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Identification and Explanation of Regional Development Poles in Haiti

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Abstract

The concentration of the population and socioeconomic activities in the Metropolitan Area of Port au Prince (MAPAP) in Haiti has a negative impact within MAPAP and on the socioeconomic development of the entire country. This phenomenon, known as urban primacy, is increasing at an unprecedented rate in developing countries. Urban primacy in the Third World is explained by scholars studying the phenomenon and by dependency theorists. Economic decentralization, based on growth pole theory, is one of the most frequently used policies for slowing the growth of primate cities by focusing on development poles. In Haiti, the potential growth poles are the regional capitals that have a constitutional mandate to promote and manage the development of their region.

I have tested some of the assumptions of dependency and growth pole theories on Haiti, using the eight regional capitals as units of analysis. Using migration, geographic, and socioeconomic data, I have identified the strongest poles and explained their attraction power and formulated policy recommendations that will increase the chances of successfully implementing economic decentralization. The research design is the case study.

The data show that MAPAP overshadows the regional capitals at the national level and within the capitals' own region, except for Cap Haïtien. However, the regional capitals are the primary destinations for migrants within their regions. The strongest poles are Cap Haïtien, Gonaives, and Port de Paix. Their attraction power is explained primarily by their population size and by their connections to the international market.

Due to the selection criteria of the units of analysis and the limitations of the data used, the support and rejection of the growth pole and dependency theories hypotheses are not conclusive for the testing of these theories in Haiti or the Third World.

The Haitian government needs to be more aggressive in addressing the consequences of urban primacy by implementing a comprehensive economic decentralization. The January 12, 2010, earthquake brought light on the issues raised

by this study. Fortunately, the Haitian government has expressed its vision for the rebuilding of Haiti with an emphasis on decentralizing socioeconomic activities outside of MAPAP.

Keywords: Haiti, regional development, decentralization, growth pole theory, dependency theory, secondary cities, migration

Introduction

I am from Jacmel, Haiti. I decided at a young age to find a field of study and a profession that would give me the skills to make a difference and contribute to the socioeconomic development of my country. International development and urban studies are interdisciplinary fields that seek to understand issues facing the developing world, attempt to overcome them, and understand the progress made in developing countries like Haiti. I chose the field of geography and land management. After earning my master's degree in France, I returned to Haiti but could not, unfortunately, find work in my field in Jacmel. Most of my high school classmates were in the same situation. I started working in land management, decentralization, geographic information systems (GIS), and urban development for international organizations, non-governmental organizations, and other public institutions in Haiti's capital city, Port au Prince. In the Metropolitan Area of Port au Prince (MAPAP), I was struck by the omnipresence of shantytowns, the constant road congestion, the inability of the governing institutions to provide basic urban services such as water and sanitation, and the lack of security. Jacmel felt like paradise compared to MAPAP.

The present study reflects my personal interests, my educational background, and my professional experience. I wanted to understand why a once vibrant city like Jacmel could no longer retain its population, even when members of that population are trained professionals with skills that are valuable to the city. I have found some answers during my professional experience elaborating regional and urban development plans and by participating in the debate about effective decentralization in Haiti: Jacmel cannot retain its natives because there are no jobs in the city. There is no serious institution of higher education in the city; residents of Jacmel must move to Port au Prince to further their education. Due to the lack of good health care facilities in Jacmel, parents and families must often move to Port au Prince if a relative has a chronic illness. These are just a few

examples of the circumstances that cause people to leave Jacmel. These issues affect all the cities of the country outside MAPAP. A disproportionate share of the socioeconomic activity of the country is concentrated in Port au Prince. MAPAP is often referred to as a *primate city* among the policymakers in the country; this concept is further explored in the present study. The explosion of MAPAP not only has a negative impact on the city itself (as I experienced while living in the capital) but also on all the other cities of the country and their socioeconomic activity (as I experienced in my hometown of Jacmel). The explosion of MAPAP has a negative impact over the entire country.

The phenomenon of urban primacy occurs in all parts of the globe, including developing countries. Policymakers seek to address the problems linked to urban primacy by promoting decentralization policies. There are several definitions of decentralization. One of the best general definition is provided by Rondinelli, et. al.: "the transfer of responsibility for planning, management, and resource-raising and allocation from the central government to (a) field units of central government ministries or agencies; (b) subordinate units or levels of government; (c) semi-autonomous public authorities or corporations; (d) area-wide regional or functional authorities; or (e) NGOs/PVOs." (Rondinelli 1981). In addition, Wolman (in Bennet, 1990) identifies different types of decentralization: *political decentralization, administrative decentralization*, and *economic decentralization*. The present study focuses on economic decentralization, as it is missing from the current decentralization policy and the debate surrounding it in Haiti.

For more than two decades, the Haitian government has had the opportunity and the constitutional obligation to address these problems by implementing sustainable political and administrative decentralization policies. Decentralization is one of the innovations embedded in the last Haitian constitution of 1987. It was included as a means to promote citizens' participation in the democratic process by transferring some of the power from the central government to local

institutions managed by locally elected officials. The local institutions also became responsible for the socioeconomic development of the territory under their control.

The debate around decentralization essentially revolves around amending the constitution to write new laws that will make decentralization more practical and that will better define the role of local institutions. The reinforcement of local institutions includes financial support to purchase basic office supplies and equipment such as computers, printers, and copiers. It also includes technical assistance to train elected officials and staff to better understand their role and perform their duties. The proposed solutions have not ensured the success of an effective and sustainable decentralization policy because the local collectivity will still financially depend on the central government. Indeed, the local Haitian collectivities traditionally receive funds for their functioning budget from the central government, which collects taxes over the entire national territory. Today, only the municipality of Cap-Haïtien collects a larger amount of tax revenue than it receives from the central government. Even in this case, the revenue is not sufficient to invest in socioeconomic programs. Decentralization requires the ability of local collectivities to self-generate a steady flow of revenue from collecting taxes on personal income and businesses. Given that socioeconomic activities and infrastructure of Haiti are disproportionably concentrated in Port au Prince, there are limited taxable incomes and economic activities in the other regions. To make decentralization a sustainable reality, it is necessary to increase taxable incomes and economic activities outside MAPAP. This requires allocating public investments and encouraging private investments in the other regions, i.e, implementing economic decentralization; that is not currently the case in Haiti.

In 2007, the Ministry of Planning and External Cooperation published the National Strategy for Growth and Poverty Reduction Document (NSGPRD) for 2008–2010 (MPCE November 2007). This document presents the economic policy of the Haitian government for this period.

Unfortunately, this document does not present a different or comprehensive strategy to address the consequences of urban primacy and the concentration of the population and socioeconomic activity of the country in MAPAP.

In addition, based on the tradition of equal decentralization for each local collectivity (each collectivity should have the same power and rights and receive the same amount of public investments), scholars writing about the decentralization process in Haiti have failed to analyze the interactions among the different elements of the geographic space (e.g., urban system, varying sizes of cities, rural and urban areas) and the role that the repartition of social and economic activities beyond the administrative limits can play in explaining the success or failure of the decentralization process. More importantly, scholars failed to investigate the role that cities and the structure of the urban system could play in the decentralization process. The discourse about promoting local development outside of the MAPAP mostly revolves around promoting a more effective agricultural development. To be effective, a national decentralization policy should have an economic decentralization component that is based on reinforcing elements of the socioeconomic geographic landscape, such as the major urban centers outside the primate city. This study will fill this gap in the literature.

Instead of trying to achieve decentralization by promoting only rural development, my argument is that the government should also focus on the development of a more diverse economy and a more balanced urban system by channeling the population and socioeconomic activities toward key urban centers. The main question to be answered in this context is *where to concentrate the efforts*? This is the main question of every decentralization policy, and the field of economic geography provides the best answer. Decentralization policies are implemented by policymakers through "*growth poles*" (i.e., cities where public investments are concentrated and where private investments are promoted). These cities are selected because of specific characteristics that will make

these investments sustainable and promote growth over a defined geographic area. Growth poles are also called *"secondary cities."* These concepts are further explored in the study.

Based on my knowledge of the Haitian urban system, my intuition was initially that the efforts should be concentrated in the regional capitals, which are the main cities and the administrative centers of the upper sub-national territorial division called *Departments*. With the present study, I have worked on confirming my intuition through scientific answers. The main objectives of the study are:

- To identify the cities that have the characteristics to be potential "growth poles"
- To explain how these cities differ from the other cities
- To formulate policy recommendations to strengthen the growth of these poles in order to increase the chance of success of the decentralization process and reduce the negative consequences of urban primacy in Haiti. These recommendations will improve the NSGPRD.

