

# Developing Honduras

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Poverty and Development – Professor Bruce Moon

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## Introduction

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Honduras, like many countries in Central America, finds itself thoroughly entangled in the development debate, having served as a metaphorical lab rat for the development experiments of western 'economic doctors.' However, as is evident by the inequality that continues to exist in the international system, not only economically but also socially, it is clear that a cure has yet to be found.

Honduras, as one of the many countries often described as 'undeveloped' or 'underdeveloped,' exhibits symptoms such as substandard social and economic living conditions. It is our goal to address these symptoms, to understand their causes, and ultimately find a treatment that permits the development of Honduras. By identifying the key factors that are preventing Honduras from developing, we hope to formulate prospective solutions that will in turn allow Honduras to increase the quality of life for all of its citizens.

Given the enormous scale of this undertaking, the structure of our approach is critical. First, we provide a brief overview of Honduras, painting a picture that allows the reader to better understand the context of our research. Following that, we briefly describe existing theories of development, with the purpose of explaining, through constructive analysis, our own concerns for the prevailing thought. We then provide our own definition of development, which was formulated using both existing and outside theories, inclusive of political theories and policies that shape the international political, economical and social system.

To apply the theory discussed, we use available data to measure development and in turn formulate a picture of the factors affecting Honduras and its citizens the most. This research, that follows the structure emphasized by our definition of development, addresses both cross-sectional and longitudinal studies to best understand the issue at hand. From this understanding, we will be able to argue for the critical components that are inhibiting development in Honduras.

The second section our paper will attempt to answer the question that inevitably follows the first; if we know the factors that are most pertinent to the development of Honduras, what are the existing limitations and favorable conditions that will provide the parameters for our potential solution? By addressing land, labor and capital – the factors of production – and understanding the economic, political and social conditions as they currently exist, we are able to better understand how the variables will limit our solutions. Is there an unmet need for any of the above factors? Will we require a top-down, systematic solution or a bottom-up, localized one? The answers to these questions serve us by allowing the creation of a cure that has the best chance of success.

Our paper will conclude by using the limitations currently present in Honduras to help form possible project ideas and policy solutions that address the basic needs of Hondurans on a local level. This paper will then set the state for our specific project that we design to meet the threatened basic needs and that we will execute while in Honduras.

## Basic Information about Honduras

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At 112,090 square kilometers Honduras is the second largest country in Central America. With a roughly triangular shape Honduras has three immediate neighbors: Guatemala in the North West, El Salvador in the South West and Nicaragua in the South East. Honduras also borders the Caribbean Sea in the North and the Pacific Ocean in the South with a total coastline of 820km; however, the vast majority of that coastline lies in the North along the Caribbean. The topography of the land is almost 80% mountainous with many meandering rivers weaving throughout the country.



As the second poorest country in Central America and one of the poorest countries in the entire Western hemisphere, Honduras faces an abundance of economic problems, exemplified by the fact that approximately 3.7 million of the 7,483,763 (2007 est.) inhabitants are living below the poverty line. Further problems in the economy arise from foreign debt and dependence. With about 34% of the labor force of 2.779 million in the agricultural sector, GDP per capita stands at \$4,300, ranking 148th out of 229 countries in the CIA's world fact book. The unemployment rate is around 27.8%, aided greatly by the maquiladora sector, which has brought many industrial jobs to Honduras, but further increased its dependency on the United States.

Honduran human geography is greatly shaped by its history of colonialism. Honduras gained independence from Spain in 1821 and became a democracy in 1982. The people of Honduras now are 90% mixed Amerindian and European (mestizo), 7% Amerindian, 2% black and 1% white. While the official language is Spanish, other Amerindian Dialects are also spoken, mostly in rural areas as a result of the indigenous population. The religious composition, heavily influenced by Spain, is 97% Roman Catholic and 3% Protestant.

The Honduran government consists of a Democratic Republic led by a President and is located in the capital of Tegucigalpa. The country is divided up into 18 Departments, similar to our states, with departmental and municipal officials. Within the government there are three distinct branches - the Executive, the Legislative, and the Judicial. The President, who is elected every four years by a popular vote, serves as both Chief of State and head of the government.

President Jose Manuel Zelaya Rosales of the Liberal Party, traditionally representative of urban interests, came to office peacefully on January 27, 2006.

## **Existing Definitions of Development**

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Existing theories on development have resulted in four principle definitions, all notable for their prevalence in existing policy applications, from national foreign aid contributions to the actions of the United Nations and other supranational governmental organizations. The definitions of development - economic growth, economic growth and social change, human development and liberation - all focus on different areas without consideration of the whole, which is only illuminated by a combination or comprise of these four theories. On their own, none of the aforementioned definitions are adequate to describe development (Goulet 1971: 544, Moon Lecture 1.22.2009).

Before discussing our own definition of development we must show why we disagree with existing theories. The first definition, economic growth, is too narrow due to its reliance on GDP as the sole factor in measuring development. GDP growth is a useful indicator of development trends, but it is not the only indicator. As Paul Krugman notes, "It never happens that one finds a country with a low level of GDP that one would want to call developed, or one with a low growth rate that one would call a development success" (Krugman 1995, 719). Krugman also points out, however, that GDP growth is a one-dimensional measure for a complex process (Krugman 1995, 719). Thus, even though positive GDP growth is correlated with other factors such as declining infant mortality rates, it is the social investment in health-care and poverty

reduction that is the cause (Moon Lecture 1.22.2009). Although GDP indicates income disparities on a national level, it does not represent income distribution *within* a country. Economists have argued that GDP, despite its faults, is at least an objective measure; even this is contested by its variability when the currency is converted for international comparison (Moon Lecture 1.22.2009). Thus, GDP growth cannot stand alone as a measure of development.

The second definition, economic growth and social change, improves upon the sole use of GDP growth because it examines structures *within* a nation. It highlights the structure of the economy in terms of division of labor and the proportion of citizens in different sectors of the economy, as well as urbanization, and other factors (Moon Lecture 1.22.2009). Although this theory of development is more multifaceted in its approach than the use of GDP growth alone, it still examines structures at a macroeconomic level. Examination of social change may illustrate informative societal trends over time, but it gives little insight into the experience of people in their daily lives.

A third definition, as championed by Goulet, replaces the language of development with a new lexicon of liberation. This perspective emphasizes the importance of self- development and discredits foreign aid as a path to dependency (Goulet 1971, 545). "Such liberation aims at freeing men from nature's servitudes, from economic backwardness and oppressive technological institutions, from unjust class structures and political exploiters, from cultural and psychic alienation- in short, from all of life's inhuman agencies" (Goulet 1971, 548). Proponents of liberation idealize a world where humans have the choice of who they want to be and what



they want to do (Moon 1.22.2009). Self-determination in this sense is very much the ideal objective in our own definition of development; however, while we believe this definition is admirable, it lacks practical application. In the words of Dudley Seers, the “Importance [of political liberty], though high, is secondary so long as a substantial fraction of the people are undernourished and unemployed” (Seers 1969, 11).

The fourth and final conception of development is human development, an approach championed by Amartya Sen. Human development emphasizes the quality of people’s daily lives (Moon Lecture 1.22.2009). “For Sen (1999), development involves reducing deprivation or broadening choice” (Nafziger 2005). Dudley Seers takes a similar approach (Seers 1969, 7). He states that the correct measures of development are reduction of poverty, unemployment and inequality. Bruce Moon drives home the importance of meeting basic survival needs as a crucial component of any kind of real development to take place (Moon 1991, 8). Although an important counterpart to the liberation theory, human development does not fully explore the implications of development on a societal level.

Each of the four schools of thought discussed here are limited in their scope; however, each has made contributions to our own comprehensive definition of development. In their theory of human development, Welzel, Inglehart and Klingemann claim, “Growing individual resources enable people to move beyond a narrow focus on obtaining the means to survival, leading people to place increasingly high priority on self-expression and human choice” (Welzel 2001,

6). Using this rationale, we have integrated theories of socioeconomic growth with those of human development and liberation.

## **Defining Development**

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We define development as the process by which citizens of a state acquire the capacity to provide for their own essential physiological, security and educational needs on a daily and long-term basis so as to significantly reduce barriers to their own self-determination.

First we must identify the difference between development and survival. In this paper, meeting the requirements for survival means meeting basic needs. One cannot begin the development process until basic physiological needs are secured, including food, water, and shelter. Development is the satisfaction of all the needs outlined in our hierarchical structure; however, meeting those needs is not a chronological process, rather it is a checklist that has no definite order. Once the basic foundations are in place, a country can develop in ways that will lead to educational, social, economic, and political self-determination.

In searching for a structural basis for our definition of development, we found that the work of Abraham Maslow, specifically his article "A Theory of Human Motivation," provided an interesting starting point, despite its focus on individual development. Maslow describes a hierarchy of human needs, beginning with physiological needs and concluding with the need for self-actualization. As Maslow argues, human needs increase in a progressive fashion, with the basic needs requiring satisfaction before an individual can progress to the next level of self

development. In his article, Maslow states the primary human needs as "physiological needs," including breathing, food and water. He emphasizes that, "in the human being who is missing everything in life in an extreme fashion, it is most likely that the major motivation would be the physiological needs rather than any other" (Maslow 1943, 5). This idea is echoed in existing work on developmental theory, notably that of Dudley Seers and Amartya Sen. As Seers notes, "if we ask what is an *absolute* necessity for [development], one answer is obvious – enough food" (Seers 1969, 7). For Sen, the ultimate goal may be freedom, but the only way to achieve development is "overcoming deprivations" (Nafziger 2005, 8).

Once achieved, Maslow claims that people aim to satisfy their safety needs, which include the security of the health, employment, resources, body and property. Maslow concentrates his thoughts rather precisely on the following: "One main implication of this phrasing is that gratification becomes as important a concept as deprivation in motivation theory, for it releases the organism from the domination of a relatively more physiological need, permitting thereby the emergence of other more social goals. The physiological needs, along with their partial goals, when chronically gratified cease to exist as active determinants or organizers of behavior" (Maslow 1943, 6). Although it could be argued that social considerations, such as pride and dignity, could be considered as important as the physiological needs, we side with Maslow by standing by the opinion that these basic needs must be met first before all else.

Given our criticisms of existing definitions of development, Maslow's hierarchy offers a unique structural opportunity for organizing the numerous elements we believe belong in a

comprehensive definition of development. At each level in the hierarchy, we have identified the elements most relevant to the measurement of development by our definition. Using these measurements we have analyzed the different indicators that fit our definition to come up with a review of the state of Honduras in terms of development.

## **Methods of Comparison**

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As we analyze the level of development in Honduras, we believe there are two key comparisons that require consideration: cross-sectional comparisons against other countries and regions as determined by primary indicators and longitudinal comparisons for the noted country.

The first set of comparisons focuses on a cross-sectional study against notable aggregate statistics. First, and most broadly, Honduras is compared against the global average. This provides a rudimentary understanding of the country's development as compared to all other countries. From here, the next comparison is made on a regional level. The regions commonly accepted and noted in the leading sources of data include: East Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, North America, South Asia, Sub-Saharan Africa (World Bank Online 2008). As Honduras is included within the Latin American measurement, it makes sense to draw comparisons against this aggregate measure as a way of comparing Honduras to its surrounding countries. Finally, it is also possible to measure a country against others by utilizing commonly found indicators. In our case, we felt it appropriate to compare Honduras to countries of a similar GDP within its own region. As such, this is completed utilizing a sample consisting of Low-Middle Income countries

within the Latin American and Caribbean region.

The importance of providing comparisons between the country of interest and other countries and aggregate data are numerous; however, a few are more evident and important than others. First, efforts to develop are often inherently linked with both global and regional factors. As such, it is necessary to analyze a country's development within the context of the global environment, for example when concerning economic activity, as well as on a regional level because countries may be inhibited by local restraints. Comparisons to other countries, especially those on a regional basis, also permit a greater understanding of what opportunities and difficulties may occur when development ideas are considered. Within a given region, it is often likely that what succeeds or fails in one country may follow a corresponding fate in another, due to political, economical, social and cultural similarities.

The second form of comparative study is based on Honduras over time. For data collection purposes, we believe a period of nearly thirty years would help capture changes within the country. Our aim is to collect data on an annual basis for the majority of measures from 1980 until the present, as we feel this provides an appropriate compromise between the depth of the data and the quantity suitable to our time constraints. For more important measures, we will source the data over a much longer time period; however, given the sources of data, it is unlikely that any data collected will precede the creation of the World Bank and/or the United Nations.

In looking at longitudinal statistical changes, we believe we will be able to acquire knowledge above and beyond that offered by the most recent data. First, data over a significant period take into consideration critical events that can affect a country's measurements. For example, for Honduras, Hurricane Mitch in 1998 had a critical impact on the nation, and we expect the data to mirror this. More importantly, we believe looking at longitudinal data allows us to see if the country has been improving or deteriorating with regards to individual measures. Given our desire to help the nation improve, it makes sense to focus on measures in which the country is worsening, rather than those where the country is improving, and thus likely witnessing success in its own programs.

## **Measuring Development**

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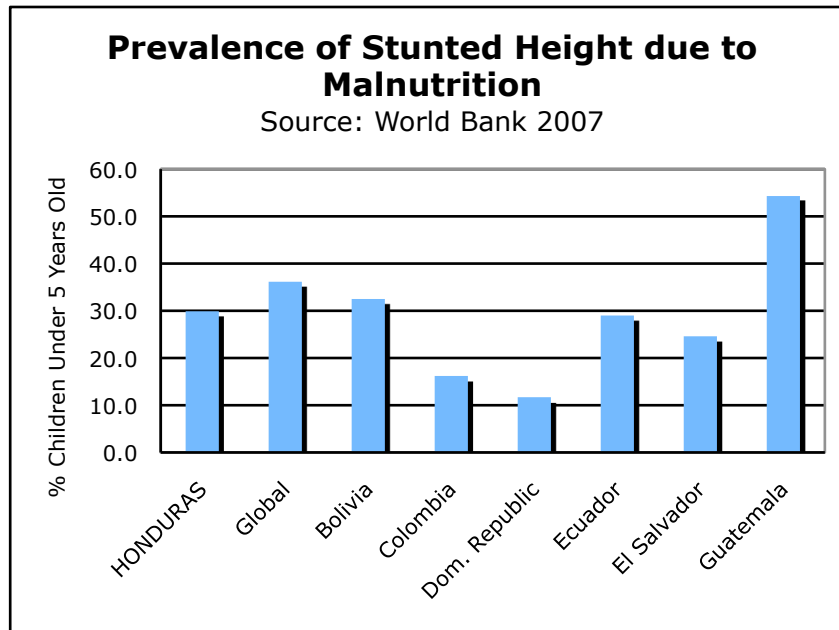
Given our definition of development, it becomes appropriate to measure “development” as it pertains to Honduras. This is a three-stage process beginning with the sourcing of data deemed relevant to the different components of the definition. Following the sourcing of the necessary data, as constrained by the methodology outlined, it is then possible to analyze the data so as to determine how developed the country is, along both cross-sectional and longitudinal parameters. This analysis allows conclusions to be drawn with regards to areas of achievement and limitations within the country and to provide an encompassing perspective on where the most prominent issues lie. Finally, the sourced data also permit an analysis of how the country is doing based on its recent record of development performance. This further adds to our knowledge of the country and again contributes to the conclusions we can draw as to where development efforts would be best applied.

Based on our structure of development, the following section is organized along the hierarchical basis drawn from Maslow's work and our subsequent definition of development. The three components include basic needs (physiological needs), secondary needs (security of health, employment, resources and body) and tertiary needs (education).

### **Basic Needs**

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Before pursuing any other activities people must satisfy their basic physiological needs. Therefore, the most fundamental goal of development, as we have defined it, is ensuring that these needs are met on a daily basis. Maslow identifies breathing, food and water as basic physiological needs (Maslow 1943, 4). We acknowledge that polluted air, unbalanced diet, and contaminated water may sustain life in its most minimal form. However, we set a higher standard for our primary rung in the development ladder because without meeting these needs people are not self-determining, a central goal of our definition of development. To measure development we adapted Maslow's factors into four principal needs: (1) sufficient caloric intake including essential vitamins and nutrients; (2) access to potable water; (3) clean air and (4) shelter from the natural environment.



The first step in assessing the level of nutrition in a country is to establish the minimum dietary energy requirement for people in that location. The Food and Agriculture Organization of the United Nations (FAO) provides a kilocalorie per person per day minimum for each country, below which people are considered undernourished. For Honduras, this was 1720 kcal per day in 2004 (FAO 2009). To complement this measure, the World Bank provides an indicator of the prevalence of undernourishment in a population.<sup>1</sup> In 2004, they reported 23% of the population of Honduras was undernourished (World Bank 2007). This was more than double the undernourishment rate in Latin America as a whole in the same year, and more than three times the rate in Ecuador, a country of comparable income in the region (World Bank 2007).

<sup>1</sup>“Population below minimum level of dietary energy consumption (also referred to as prevalence of undernourishment) shows the percentage of the population whose food intake is insufficient to meet dietary energy requirements continuously” (World Bank 2007).



