaFeber 1985). Although some authors, namely Landau, assert that embezzlement on the level of Nicaragua did occur, this opinion is not widespread amongst critical observers of the region. There was corruption of another sort. Two years after the 1976 earthquake national elections were held. At the time, discontent surrounding the handling of the disaster increased and potentially threatened the government in a public election. The fraudulent manipulation of the 1978 election hardened resistance on the part of the rural population as well the thousands of peasants who were still huddled in squatter settlements outside of Guatemala City (Booth 1991, 57). Poor distribution of relief money, which was commonplace in Guatemala, amounted

to a brand of corruption, in which the conscientious withholding of funding from rural Maya was perceived as a slight towards Indian citizens. This again puts corruption in the context of the city state arrangement of Central America, in which the core's pronounced spatial separation from the periphery manifests itself in corruption, and only through the unforeseen occurrence of a natural disaster could such a split be highlighted.

The Mexico City earthquake of 1985 registered a disastrous 8.1 on the Richter scale. While an earthquake of such magnitude would have caused serious problems even for a developed country, the mismanagement and corruption exhibited by the *Partido de Revolución Institucional* (PRI) and exposed by the public awareness created in the aftermath of the natural disaster generated harmful political consequences for the ruling party. Corruption was deep seated, "Internal problems also worsened. Government corruption, unfair taxation, and inadequate food supplies marked much of Mexican life" (LaFeber 1993, 216). Reports of PRI party members and loyalists receiving favorable treatment added to the indignation of having the capital and primate city torn apart. Julia Preston, who coauthored *Opening Mexico* about the return to multi-party politics in the country, wrote about the formative experience that the earthquake was in first highlighting PRI corruption. Once again, a space was created by a natural disaster in which civil society could take root, "Failure of the government to respond to the earthquake brought out a whole unorganized popular movement in Mexico City. The nature of the PRI system was demobilizing...[it] was to make Mexicans believe that they had no political initiative of their own outside of the system. After the earthquake in 1985, there was an upsurge of what we call civil society" (Preston et al 2004).

While these collective experiences of corruption and government ineptitude might be informative, their connection with natural disasters as a catalyst of political change has yet to be firmly established. As previously mentioned, the discovery of corruption in the wake of a natural disaster is particularly decisive in bringing to fruition latent discontent within Central America's small but important middle class. Corruption and over-centralization did not breed confidence and the 1972 earthquake increased the uneasiness of the Nicaraguan business community, "the monopolization of the process of reconstruction led to discontent amongst many Nicaraguan businessmen, who began to complain of 'competencia desleal' or disloyal competition" (Bommer 1985, 274). During the 1960s Nicaragua businessmen looked the other way at most of Somoza's exploits, and he could count on their support against rural citizen's groups. However the growing awareness of his corruption in the wake of the earthquake broke the capitalist class away from Somoza, "the aggressive expansionism of the Somoza faction began to undermine the relative positions and profits of other investor groups...Debayle's formerly growing backing among the upper classes began to break down during the mid 1970s, thus arresting the development of the bourgeoisie" (Booth 1991, 44).

Regardless of the scholarly semantics, the unification of the business class and the poor wage laborer was a rare thing in Central America. However, the awareness of abject corruption at such high levels of government can lead to such an unforeseen union, Booth writes that, "After the Managua quake CEBs and Protestant self-help groups among the urban poor proliferated rapidly. Economic decline stimulated the formation of Nicaraguan private-sector pressure organizations and fueled their increased calls for political and economic reform, especially after 1974" (Booth 1991, 49). Also in

Guatemala, where corruption was more frequent in elections than in public finance, the continued meddling in elections in 1978 and again in 1982 after the 1976 earthquake solidified consternation on the part of the rural, leftward leaning poor as well as within the centrist, reform-minded political parties (Booth 1991, 51). All of which leads to the mobilization of the civil-society. This only comes to bare when a something like a natural disaster opens up a space where the separate segments of a society reevaluate the status quo political practices, i.e. monopolization and corruption, that were synonymous with the leadership class of Central American countries.