The dissertation begins with general historical and socioeconomic information about Haiti. It is followed by the "Problem statement and Justification" chapter that presents MAPAP as a poor, overcrowded, and unmanageable urban center and discusses the rural areas that are too poor and environmentally fragile to offer a decent life to their actual population, the essential role that the departmental capitals can play, and the constitutional requirement that is decentralization.

In the literature review, I have explored the concept of urban primacy and the consequences of urban primacy in the developing world; the causes of the failure of decentralization and regional development policies in developing countries; and the application of growth pole theory as a policy framework for developing countries and dependency theory.

I have used frameworks and theories from the fields of geography (growth pole theory) and international development (dependency theory) to reach the objectives of this study. By doing so, I have also tested propositions or hypotheses related to these theories in the Haitian context.

The choice of data and indicators reflects the availability of consistent data on the eight units of analysis. For all data used, I present the rationale behind the choice to use the data as well as the limitations of the data. I have used migration and population data to study the influence of the regional capitals in the national and regional urban systems. I have used basic statistical analysis and GIS to display and analyze the data. I have used the results to formulate policy recommendations and identify the cities where socioeconomic activities should be delocalized from Port au Prince to ensure the success of the decentralization process. Haiti is used as a case study to test some propositions or hypotheses related to the growth pole and dependency theories but, although the same problems occur all over the developing world, the findings of this study are unique and the conclusion I have drawn should be applied with care outside the Haitian context.

In the concluding chapter I present an evaluation of my findings in light of the literature presented and the contribution of the research to the body of knowledge on Haiti, decentralization, dependency, urban primacy, and development theories, the limitations of the research and the need for future researches. I will also discuss the policy relevance and implications of the research, made even more relevant by the devastating earthquake of January 12, 2010.

The January 12, 2010, earthquake shone a brighter light on most of the issues raised by the present research and makes its policy relevance even more important. On January 12, 2010, a 7.0 earthquake hit Haiti, devastating MAPAP and the cities of Legoane, Jacmel, and Grand Goave. This catastrophe took the lives of an estimated 200,000 people and left half a million homeless. The Haitian government estimates that between 217,000 and 230,000 people died; 300,000 were injured; and 1,000,000 were left homeless. In addition, an estimated 250,000 residences and 30,000

commercial buildings collapsed or were severely damaged. The port and the airport of Port au Prince were also severely damaged. The loss due to the earthquake is estimated to be 120% of the 2009 GDP; 70% of the lost account for the private sector and 30% accounts for the public sector.

The January 12, 2010, earthquake demonstrated how MAPAP is poor, overcrowded, and unmanageable. These characteristics of the capital and its surroundings explain the high death toll and the inability to access some of the neighborhoods. Soon after the earthquake, thousands of people took it upon themselves to flee to the countryside or other cities to escape Port au Prince and the chaos, growing security issues, lack of food, and insalubrities.

The concentration of infrastructure, economic activity, and population in MAPAP became the reason for the logistical nightmare for delivering much needed emergency aid both in the capital and in the other cities affected by the earthquake. MAPAP has the only airport capable of receiving large planes and the only port facility capable of harboring the large ships sent to deliver humanitarian aid to the earthquake victims and survivors. Both facilities were severely damaged by the earthquake and made it impossible to deliver the much-needed help, not only in MAPAP but also in other areas. After some quick repairs, the port and airport became very quickly congested and bottlenecked, delaying the arrival of rescue and emergency teams and the delivery of aid. As a result, access to other cities could have been useful for delivering supplies to Port au Prince. The isolation of the other cities also left their population out of attention of the international press and thus from the international community concern for several days. Today, more than ever, there is an urgent need to promote economic decentralization.

General Background Information

This chapter presents the geography of Haiti; some general socioeconomic, historical, and political data that depict a very poor country; an overview of Haiti's tumultuous history; and the complex history of the influence of the international community in Haiti. This information will help the reader better understand the present research by presenting an overview of the context in which it is conducted.

Geography

Haiti is located on Hispaniola, the second largest island of the Antilles. It occupies approximately the western one-third of the island that it shares with the Dominican Republic. Its surface is 10,714 square miles (map 1).

"*Haiti*" means little mountain (or mountainous land) in the language of the Tainos/Arawaks, the native inhabitants of the island. The country is very mountainous, with steep slopes and small inland and narrow coastal plains (map 1).

From north to south, there are the following mountain ranges:

- *Massif du Nord* in the northern part of the country
- *Montagne Noire* in the center of the country
- *Chaine des Mateux* and *Chaine du Trou d'Eau* in the southern area of the center of the country
- *Chaine de la Selle* (includes *Pic la Selle*, the highest point of Haiti with a height of 8,793 feet) and *Massif de la Hotte* occupying the length of the southern peninsula from east to west

These mountain ranges are separated by a series of inland plains and valleys:

- *Plaine du Cul de Sac* separating the southern peninsula from the rest of the country

- *Vallée de l'Artibonite* in which runs the most important river of the country, the Artibonite river

In addition, there are two main coastal plains:

- *Plaine du Nord* in the North
- *Plaines des Cayes* in the southwest part of the southern peninsula

The road network is rudimentary in Haiti. At the national level, the main roads link the main cities to the capital, Port-au-Prince. In addition, local road networks link cities within a geographic entity and are generally centered around the main urban center of the geographic entity (map 1). The topography of Haiti and the poor state of the road network separate the country into isolated geographic entities and consequentially affects the geographic areas of influence of the regional capitals (Anglade 1982).

Map 1: Topography and road map of Haiti

Source: Wikipedia (http://upload.wikimedia.org/wikipedia/commons/archive/8/83/20090309223036!Haiti_topographic_map-fr.png)

General Socioeconomic Data

The population of Haiti is young and the country's inhabitants are split between the rural and urban areas. According to the Haitian Bureau of Statistics, by 2010, Haiti will have 10,085,214 inhabitants; 49% will live in urban areas and 51% will live in rural areas. The group age of 25-years-old and younger will represent 58.4% of the population, and the population density will be 941.31 inhabitants per square miles (IHSI 2001).

The Haitian economy's structure is that of a developing country. According to data from the Central Bank of Haiti, the Haitian economy is dominated by the tertiary sector (retail, the restaurant and hotel industry, transportation and communication, other trade and non-trade services), which

accounts for 58% of the country's gross domestic product (GDP); the primary sector (agriculture, forestry, cattle, fishing, and extractives industries), which accounts for 25% of the GDP; and the secondary sector (manufacturing industries, electricity and water services, construction, and public works) that comprises the remaining 17% of the GDP.

In terms of GDP per capita, Haiti is ranked 152 out of 179 countries by the International Monetary Funds (IMF) with US$791 a year; and 125 out of 170 by the World Bank with US$771 a year. In comparison, the second poorest country of the hemisphere, Nicaragua, is ranked 141 (with US$1,025 a year) and 125 (with US$1,161 a year) by the IMF and the World Bank, respectively.

In addition, the statistical data of the United Nations show that 65% of the Haitian population lives below the national poverty line: 53.9% live on less that US$1 a day and 78% live on less than US$2 a day. The adult literacy rate is around 54.8%. The life expectancy at birth is 61 years and there are 25 doctors for every 100,000 inhabitants. Haiti is the poorest country in the Western hemisphere.

Historical Background

The Colonial Period

Haiti has had a unique and tumultuous history since Christopher Columbus landed, on December 5, 1492, on an island known as Quisqueya, Haití, or Bohío by the Tainos Indians, who were the native inhabitants (Wilson 1990). He renamed the island Hispaniola, after the Spanish crown, and established the New World's first Spanish settlement near the site of present-day Cap Haïtien. He built a fort called La Navidad and left behind a crew of thirty before returning to Spain (Dorsainvil 1924; Madiou 1947/1948; Bellegarde 1953).

The Spanish colonization of the island was based on exploitation of its gold mines. What started as a peaceful cohabitation between the Spaniards and the Tainos turned into an open conflict, the enslavement of the Tainos by the Spaniards in search of gold and the killing of Tainos

leaders. With their horses, dogs, armors, and iron weapons, the Spaniards easily defeated the peaceful Tainos. They also brought diseases that caused the eradication of the majority of the native population (Dorsainvil 1924; Madiou 1947/1948; Bellegarde 1953; Pons 1995).