Nutrition is more complex than caloric intake; therefore, we must take into account dietary composition. On a positive note, 10% of the Honduran diet is composed of protein; the FAO states that the average person's dietary needs can be met with 8 to 10% high quality protein (FAO 2009). In addition to protein, both Vitamin A and iodide are essential nutrients in child development. The World Bank reports that a full 80% of households were consuming iodized salt in 2002 (World Bank 2007). In contrast, they reveal that the coverage of Vitamin A supplementation to young children<sup>2</sup> in Honduras was only 40% in 2005, which is a 21% decrease from 2003 and less than half the coverage provided in nearby Nicaragua (World Bank 2007). These elements of nutrition become meaningful when we observe the prevalence of malnutrition in the country. The World Bank states that 29.9% of Honduran children's heights were stunted in 2006 as a result of malnutrition.<sup>3</sup> This type of malnutrition is more prevalent in Honduras than in Columbia, El Salvador, the Dominican Republic and Ecuador, all countries of comparable income in the region (World Bank 2007). "The most serious nutritional problems are found in the western rural areas of the country, where the prevalence of chronic malnutrition is 59.5% and that of overall malnutrition is 32.5%. This situation is closely related to the high poverty levels (96.1%) in that area" (PanAmerican Health Organization 1998, 6).

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<sup>2</sup> "Vitamin A supplementation refers to the percentage of children ages 6–59 months old who received at least one high-dose vitamin A capsule in the previous six months" (World Bank 2007).

<sup>3</sup> "Prevalence of child malnutrition is the percentage of children under age 5 whose height for age (stunting) is more than two standard deviations below the median for the international reference population ages 0–59 months" (World Bank 2007).

It is important to observe that although the data is provided at the national level, nutritional needs are not being met evenly within Honduras. Per capita food consumption<sup>4</sup> in Honduras was 2590 kcal/day in 2003 (FAO 2009). This is far above the standard set in the minimum calorie consumption discussed above, so why are so many people still undernourished? This indicator is calculated by dividing the total consumption of food by the population, which disguises the disparities among Hondurans. The FAO's "coefficient of variation of dietary energy consumption" illustrates the level of disparity within the country, zero meaning perfect equality and one hundred meaning perfect inequality.<sup>5</sup> For Honduras, this number was 32 in 1996. This indicates that there is more variation in Honduras than in all of the Latin American countries of comparable income between 1972 and 1996 (World Bank 2007). Together these indexes show that there are great inequalities in the distribution of dietary requirement among citizens of Honduras.

It is clear that nutritional needs, even minimal calorie requirements, are not being satisfied in many parts of Honduras. More than one-fifth of the population is composed of undernourished individuals who exist in pockets throughout the country. This uneven distribution of undernourishment makes food aid plans easier to implement, since the well-fed individuals

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<sup>4</sup> "The food consumption refers to the amount of food available for human consumption as estimated by the FAO Food Balance Sheets. However the actual food consumption may be lower than the quantity shown as food availability depending on the magnitude of wastage and losses of food in the household, e.g. during storage, in preparation and cooking, as plate-waste or quantities fed to domestic animals and pets, thrown or given away" (FAO 2009).

<sup>5</sup> "The coefficient of variation of dietary energy consumption, is defined as a composite of the coefficient of variation of dietary energy consumption due to income (CV\_I) and the coefficient of variation of energy requirements (CV\_R) as follows:  $CV_2 = CV_{I2} + CV_{R2}$ . The CV\_I is estimated using household Survey data. The CV\_R is estimated using demographic and anthropometric data and recommendations on dietary energy requirements" (FAO 2009).

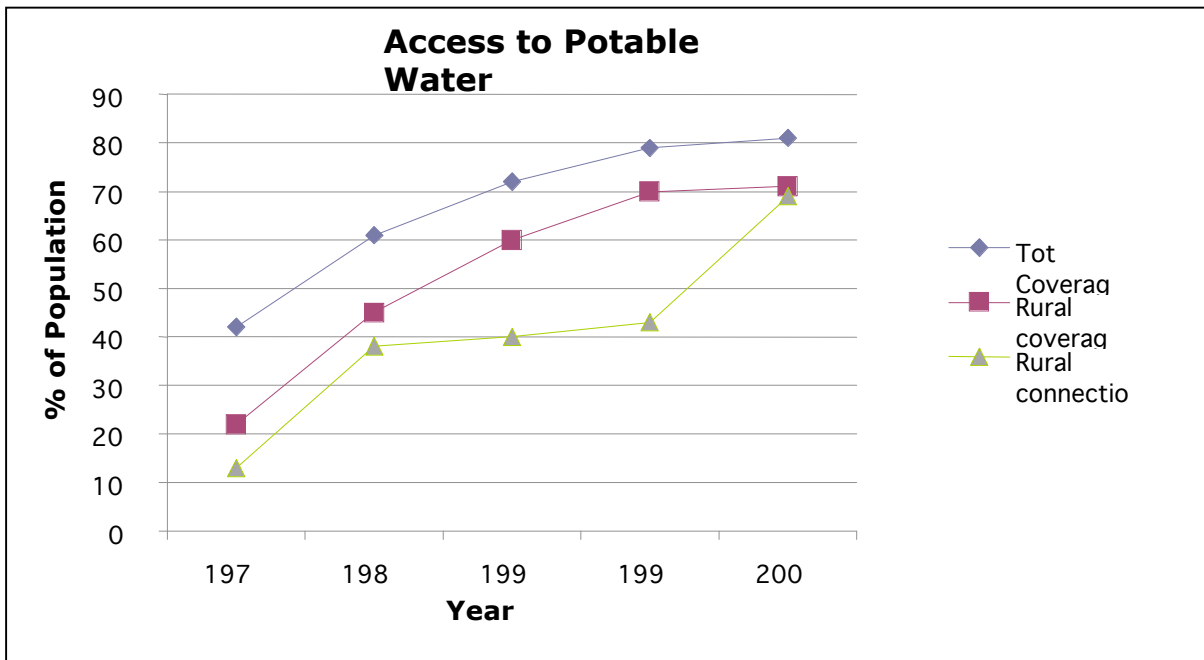
exist in certain distinct areas, while the hungry exist in other distinct areas. It is also important to mention that children should be prioritized in the process of targeting those demographic groups most in need of food aid in order to prevent stunting of growth.

As mentioned earlier, there have been efforts to provide children with high dose supplements of vitamin A. The country's health code also aims to fortify sugar with vitamin A and to enrich flour. Besides these efforts there is no national food quality protection program currently in place in Honduras (PanAmerican Health Organization 1998, 339). In 1995, however, the National Food Security Plan provided for four food aid programs. These reached over 50% of school children and 200,000 people (PanAmerican Health Organization 1998, 340). Then in 2000, the IMF and World Bank approved a Poverty Reduction Strategy in Honduras. Although this program failed to achieve many of its goals, malnutrition of children under five years old was reduced from 55% in 1990 to 41% in 2004 (Cuesta 2007, 348).

Despite all of these efforts, one in five people in Honduras is undernourished and great disparities in distribution continue to exist (World Bank 2007). From these pieces of evidence, it is fair to say that food allocation in Honduras must become more uniform in order to alleviate undernourishment, and children must be prioritized in order to prevent stunting of growth. Until undernourishment is significantly reduced Honduras will not be able to develop.

In a country such as Honduras that has been battered by water related problems at all levels, including droughts, floods, landslides and especially hurricanes, the issue regarding water tends to be an issue of quality rather than quantity. "In terms of sector performance, the great

achievement of the past decade has been the significant increase in water and sanitation coverage in rural and marginal urban areas. This achievement is the product of an alliance among government agencies, donors, nongovernmental organizations (NGOs), and local community organizations (water boards), which are charged with operating the systems sustainably... As a result, potable water coverage in Honduras (77% in 1995) compares favorably with that of its regional neighbors. It is higher than the Latin American average (73 percent) and much higher than that of its neighbors Guatemala (54 percent) and Nicaragua (55 percent)” (Fisher 2003, 83). The following chart shows this general increase in water coverage and connection for rural regions across several years.

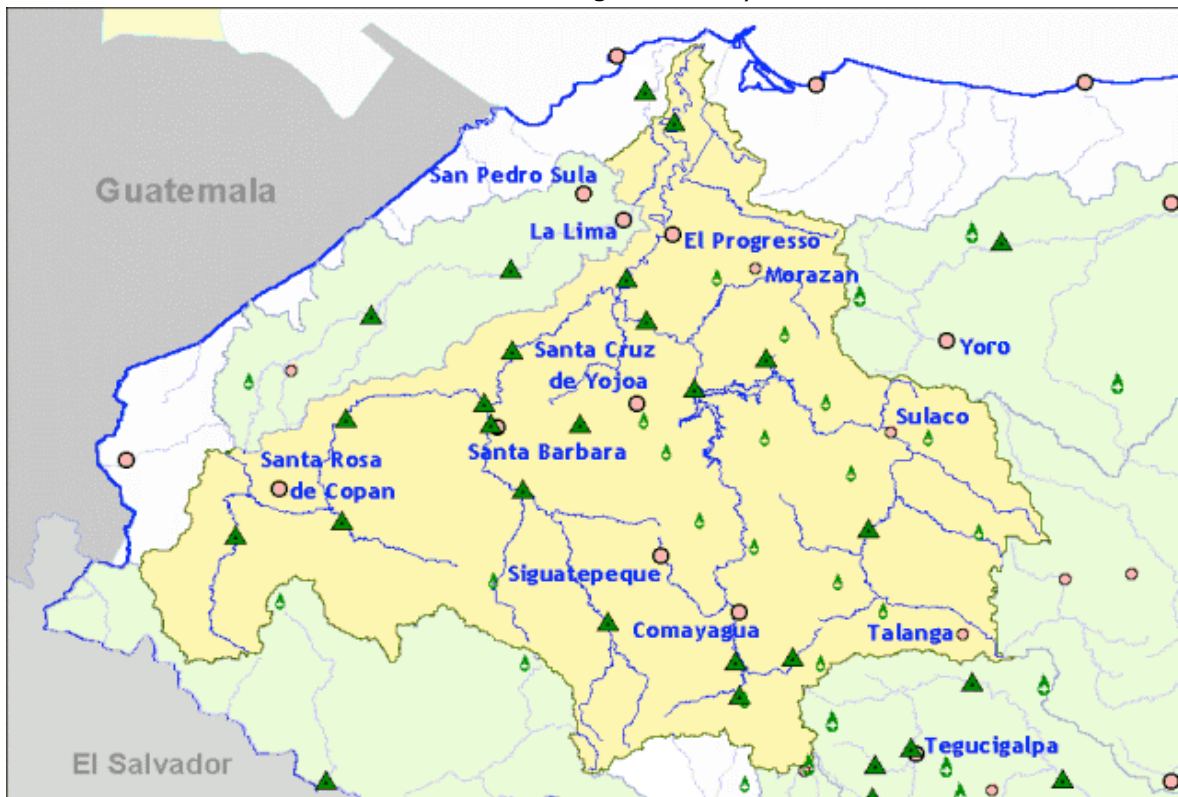


Access to water is an issue that affects the daily lives of Honduran citizens, most substantially in rural areas. The problem of water quality is one which can lead to more devastating consequences in the form of water-borne diseases and other health complications brought on

by the lack of safe drinking water. In our analysis of the accessibility and safety of Honduran water sources, we focus on this crisis of quality. This is especially important in the wake of Hurricane Mitch in 1998, where 75% of the country was left without safe drinking water (WaterPartners International 2009). Because the measurement of water access is often a difficult task, especially in underdeveloped countries where data are hard to come by, broad measurements are often put in place to track progress. In measuring such statistics regarding an “improved water source,” international reports are encompassing three dimensions of water security: quality, proximity and quantity. “For international reporting purposes people are classified as enjoying access to water if they have available at least 20 liters a day of clean water from a source less than 1 kilometer from their home” (United Nations 2006, 80-81).

### **Real-Time Streamflow and Rainfall Data for the Ulua Watershed**

Source: US Geological Survey 2008



In researching the water crisis in Honduras, we have taken a step back to investigate the many sources from which water is obtained as well as the volume and distribution of these sources throughout the country. Honduras is a water-rich country, with many rivers, most importantly the Ulua, emptying north into the Caribbean, creating fertile valleys along their routes, depicted in the map of the western region of Honduras. Lago de Yojoa is the largest lake, but the presence of large bodies of water is rare within the Honduran landscape and seemingly not an important factor to the supply of water (Library of Congress 2005).

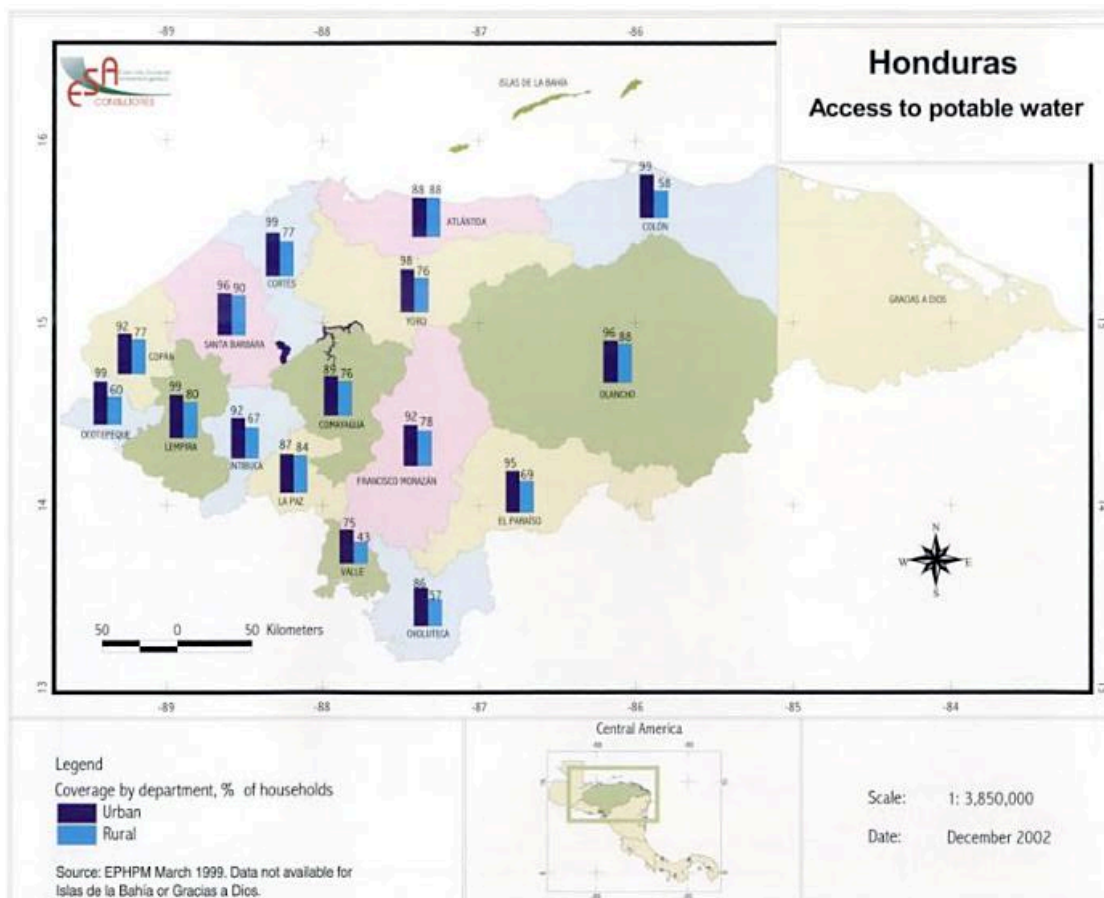
<b>Water and Sanitation Coverage by Percentage of Households</b>							
Source: Fisher 1999							
Origin of water	Total (%)	Urban (%)	Rural (%)	Income quintile (%)			
				1	3	4	5
Pipe	89	97	82	76	92	95	96
Public	57	88	24	24	63	72	80
Private or Collective	32	9	58	52	29	22	16
Well	5	1	10	11	4	3	3
River or other	6	2	8	13	4	2	1

Of the 4,300 rural water supply systems, 57.3% come from springs, 34% from brooks, 5% from rivers and 4% from groundwater. Representing only 4.5% of total water supply, the rural distribution of water also incorporates approximately 15,000 wells dispersed across the rural lands of Honduras where most of the country's poorest citizens live (Republica de Honduras 2009). In urban areas 94.5% of the population had improved drinking water coverage, as opposed to only 63% in rural areas in 1998 (PanAmerican Health Org. 1998, 340). However, in the urban areas, there are major problems with rationing and with the contamination of local water sources from runoff. "The two principal service providers in the country's two major

cities (National Autonomous Water Supply and Sewerage Service in Tegucigalpa and the Municipal Water Department in San Pedro Sula) suffer from relatively high rates of water losses, lack of up-to-date records of users, and lack of water meters” (PanAmerican Health Org. 1998, 340). The following chart explains the water coverage across Honduras, where piping and public forms of water coverage are more prevalent in urban areas and consequently among the richer citizens, while wells and collective forms of water coverage are more common in rural areas and among the poorer citizens.

### Access to Potable Water

Source: Fisher 2003



The above map further conveys this disparity, where most regions of Honduras possess much greater levels of access to potable water for urban rather than rural areas. The lack of any substantial planning for rural areas is expressed in these variations of coverage. Nevertheless, as described above, the relatively high numbers of coverage in urban areas can be deceiving considering the issue of distribution.