Violence and Split Sovereignty: Misreading Mobilization as Subversion

Pelling and Dill write that, “[Disasters] act as catalysts that put into motion *potentially* provocative social processes at multiple social levels. The character of political change is influenced by the nature of the pre-disaster socio-political milieu” (Pelling and Dill 2006, 2). Re-stated in the terms of this particular work, disasters change potential energy into kinetic energy. This act of conversion is perhaps most obvious in the generation of extra-governmental initiatives (community groups, religious organizations, unions, etc.), and the concurrent interpretation of those movements as subversive on the part of the government. Natural disasters, particularly earthquakes, initiate two systemic changes that lead to these political developments: first, they create a monetary power vacuum in which civil initiatives grow in the absence of government intrusion; second, and by virtue of the power vacuum, a split-sovereignty emerges as a result of these civil initiatives that challenges the control of the state. Split sovereignty is

a difficult thing to achieve, but the immediacy and unpredictability of natural disasters increase the chances for the development such a political situation.

First, an understanding of the power vacuum and the idea of split sovereignty must be developed before addressing evidence of the specific events in Central America. The concepts of power vacuums, a fundamental theory of politics and international relations, has been a commonplace understanding for many years. It refers to the rapid decline or outright collapse of political power, usually the national government or a global hegemony, that creates a void absent of any kind of governing force. Natural disasters have a tendency to precipitate this situation, although it is usually only ephemeral and has no real consequences for developed nations and most developing nations. However, in Central America, where the primate city model predominates, a natural disaster that disjoins the core from the periphery can create a power vacuum that lasts long enough and is pronounced enough for legitimate re-ordering and re-evaluation to take place.

Once a power-vacuum comes into being and exists long enough for a group or even a charismatic individual to coalesce influence, a situation of split-sovereignty can develop. Pelling and Dill refer to these movements as “spontaneous collective action” (2006, 4), and they essentially replace the absent or incapacitated government. Religious groups, which are predominantly Catholic, are perfect examples of this, as they frequently assist with the recovery and rebuilding phase in rural areas where the overly centralized government might be absent. In Central America the presence of these extra-governmental organizations was by no means novel in the 1970s and 80s. Their development usually followed a progression, “Ordinary citizens typically first attempted

easier, more acceptable actions (community self-help, petitioning government, organizing) before turning to more confrontational, higher-risk actions like protests, strikes, or support for armed resistance” (Booth 1991, 49), and these movements had a history of being suppressed throughout Central America.

Because of this history, the early developments of a fragmented sovereignty rarely lasted. But the ability of natural disasters to create protracted power vacuums provided sufficient time for popular mobilization to take place and sufficient anger towards the power center to draw upon (the latter is essential to the development of armed elements and violent civil conflict). Out of this, a discernable splitting of sovereignty could emerge that had the ability to threaten the overall power of the state. Stathis Kalyvas wrote about split-sovereignty as it applies to civil war, but his understanding of it can also apply to natural disasters as catalyst for civil unrest. He writes that, “The fragmentation of space reflects the fact that irregular war alters the nature of sovereignty in a fundamental way. At its core lies the breakdown of the monopoly of violence by way of territorially based armed challenge” (Kalyvas 2006, 88). His allusion to Weber’s definition of monopolized violence is what nations fear most about split sovereignty and why many choose violence, often times against civilians, to suppress the continued growth and popularity of what began as “spontaneous collective action.”

Guatemala has long had a history of movements that threaten the political establishment. The most well known is perhaps the coup against President Arbenz in 1954 but examples of Marxist guerilla organizations that were swiftly put down existed throughout the 1960s (Booth 1980). Thus, social mobilization was never historically allowed to gain solid footing in Guatemala. The earthquake of 1976 altered this reality. It

is tragically comedic to read some of the initial commentary and prognostications about what *needed* to be done in the immediate aftermath of the earthquake, “It would also be tremendously interesting to see how much effort and funds are allocated to reconstruction of predominantly Indian villages versus how much is allocated for predominantly *ladino* towns” (Olson and Olson 1977, 80). Despite the naiveté of the passage it shows that the area most in need of assistance was rural and populated by Maya descendants. What history tells us is that barely anything was attempted on a governmental level to assist in the rebuilding, “Following the 1976 earthquake in Guatemala, the military dictatorship focused rehabilitation on the capital city, ignoring severely damaged rural Maya communities. Abandoned by the state, local organizations adapted to new community needs and continued working past the search and rescue phase to coordinate rebuilding” (Pelling and Dill 2006, 4). The military regime’s response to this development was violent repression. In that campaign the army massacred several entire villages, committed numerous atrocities against suspected guerilla supporters, and forced widespread relocation” (Booth 1991, 59). Additionally, violence within the primate city was directed at leadership—professors, student leaders, anyone who would typically be associated with subversive behavior. Despite the violence that was meant to beat back popular mobilization born out of post-earthquake indignation, enlistment in guerilla movements grew. By 1982 some estimated four thousand guerilla fighters were hiding in the highlands of Guatemala. This shows how violent situations of split sovereignty can become.