In 1697, France and Spain in their continuing battle to colonize the New World, signed the Treaty of Wyswick that placed the western part of the island, renamed Saint Domingue, under French control and the eastern part (that kept the name of Hispaniola) under Spanish control. The economy of the new French colony of Saint Domingue was based on the culture and transformation of sugarcane into sugar. In the eighteenth century, Saint Domingue was the most prosperous French colony in the New World, producing 40% of the world's sugar. The French brought Africans to work as slaves on the sugarcane plantations. In the late 1780s there were approximately 450,000 African slaves, 30,000 colonists, and 300,000 mulattoes in Saint Domingue (Dorsainvil 1924; Madiou 1947/1948; Bellegarde 1953; Geggus 1990).

The everyday life of the slaves in the French colonial empire was regimented by the *Code Noir*, or Black Code. The *Code Noir* was a decree passed in 1685 by Louis XIV restricting the activities of African slaves and defining the relationship between African slaves, mulattoes and white colonists in the French colonial empire. *The Code Noir* was a very extensive document that established the rules for religious practices, marriage, food, the selling of slaves, working hours, and punishment. Slaves were kept in subhuman living conditions.

Appalled by these conditions, some runaway slaves banded together to form independent communities in the mountains, they were known as *Maroons* (Fick 1990). There were many attempts to foment a revolution, but they were sporadic and limited in the number of slaves involved. When the slaves were defeated, the participants were severely punished, tortured, and even put to death to discourage future attempts to revolt. After several failed attempts, the slaves successfully revolted in 1791.

The 1791 revolution was based on a grassroots movement that included a substantial percentage of the slaves of the colony. The slaves found their inspiration in the French revolution and its *Universal Declaration of Human Rights*, adopted in August 1789 by the French National Constituent Assembly, which stated that all men are equal. In addition, the slaves were bound together by the willingness to be free and escape the inhumane conditions of slavery. They were led by Boukman Duty, a voodoo priest. Under his leadership, the slaves, convinced that they were protected by the divine power of the voodoo gods, made a pact to fight to death for freedom during a ceremony held in Bois Caiman on the night of August 21, 1791. The slave uprising exploded on the night of August 22, 1791 (Dorsainvil 1924; Madiou 1947/1948; Fick 1990).

The Haitian Revolutionary War lasted until the Battle of Vertières, which took place on November 22, 1803, in northern Haiti near Cap Haïtien and was led by Jean Jacques Dessalines, the first president of Haiti. Another famous figure of the Haitian revolution was François Dominique Toussaint L'Ouverture (1743–1803), also known simply as Toussaint L'Ouverture, who was born into slavery and freed by his master at the age of 33. He was fortunate enough to be literate and was well-versed in French literature and the Enlightenment. He joined the Haitian Revolutionary War after the French gave full citizenship to free blacks and free mulattoes on April 4, 1792, and abolished slavery in February 1794; both decisions were fought against by the French colonists of Saint Domingue (Cesaire 1981). Toussaint L'Ouverture rose to become the leader of the Haitian revolution, fighting against the French, Spanish, and British to end slavery on the entire island. He succeeded by consolidating all the revolutionary forces using his leadership. He defeated the Spanish in 1801 and proclaimed the abolition of slavery on the island. He also published the first Haitian Constitution of 1801, which named him emperor for life with near absolute power (Dorsainvil 1924; Madiou 1947/1948; Fick 1990).

Napoleon Bonaparte tried to re-conquer the most profitable French colony in the New World and reinstate slavery in Saint Domingue. He sent his brother-in-law, General Charles Leclerc with the order to defeat Toussaint L'Ouverture and take control of the island on January 20, 1802. After fighting against the French for months, Toussaint L'Ouverture signed a treaty with Leclerc prohibiting the return of slavery on the island before retiring from power. Despite the promise he made with the treaty, Leclerc captured Toussaint L'Ouverture and his family and sent them to France as captives. Toussaint L'Ouverture died of pneumonia on April 7, 1803, in the Fort de Joux in the Jura Mountains where he was jailed (Dorsainvil 1924; Madiou 1947/1948; Fick 1990). Toussaint L'Ouverture's story has an important historical significance even outside of Haiti and has been intensely explored for example in 1936 by the Trinidadian historian C. L. R. James in the book *Toussaint L'Ouverture and The Black Jacobins*.

The Haitian Presidencies

The Haitian presidencies illustrate the instability of the Haitian political life punctuated by military coups, overthrows, and assassinations. From its independence in 1804 to the present, Haiti has been led by 53 presidents: 9 served their full term, 23 were overthrown, and the rest were assassinated or died in office (Dorsainvil 1924; Madiou 1947/1948; Barros 1984).

The Haitian president who served the longest is Jean Claude Duvalier (a.k.a. Baby Doc), who stayed in power for 15 years after succeeding his father, François Duvalier (a.k.a. Papa Doc), who led Haiti for 14 years (1957–1971). François Duvalier was a physician who championed the fight against yaws and malaria in Haiti's rural areas. In December 1956, Haitian president Paul Eugène Magloire left the presidency. A year later, Duvalier won the presidential election organized by the army and took power on September 22nd, 1957. After a coup against him failed in mid-1958, he started consolidating his power by creating the infamous *Tontons Macoutes*, a mainly rural militia that perpetrated crimes and executions. On June 14, 1964, Duvalier conducted a referendum on whether

or not he should be the president for life, which he won. His regime became a dictatorship plagued with corruption, crime, censorship, a cult of personality, and defiance of the international community (Barros 1984).

Before his death in 1971, François Duvalier nominated his then 19-year-old son, Jean Claude Duvalier, to replace president for life. Baby Doc eased some of his father's restrictions and allowed more freedom of the press, which opened the gates of political and social unrest. He was overthrown by a popular uprising on February 7, 1986.

The Haitian political life after Baby Doc was filled with military coups, failed elected presidencies, interim government bodies, and the country's first democratically elected presidents. Leslie Manigat won the first post-Duvalier (although controversial) elections on January 19, 1988, but was overthrown on June 20 of the same year by a military coup. Manigat's government was followed by two military governments led by Henry Namphy and Prosper Avril. Power was also held by the first female president, Herta Pascal Trouillot, from 1990 to 1991. She successfully helped organize the first truly democratic Haitian elections in 1990.

Jean-Bertrand Aristide, a young priest and proponent of liberation theology, won the 1990 presidential elections, but he was overthrown by a military coup on September 29, 1991. He was put back in power by the U.S. government under Bill Clinton in 1993, and served the remainder of his term until 1996. The Haitian constitution prohibits successive presidential mandates, and Aristide could not run for re-election in 1996. Instead, Aristide's right hand man and former Prime Minister René Garcia Préval ran for office. He won the election and served the full term until 2000. In 2000 Aristide ran for president again and regained power. He left the country in 2004 because of growing social and political unrest and the risk of a military attack supported by a former military leader. To this day, Aristide insists that the French, Canadians, and Americans kidnapped him. He now lives in

South Africa. Former president René Garcia Préval won the presidential election in 2006 and is still in power today.

One of the first decisions Aristide took when he returned to Haiti in 1993 was to dismantle the Haitian army and replace it with a civilian police force. By doing so, he eliminated the main agent of political instability that fomented all the coups of Haitian history (Delince 1979). However, increasing poverty, corruption, and discontent toward the government are at the root of a quasi-permanent political and social instability, violence, and insecurity (Roc February 21, 2003). For example, the impoverished population of Haiti was hit hard in mid-2008 by the increase in the price of rice on the international market. Street protests paralyzed Port-au-Prince and turned into violence, resulting in the deaths of several people. Several members of the government, including the Prime Minister, were forced to resign under pressure from the population and the opposition. Political instability and social tensions are the major constraints to Haiti's development.

Political Institutions/Organizations and a New Role for Local Collectivities

Haiti's political instability is also reflected in the number of constitutions that have governed the country since its independence. Twenty-three different constitutions have been used; each redefining the political structures, the share of power, the length of the presidential terms, election/nomination processes, and the ownership of land by foreign entities (Janvier 1886; Moise 1997). Today Haiti is governed by the most recent constitution of March 29, 1987 (Le Moniteur Juillet 1987). This constitution was written a year after the end of the Duvalier regime and focused on a better balance of power to prevent another dictatorship.