In addition to the strict rationing of water in urban areas, natural disasters constitute a huge factor in the water crisis, as noted above, which devastated much of Honduras in urban areas. However, in rural areas, collective water distribution systems were damaged and flooding caused contamination of those existing sources. The need for water management in rural areas is most important given the already limited availability of water and the even more limited availability of potable water. Due to the fact that agriculture in Honduras accounted for 80.6% of annual freshwater withdrawals in 2000, the distribution of overall water sources definitely has a crucial impact on the amount of water allocated for personal use. This number is much greater than the average worldwide withdrawal of 70% for agriculture, but somewhat better than the overwhelming figure of 89% in low-income countries (World Bank 2007).



### Water Use by Sector

Source: US AID 2000

Country	Total Use (Cubic kilometers)	Per capita Use (Cubic meters)	Domestic (% total)	Industrial (% total)	Agricultural (% total)
Dominican Republic	3.4	405.4	32.1	1.7	66.2
Guyana	1.6	2163.9	1.7	0.9	97.4
El Salvador	1.3	205	24.8	15.8	59.4
Guatemala	2	175.5	6.5	13.4	80.2
Honduras	0.9	133.2	8.2	11.2	80.6
Nicaragua	1.3	256.3	14.4	2.5	83
Peru	20.1	775.7	8.4	10.1	81.6
Colombia	10.7	254.3	50.3	3.8	54.9
Bolivia	1.4	166.8	13.3	3.5	83.3

The above chart portrays the distribution of water in different countries and regions of the Western hemisphere, providing comparisons with similar countries that more relevantly depict the predicament faced by Honduras. Particularly startling is the percentage of the Honduras water supply allocated for domestic purposes, accounting for 8.2% of total resources, a number substantially lower than most other countries, with the exception of a few countries in the Central and South American regions.

This stark contrast in the water allocation of Honduras among sectors, coupled with the country's particular vulnerability to natural disasters and water contamination, creates a serious threat to the safety of its water sources. The response to this threat encompasses those efforts that look to confront the qualitative aspects of available water sources, while also protecting existing sources from further contamination. Distribution and allocation considerations will also be crucial to this issue in easing the pressure that has arisen from the growing demand for domestic uses of safe water. While coverage has been a great success due

to many different sources including government agencies, donors, and NGOs, “the reform and modernization of the water and sanitation sector have progressed slowly and partially. For a number of years, there has been an ongoing debate between the national, state, and municipal sectors over which should license or operate water and sanitation services” (Fisher 2003, 83). The following chart gives a summary of the “development of water coverage and sanitation and population with access.”

<b>Evolution of the Coverage and Population with Domestic Connection to Water and Sanitation</b>					
	Source: US AID 2006				
	1974	1988	1993	1999	2001
Complete water coverage	32.60%	56.00%	60.00%	59.00%	74.30%
Urban	75.30%	80.00%	83.00%	75.00%	90.00%
Rural	12.90%	39.00%	40.00%	44.00%	69.00%
Complete sanitation coverage	14.40%	27.00%	25.00%	68.00%	78.00%
Urban	41.90%	53.00%	50.00%	88.00%	94.00%
Rural	1.60%	8.00%	5.00%	49.00%	61.00%

In evaluating the information provided about the ongoing water crisis, we have looked further beneath the surface to indicate those areas that have progressed and those areas that have hindered the expansion of reliable water services. “Expanding water and sanitation coverage is a priority of the government’s Poverty Reduction Strategy (Estrategia de Reduccion de Pobreza-ERP)” (Fisher 2003, 88). It includes the following goals pertaining to water: Increase water and sanitation coverage to 90% in 2005, 95% in 2010, and 100% in 2015. While the percentage covered has seen an upward trend, its slow growth has brought the country to levels just short of its neighboring countries. Other measures, such as the Millennium Development Goals, confirm the difficulty of reaching such ambitious goals, taking note of the large disparities in

coverage rates between urban and rural areas and the apparent difficulties of organization in meeting such a goal.

“According to the government’s forecasts, reaching a 95% coverage rate for water and sanitation in 2015 (a goal which is above that set by the Millennium declaration) means providing access to water for an additional population of 2.6 million in total – 1.2 million in rural areas and 1.4 million in urban areas – and supplying sanitation services to an additional population of 3.5 million in total, distributed between 1.3 and 2.2 million in rural and urban areas respectively. Although the size of the investments required is large, the government realizes the importance of starting these as soon as possible given the key externalities generated by universal access to these services” (Bussolo and Medvedev 2006, 8).

Tackling the issue of water quality and the related problem of regulation, an area where public service providers have fallen short, is crucial to the development of Honduras. Where large towns have lower coverage levels because of burgeoning populations and small towns have more water than they need but manage it poorly, the need for modernization of the water sector is a crucial step that Honduras must take in order to progress both socially and economically.

Another major environmental necessity and basic human need is clean air. Between 1900 and 1998 Honduras experienced a 98% increase in carbon emissions, measured in thousand metric tons of carbon, which contrasts sharply with the mere 27% increase that the whole of Latin America experienced during that same time period (World Resource Institute 2006). This increase can be attributed to the emissions from increased numbers of motor vehicles and factories. Other variables also account for air pollution, such as deforestation and “slash and burn” agricultural practices, the burning down entire fields following harvest. Although the quality of air in Honduras is evidently waning, a more direct danger to individuals is indoor air

pollution. Indoor pollution occurs as a result of cooking with open oven fires without proper ventilation, a practice to which 80% of rural families are accustomed. The particles from smoke accumulate on the furniture, walls, and ceilings and over time can lead to pneumonia, acute lower respiratory infection, and even develop into cancer over time. “Indoor pollution accounts for 1.6 million deaths worldwide” (Beyond Traditional Borders 2009).

The government has imposed a number of programs aimed at slowing pollution in Honduras. The Ministry of the Environment, together with the Ministry of Finance and the Treasury, has carried out several activities aimed at introducing unleaded gasoline in the country, such as tariffs and trade regulations. The Center for the Study of pollution continually monitors pollution from motor vehicle emissions and other pollutants and is actively working to develop new technology to combat these pollutants.

When considering other developmental issues present in Honduras, air quality is not at the forefront. Honduras is not a heavily industrialized nation, and as a result its air quality is not as poor as other nations in both Latin America and the world. As a whole, Honduras’ air quality is not great, but it is not their main concern and therefore the government is not as focused on air quality as other aspects of development. In light of the more devastating issues previously addressed only after other basic needs are met should the problem of pollution be confronted.

The final basic physiological need to be addressed is shelter. According to the Library of Congress, Honduras averages 46 inhabitants per square kilometer, which is relatively low,

especially in comparison to its neighbors. However, overpopulation still occurs because of uneven distribution and because the demand for land in rural areas has drastically increased since 1960 because of population increases. The increase in population and the increased demand for land are linked to low productivity levels from farmers, and together these three variables cause shelter deficiencies in Honduras. This also occurs because traditionally in Honduras when a man passes away his land is divided up amongst his sons. Because the population has drastically increased, men are having more and more sons and rather than a families' land being divided up amongst one or two sons, smaller and smaller plots of land are being divided up amongst more people. This leaves farmers with less land to farm and less farmland means less production. Less production means less profit and less profit means less money to go towards building an adequate home.

“Most of the rural population lives in one or two room thatch roofed huts (*bahareques*) built of adobe or sugarcane stalks and mud with dirt floors. As plantation agriculture and livestock raising have increased, many peasants have found it increasingly difficult to find a plot of land suitable for a house” (Library of Congress 2005). The presence of plantation agriculture has created particularly devastating circumstances that have had serious implications on property rights in the countryside. “Fence housing” has become a major problem in Honduras. Through “fence housing,” a squatter and his family live in a small hut with little or no surrounding land in the space between a public road and a landowner’s fence.

The urban living conditions display a sharp contrast between the rich and poor. “For the vast majority of Tegucigalpa’s urban population, however, living conditions are dismal. Migrants to Tegucigalpa initially settled in the slums of the center city. When these became inadequate to house the numbers arriving, migrants began to invade land on the periphery of the city. A majority of these barrio residents live in *cuarterias* (rows) of connected rooms...usually windowless, the substandard rooms are generally constructed of wood, with dirt floors” (Library of Congress 2005). Rural farmers have begun to flee to the cities in search of jobs, creating a greater demand for housing. This has led to an increase in homelessness in cities. Honduras’ urban population is distributed between two large centers, San Pedro Sula and Tegucigalpa. Together, Tegucigalpa and San Pedro Sula both for nearly 73% of the population living in urban areas and 25% of the total population (Library of Congress, 2005). In comparison to the capitals of other Latin American countries, Tegucigalpa’s percentage of total urban population is significantly lower because of San Pedro Sula’s population explosion.

The shortages and deficiencies of Honduran housing are evident. “The housing shortage in 1995 totaled 700,000 dwellings. Of urban dwellings, 64% are overcrowded. In rural areas, only 16% of dwellings are considered adequate” (PanAmerican Health Org. 1998, 332). Rural inhabitants of Honduras are suffering from inadequate housing, while urban inhabitants are suffering from overcrowding and overpopulation. These issues do not appear to be on a trajectory of improvement because the population continues to increase. Therefore rural land will become increasingly rare, family farms will become less productive, which will further lead to less adequate housing, and more individuals will flee to the cities.

## Secondary Needs

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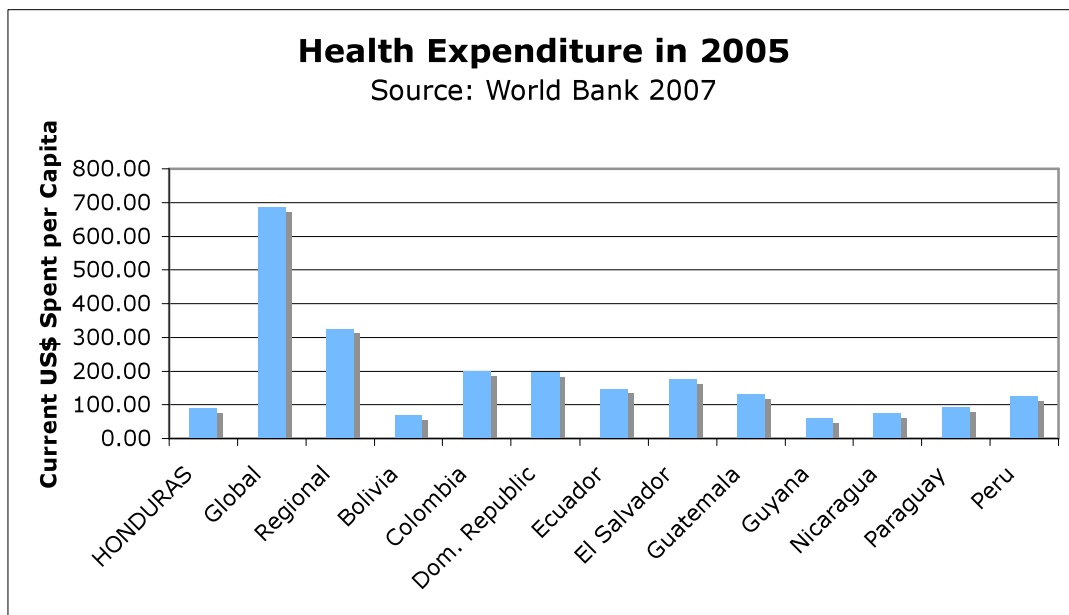
Beyond the basic needs for survival, several secondary factors help secure and sustain the primary needs. Maslow identifies these as safety needs, which include security of health, employment, resources and body. In Honduras, while the basic infrastructure has been set up in many of these areas, none are functioning at a level where they can be considered negligible in calculating an individual's liberty. As long as these factors are preventing people from living with a general feeling of security Honduras cannot be considered developed.

Secure health for the purpose of development means that a person is not at risk of falling ill as a result of malnutrition, contaminated water or lack of proper preventative medication. Moreover, it means the ability to stay healthy and ultimately die of more advanced diseases or natural causes. These requirements cannot be met because at "least 30% of the population has no access to even basic health services" (PanAmerican Health Org. 1998, 338). Values issues also play a role in the poor health standards in Honduras. When given a choice between sending a sick child to the doctor or a improving the health of a valuable animal, it is not uncommon for a family to help the animal (Moon). The combined effects of these two realities leave much to be desired for the state of societal health in Honduras.

The World Development Indicators (WDI) tell us that health expenditure per capita increased steadily from \$74.04 to \$91.38 in the three-year period between 2002 and 2005, showing some level of financial dedication to healthcare in the country (World Bank 2007). Additionally, at 16.1%, Honduras is spending a higher percentage of the total government expenditure than

most countries of similar income in the region, a percentage that is also higher than the global average of 9.64%. The amount of government money for health services is critical in Honduras because 90% of all available healthcare is provided by the state (PanAmerican Health Org. 1998; 338).

However, even though more money is being spent per person every year, Honduras is still spending less money on health care per individual than many other countries of similar income in the region. This is made clear by the fact that the average health expenditure per capita in Latin America and the Caribbean was \$327.00 in 2005.<sup>6</sup>



<sup>6</sup> “Total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. Data are in current U.S. dollars” (WDI Online 2008).

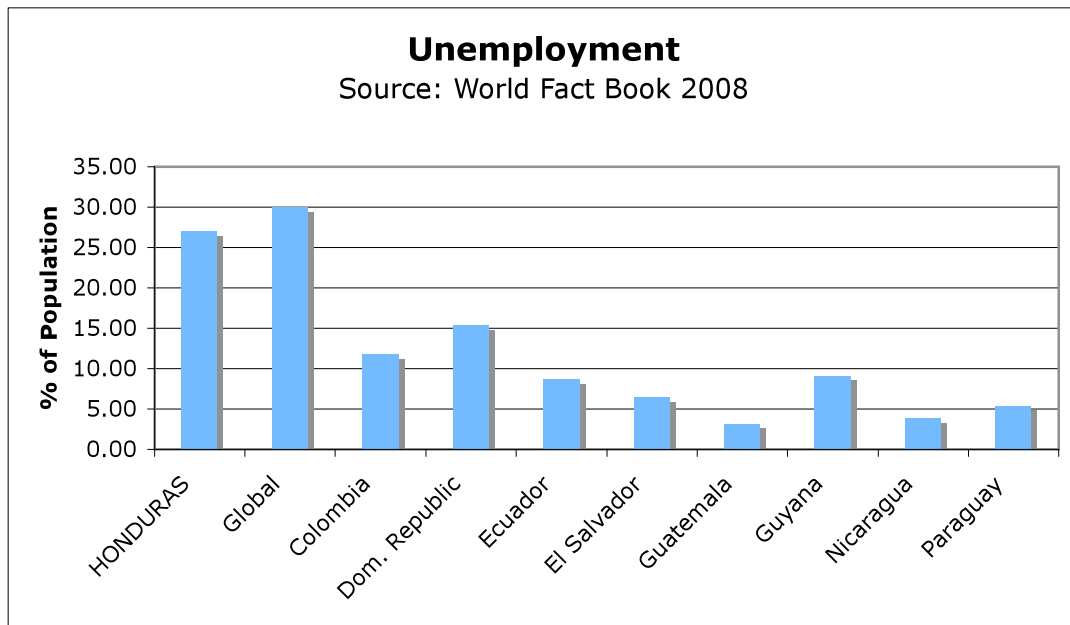


Infant mortality rate in Honduras has been steadily improving, which is exhibited by the fact that it has decreased from 44.80 per 1000 births in 1990 to 22.55 in 2006. On a cross-sectional basis, Honduras stands at less than half of the global average (which is 49.47 in 2006) and on par with the regional average. However, when compared to a highly developed country such as the United States that loses only 6.3/1,000 live births, Honduras' numbers are less impressive (CIA World Factbook). Because infant mortality is easy to improve with better healthcare, it is clear by the comparatively high rate of death that even if healthcare were more widespread, it is not sufficient in quality. Recently, the Honduran government has established the Plan for Accelerated Reduction of Infant Mortality Rate (RAMMI), which received 15 million Lempiras in the form of medical equipment from the UNDP, UNFPA and Spain to try to improve those numbers.

Both limited and fragmented healthcare prevent Honduras from being a more developed nation. Of those who use the healthcare system, almost half of the patients use prenatal care or other related pregnancy programs (WHO 1999). However, the most life threatening conditions are a result of malnutrition and poor water quality. As a result, improvement in these areas should come before that of the healthcare system. More preventative measures should be taken to ensure better health for Hondurans as opposed to increased investment in the healthcare system through building more hospitals or hiring more doctors.