In Nicaragua, a similar history of popular mobilization and rebel groups being put down pre-dated the 1972 Managua earthquake. Only the *Frente Sandinista de Liberación*

Nacional (FSLN or simply Sandinistas) was able to maintain their existence during the decade before the earthquake, all other rebel groups had been squashed by Somoza. Only after the Managua earthquake did any movement sustain momentum. As in Guatemala, the earthquake created a momentary vacuum in which the absent government response was replaced by non-governmental mobilization efforts. “Efforts were made by people both in the cities and in the camps to organize committees to distribute food and health care from centres set up in tents supplied by Oxfam” (Bommer 1985, 273), but any and all attempts were put down by the National Guard. It has already been mentioned that corruption under Somoza led to desertion on the part of the business-class, but many were also disheartened by political violence directed at civil initiatives. For instance in 1978 the assassination of newspaper editor Pedro Joaquín Chamorro bled Somoza of middle-class support. Furthermore, the National Guard’s brutal disbanding of massive strikes and revolts later in 1978 helped to fuse the earlier disparate wings of the FSLN. This coalescing effect that made the FSLN movement multi-class further illustrates how violence aimed at civilians as a result of the emerging split sovereignty only strengthens the social cleavage (Pettiford 1995, Kalyvas 2006). Thus the combination of a power vacuum, resulting from the earthquake and violent repression on the part of the Somoza government, *increased* opposition and created conditions in which a party representing a far broader set of values than is common for a guerilla organization was able to mature. Because of this, “The Managuan earthquake of 1972 is considered a major factor in turning the Nicaraguan bourgeoisie against Somoza” (Pettiford 1995, 151).

Like the other unevenly developed Central American countries, El Salvador has an oligarchic political system, “No oligarchy was ever so entrenched as that of El

Salvador. That there were fourteen families that controlled everything was gross exaggeration, but that the people would believe that *los catorce* existed suggests something about the nature of the Salvadoran society” (Anderson 1984, 119). While the 1986 earthquake in San Salvador occurred in the midst of ongoing civil conflict, and thus is not as causally significant as the Guatemalan and Nicaraguan examples, its reputation as a “political quake” (Pettiford 1995) should not be ignored.

Analogous to the previous countries, El Salvadoran citizens mobilized to provide help and resources for themselves in the wake of the earthquake. “Two years after the earthquake, the government had made almost no progress...many *damnificados* came together at the local level to organize the distribution of food aid and emergency supplies from the Church and International agencies” (Pettiford 1995, 153). In a country already embroiled in a civil conflict, such mobilization would have never been allowed to take place, but in the vacuum created by the earthquake such mobilization did take place, and it enhanced the development of the split social cleavage that was opposed to the political and military leadership. While these movements frequently get lost in even the most recent accounts of the El Salvadoran experience (see Aldeida 2008), the way in which the 1986 San Salvador earthquake created a critical opening for social mobilization and the coalescing of forces should not be discounted in any future analysis of the nation’s civil war.

Honduras has as of yet not been discussed in any substantive way. This is not because it has never experienced natural disasters; the first chapter on historical experience of natural disasters is enough to refute any such notion. It is true though that while Nicaragua, Guatemala, and El Salvador experienced violent civil conflict;

Guatemala and Costa Rica for the most part did not. For instance, Guatemala was ravaged by hurricane Fifi in 1974 and roughly 40 percent of the critical banana harvest was destroyed (Pettiford 1995, 149). Shortly there after, in 1975, military officers massacred fourteen protesters. While such actions might have been overlooked or even justified by the other three countries, Honduras tried, convicted, and imprisoned the army officers implicated in the slayings (Millett 1984). While it is difficult to assert that the protesters were active as a result of the hurricane, their activity in close proximity to Fifi might have worried government officials about split sovereignty. By respecting the rule of law, Honduras was ultimately able to decrease political volatility amongst the mobilized masses, and reduce the possibility that any such mobilization becomes violent (Booth 1991, 53). It should be noted that this occurred under predominantly military rule, which in part questions notions that authoritarian regimes are more inclined to ignore risk and punish opposition (Pelling and Dill 2006, 4).