Haiti is a republic with three branches of power: executive, judicial, and legislative. In addition to the central government, the new constitution redefines and grants more power to local institutions governed by locally elected officials in order to promote decentralization. The intent of decentralization is to reduce the power of the central government by transferring some of the power

to the local institutions. It also aims to foster citizens' participation in the development process and create a better distribution of wealth.

The new constitution also divides the national territory into four levels of sub-national territorial administrative entities: 10 *departments*, 42 *arrondissements*, 136 *communes*, and 519 *communal sections*. The *departments* and *communes* have a capital that is traditionally the main city. The *communal sections* are new local collectivities.

Only the *communes* and *sections communales* have directly elected officials. The governing organs of the *arrondissements* and *departments* are formed by selecting leaders of the *communes* and *sections communales*. These governing organs are the Assembly and the Council. The Assembly is the deliberative body of the local collectivities, and the Council is the executive body of the local collectivities (Oriol Decembre 1993; Le Moniteur Juillet 1987). The new roles and the new organs are crucial for the implementation of decentralization.

The International Community and Haiti

The international community has a long history of involvement with Haiti, from its independence to today. For years after 1804, Haiti was punished and kept isolated for declaring its independence from one of the most powerful colonial empires, and it was later occupied by the United States. In recent years, several United Nations (UN) peacekeeping missions have been deployed in the country to secure the democratic process.

The Early National Period

The international community history with Haiti began shortly after the country gained its independence in 1804. It took the international community more than twenty years to recognize Haiti as an independent country and an equal trade partner. Although the Haitian revolutionary army defeated the French army and the new leaders of Haiti declared independence in 1804, France formally recognized the independence of Haiti only in 1834 after Haiti started paying France 150

million francs (about $25 billion in current U.S. dollars) as compensation for the loss that the colonists suffered during the revolutionary war. Even the United States recognized Haitian independence only in 1862. This delay in recognizing Haiti's independence was a way for all colonial powers of the time to discourage slave revolts in other colonies.

Unfortunately, during this time, the country remained isolated and fell into poverty, deprived of markets to sell its agricultural production. In addition, the initial debt put a heavy burden on the development of Haiti (Gaillard-Pourchet 1990; Farmer 2003). The end of slavery, the implementation of new administrative structures and organs and the new economic policies adopted by the leaders of the newly independent country profoundly changed the settlement patterns in Haiti. These changes are further explored later in this study.

U.S. Occupation of Haiti (1915–1934)

At the beginning of the twentieth century, the political instability in Haiti reached a new boiling point: from 1911 to 1915, six presidents governed the country, all of whom were assassinated or overthrown. Finally, in order to protect U.S. investments in Haiti, President Woodrow Wilson sent 300 marines to Port au Prince on July 28, 1915. The official purpose of the invasion was to re-establish and maintain peace. However, it was the beginning of the U.S. occupation of Haiti that lasted until mid-august 1934.

During the occupation Haiti lived through a period of relative political stability, with four successive full-term presidencies. However, the United States gained increasing control over the Haitian economy and government by having veto power over the main decisions of the government. The United States also adopted a new constitution written by Franklin D. Roosevelt, then Assistant Secretary of the Navy, which lifted the ban on foreigners owning land in Haiti. The occupation consolidated and extended American economic interests in Haiti. The occupation came to an end

because of growing opposition in Haiti and the United States (Dorsainvil 1924; Bellegarde 1953; Barros 1984; Gaillard-Pourchet 1990; Moise 1997; Farmer 2003; Molineu August 1973).

The economic and administrative policies carried out during the US occupation of Haiti has long term consequences on the Haitian urban structure. These consequences are further explored later in this study.

UN Peacekeeping Missions

The international community has been also involved with Haiti in six successive UN peacekeeping missions. The first mission began in 1993 when the Clinton Administration reinstated President Jean-Bertrand Aristide. The mission was designed to prevent another coup and ensure that Aristide would serve the remainder of his term. Since then, Haiti always has some form of UN mission that helps maintain peace and stability in a country plagued with drug trafficking and political and social unrest. The UN missions also have the objectives of strengthening the Haitian government and building the stable institutions necessary to build a democratic society. The UN missions' activities range from securing elections to training the new civilian police force, the Police National of Haiti (table 1).

Table 1: United Nations peacekeeping missions in Haiti

Dates of operation	Name of operation	Objectives
1993–1996	United Nations Mission in Haiti (UNMIH)	1991 coup and military rule in Haiti
1996–1997	United Nations Support Mission in Haiti (UNSMIH)	Stabilizing Haiti's new democracy
1997	United Nations Transition Mission in Haiti (UNTMIH)	Training of the Haitian National Police
1997–2000	United Nations Civilian Police Mission in Haiti (MIPONUH)	Training of the Haitian National Police
2000–2001	United Nations General Assembly International Civilian Support Mission in Haiti (MICAH)	Training of the Haitian National Police
2004–present	The United Nations Stabilization Mission in Haiti (MINUSTAH)	Restore a secure and stable environment, promote the political process, strengthen Haiti's government institutions and rule-of-law-structures, and promote and to protect human rights.

The International Community and the Haitian Economy

Haiti depends in large part on international financial institutions for its development. Haiti has a total external debt of US $ 1.4 billion. Forty-five percent of this debt was accumulated under the François Duvalier dictatorship. To ensure that the money will be reimbursed, IMF and the international financial institutions imposed a Structural Adjustment Policy (SAP) on the Haitian government in 1997. One of the requirements of the SAP is the drastic reduction of public investments in social services and a greater opening of the economy to the international market. Because of the negative impact of the debt on Haiti's economy and development, several initiatives have been launched to lobby the debtors to cancel the debt.

The interactions among the successive internal and external forces (political, social and economic) have played an important role in shaping the Haitian urban system. This link between the role of the international community in the economy and the Haitian urbanization patterns is further explored later in this study.

Problem statement and justification

The main objectives of the study are:

- To identify the cities that have the characteristics to be potential "growth poles"
- To explain how these cities differ from the other cities
- To formulate policy recommendations to strengthen the growth of these poles in order to increase the chances of success of the decentralization process and reduce the negative consequences of urban primacy in Haiti. These recommendations will improve the NSGPRD.

This chapter presents the urbanization patterns of Haiti and its impacts on the development of the country. It focuses on 1) the effects of the concentration of the population in the Metropolitan Area of Port au Prince (MAPAP), 2) the need to promote orderly migration from the rural areas to the other cities of the country and the role that the other regional capitals could play. Finally, 3) it explores the state of the ongoing decentralization process and its inadequacy in addressing those issues. By its objectives, the present study will contribute to solving these problems.

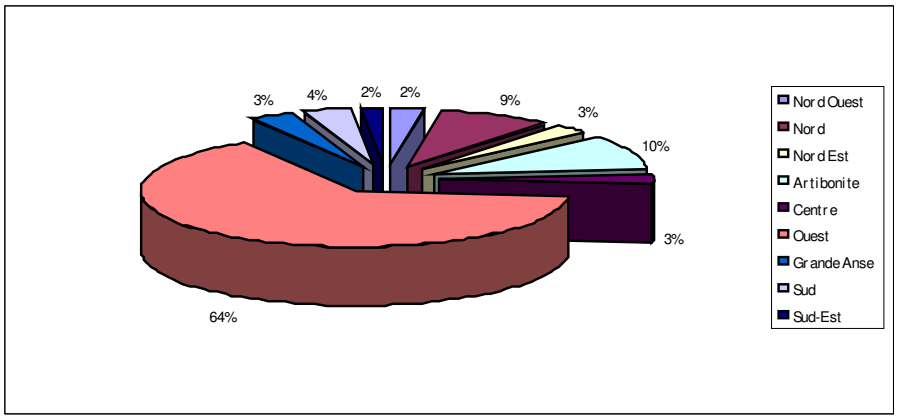
The Metropolitan Area of Port-Au-Prince: Overcrowded, Poor, and Unmanageable

Urbanization is a recent development in Haiti. From 1950 to 2003, the urban population grew from being 12% to 40.4% of the total population. This growth has caused the demographic explosion of MAPAP that includes the national capital of Port-au-Prince and the urban areas of the surrounding municipalities of Carrefour, Croix des Bouquets, Cité Soleil, Tabarre, Delmas, Pétion Ville, and Kenscoff. Today, MAPAP has a population of 2.5 million and covers a total surface of 1,300 square kilometers.