Stable employment affects both savings rates and the rate of consumption, which will determine market stability in the future and thus Honduras' ability to invest and develop. As of

2007, 27% of the total labor force was unemployed according to the CIA World Fact Book. This number is just below the global average of 30%, but considerably higher than most neighboring countries. However, these statistics varied in terms of what they measured as unemployment. The difference between unemployment and underemployment was often not explicit. In 2004, the WDI reported that Honduras' head count ratio at the national poverty line was 51%. While there was no regional or world statistics, neighboring countries around the same time had comparable rates of poverty.<sup>7</sup>



However, these numbers vary greatly when we differentiate between poverty in rural areas as opposed to urban areas. In 2004, the WDI reported that 70% of rural inhabitants were living below the poverty line, while only 30% of urban inhabitants experienced poverty. In the same year, only 34% of people were working in agriculture, a number that has not varied much over

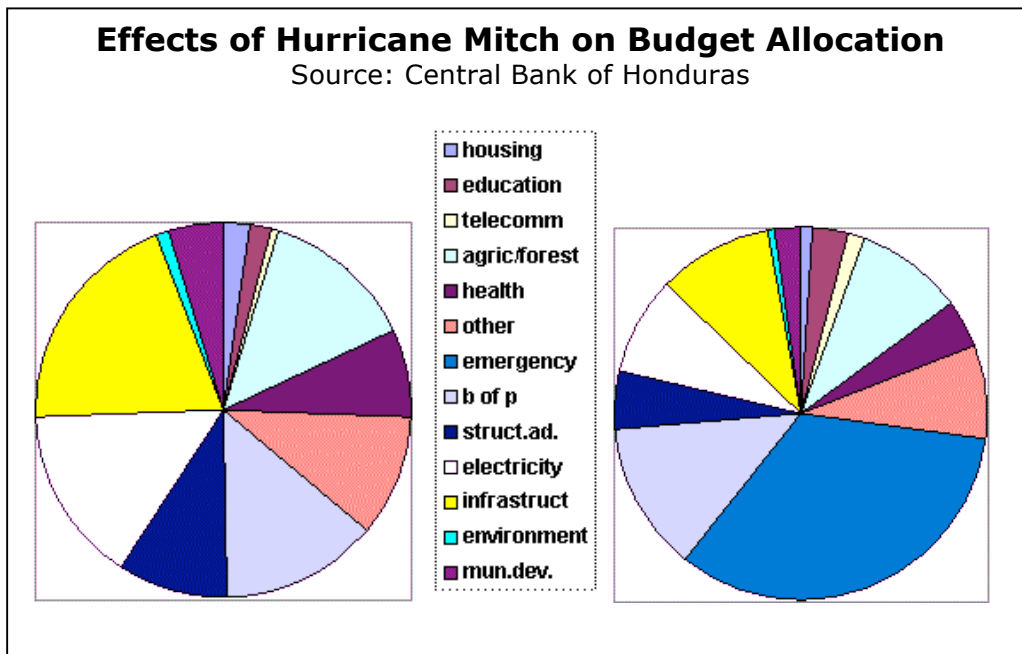
<sup>7</sup> "Unemployment refers to the share of the labor force that is without work but available for and seeking employment. Definitions of labor force and unemployment differ by country" (WDI Online 2008).

time. The number of people employed in agriculture is almost double the regional average. Moreover, the recent increase in the minimum wage combined with the international financial crisis has led to a sharp loss of jobs. On February 8, 2009, the local newspaper, El Heraldo, reported that almost 22,000 employees were laid off between December 2008 and January 2009 in the formal sector alone, which makes up 40% of the economy. Greater losses were expected in the informal sector; however, those cannot be quantified as easily (Vasquez 2009). In order to combat this problem, the government is developing a jobs creation plan, as part of the current budget, but this will not be implemented until Congress approves the *Presupuesto General de Ingresos y Egresos de la Republica* (General Budget for Incomes and Expenses of the Republic).

If a nation's citizens are healthy and have a stable income that can meet their basic needs, it is important that the resources most important to citizens are secure. These resources provide for three of the basic needs articulated previously and include domestically supplied access to water, food and shelter. Honduras' ability to cope with emergencies and secure the country's resources shows both the level of control the government has over its resources and how self-sufficient it is or can be.

Because of Honduras' specific geographical location it is particularly prone to hurricanes. The most recent disaster was Hurricane Mitch in 1998. It adversely effected more than 1/10th of the population, incurring serious damages throughout the country (Morris 2002). Because Honduras is already receiving international aid, emergency situations put a particularly strong

strain on the economic situation. The two graphs on the next page show the change in distribution of aid to the different sectors in Honduras' economy before and after Hurricane Mitch. On the left is spending as a percentage of the total aid received from 1995-1997 and on the right from 1998-1999.

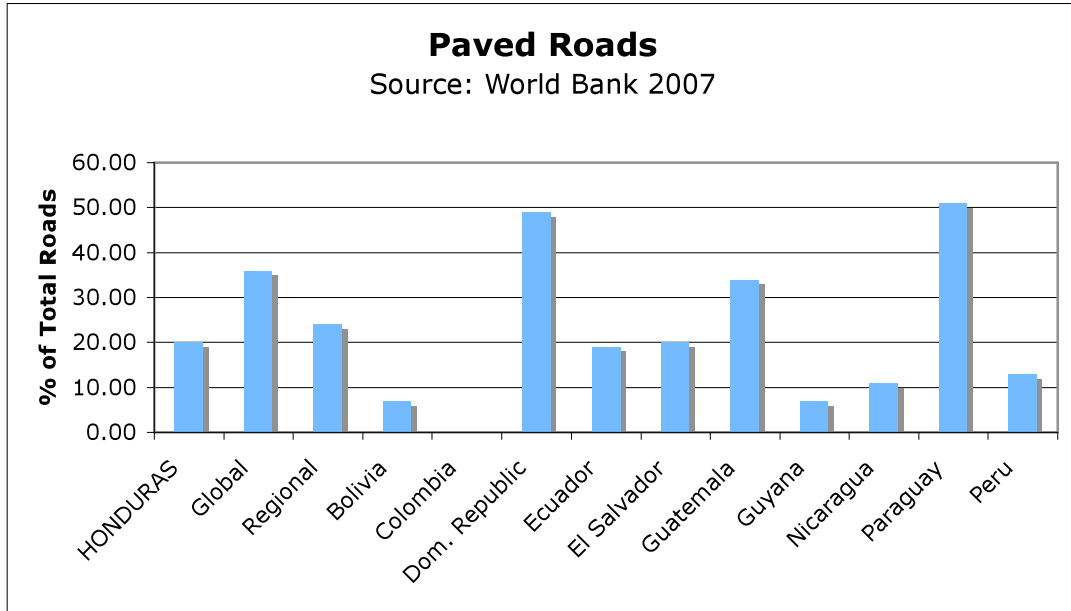


In terms of development, a disaster of this size is incredibly crippling to the government's ability to provide for its people. While Honduras was able to reconstruct many of its roads and repair much of its infrastructural damage, the disaster took a huge toll on government spending (World Bank 2003, 4). When considering how developed Honduras is, it is important to note that there are large amounts of aid being donated and that, at any given time, a devastating proportion might have to be redirected to emergency funds. The climatic instability of the region makes development contingent on hospitable conditions regardless of GDP because such high levels of destruction are costly even for wealthy countries as exemplified by the experience of the United States after Hurricane Katrina.

In order to transport, develop and communicate about the basic commodities outlined, a strong infrastructure, including roads and electricity lines, is vital. Honduras will not be able to fully develop until it has reliable roads and consistent electricity; neither goal has been adequately achieved. Two areas must be addressed in terms of infrastructure; “on the one hand, lack of access to basic infrastructure constitutes a fundamental cause of poverty in households and communities” (World Bank 2003, 19). However, as we saw with the poor water quality in Pueblo Nuevo, the quality of new programs is equally important because bad water creates new problems (Moon). “Deficiency in quality and access to infrastructure services or unreasonably high charges for those services can negatively affect the country’s competitiveness, can make it difficult to attract investment, and can discourage economic growth” (World Bank 2003, 19).

Honduras has a below average percentage of paved roads both compared to regional data and to global data. Road maintenance and improvement accounts for 5% of government spending, but there are also projects underway funded by organizations such as the World Bank (Millennium Development Goals 2006, 9). The most recent data shows little improvement, staying at 20% of roads, or 2,775km, which is an average amount regionally (CIA World Fact Book). Because there has been little recent improvement and few resources dedicated to the improvement of roads greater resources should be dedicated to road improvement in the

future; however, in light of the other issues facing Honduras roads, should not be considered a priority.<sup>8</sup>



Honduras has unreliable sources of electricity and only 62% of households connected, with a heavy urban bias (The World Bank 2003, 100). However, number of homes connected to the grid has been steadily increasing over time. Therefore, electricity is not an area that needs a developmental stimulus plan.

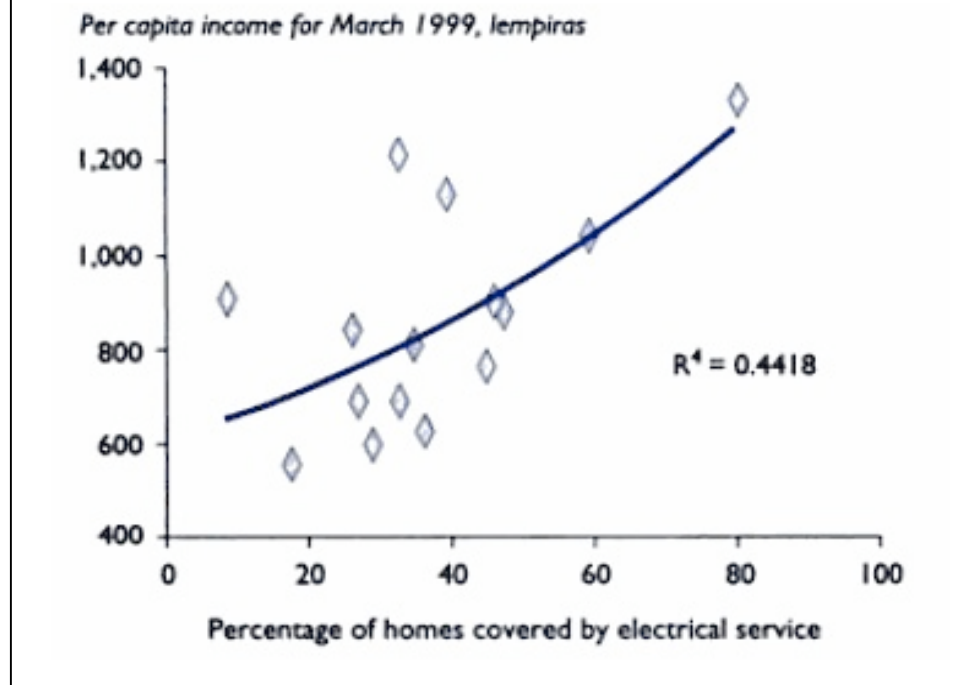
<sup>8</sup> "Paved roads are those surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones, as a percentage of all the country's roads, measured in length" (WDI Online 2008).

<b>Formal Electricity Coverage 1989-2001</b>		
World Bank 2003		
Year	Households	(% of households)
1989	851,201	33
1990	879,482	35
1991	908,688	36
1992	938,817	38
1993	970,055	40
1994	1,002,218	43
1995	1,009,802	45
1996	1,036,694	47
1997	1,063,726	50
1998	1,169,974	50
1999	1,195,341	52
2000	1,197,815	55
2001	1,230,391	62

However, a greater diversity of electricity resources would be beneficial because of climate variability in the region. “In 2003, Honduras generated 57% of its electricity from thermal sources and 36% from Hydropower” which is dangerous because natural disasters such as Hurricane Mitch, can severely interrupt energy supply (Developing Renewables 2006, 2). As a result, following Hurricane Mitch Honduras declared an ‘Energy Emergency.’ Having consistent access to electricity is another measure that has financial implications because blackouts result in a loss of productivity. In 2006, the WDI found that Honduras lost 4% of sales as a result of inconsistent electricity, which was consistent with the average regional data. The importance of electricity to development is clear; the wealthier people become the more electricity they will demand. However, the development of the electricity industry has been growing at a rate that can meet the needs of the people. Reliability rather than amount or access to the electricity resource is the most import challenge facing the industry today.

## Correlation between Income and Access to Electricity

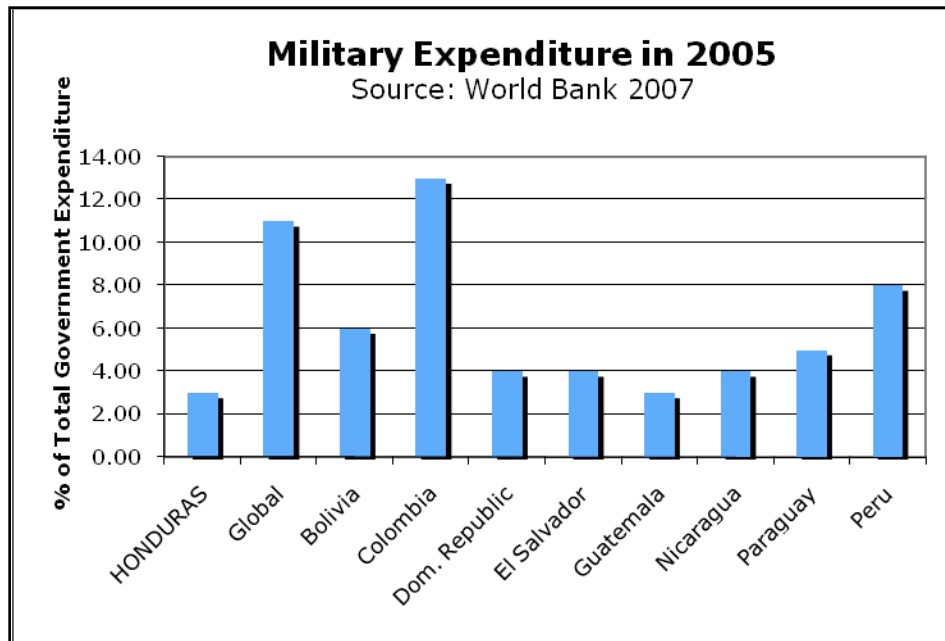
Source: World Bank 2003



Finally, safety of body and property in the face of civil and international war, theft, rape, homicide and genocide represents the right to life of every individual. Not only do acts of violence disrupt social patterns, they disrupt economic ones as well. A peaceful existence is critical for steady development. However, Honduras' history indicates that war is unlikely to occur in the near future. There have only been two significant wars in the past century, one against El Salvador in 1969 and the American-led war against the Nicaraguan Contras in the 1980s (BBC World News 2009). As a result, military expenditure has stayed well below the global average and on the low end of neighboring countries at 3% of total government expenditure.<sup>9</sup>

<sup>9</sup> "Data for some countries are based on partial or uncertain data or rough estimates. Military expenditures data from SIPRI are derived from the NATO definition, which includes all current and capital expenditures on the armed





The more relevant form of violence in Honduras today is homicide, which in 1990 was the second-most common cause of death after heart disease and accounted for 13% of all fatalities (PanAmerican Health Org. 1998, 332). "Preliminary Honduran police statistics for 2006 indicate that 3,020 homicides occurred in this country of approximately 7 million inhabitants. As a benchmark, New York City, with just over 8 million inhabitants, registered fewer than 600 homicides in the same time frame" (OSAC 2007). To make matters worse, the closure rate for cases of murder is less than 10% (OSAC 2007).

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forces, including peacekeeping forces; defense ministries and other government agencies engaged in defense projects; paramilitary forces, if these are judged to be trained and equipped for military operations; and military space activities. Such expenditures include military and civil personnel, including retirement pensions of military personnel and social services for personnel; operation and maintenance; procurement; military research and development; and military aid (in the military expenditures of the donor country). Excluded are civil defense and current expenditures for previous military activities, such as for veterans' benefits, demobilization, conversion, and destruction of weapons. This definition cannot be applied for all countries, however, since that would require much more detailed information than is available about what is included in military budgets and off-budget military expenditure items. (For example, military budgets might or might not cover civil defense, reserves and auxiliary forces, police and paramilitary forces, dual-purpose forces such as military and civilian police, military grants in kind, pensions for military personnel, and social security contributions paid by one part of government to another.)" (WDI Online 2008)

A related issue in the region is gang violence. In August 2003, Congress passed a controversial law called Ley AntiMaras (Anti-Gang Law). It allowed the police to arrest youth merely for appearing to belong to gangs either because of tattoos or engaging in neighborhood gatherings (Freedom House, 2007). Human rights groups have protested this law on the basis that it allows for illegal detention of alleged gang members and restricts freedom of assembly and association, going against provisions of the constitution and international treaties. In addition to this kind of reactionary law, proactive legislation has been passed to help at-risk youth. The Law for Integrated Youth Development and the National Youth Policy Proposal are strategies aimed at dealing with underserved youth. Were approved in September 2005, but have not yet been implemented.