Recommendations and Conclusions

-Recommendations

The political and social upheaval that was so widespread during the 1970s and 80s did not stop once the 1990s began. Very rarely do tumultuous periods conclude in such an orderly fashion. Instead, the following two decades have been marked by hard-fought progress and frequent setbacks for the region as a whole. There are some recommendations with regards to government policy and disaster planning that could help to curtail the ill effects of a natural disaster and potentially roll back some of the systemic developmental realities that plague the region.

As discussed extensively in the third chapter and mentioned with regard to other chapters afterwards, the difference between the urban core and rural periphery is a source of a number of logistical problems for the Central American countries. Of all the countries mentioned in this thesis, only Costa Rica does not have a primate city. There are a number of potential long-range solutions to this problem and to effectively articulate them would amount to another extensive undertaking. Land distribution is consistently brought up as a way to mitigate the lopsided development, but resistance to it within the countries and internationally is longstanding and well documented. In the mean time, an injection of funding that would extend critical infrastructure, medical facilities, and public works projects would help to close the gap, developmentally speaking, between the two disparate areas.

Three other changes have shown to work in bridging the gap before development is more evenly diffused throughout the nations. One way is to allow greater autonomy and leeway to non-governmental organizations, like Oxfam and Red Cross to help coordinate relief efforts in rural areas. One difference about Honduras' preparation for Hurricane Mitch is that they somewhat begrudgingly allowed relief organizations and medical missions greater access and leeway within the country. But this allowed them to shrink the gap between the central urban power center and the rural periphery without having to embark on any capital-intensive investments. Despite the destruction brought on by Mitch, the policy decision proved beneficial as relief was more quickly and equitably dispersed (Pelling and Dill 2006, 5). In 1982, Nicaragua experienced extensive flooding throughout the country. Weakened by a costly on-going civil conflict, the government created local civic partnerships to offset its inability to project resources and

assistance out into the rural areas (Bommer 1985, 275). This initiative was reasonably successful. A third change is to re-focus the military on what the US calls MOOtWa (Military Operations Other than War). This would essentially mean preparing the active military and National Guard to practice in much the same way that the US National Guard does for natural disasters.

From a scholarly perspective, much progress can be made with regard to understanding natural disasters from a political standpoint, particularly as it relates to developing countries. Pelling and Dill's work on natural disasters, cited extensively in this thesis, is a good initial step towards that understanding, but more has to be done. For instance there is very little existing work on the relationship between disaster-prone areas and export agriculture that is based extensively on monocropping. Also, much of the existing work on Central America is still firmly rooted in the Cold War and how the region factored heavily into both superpowers' grand strategy. Perhaps examining natural disasters as catalysts for political change is a new window through which to view the region in the post-Cold War era.

Conclusions

While some causes of conflict wax and wane in terms of their prevalence in the international arena, natural disasters, for obvious reasons, have no chance of fading from probability. Thus, the ability for natural disasters to act as catalysts for political change will continue for the foreseeable future, and should be grounds for a redefinition of what constitutes security and security studies in this relatively new century. Also many of the existing circumstances that were discussed in this thesis are still present in most Central American countries, as well as those in South America. Urban primacy and the

preeminence of the primate city show little sign of lagging. Projections on the disparity between the urban core and rural periphery show the continued growth of the primate city (Portes 1989). Since the 1980s, the cities in question have only grown larger, and Mexico City is among the largest in the world. Such a projection of continued lopsided development enhances the relevance of this thesis and argues for further research into the ways in which natural disasters can lead to political effects.

Urban primacy along with corruption and state violence are not the only examples of “pre-disaster social milieu,” as Pelling and Dill call them, which can have an effect on the political status quo. As mentioned earlier, economies based on extractive industries, namely export agriculture, could be at higher risk for political changes catalyzed natural disasters. Also, developmental policies outside of the primate city model could potentially be exposed by natural disasters’ ability to create a space for the re-evaluation of state policy and subsequent reaction against it (Pelling and Dill 2006, 5). These along with others are avenues by which the full catalytic potential of natural disasters can be understood. Through policy discussions, academic debate, and actual ground-level trial and error can results be produced that allow for individual nation states to better prepare for the full potential of natural disasters. This requires that the various actors within a country who are the actual agents of policy acknowledge that much of what makes natural disasters so disastrous in a scalar sense, has more to do with man-made sociopolitical dynamics than the actual hazard itself.

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