With 2.5 million people, the MAPAP represents about 25% of the total population and 64% of the urban population of Haiti (figure 1) (IHSI 2005). It is 16.13 times larger than the city of Cap

Haïtien in the north, the second largest city in the country. Although it occupies only 1/22 of the national territory, its economic activities represent 90% of the national secondary sector of industry and 75% of the tertiary sector of the national industry. MAPAP overshadows the other cities with its size and influence. It has become a "Republic in the Republic," the "Republic of Port au Prince" (Anglade 1982; Anglade 1990).

Figure 1: Percentage of the total urban population living in each department



Source: Haitian Institute of Statistic and Informatics (IHSI), RGPH 2003

MAPAP suffers from its success: the literature about the metropolis is very pessimistic and alarmist. Manigat describes it as a chaotic landscape which seems impossible to overcome (Portes 1997). The growth of the city escapes all administrative control and the entire city has acquired the physiognomy of a slum (Holly 1999). The metropolitan area is in crisis and is characterized by violence, economic informality, and poverty (Fass 1978; Houtard 1997).

Public and private investments in infrastructures and job creation activities are not sufficient to follow the rapid pace and growth of MAPAP. There is a shortage of jobs for the actual dwellers of the city. The government and local institutions cannot meet the city's needs for decent housing and access to basic services. The city is very poor: 75% percent of urban dwellers work in the informal sector of the economy; 25% of its surface is covered by slums where 50% of the population lives in inhuman conditions without access to basic services such as decent housing, water, sanitation (54% of the houses do not have sanitation), and electricity (Experoco International

2003). Finally, 60% live under the poverty line on less than US $2 a day on which to survive (Lamauthe 2002). The MAPAP is unable to provide newcomers with economic opportunities and basic services.

MAPAP is also sprawling on a fragile physical environment. The site is a coastal plain surrounded by the Morne l'Hopital, a mountain chain (Corvington 1991; Lherisson Juin 2004). The development of the city on a fragile area presents a danger both for the environment and the urban dwellers. The forest that used to cover the Morne l'Hopital has completely disappeared. The fertile lands in the plain are completely urbanized, reducing the areas of agricultural production for a growing population. Both phenomena have contributed in reducing the infiltration of rainwater in the soil, decreasing the level of underground water and increasing the volume of surface water. MAPAP dwellers frequently experience water shortages. Each year during the rainy season, hundreds of houses are wiped out along with their occupants by the flood of surface water. The same catastrophe also happens in the lower floodable areas (Holly 1999).

These problems are most likely to worsen in the near future: 63.80% of the total number of migrants live in the Department of the West and 57.99% live in MAPAP; 84.10% of the number of migrants from other departments live in the West and 78.46% in MAPAP (Table 2). It is necessary to halt the growth of MAPAP in order to increase the impact of poverty reduction strategies and sustainable development programs. This implies managing the natural growth of its population and reducing the number of incoming migrants.

Table 2: Number and percentage of the total migrants living in each department by place of origin

	Place of origin											
Place of residence	**Urban**	**%**	**Rural**	**%**	**Total**	**%**	**Other Dpts**	**%**	**Foreigners**	**%**	**Total**	**%**
South East	3,892	2.45	9,618	4.38	13,510	3.58	5,033	1.08	1,384	7.98	19,927	2.31
North	20,494	12.91	24,123	10.98	44,617	11.81	16,128	3.45	1,637	9.44	62,382	7.24
North East	5,155	3.25	5,217	2.37	10,372	2.75	4,813	1.03	2,660	15.34	17,845	2.07
Artibonite	10,621	6.69	34,074	15.50	44,695	11.83	15,874	3.40	448	2.58	61,017	7.08
Centre	2,709	1.71	61,244	27.87	64,643	17.11	5,993	1.28	1,003	5.79	71,639	8.31
South	6,124	3.86	14,803	6.74	20,927	5.54	8,754	1.87	849	4.90	30,530	3.54
Grande Anse	4,400	2.77	5,459	2.48	9,859	2.61	11,456	2.45	321	1.85	21,636	2.51
North West	8,378	5.28	13,239	6.02	20,201	5.35	6,209	1.33	712	4.11	27,122	3.15
West	96,986	61.09	52,005	23.66	148,991	39.43	392,756	84.10	8,321	48.00	550,068	63.80
Total	158,759	100.00	219,782	100.00	377,815	100.00	467,016	100.00	17,335	100.00	862,166	100.00
%	18.41		25.49		43.82		54.17		2.01		100.00	
Urban	131,578	82.88	110,042	50.07	241,463	63.91	414,385	88.73	12,113	69.88	667,961	77.47
%	19.70		16.47		36.15		62.04		1.81		100.00	
Rural	27,181	17.12	109,740	49.93	136,352	36.09	52,631	11.27	5,222	30.12	194,205	22.53
%	14.00		56.51		70.21		27.10		2.69		100.00	
MAPAP	33,432	21.06	29,801	13.6	63,233	16.74	366,419	78.46	7,117	41.06	500,002	57.99
%	6.69		5.96		12.65		73.28		1.42		100.00	

Source: Haitian Institute of Statistic and Informatics (IHSI), RGPH 2003

Rural Areas: Overpopulated, Impoverished, and Environmentally Degraded

Migrants to MAPAP come from rural areas and the other cities in the country (IHSI 1989). The peasants leave the countryside to escape poverty. Rural poverty is due to the destruction of the environment, overpopulation, and the lack of economic opportunities and very limited access basic services. However, maintaining peasants in the countryside will increase the environmental degradation and the cultivable land will not provide them with sufficient income to live above the poverty line.

As explained before Haiti is a very mountainous country. It has experienced extensive environmental degradation due to long-term intense deforestation to produce charcoal (the main source of energy in Haiti) or to use the land for agricultural purposes. The result is steep slopes exposed to the action of erosion, reducing the cultivable surfaces and the productivity of the lands (Anglade 1982; C.E.G.E.T. 1985; Anglade 1990).

Haiti's rural area has a high population density living on already fragile land. The surface suitable for agricultural activities is not sufficient to provide each rural household with revenue to live above the poverty line. A recent study on poverty in Haiti shows that 90% of the poor inhabitants in the rural areas live on between US$1 and US$2 per day per family. Fleeing the countryside is the only hope for Haitian peasants seeking to improve their living conditions (UNDP 2002).

It is imperative to stabilize and even reverse the population growth rate in the rural areas in order to reduce the human pressure on the fragile rural environment. Fortunately, the data from the last Haitian census show migration patterns with an exodus from the rural areas and the concentration of the population in urban areas (Table 2):

i. 77.47% of the total number of migrants live in urban areas.

ii. 63.91% of the total internal migrants (within a department) live in urban areas

- 82.88% of the migrants from the urban areas live in other urban areas
- 50.07% of the migrants from rural areas live in cities
- 42.02% of the migrants are from cities
- 58.17% of the migrants are from rural areas

iii. 88.73% of the migrants from the other departments live in urban areas

The migration from rural areas to urban areas contributes to a reduction of the population growth rate in the rural areas. It also reduces the number of people who will otherwise depend on agriculture to make a living.

At the same time, MAPAP, receiving the major fraction of the migration, is facing tremendous challenges and cannot provide the newcomers with the economic and social opportunities that will improve their lives. The alternative locations for rural dwellers to migrate to are the other cities of the country. These considerations should be included in poverty alleviation and development programs.

The Departmental Capitals: Key Demographic, Administrative, and Political Characteristics to Play A Buffer Role Between the Rural Area and the MAPAP

With the exclusion of the MAPAP, most cities in the Haitian urban system are of small size.[1] The frequency distribution table of the 124 Haitian cities (by size and percentage of the total urban population in each group) illustrates this statement (table 3). While the number of cities with less than 10,000 inhabitants represents 71.90 % of the total number of cities, this group also represents only 9.34 % of the total urban population (figures 2 and 3). These small cities do not have sufficient attraction power to capture or retain the flow of rural migrants trying to escape the extreme poverty of the countryside as it is going to be explained later on in the study.

[1] There is no legal definition of "city" in the Haïtian legislation. In the national statistics, all the municipal capitals are "cities" and their populations are counted as urban no matter their size.