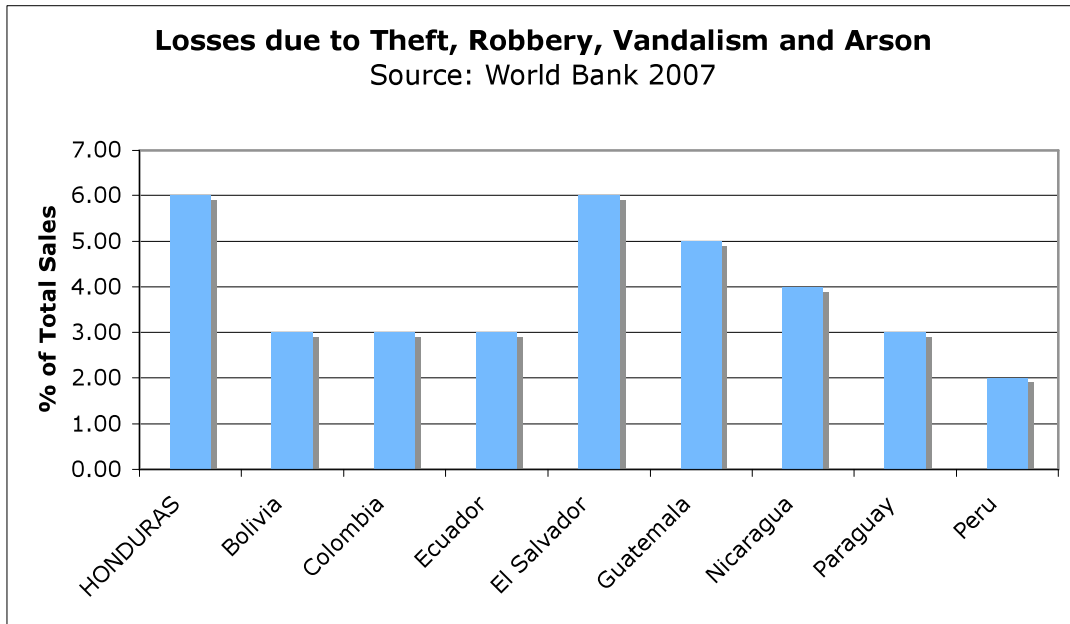
The threat to personal security is not limited to homicide; forcible rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft are also prevalent in Honduras. In a 1998 study that compared Honduras to Japan, a relatively safe country, and the United States, a relatively unsafe country, Honduras generally proved to be a safe country with the exception of homicide rates where it far exceeded both countries. The results of the study can be seen in this chart, where the numbers are out of a sampling of 100,000 people (Winslow).

<b>Personal Security Incidents (Per 100,000)</b>			
Source: Winslow			
	Honduras	Japan	USA
Murder	154.02	1.1	6.3
Rape	1.17	1.48	34.4
Robbery	5.12	2.71	165.2
Aggravated assault	44.4	15.4	360.5
Burglary	4.28	187.93	862
Larceny	3.23	1198.13	2728.37
Motor vehicle theft	25.83	28.37	459

The general trend of these measurements was increasing in Honduras between 1995 and 1998. While aggravated assault and burglary decreased slightly, serious increases in the other measurements were observed (excluding larceny, which was not reported). These findings show that Honduras is an increasingly unsafe place as a result of domestic crime and instability. Moreover, in comparison to some of its neighbors, Honduras experiences relatively high losses from theft, robbery, vandalism and arson, as shown by the 2006 WDI report.<sup>10</sup>

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<sup>10</sup> Losses due to theft, robbery, vandalism, and arson are the estimated losses from those causes that occurred on establishments' premises as a percentage of annual sales.



The police consist of several branches, the General Directorate of Criminal Investigation (DGIC), Transit Police, Tourist Police, Prison Police and the Preventative Police. Each group has an Office of Professional Responsibility that relays corruption and misconduct to the Ministry of Security. While this system has been effective in finding corruption, the high rates of dismissal show the prevalence of incompetence and corruption. "According to the Ministry of Public Security, from 2000 through August, 186 police had been prosecuted and 1,344 had been fired for reasons ranging from incompetence to corruption" (US Department of State 2005). However, some observers have commented that this relatively new method, as of 2000, "has increased impartial judgments of police behavior" (Winslow). In addition to increased accountability, President Zelaya plans to use a portion of the international aid received from the European Union (\$14.1 million) to strengthen the police force, the gun and explosives control system and

the development of national public security policies (Agencia ACAN-EFE 2008). In spite of these positive changes and initiatives, Honduras should be considered a dangerous country as a result of its legacy of homicides.

We have concluded that the two biggest security problems preventing development in Honduras right now are closely related, job security and gang violence. As a result of the current state of the global economy Honduras is currently facing and will continue to face many problems in trying to increase their job market. "With 60% of the economy being in the informal sector and the current world financial crisis, Honduran job security has been severely hit. This should not sound surprising, since, as we well know: 'When the United States sneezes, the rest of the World catches a cold.' Right now, the United States has pneumonia, so you can imagine what we (Honduras) have..." (Don Arturo 2009). Correlated to the depreciated job market is gang violence, the principle cause of the disturbingly high homicide rate. At the end of 2003, a study by the police estimated that 36,000 people were involved in gangs, most of them youth (USAID 2006). In addition to affecting public security, gangs have a tremendous impact on education by detracting from attendance, immigration, the private sector through increased spending on war taxes and private security, the confidence that citizens have in their government and the country's international image. A diminished job market and an ever-growing gang culture have significantly contributed to the overall underdevelopment of Honduras.

## **Tertiary Needs**

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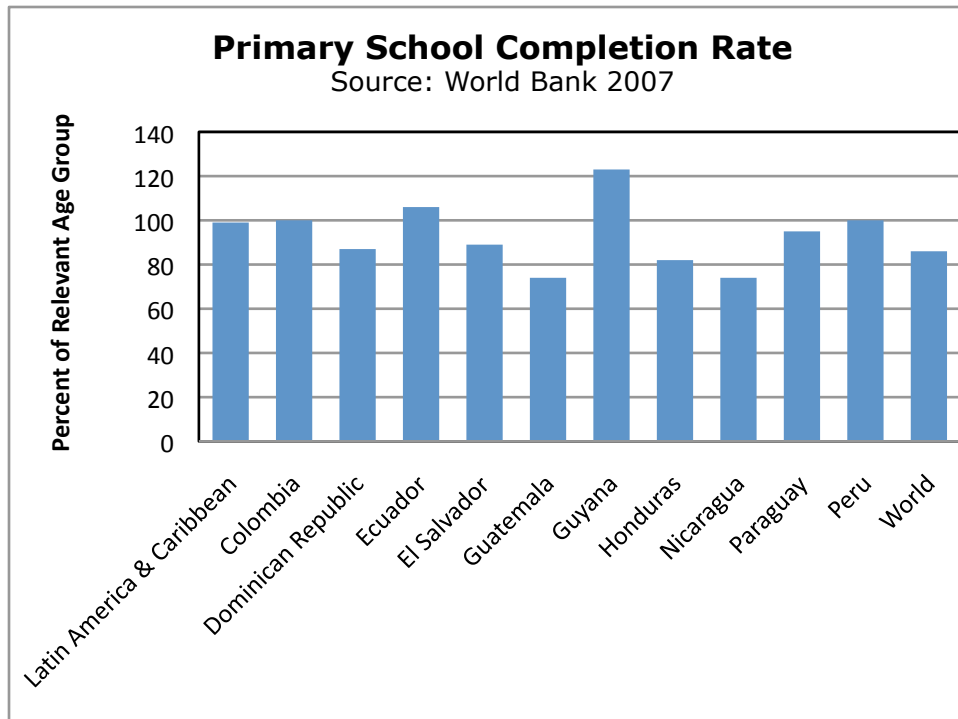
A third order of concern is education. Although education is not a basic need for survival, it is nevertheless an important factor that contributes to the overall level of national development. It endows individuals with the ability to meet their own needs and the state with human capital. Furthermore, education can be seen as the first step towards liberation, a state analogous to Maslow's idea of self-actualization. Liberation offers the individual the opportunity to be whatever they want or do whatever they want to do. It creates a world in which, if the basic needs are met, human progress can exist in an environment not of Darwinian social evolution, but one in which people reach their potential through cooperation.

We have concluded that the level of educational development is calculated primarily by literacy rates, enrollment and attendance rates, teacher-to-pupil ratio, the percent of GDP expenditure per student, public spending on education (as a percentage of total government expenditure), the percentage of trained teachers, and private school enrollment and attendance. Teacher to pupil ratio in both public and private schools is also an important factor to investigate because a low teacher to pupil ratio is beneficial to an educational system, whereas a high ratio is destructive to the learning experience of the pupil.

Our research shows that, as of 2006, Honduras had a relatively high enrollment rate in relation to other countries of similar income. At 96.42%, Honduras lagged behind other countries of similar income by only decimal points (Ecuador has an enrollment rate of 96.79). Presented as a longitudinal measure, the data show that Honduras' enrollment rate in schools has increased

from 88.6% in 2000 to 96.42% in 2006, which demonstrates that students have become more likely to go to school in that six year period.

The percentage of individuals who completed primary school in Honduras has also increased from 71% in 1994 to 88.72% in 2006. However as seen below, Honduras' primary completion rate is approximately 15% lower than the regional average of other states of similar income in the region:



We focus mainly on primary education because we see the ability to read, write, and do basic math as being a fundamental part of an individual's knowledge base that will allow them to be self-determining. Anything beyond these basic skills becomes a luxury of the educational system rather than a necessity.

Other areas in which Honduras has made strides are youth literacy<sup>11</sup> and pupil-to teacher-ratio. Literacy rates have increased, from 75.8% in 1984 to 90.34% in 2007. Once again, although Honduras has increased its literacy rates, it still is behind other countries of similar incomes in the region. The teacher-to-pupil ratio has improved from 34.06 in 2000 to 27.93 in 2006, which puts Honduras in the middle range of countries of similar incomes in the region.

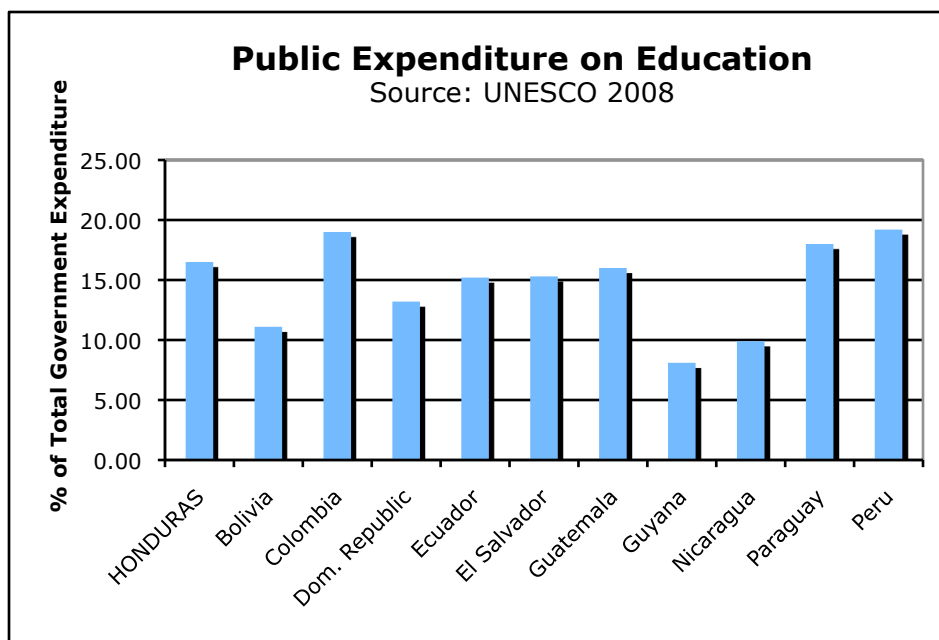
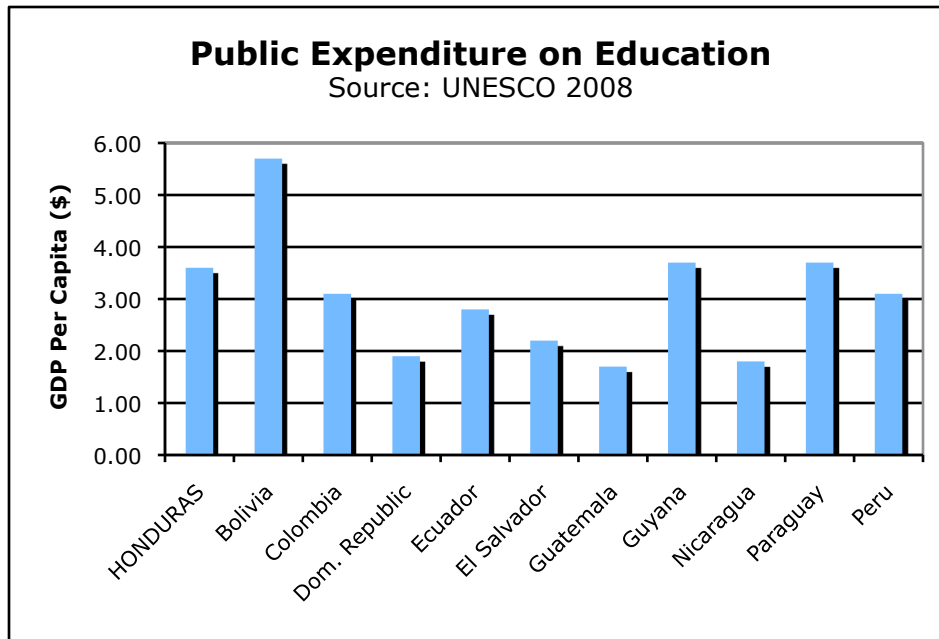
The data show that Honduras has been improving its education system steadily since the mid-1990s; however, education is still not adequate.

Interestingly, our data show that public spending on education as a percentage of total government expenditure increased from 1984 to 1994, but as a percentage of GDP it has *declined* from 1984 to 1994. This can be explained by Honduras' recent increases in national GDP. Even more interesting is the fact that Honduras' public spending on education as a percentage of GDP *and* public spending on education as a percentage of total government expenditure are both higher than the regional average for countries of similar income. It is inconsistent that Honduras is lagging behind other countries in the areas of primary completion and literacy rates even while it is spending the most on public education.

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<sup>11</sup> The term 'youth' is defined as an individual between the ages of 15-24 (World Bank 2007).





The explanation for this disparity can be found in the trend that has been occurring over the past two decades. As Honduras' GDP increases, it has been investing more money into the public education system. Even Though the system has been gradually improving, it simply has not caught up to the average yet. It is accurate to deduce that Honduras has an education system that is currently inadequate, but its future seems optimistic. The data have provided

enough evidence to illustrate that the education system's trajectory towards improvement will continue to progress until it has reached the regional average.

## **Developing Honduras: Resources and Limitations**

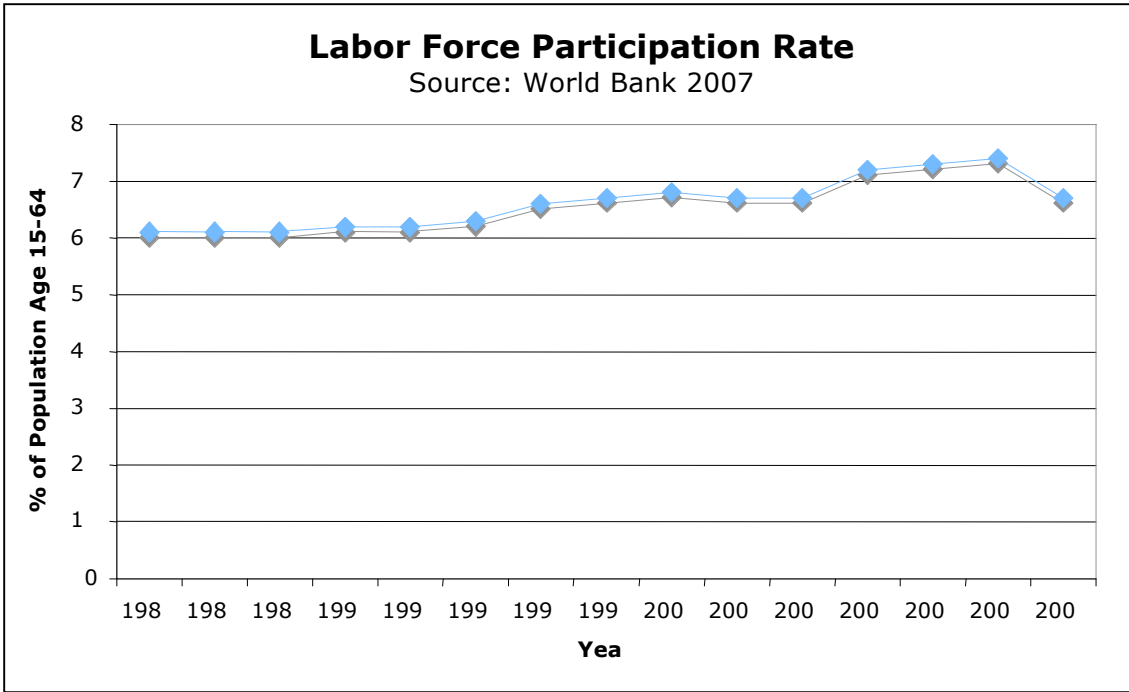
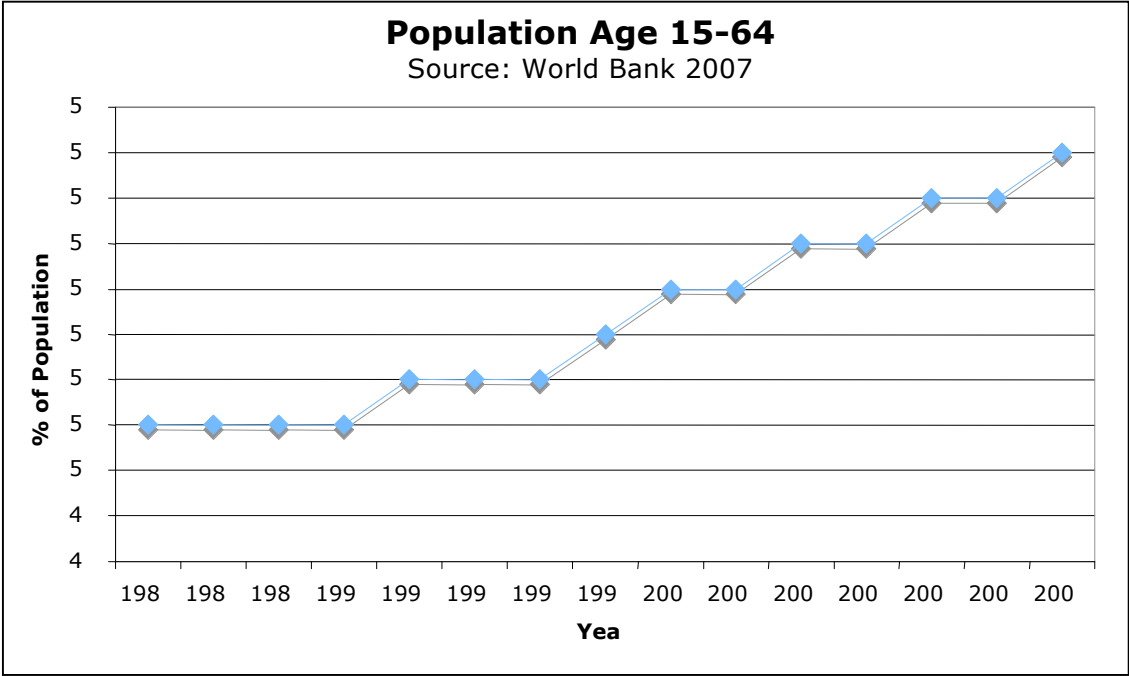
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Keeping the breadth of development needs in mind, we now shift focus to look at the factors and endowments that will prevent or enable progress on the issues. These include human, physical, financial and social/political components. We illustrate the necessity for improved agriculture, nutrition, and non-governmental action.

### **Human (Labor and Human Capital)**

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There are not adequate employment opportunities in Honduras given the number of laborers in the workforce. The workforce, people between the ages of 15 and 64, has been increasing rapidly in recent years, while labor participation rate has been roughly constant. This means that there are not enough jobs being created.



The incongruent trends of population composition and employment availability, as well as a recent increase in minimum wage and the onset of the global financial crisis have left a sizeable portion of the Honduran workforce without work. Almost 100,000 employees were laid off

between December 2008 and February 2009 (El Heraldó 2009, Feb 13). Even greater losses are expected in the informal sector; however, those cannot be quantified as easily (Vasquez 2009). The increasing number of people without work is a problem but also an enormous reservoir of potential labor.

Despite this high quantity of available labor, there are still considerable obstacles to realizing its potential as human capital. First, many of these people suffer from severe malnourishment due to poverty, which greatly impedes the productivity of the Honduran population. According to the World Health Organization, 29.9% of children suffer brain damage as a result of malnutrition, putting them at a distinct learning disadvantage. They lack the basic strength to operate in their daily activities, which greatly hinders their capacity as adults to be effective laborers. Moreover, one in five people in Honduras is undernourished, regardless of age (World Bank 2007). This makes people less productive in the labor force, which has a tremendous effect on GDP and average household income, among other statistics, all relating to the general poverty of Honduras. Providing adequate nutrition to adults and especially children could do wonders for their potential as productive members of the labor force.

Second, the Honduran education system is insufficient in producing an adequate work force. In 2004, 7% of children ages 7-14 were economically active, of which 49% only worked and did not go to school. Despite these obstacles, there is some level of dedication to at least primary education. As a result, literacy rates are improving. In 2001 89% of people between the ages of 15-24 were considered literate, while people above that age had a literacy rate of only 80%.

Thus, while people seem to be entering the workforce before receiving a complete education, overall literacy has been increasing. Continued improvements in the education sector would be necessary to further increase human capital.

Lastly, the gender composition of the workforce is skewed. Although female unemployment has decreased, along with fertility, female unemployment currently stands at 6%, which is higher than the male unemployment statistic of 3%. This is especially true for young women, (women ages 15-24) who have an unemployment rate of 11%, which contrasts sharply with the male youth unemployment rate of 5%. Further lowering the fertility rate, possibly through education, as well as working against gender discrimination, thereby increasing female employment would increase the labor force significantly.

There is an enormous potential labor force in Honduras. With sufficient resources, most fundamentally adequate nutrition, human capital and labor productivity would sky rocket.

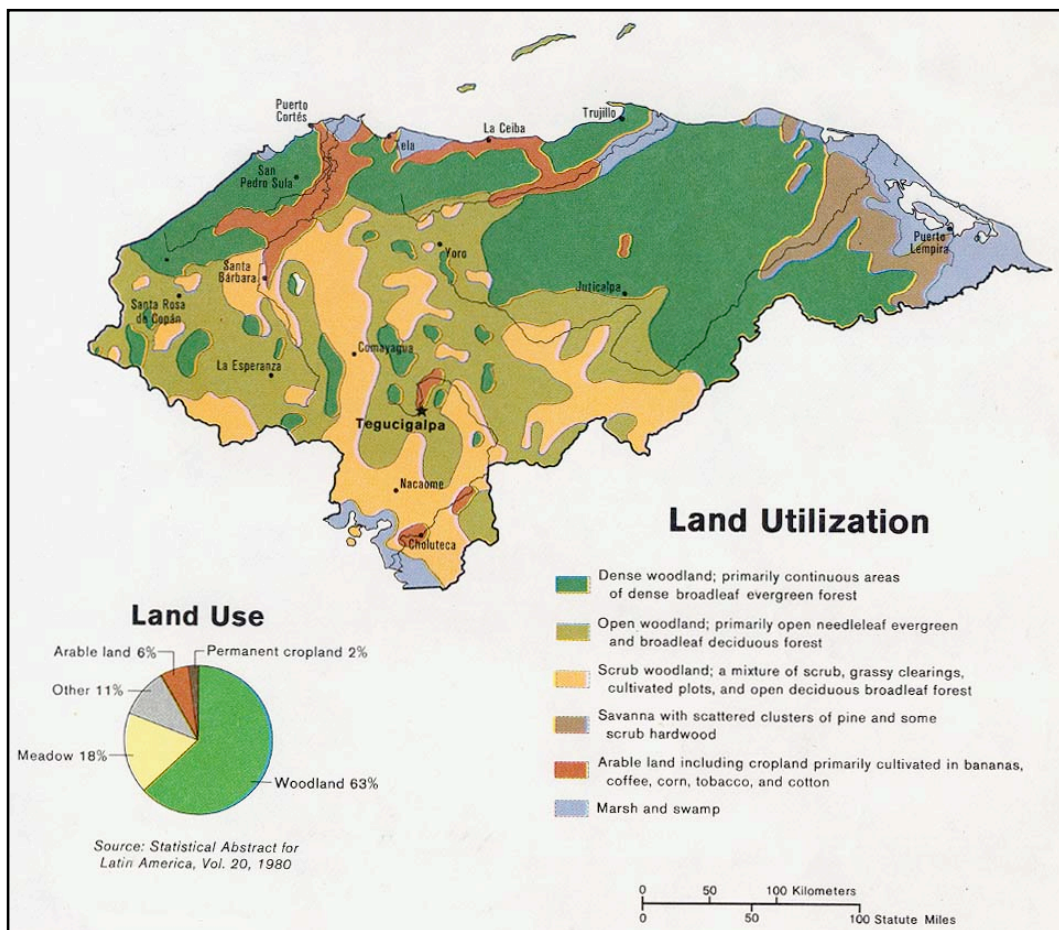
### **Physical (Land, Water, Agriculture)**

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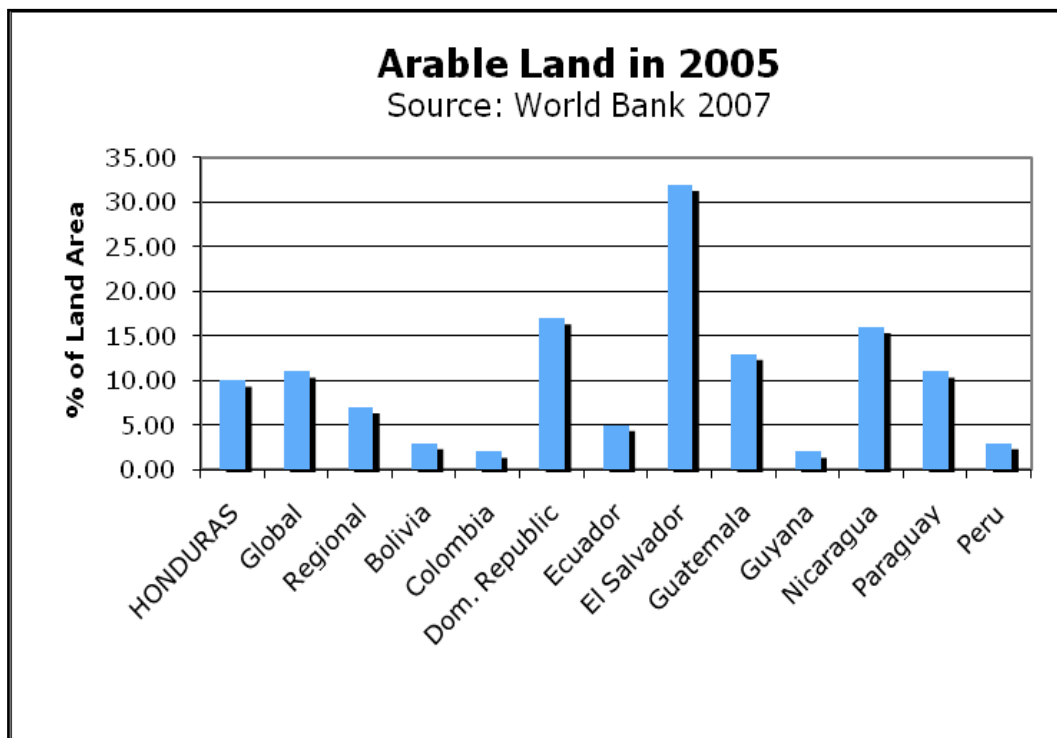
With an area of 112,090 square kilometers, Honduras represents the second largest country of Central America, with about 80% of this area accounted for by “interior highlands, extremely rugged and mountainous with numerous intermontane valleys” (Library of Congress 1993). The northeast portion of the country that borders the coast is characterized by Caribbean lowlands and arguably contains the most exploited regions. Because of the mountainous topography of

the country, only 6% of land is arable, with 2% of land being utilized for permanent crops. The map on the next page shows the distribution of land use in 1980.

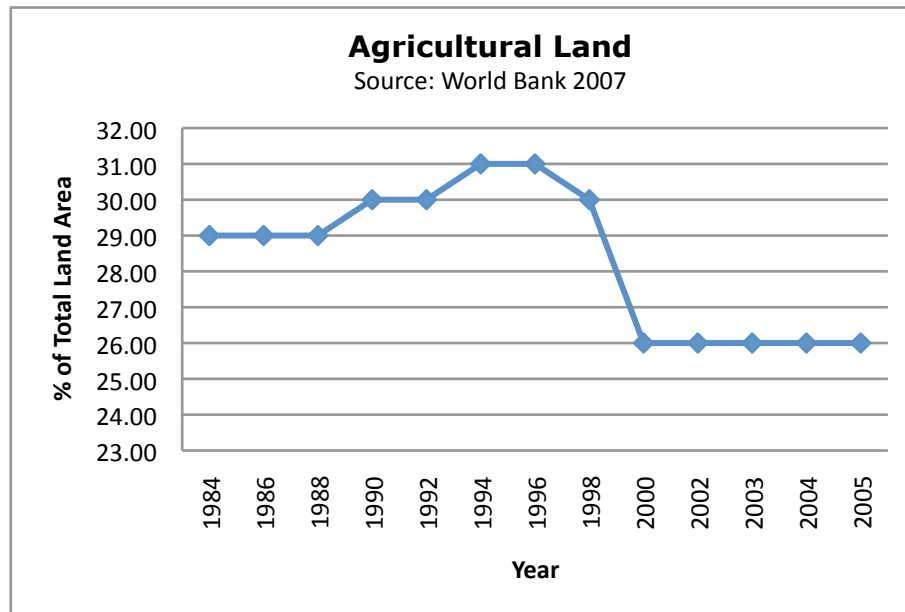
Since that time, arable land has shifted slightly, but the graph on the next page shows the decline that has been witnessed recently. In terms of agricultural land, that percentage has also decreased. Land under cereal production, in particular, has decreased by over 99,000 hectares (1 hectare=10,000 m<sup>2</sup>) since 1984 (World Bank 2007).



A principle reason for this decrease in agricultural land, illustrated in the following graph, has occurred because of the severe soil degradation<sup>12</sup> of land under cultivation. In Honduras, 84% of the land has severe degradation. The FAO also reports that only 36% of the soil contains no major constraints, by their definition. These major constraints include: erosion hazard, which constitutes 48% of the overall risk of soil constraints; this is followed by aluminum toxicity, or strong acidity, at 30%; and lastly shallowness, meaning a rock horizon lies close to the surface, at 23%. For all of South and Central America, erosion risk constitutes only 19%, while aluminum toxicity stands at 39% and shallowness at 11% (FAO 2000, 4 & 63).



<sup>12</sup> "Soil degradation severity is obtained by combining the degree of degradation with its spatial extent... A very severely degraded area can mean, for example, either that extreme degradation affects 10-25% of a mapping unit, or that moderate degradation affects 50-100% of the unit" (Food and Agricultural Organization of the UN 2000).



With the combination of steep, mountainous terrain and widespread deforestation, erosion presents itself as a particular problem that leads to poor soil quality. For Honduras, there are 0.4 hectares of actual arable land per capita, with 0.6 hectares of potential arable land per capita. However, it must be considered that “substantial parts of the actual non-cultivated land are already under agricultural use, as pasture for livestock production. Converting such land to arable use involves a loss of grazing land; and in some parts of the world such conversion has affected the welfare of communities and peoples dependent on grazing resources” (FAO 2000, 40). Overall, soil quality has become a serious problem because of the lack of available land. This causes a concentration of agriculture and subsequently, a more rapid depletion of the soil quality in the few places where agriculture can be sustained. In addition, Honduras has seen a decline in arable, as well as agricultural land as a percentage of total land (World Bank 2007).



This leads us to conclude that development efforts would be better spent on reforming land use than attempting to expand it.

The amount of water directed towards agricultural efforts on these disappearing and less than ideal soils is a huge barrier to use for other purposes throughout the country. While 80.6% of water resources are used for agriculture, only 8.2% are used domestically. This contrasts against the rest of Central America's 64.2% agricultural and 24.9% domestic use. One would expect that with such a high portion of Honduras' water use being allocated to agriculture, most of its crops would be irrigated. To the contrary, over the past two decades, the amount of land irrigated as a percentage of total cropland has only increased from 4% to 6%. Of the water directed towards agricultural use, 92.3% is extracted from surface water and 7.7% is supplied by groundwater through wells (Giordano and Villholth 2007, 116). Much of the irrigated agriculture operates in low-lying regions near rivers. However, this proximity, while beneficial for agriculture because of the abundance of water, has been disastrous for population centers that experience poor water quality of agricultural production and runoff.

Water is sufficient in quantity for agricultural output, but poorly managed. Production is concentrated in those areas where surface water is abundant, in particular the banks of major rivers. The scarce irrigable land is being rapidly depleted of its nutrients. The suffering of the agricultural sector has a ripple effect on the population. Consequences include increased pollution, decreased output and the need to divert more energy and resources toward ailing

agricultural production. We thus conclude that much reform is needed in the agricultural sector and that land and water resources are both crucial and scarce for any such endeavor.

## **Financial**

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We performed three financial analyses in order to uncover Honduras' financial resources and liabilities. The analyses illustrate: the one-gap, which is the disparity between savings and necessary investment for desired economic growth; the two-gap, which is the disparity between trade balance and currency demand; and the three-gap, which is the disparity between government revenue and desired expenditure. These analyses illustrate the lack of financial resources available to the Honduran government for any desired increase in development expenditure.

The principle objective of the one-gap analysis is to determine if the savings and investment rates of the country are adequate to meet development goals. Between 1984 and 2006 Honduras' GDP<sup>13</sup> grew at an average of 3.8% per year. This occurred with an average investment<sup>14</sup> of 22.6% of their GDP. Using the Harrod Domar equation, which describes the

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<sup>13</sup> "Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. According to the 1993 SNA, net acquisitions of valuables are also considered capital formation. World Bank national accounts data, and OECD National Accounts data files." (World Bank 2007).