Table 3: Number and percentages of the Haitian urban population by size of the cities

Population	Number of cities	Percentage of the total number of cities	Cumulative percentage	Percentage of total urban population	Cumulative percentage
0–999	9	7.44	7.44	0.21	0.21
1,000–4,999	58	47.93	55.37	4.8	5.01
5,000–9,999	20	16.53	71.90	4.33	9.34
10,000–19,999	25	20.66	92.56	11.37	20.71
20,000–49,999	7	5.79	98.35	5.92	26.63
50,000 and up	5	1.65	100.00	73.37	100
Total	*124*	*100.00*		*100.00*	

Source: Haitian Institute of Statistic and Informatics (IHSI), RGPH 2003

Figure 2: Frequency distribution of Haitian cities by size

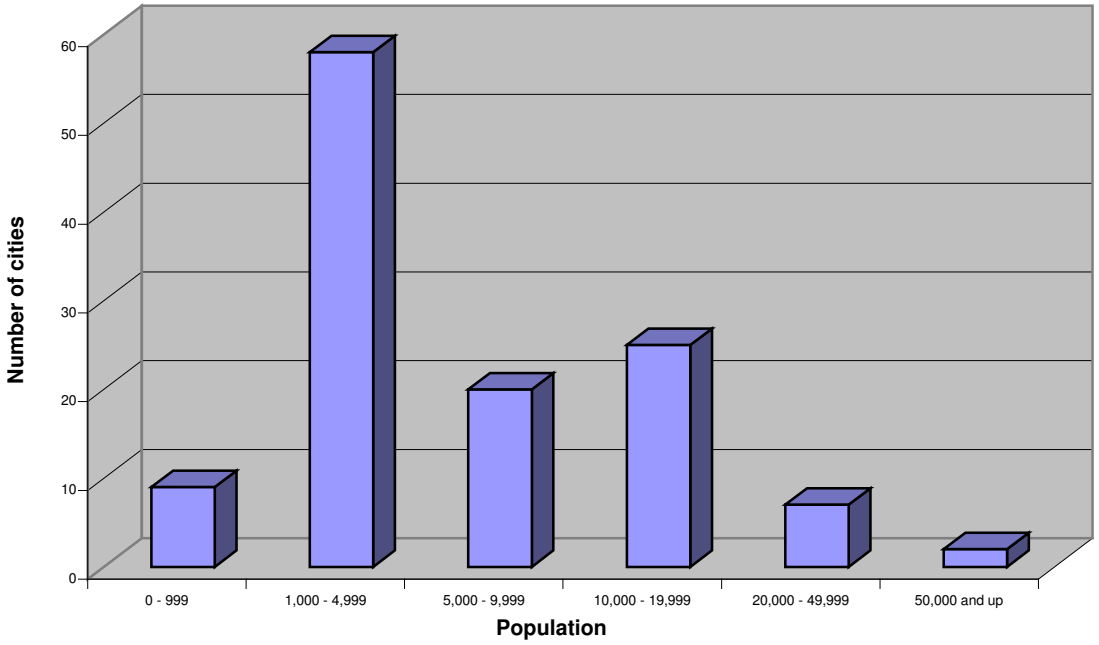
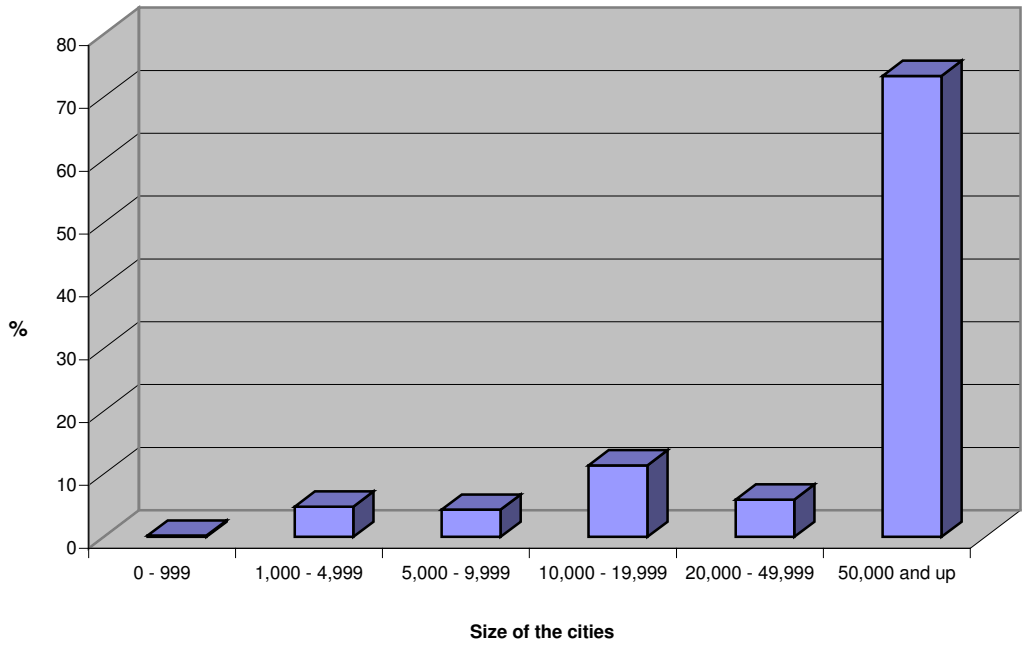


Figure 3: Frequency distribution of the percentage of the urban population by size of cities



However, a limited number of cities are distinctive because of their size. About twenty cities have a population between 15,000 and 20,000 (figure 3) with room to grow. These cities are more likely to play a buffer role in reducing the growth of the MAPAP. As it is going to be further explained later in this study, larger cities attract more migrants. They also already have a large population to support large-scale socio-economic programs that will, in return, increase the number of migrants, which will have an impact on reducing the growth of the MAPAP. Winning the fight against poverty necessarily means enabling them to attract more migrants, retain them and retain their own populations.

Seven of the departmental capitals are in this group. The departmental capitals are the cities of Cap Haïtien, Jacmel, Gonaives, Port de Paix, Fort Liberté, Hinche, les Cayes, and Jérémie. All of them except Fort Liberté have a population of more than 15,000 people. Besides their demographic characteristics, the departmental capitals have specific political and administrative functions. They are the sites of the *Délégation* and *Vice Délégation* that represent the political branch of the government

at the local levels. The mandate of these institutions is to coordinate the activities of all the central technical organs at the departmental level. The capitals are also the sites of, successively, the lowest to the highest decentralized political and administrative organs, from the Assembly of the Communal Section and the Council of the Communal Section to the Departmental Council and Assembly (Bureau du Premier Ministre 2002; Le Moniteur Juillet 1987). Regrouping all these administrative, technical, and political organs, the departmental capitals are centers of management, coordination, and promotion of developmental policies. As such, they also receive an important part of public investments in terms of services and infrastructure. Their demographic, administrative, and political characteristics make them practical regional development poles.

Unfortunately, the regional capitals receive a very small percentage of the total number of migrants of the country according to the 2003 census data. While MAPAP receives 57.99% of the total number of migrants of the country, the average percentage for the regional capitals is 1.51%; Cap Haïtien receives the highest percentage with only 5.16%; along with Cap Haïtien, only Gonaives, Les Cayes, and Port de Paix receive more than 1%; Hinche receives the lowest percentage with 0.23% (table 2). It is imperative to channel a larger flow of migrants toward the regional capitals in order to reduce the growth of the MAPAP.

Decentralization, a Constitutional Requirement yet to be Implemented

In 1987, Haiti adopted a new constitution. Decentralization (Title IV, Chapter I) was the main innovation of the Haitian Constitution and was designed to promote participative democratization by relocating the political and administrative powers closer to the population in order to promote economic development and provide basic services to all Haitians (Gilbert 2000). These goals were to be achieved by putting locally elected officials in charge of local administrations

(ARD 1996; Castor 1997). Local collectivities would acquire administrative and financial autonomy and become, henceforth, responsible for the promotion and management of their resources and their socioeconomic development, and would therefore guarantee access to basic services to the population by generating their own resources.

Almost two decades later, the Haitian government has failed to enforce the prescriptions of the constitution regarding decentralization. The technical expertise and the financial resources have not yet been transferred to the local collectivities. The local institutions and organs are not fully operational. Only the institutions and organs at the communal levels are actually functioning (Deshommes 2004; Oriol Decembre 1993).