<sup>14</sup> "Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. World Bank national accounts data, and OECD National Accounts data files" (World Bank 2007).

relationship of savings and productivity to growth, we see that the average k-productivity of investments in Honduras since 1984 has been 5.9:

$$\begin{aligned}k &= I / \Delta\text{GDP} \\k &= .22608695 / .038260869 \\k &= 5.9090814\end{aligned}$$

Thus:

$$\begin{aligned}\Delta\text{GDP} &= (1/k) * I \\I &= k * \Delta\text{GDP} \\I &= 5.9090814 * (\text{our desired GDP growth})\end{aligned}$$

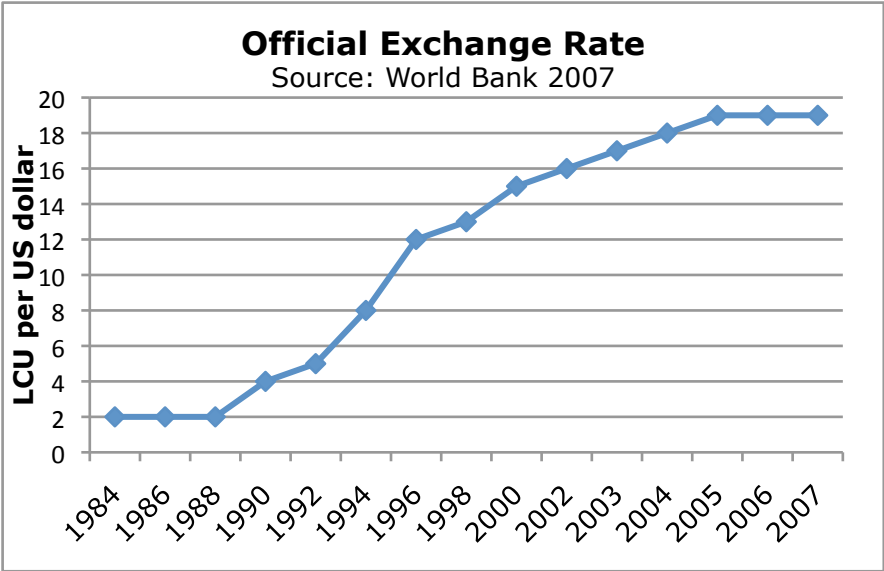
We can use this investment productivity to predict the investment that would be necessary for different levels of GDP growth in the near future:

$$\begin{aligned}\text{IF we want 1\% GDP growth...} \\I &= 5.9090814 * (.01) \\I &= .059090814 = 5.909\%\end{aligned}$$

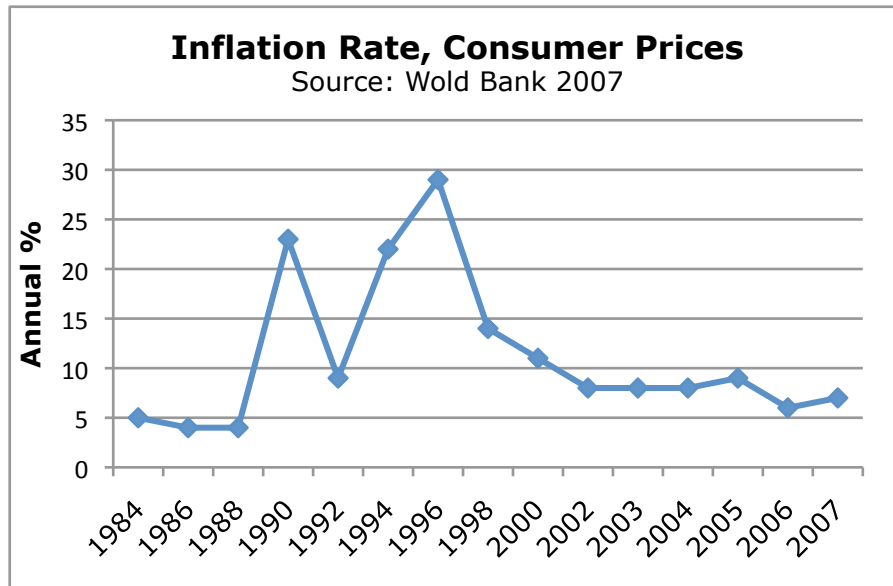
$$\begin{aligned}\text{IF we want 2\% GDP growth...} \\I &= 5.9090814 * (.02) \\I &= .118181628 = 11.818\%\end{aligned}$$

This means if Honduras aims to achieve even 1% GDP growth, they must invest 5.9% of their GDP. In 2006, Honduras' gross domestic savings was 6% of GDP, which is adequate to maintain 1% GDP growth. If they aim for GDP growth of 2%, however, they must invest 11.8% of GDP, which means finding 5.8% of GDP in external finance. Most importantly, this means that savings is inadequate to maintain the average growth rate they have maintained since 1984, and that external finance is essential to Honduras' past, and probably future, economic growth.

Next we illustrate the two-gap. Honduras, in order to continue growing in GDP terms, needs access to capital imports as well as crucial consumption imports. To sustain access to such foreign capital, Honduras' currency, the Lempira, must remain in demand on foreign exchange markets. On a historical note, the currency has been stable during the past several years. As you can see from the "Exchange Rate" chart, after years of declining value in comparison to the US dollar, the Lempira has been stable since 2005.



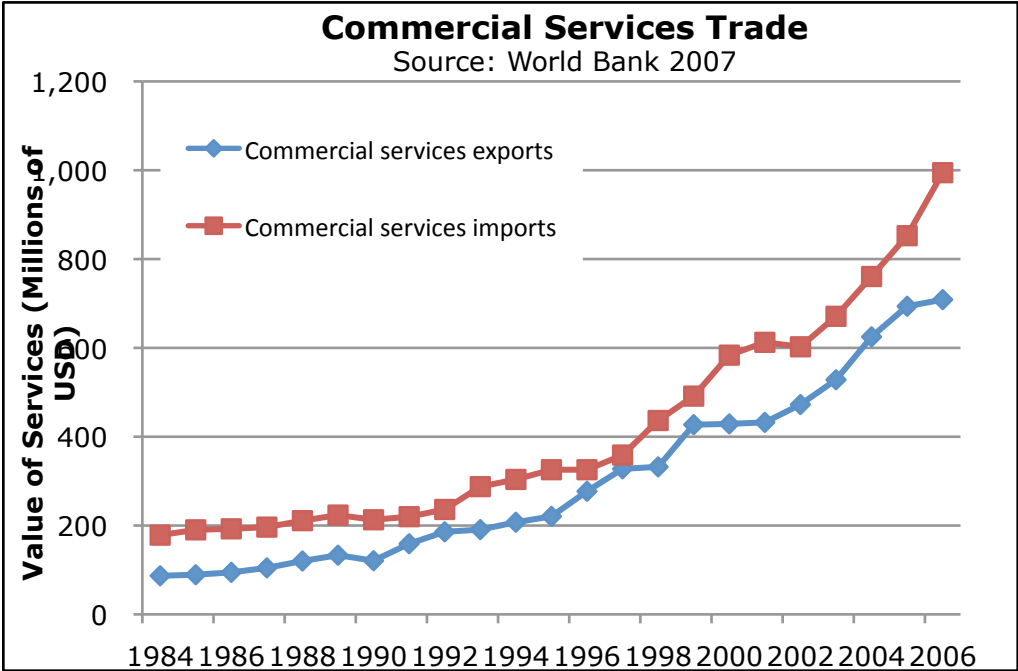
As can be seen from the graph of "Inflation Rate", the inflation rate has been decreasing at the same time exchange rates have been stabilizing.



Next we will predict future currency stability based on Honduras' balance of payments. First, we will divide the balance of payments issues applicable here into two fundamental components. On one hand, we will examine the flexibility of the balance of imports and exports, and as such, in what ways Honduras' trade deficit could be reduced. On the other hand, we will analyze the current capital flows that finance this deficit, as well as prospects for further finance.

Honduras had a 3.2 billion US dollar trade deficit in 2007. This is double what it was in 2005 and over 30 times what it was in 1990 (IMF 2007). After analyzing the composition of imports and exports, the data reveal some important trends, which shed light on both substantial inadequacies as well as continuing improvements of the Honduran balance of trade. We begin with the following graph, which displays trends in the exports and imports of commercial services. Commercial services are comprised of computers, communications, and others category, in addition to insurance and financial services, transport services, and travel services

(World Bank 2007). The increase in both imports and exports has been relatively even, with a substantial gap occurring only in the most recent years. Looking deeper at the composition of these commercial services, we have displayed the percentage of commercial services accounted for by each component and have used the years 1995, 2000, and 2005 for comparison.

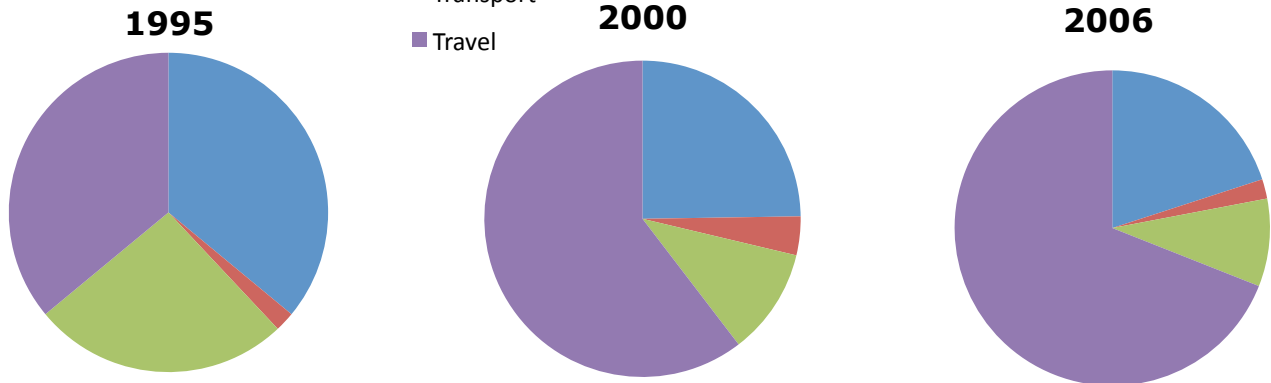


Among categories of exports, travel services stand out as having increased substantially as a proportion of total commercial service exports. While travel services has seen an increase as a proportion of overall commercial services exports, the other categories have seen a relative decline. Travel services include industries like tourism, which have not fully developed in Honduras but have a great potential for growth and expansion in the future. Thus, travel services seem to constitute the area of greatest potential for Honduras' commercial service export expansion.

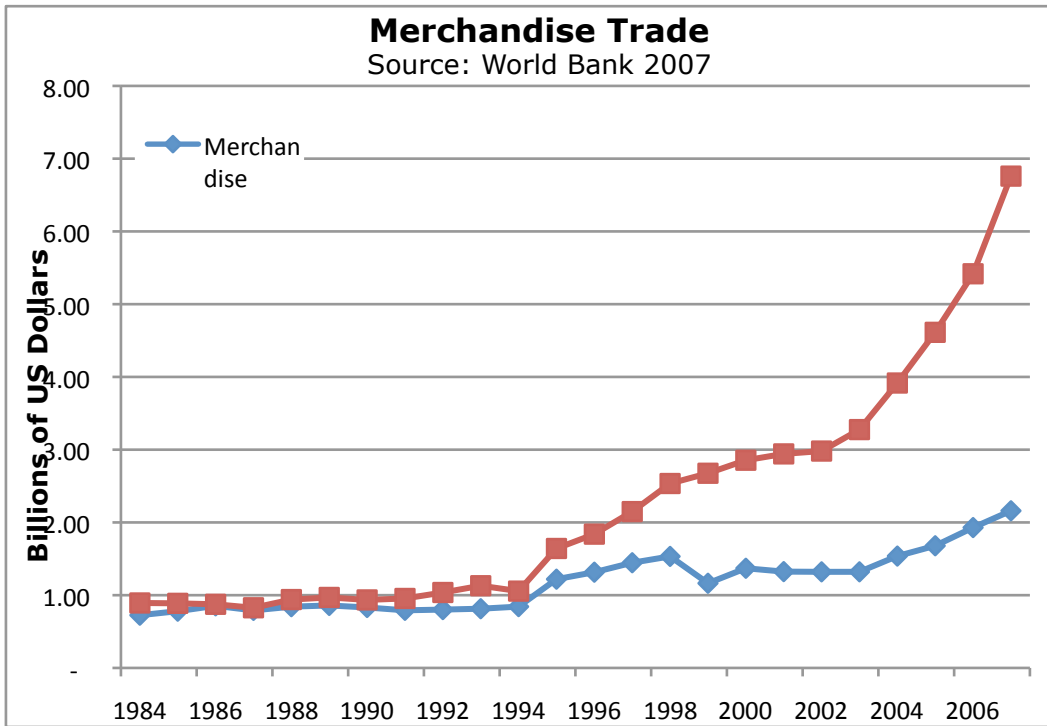
## Composition of Commercial Services Exports

Source: World Bank 2007

- Computer, communications, and other
- Insurance and financial
- Transport
- Travel



In comparison with commercial services, the trade of merchandise has a much greater potential to impact trade balance. Merchandise exports and imports include agricultural raw materials, food, fuel, manufactures, and ores and metals (World Bank 2007). As witnessed from the graph below, the trade of merchandise in Honduras has witnessed an alarming divergence of imports and exports since the start of the millennium. After remaining rather constant for about a decade, merchandise exports have seen only modest growth compared to the explosion of merchandise imports.



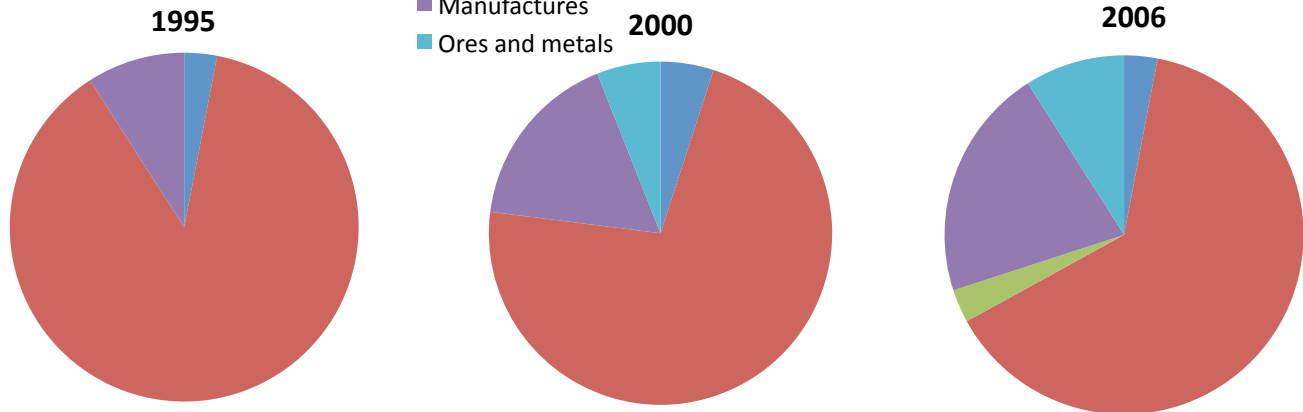
The following analysis (see Merchandise Exports Chart on the next page) allows us to look closer at changes in composition of merchandise trade, revealing trends that seem to offer some hope but also others that should create panic. The breakdown of merchandise exports in 1995 is a particularly disturbing observation, given its heavy dependence upon food exports. It is also crucial to note the timing of this graph, three years before Hurricane Mitch in 1998, which devastated the countryside of Honduras and the agricultural productivity for years to follow. The following graphs given for 2000 and 2006 echo this dependence upon food, but there is a trend towards diversification of exports that should send a sign of hope, especially given Honduras' vulnerability to natural disasters. The growth of manufactures is a particularly positive move which is less reliant on the unpredictability of the climate as well as the limited supply of natural resources.



## Composition of Merchandise Exports

Source: World Bank 2007

- Agricultural raw materials
- Food
- Fuel
- Manufactures
- Ores and metals



The charts above display the composition of merchandise good exports. The composition of merchandise exports and imports has seen a general opposite movement, with exports increasing and imports decreasing as a percentage of total trade, although both fluctuated over the course of the time period given. The increase in manufactures exports is reflected in the decrease of manufactures imports. The import of manufactures appears to be a factor that can continue to be decreased. However, the increases witnessed in both food and fuel imports can present a problem to the trade balance. Unproductive agriculture and high fuel prices will continue to cancel out any advances made in manufactures imports reduction, and the tremendous increases in imports over the past few years only magnifies these increases in other imports. Nevertheless, there is hope in the diversification seen on the export side of the merchandise trade, which has the potential to attract investment for further growth.

Honduras has sources of both inflows and outflows of capital. The inflows are from loans/liabilities, foreign direct investment (FDI), exceptional finance items like debt forgiveness, and transfers, which includes foreign aid and worker remittances from abroad (IMF 2007). Three of these items trump the others in magnitude for 2007. First, remittances are the greatest source of income in Honduras. This is a reliable resource in that as long as Hondurans abroad have jobs they will be sending money back. However, as a result of the global financial crisis job security abroad is not stable. Between those abroad for just one year and those who have been abroad for longer, the total amount of remittances received from abroad is \$2784.452 million.

The second most important source of income is Foreign Direct Investment. This totals \$815.918 million. Most FDI comes from the United States “U.S. investors account for nearly two-thirds of the foreign direct investment (FDI) in Honduras. The stock of U.S. direct investment in Honduras in 2005 was \$402 million, up from \$339 million in 2004. The overall flow of FDI into Honduras in 2005 totaled \$568 million, \$196 million of which was spent in the maquila sector” (US Department of State 2007).

The last significant contributor to income is foreign aid at \$213.960 million. As Professor Moon explained in class this is likely to be particularly volatile with the new Obama administration because they are not concerned with the threat of communism in the area and do not feel the need to keep Honduras in the democratic realm. While the level of foreign aid may be reduced in the near future there is little evidence to indicate that other contributors will be as severely

affected by the change in political leadership. The greatest threat to Honduras' sources of income is the global financial crisis; specifically, that there will be reduced access to jobs abroad and that there will be less money available for investment abroad by foreigners.

There are also several items in Honduras' balance of payments that drain capital that could otherwise be used to finance the trade deficit. These include repayments on loans, repatriated profits, and most significantly, the accumulated foreign liabilities. Honduras owes 981 million US Dollars abroad (IMF 2006). Although Honduras' debt is high in magnitude, it does not stand out in comparison to its neighbors. Honduras' total external debt totals at 46% of its gross national income (GNI). As is evident from the chart, this falls right below the average of other similar income-level countries in Latin America and the Caribbean (World Bank 2007).

Balance of payments accounting shows that most of this foreign debt is loans made to Honduras' government by foreigners, and which Honduras is now responsible for paying back (IMF 2007). Honduras was relieved of a large portion of its debt in 2005 when it reached the Highly Indebted Poor Countries (HIPC) completion point, and Paris Club creditors pledged \$297 million in debt-service relief. As of 2006, all but \$162 million of this relief has been received, and the rest is expected through a reduction in future debt service payments. Therefore one could expect that Honduras's debt to be more manageable solely through the completion of this relief program (IMF 2006).

The total external debt as a percentage of GNI has been in a downward trend since 1994. Honduras' debt, as a percentage of GNI, can be expected to continue falling if the Paris Club debt services come to completion. In October of 2006, the International Development Association and International Monetary Fund reported that, "all [Honduran] debt ratios remain below their indicative thresholds," and will remain so provided that sensible fiscal policy is upheld. Most importantly, the IMF stressed that, "...reducing the risk of debt distress will therefore depend critically on maintaining sound policies consistent with a prudent borrowing strategy for the medium and long term" (IMF 2006). From these statements, one can come to the conclusion that Honduras' debt situation is not entirely grave, because their debt remains below the threshold and the situation will remain in this safe position so long as policies remain sound. We come to the conclusion that Honduras' foreign debt is inarguably high in magnitude, but it is manageable.

Honduras has a massive trade deficit and massive foreign debt. It owes 46% of its GNI to foreigners, and has doubled its trade deficit from 1.6 billion to 3.2 billion US dollars in two years. One may question why its red flag does not draw emergency international attention and the answer would be the comparable situation of its neighbors. Regardless of this comparison, however, Honduras' situation is precarious. Although its debt is comparable to that of the United States, its currency does not carry quite so much international faith; therefore, the flows must balance. One answer is the multitude of worker remittances (totaling over 2 billion USD), which will continue at similar levels in the future. Another is foreign direct investment, mostly

from the United States. A third answer is the sizeable foreign aid streaming in from sources like the Paris Club, a source of capital that is unreliable with changing political agendas.

All of these sources of incoming capital must weigh against a debt that, although manageable for the foreseeable future and steadily declining as a proportion of GNI, is a liability. In case the delicate balance of immense deficit and capital flows comes into danger, the trade balance is one place where some amount of flexibility exists. Honduras has many merchandise imports, but few exports. This balance is improving as manufacturing exports rise through diversification. As the country progresses from its history of primary product specialization, less manufactures are needed from abroad, and natural disasters pose less of a threat to overall stability. There is also room for growth of travel services. Although these flexibilities and improvements exist, Hondurans still rely increasingly on food and fuel imports. Thus, at the very least, their currency must be in demand so as to provide essential consumption goods to the growing population. Export growth and debt relief are appealing options.

The three gap is a term used to describe the difference between a country's revenues and its expenditures. Furthermore, it highlights the areas in which changes are made to ensure our factors of development can be met while ensuring the country is capable of economic sustainability.

This section is broken down into a number of segments. First, we explain our methodology for tackling the three-gap issue. Like many underdeveloped countries, the accessibility of

Honduras' governmental budgets is limited, and the reliability of their accuracy must be taken into consideration. The next section presents the nation's budget from a broad perspective, looking at general revenue and expense accounts and summarizing on the nation's overall fiscal health. The next section delves deeper into areas in which we believe the budget can be amended/challenged, while the final section concludes by proposing areas in which we can reallocate existing funds to help support the areas that best meet our expectations for development.

On a scale of accessibility of governmental budgets, Honduras, like many underdeveloped nations, is towards the bottom of the list (Int'l Budget Partnership; 2009), implying that the country's budgets are difficult to obtain, whether due to state policy or simply lack of technical expertise in sourcing and presenting the data. Based on our initial search, the only budget we could acquire was sourced directly from the Honduran Ministry of Finance, which offered access to a budget from the years 2006-2008 (Republic of Honduras; 2008). The budget, which is only available in Spanish, is presented in a non-conventional format (at least by International accounting standards).

Based on the limitations presented, our analysis focused principally on the budget itself, as opposed to drawing on longitudinal or cross-sectional analysis. This is largely limited by both access to older budgets, as well as incompatibility issues between countries; the budget account headings are too vague to permit direct comparisons to those accounts similarly labeled in the budgets of other nations.

As presented in the Appendices, the Honduras Ministry of Finance does a reasonable job of providing an overview of their annual budget. The following section describes figures from the 2008 fiscal year budget.

Concerning revenues, Honduras had a total 2008 income of HND 49,237,904,597. This income was sourced from two areas; current income (HND 43,459,675,518) and donations (HND 5,778,229,079). As apparent, the majority of the nations income (approximately 88%) is obtained internally. This figure is composed of tax income (HND 39,100,830,778) and non-tax income (3,563,944,740).

The tax income itself is largely attributable to a number of accounts. HND 12,050,000,000 is collected through income taxation, while HND 17,024,530,778 comes from sales taxes. The remaining tax income comes from accounts labeled property taxes, service taxes and import taxes respectively. The non-tax income, which computes as only 8.2% of current income, is composed primarily of an account entitled "Regalias", translated to mean gifts.

The donations account, which accounted for 11.7% of the nation's revenues, is broken down in current donations and capital donations. The capital donations of HND 5,408,113,989, make up the majority of the donations, and can be assumed to related to funding and/or foreign aid from the World Bank and other sovereign nations.

With regards to the 2008 fiscal year expenditures, Honduras had a total expense account figure of HND 53,906,472,888. This was divided into two categories: current expenses and capital expenses.

The current expense account, at HND 42,202,330,468, forms 78.2% of the nation's expenses and is broken down into consumption expenses (HND 29,742,345,618; 70.4%), interest expenses (HND 2,339,002,642; 5.5%), current transfers (HND 7,211,139,768; 17.0%) and other expenses (HND 2,909,842,440; 7.1%).

The consumption expense account is the largest of the expense accounts and the most important. However, the breakdown offered in the overview provides little insight into the country's allocation of funds, and so will be addressed later.

The capital expense account, at HND 11,704,142,420, forms 21.8% of the country's expenses. With the addition of net concessions of 74,365,000, the overall budget for 2008 shows a HND 4,742,933,291 deficit, which equates to 9.63% excess above the revenues obtained by the state. This figure, as designated on the budget, was financed by both external credit (HND 2,773,314,166; 58.5%) and internal credit (HND 1,969,619,125; 41.5%).

It is evident from looking at a broad view of the budget that Honduras has a problem with budget, running a deficit in 2008 of HND 4,742,933,291, which equates to nearly 1% of the 2007 estimated GDP of \$32.26b.

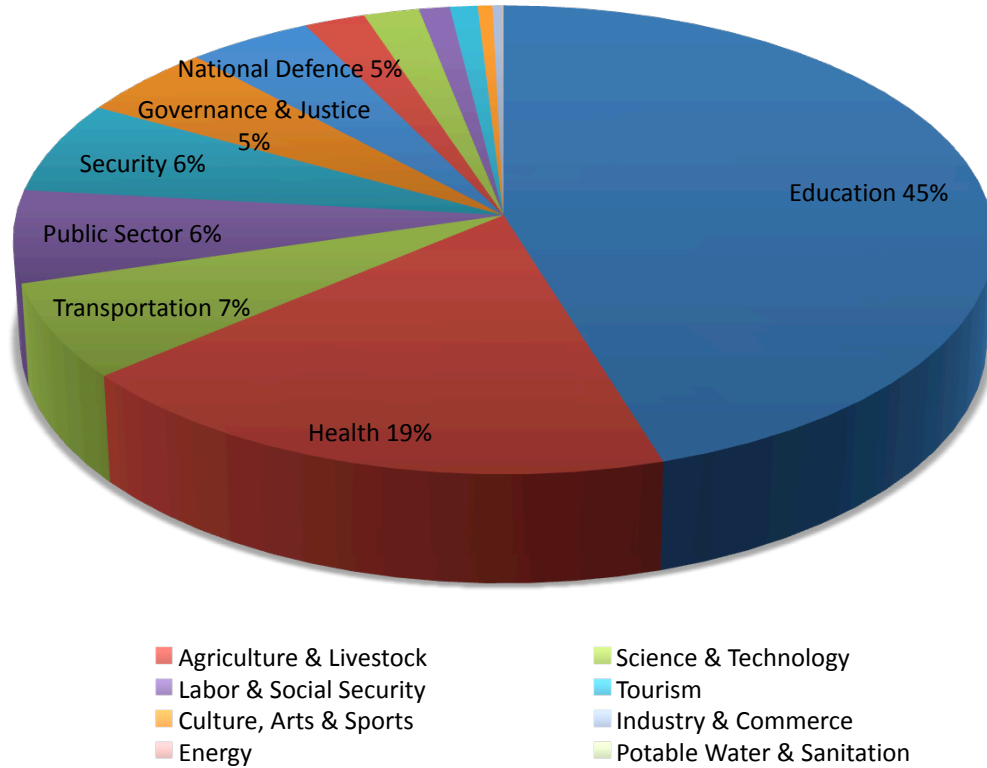


Although the budget overview used to summarize above offers little insight into the specific areas of spending, the Ministry of Finance does provide a break down by key departments. Although the totals of these departments does not equal any number presented in the above, perhaps because of a different method of allocation, it can be speculated that the majority of expenses can be associated with those found in the current expense account, and perhaps even attributable largely to the consumption expense account. This is in large part due to the presence of salaries as a substantial component of the individual budgets, which are not easily explained by other accounts.

The chart below offers a breakdown of these departmental expenses as designated in the Ministry of Finance's website. As noted, although the total figure does not match any of those seen elsewhere, it does appear that all of the departments that could be expected to receive funding have.

### Departmental Expenses

Source: Honduras Ministry of Finance 2008



As the chart shows, the majority of the expenses are allocated to education and health, with diminishing quantities allocated to transportation, the public sector, security, governance and justice, and national defense. At HND 2,404.94 per capita, education takes up 45.24% of the budget. This number immediately draws suspicion, given the relatively poor quality of the nation’s education system, which we noted required focus previously. Healthcare, at HND 987.59 per capita, and as 18.58% of the budget, seems to fit with a country in which health care

costs inevitably rise as other factors contribute to poor health. These factors can be seen elsewhere in the budget; the country designated less than 1% of its budget to potable water and sanitation, at only HND 1.11 per capita in the 2008 year, which equates to \$0.06 per person.

Given our inability to compare Honduras to other nations, it is imperative that we challenge the figures provided by the government, and as alluded to, the large figure allocated to the Education department warrants our attention.

Looking specifically at the expenses accumulated by the Department of Education, it is possible to see that the majority of the HND 17,997,997,269 total is allocated to “Educacion, Investgacion, Cultura y Actividades Recreativas.” Given the other accounts are designated secondary and preschool/elementary education respectively, it seems concerning that such a large part of the education budget (96.4%) is defined under an abstract account that is distinctly separate from the aforementioned education accounts. In looking closer at the budget for education, we have found that 6,693,887,147 is spent on basic salaries and 3,338,396,770 is spent on “additional costs” that are not specified. Given the percentage of the overall government budget allocated to such sectors as healthcare or transportation, we find it highly unlikely that these figures are an accurate representation of the actual expenditures on salaries. The large amount for “additional costs” is suspicious in itself because of the comprehensive list of other expenses accounted for in the education budget. Given these suspicions, we believe this money can be reallocated much more effectively.

Assuming the funds previously questioned in the education department provide an opportunity to release funds for other departments/goals, we believe the government would be best focused on two or three critical areas: debt reduction, potable water and sanitation, and transportation. Given that public debt as provided by the CIA is 21% of GDP in 2008, we feel that debt reduction is a pressing issue for the Honduran economy. Furthermore, 2,339,002,642 lempiras are allocated towards the service of debt for interest and commissions. This large amount of debt carries with it serious implications for issues such as national sovereignty and power relations. The increasing reliance of foreign debt needs to be addressed now if future dependency issues are to be avoided. This is a perspective heavily supported by dependency theorists who regard substantial national debts for developing countries as something to be avoided. Currently, potable water and sanitation accounts for less than 1% of the total government budget at 8,273,450 lempiras. Given that Honduras is plagued with many issues relating to the quality and quantity of water, this miniscule number has serious consequences on the health of Hondurans as well as the productivity of the nation's economy, most specifically in the agricultural sector. In addition, transportation consists of 7% of the national budget. This is also a figure that we believe should be increased given that an expansion of the infrastructure will promote entrepreneurial potential and will create a more connected system of communication and travel that will foster trade. In developing these sectors of the economy, we feel that Honduras will be better able to address the underlying causes of poverty.

## Social and Political Conditions

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Although GDP growth, as a measure, does not address the level to which basic, security and educational needs are being met, we recognize that meeting these needs becomes much more feasible when economic development is taking place concurrently. Thus, we must address the fiscal deficiencies and liabilities that are described by the one-, two-, and three-gap analyses above.

First we would like to echo John Page's (1995, 212): "There is no one model for success." We accept no universal blueprint for successful economic development because history shows there is none. In the example of East Asia's recent and rapid growth, each country implemented different policies at different points in their development, and each of these different strategies achieved rapid growth. It is not simply about choice of policy, however, but finding policy that fits local conditions. Clive Hamilton (1987, 377) argues that we must acknowledge the social and political environment from which policies are born. Local, national and international conditions not only require specific institutions, but many institutions are the result of historical conditions (de Rato 2006: 218, Jameson 2006:374).

We will assume that some version of capitalism is necessary to achieve the sustainable economic growth that can fill the one-, two- and three-gaps. Although East Asia provides a great example of rapid growth, it is not possible for Honduras to emulate East Asia exactly because its social and political conditions are unique. We can, however, aim to create political conditions that encourage accumulation and productive investment of capital. This means

preventing unproductive use of capital by wealthy elites. We can accomplish this by: avoiding concentration of wealth in the hands of land owners; minimizing profits derived from commercial and financial capital; preventing excessive outflow of capital overseas; reducing government corruption; and increasing the quality of state interventions (Hamilton 1987, 367-8). We can also increase the rate of capital accumulation through state action, including creating physical capital (e.g. building infrastructure) and human capital (e.g. educating citizens) (Page 1995, 209). Thus, although liberated markets may play a large role in many capitalist economies, accountable and well directed state involvement can play an important role as well. Power relationships and the local political and social climate must change to allow both markets and state policies to function for growth.

We must pay attention to local conditions not only on the national level, but on the regional and community levels as well. For example we must be wary of urban bias. "...Sustained urban industrial growth needs to be preceded or accompanied by a transformation of traditional agrarian social structures and production techniques. If this does not occur, the rural sector will impose an intolerable drain on industrial production..." (Hamilton 1987, 364).

## Conclusion

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The research and analysis presented paints a clear picture of Honduras as a country severely lacking in fundamentals areas of development, especially those deemed important by our own requirements for a country to be considered developed.

As noted in our definition of development, meeting the basic needs is a necessary requisite to growth. In case of Honduras, many of the basic needs are not being provided or assumed by its people. Perhaps most critically, undernourishment is a prevalent problem, with more than one-fifth of the population failing to meet required caloric intake. Furthermore, a large portion of children (approximately 30%) has stunted growth due to malnutrition. In addition to dietary concerns, our research also implies that a consideration of the other basic needs be undertaken. Access to potable water, especially for domestic use, is a problem in both urban and rural areas, and the modernization of the country's water infrastructure is another development requirement. Given the inefficiency of the agricultural sector and the unequal allocation of the available water sources, we have found that addressing the country's water infrastructure possesses serious implications for the malnutrition problem in the country as well as the problem of potable water.

Our subsequent analysis of the limitations to the provision of these basic needs is threefold. First, there is a massive unemployed labor force in Honduras, which can only reach its potential level of human capital once people are adequately nourished. Second, the agricultural sector

presents major restraints for water and food distribution. Third, the savings rate is low, liabilities are high and there is not enough revenue for the government to properly address these development issues. Thus, non-state actors are charged with this undertaking of fueling development until social and political conditions provide for government action.

In outlining our next steps, it is apparent that attempting to improve development in Honduras could take many forms. Yet of all the opportunities available, we believe the importance of meeting basic needs, coupled with the explicit development concerns in pivotal areas such as nutrition and water access, implores us to focus our attention on solving these problems first. Given the inadequate revenues spent by the government on providing for such needs, we find it necessary that such problems should be addressed at the local, village level. As such, our priority is to help those acquire the capacity to provide for their own basic needs, which in turn will hopefully help define the path to self-determination. Our approach will support externally imposed programs and development projects aimed at meeting basic needs at the local level which would be implemented with an emphasis on sustainability and a consideration for the existing levels of physical and human capital in the region. Furthermore, such solutions should support creating an environment for the self-empowerment and liberation of the local population in supplying them with the tools necessary to provide for such basic needs, further endowing them with the ability to dictate their own future.



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