The slow start of the process reflects both political reluctance and the difficulty of dealing with such a complex challenge. Indeed, decentralization is primarily the expression of the political will of the central government to transfer some of its power; it is also the will of the local collectivities to build the capabilities and take on new responsibilities (Rondinelli 1978; Brunet 1997; Rondinelli August 1984). Unfortunately, these necessary requirements are missing in Haiti (Sylvestre 2000; Bureau du Premier Ministre 2002; Brunet 2004). The constant political turmoil of the past decades has also endangered the implementation of a policy that requires stability and a long-term commitment from the central government (Rondinelli 1978; Hurbon 1996; Rondinelli August 1984).

The slow start of the decentralization process also demonstrates the complexity of the decentralization policy and the difficulty in achieving a consensus on how to successfully implement it. The debate surrounding decentralization in Haiti is raging: no one is openly against decentralization, and the international community is openly supportive of it (Saint Vil 1999). The literature tends to depict aspects of the actual process and characteristics of the local collectivities that will make the process difficult, even impossible, to implement (Deshommes 2000; Oriol April 2000). The factors cited are the geographic characteristics such as the size of the local collectivities

(INESA Avril 2000; Saint Vil Mars 2005), the socioeconomic characteristics, the flaws in the policy itself, the number and fields of responsibility versus too little resources, and the lack of human, technical, and financial assets of the municipalities. Finally, some scholars explain this failure by the weaknesses of regional and decentralized political and administrative institutions (ARD 1996; Cantave 1996; Castor 1997; Saint Vil 1999; Deshommes 2000; Deshommes 2000; Sylvestre 2000; Deshommes 2002; Oriol April 2000; INESA Avril 2000; Cadet Déc 2001; Oriol Decembre 1993; CNRA March 2002; Saint Vil Mars 2005; Prophete Nov 1999).

To solve these problems and facilitate the implementation of decentralization, some proposed solutions are: reform of local taxes systems (improving the collection of the existing ones and raising new ones), reinforcement of local institutions, redrawing of (administrative) boundaries, and reduction in the number of local collectivities. Most of the solutions offered propose realistic ways to design a policy focusing on the elimination of obstacles (Deshommes 2000; Bureau du Premier Ministre 2002; Brunet 2004; Avilez 2006). The policy as well as the debate focuses on political and administrative aspects.

In the tradition of equal decentralization for each local collectivity (each collectivity should have the same power and rights and, receive the same amount of public investments), scholars writing about the decentralization process in Haiti failed to analyze the interactions among the different components of the geographic space and the role that the repartition of social and economic activities, beyond the administrative limits, can play in explaining the success or failure of the decentralization process. More importantly, they failed to investigate the role that cities and the structures of the urban system play in the decentralization process. To be effective, a sound decentralization policy should start by reinforcing elements of the geographical landscape that will increase its chances of success. This study will fill this gap in the literature.

The concentration of the population in the MAPAP poses important environmental problems on the city. This makes it very difficult to manage the city and provide basic urban services and employment opportunity to a fast growing population. The high population density of the rural areas puts pressure on the environment and increases poverty by contributing to the degradation of natural resources. The regional capitals of Haiti have the demographic and administrative characteristics to play a key role in reducing the flow of migrants to the MAPAP and in reducing the human pressure on the natural resources of the rural areas. Unfortunately, there has been no policy designed to enable them to play this role. Haiti has a constitutional mandate necessary to implement decentralization but has yet to fulfill it. One of the questions missing in the debate surrounding how to implement decentralization is where to start in order to have the most impact. This study will attempt to provide an answer to that question and formulate policy recommendations to improve the NSGPRD.

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Literature Review: Urban Primacy and Decentralization Policy in the Third World and in Haiti

This chapter reviews the literature about the concepts, policies, debates and theories used to conduct this research. It covers urbanization in the Third World and in Haiti, more specifically, urban primacy, its causes and its consequences on socio-economic development. It presents the rise of decentralization and regional development policies in the Third World and in Haiti to address the consequences of urban primacy and the application of some of the growth pole theory assumptions and hypothesis to design and evaluate decentralization policies.

The Concept of Urban Primacy

The concept of primate city first appeared in 1939 in an article in the *Geographical Review* written by geographer Mark Jefferson. Today this concept is largely used in multidisciplinary settings. It refers to the largest city of a country in relationship, in size, to the second largest city. If primate, the largest city stands alone in the national urban system, and most of the economic, cultural, and intellectual resources of the country are concentrated there. Once a city reaches that stage, "this mere fact gives it an impetus to grow that cannot affect any other city, and it draws away from all of them in characters and well as in size … It becomes the primate city." (Jefferson), p.227). This trend is worldwide and there is a "Law of the Primate City" where the "largest city shall be super eminent and not merely in size, but in national influence" (Jefferson, p.227). A few countries, such as Germany or Switzerland, are exceptions to this rule. The author explains these exceptions by unusual local circumstances such as spatial administrative structures or economic policies.

Urban primacy is measured, in terms of population size, as the ratio of the population of the largest city to the population of the two next largest cities. Jefferson found a ratio of 100 (100 representing the population of the primate city) for the largest city and, respectively 30 and 20 for the second and third. This comparative technique is still used today to assess the level of primacy of

a country. Haiti is an example of extreme urban primacy with the MAPAP ratio at 100 (population of 2.5 millions inhabitants), 8.1 for Cap Haïtien the second most populous city (population of 204,508 inhabitants) and 6.42 for Gonaives, the third (population of 160,501 inhabitants).

The Causes and Consequences of Urban Primacy in the World, in the Third World and in Haiti

Most scholars agree about the different factors that explain urban primacy. This chapter presents the causes and consequences of urban primacy in general, in the Third World and in Haiti. This chapter also presents urban primacy in the context of the general development theories as these theories relate to urbanization in the developing world.

The concept of Urban Primacy

Jefferson (1939) acknowledges the diversity of original factors that will cause one city to exceed the others in the urban system. Such factors include political structure (centralized versus decentralized government systems), economic policies, geography of the national territory, and infrastructure. These factors echoed the ones identified in regional studies conducted by Stewart (1960), Ginsburg (1955), and Browing (March 1958): economic (export-oriented economies), urban and human settlement history, colonization, and national land planning policies. Urban primacy occurs at different levels depending on the strength or the combination of these factors.

Urban primacy affects all parts of the globe, such as Western Europe and Australia (Stewart 1960), Southeast Asia (Ginsburg 1955; Doan 1995; Moomaw and Alwosabi 2003; Moomaw and Alwosabi 2003), Africa (Doan 1995) and Latin America (Doan 1995; Moomaw and Alwosabi 2003; Moomaw and Alwosabi 2003; Browning March 1958). However, the level of urban primacy is increasing at an unprecedented rate in developing countries (Kasarda 1991) and more specifically in Latin American countries (Potter 1998; Sally 1998; Jacquemin 1999; Drakakis-Smith 2000). Urban systems in Third World countries are dominated by one or a limited number (two to three) of

metropolises that overshadow the other cities with their size and economic influence (Andrei 1982; Kelly 1984; Kasarda 1991; Josef 1997; Potter 1998). The level of urban primacy is highest in Latin America (Morse 1962; Angotti 1987; Moomaw and Alwosabi 2003; Moomaw and Alwosabi 2003).

Urban primacy is a relatively recent phenomenon in the Third World, where it is reaching unprecedented levels. Urbanization in the majority of Third World countries is characterized by its recent rapid increase and high level of urban primacy. Indeed, the percentage of the urban population grew from 17.9% in 1950 and should reach 57.1% in 2030 in the less-developed countries. The increase is even more important for the least developing countries (LDC), where the percentage of the urban population grew from 7.4% to 43.3%.[2] There are significant differences within the Third World. The Latin America and the Caribbean (LAC) region is the most urbanized (41.9% in 1950) and shows the highest increase rate, with an estimated 84.6% of its population living in cities in 2030 and 42.7% more in 80 years. The least urbanized region is the African continent, with only 14.9% of its population living in cities in 1950. However, the continent shows the second most important increase and should have 53.5% of its population living in cities by 2030. [3] Haiti is also witnessing a rapid urbanization: the urban population represented 12 % of the total population in 1950 and 40.4 % in 2003.

The Third World is also witnessing an increase of mega cities: in 2006, 44 of the 100 largest cities in the world were located in developing countries across Latin America, Asia, and Africa. These mega cities have populations ranging from 3.3 million for Caracas, the Venezuelan capital to 19.24 million for Mexico City. Although countries like India or Brazil have several mega cities, most

[2] *Source: http://esa.un.org/unpp/index.asp?panel=1*

[3] *Ibid*

Third World countries have only one or two mega cities.[4] The MAPAP of Haiti is a mega city with 2.5 million inhabitants.

Urban primacy has devastating effects both on the primate city and on the development of nations in the Third World. Employment opportunities, educational infrastructure and health, social and cultural services, economic activities, and modern equipment are all concentrated in the primate cities. These assets attract migrants to the primate cities more than other areas of the country; they also perpetuate and increase urban primacy. Unfortunately, even though these assets are available in the primate cities more than anywhere else, they cannot accommodate and fulfill the needs of the fast-growing population. The new comers and a large percentage of the population does not have access to employment, economic opportunities, decent housing, health care and other basic services. They live in slums neighboring the affluent areas of the primate city. This situation creates social and spatial exclusions that are at the basis of most of the problems in Third World mega cities. (Fay 2005; Davis 2006; Koonings and Kruijt 2006; World Bank. Europe and Central Asia Region. Infrastructure Sector Unit. 2006). Unemployment and lack of basic services such as decent housing, health care, clean water, and sanitation often characterize primate cities and affect their population. National and local authorities neither have the resources nor the administrative structures to plan and equip the mega cities that are plagued with slums (Davis 2006) and violence (Moser and McIlwaine 2006). An increasing number of urban dwellers are poor, and the percentage of urban dwellers living below the poverty line increases with urban primacy (Fay 2005).

Moreover, the concentration of economic activities in one or a few urban centers creates a polarized system that inhibits the socioeconomic development of the peripheral regions. Urban primacy creates gaps within the national urban system. As a result, the other urban centers are

[4] http://www.citymayors.com/statistics/largest-cities-population-125.html

unable to play innovation diffusion and development roles over their surrounding areas (Pedersen 1970; Brown 1981). Regional economic growth and integration are restrained (Weathon 21; Boudeville 1966; Coraggio 1973; Griffith 1979; Claval 1995). For instance, in his book "Paris and the French desert" (1947), the geographer Jean Francois Gravier (Gravier 1947) describes the French capital as a predator stating that: "in every aspects, the Parisian agglomeration conducted itself since 1850, not as a metropolis invigorating its hinterland but as a monopolizing group devouring all the nation's substance" (page 74). Urban primacy has a negative effect on the overall socioeconomic development of a country (Moomaw and Alwosabi 2003; Moomaw and Alwosabi 2003).

As proof of the previous assertions, the small size of the other cities of the Haitian urban system as described (table 3) and the disproportionably large number of migrants moving to the MAPAP (table 2) illustrate the impact of the MAPAP on the other cities. In addition, my personal experience and the experience of childhood friends, as explained in the introduction, show the inability of cities outside of the primate city to retain their population. I have tested the assumptions that the MAPAP overshadows the regional capitals and all the other cities of the Haitian urban system.

Urban Primacy and Development: from Modernization Theory to Dependency Theory

The general development theories and more specifically dependency theory explain urban primacy in the context of the overall development process. Dependency theory is one of the main general development theories. The other major theories are the World System Theory, Urban Bias Theory and Modernization Theory that explain the spatial implications of the ties of developing economies to the world economy. They all point out the role in urban primacy but fail to study the other cities.

The failure of Modernization Theory as a Policy Framework

Scholars and researchers in Latin America have developed dependency theory in opposition to modernization theory, one of the main development theories developed during the 1950s and 1960s. Modernization theory explains the development process by the diffusion of the capitalist economic system and the integration of the national economies in the system (Rostow 1962).

From the modernist point of view, the city is a key factor in the introduction and the diffusion of modernity (Hirschman, 1958). Foreign capital should be invested to promote industrialization in urban centers and modernize agriculture following the path of the developed countries. This process increases urban growth, and urbanization is one of the principal characteristics of a modern, developed economy. The mechanism of development from the urban centers is based on the concept of natural growth poles and the central place systems. The city is perceived as a pole from where the development process will start (Hirschmann, 1958). It creates the polarization of the economic region by concentrating the resources in a single point. This polarization is essential in the early stage of economic development. It produces important economies of scale and allows for the maximum use of scarce resources. However, the impacts of this economic growth will induce the development of each level of the national urban system. In the end, the modern values will reach the lowest level of the urban system and then the rural areas. This process, known as the "polarization reversal" (Richardson 1977), is inevitable and spontaneous. It does not require any public investment. The process is automatic and linked to capitalist expansion. Urbanization should induce development.

Modernization theory has shaped economic development policies in Latin America in the post-World War II period. External capital investments have been used to promote intensely industrial development (Bradshaw et al., 1991, 1991; Bornschier, 1981, Evens et al., 1980). An increasing part of the agriculture of the Third World is also financed by foreign investments and

became essentially export-oriented. However, the predicted growth and development did not occur at the expected level and rhythm. Instead, in the post-colonial era, Third World countries found that they were trapped in a new form of dependency toward international capitalism and multinational corporations (Peter and Timberlake, 1980). The financiers selected the goods, both industrial and agricultural, depending on the demand in the international market. The decrease of the price of a given crop in the international market may cause the collapse of an entire economy (e.g., the Ivory Coast and Cacao). The Third World countries also experienced unprecedented urban growth. However, poverty and underdevelopment is also the main characteristic of most of these countries and their cities. The automatic induction of development from the urban centers did not happen.

Some authors explain the limitations of the effects of modernity as a vicious cycle. Internal and external economies of scale will perpetuate the "initiated" polarization and unequal development. Therefore, the pole will attract more and more of the forces of the economy and the reversal effects on the countryside will remain relative (Gunnar; Myrdal 1964; Myrdal 1978; Myrdal 1990).

Dependency Theory, Urbanization and Urban Primacy in the Third World

In reaction to the failure of the application of modernization theory in the developing world, Latin American scholars have developed dependency theory or *dependencia* explaining underdevelopment by the historical spread of capitalism. The result of the process is the enrichment of the center at the detriment of the periphery (Cardoso and Faletto, 1971). In this global process, the periphery is the Third World.

While traditional scholars explain capitalist expansion by external, global forces, Cardoso and Faletto (1971) adopted an innovative historical structural approach integrating both external and internal forces. The forces are not only economic but political and social as well. Fernando Henrique

Cardoso and Enzo Feletto in their book "Dependency and Development in Latin America" (1979) argue that dependency is not only due to external factors. It had been established and perpetrated because there is a coincidence between the capitalistic values and the economic interests of national dominating classes. They adopted a historical-structural approach to explore the social process that instituted but also perpetrated inequalities between center and periphery and among the diverse social groups in the periphery. They explore the relationships between external and internal factors / actors and the social forces toward changes or self-perpetuation. They concluded that the different forms of national dependency can be explained by the interactions between all the actors.

Some scholars have explained urban primacy in Third World countries by citing the dependent nature of their economies (Cardoso 1971; Evens 1980; Bornschier 1981; Bradshaw 1991). The cash-crop agriculture of the Third World is increasingly export-oriented and is produced for the international market. This strategy is encouraged by international financial institutions to help poor countries acquire the hard currency necessary to pay their debts (Ridell Jul-97). However, the countries are using their land to produce staples for the external market instead of producing goods for internal consumption. In return, they rely on the international markets for basic goods such as alimentary products. These two factors combined create increased economic activity in the cities, specifically those with international port facilities. International port facilities require large public investments and the governments, because of their limited resources, often select one or a few cities for this purpose, increasing their attraction over the other cities in the urban system and favoring urban primacy.

Third World governments are also encouraged, specifically by the Bretton Woods Institutions (The International Monetary Fund (IMF) and the World Bank), to promote industrial development. Industrial development is also dependent and creates urban primacy (Todaro 1977; Bornschier 1981). The capital that is invested is mostly foreign and the production is for the

international market. These policies find an echo in national economic groups eager to benefit from the advantages of a global economy (Cardoso 1971). The implementation of industrial activities and the exportation of production require important investments in infrastructure such as port facilities, roads, electricity, and water. Again, the governments, because of their limited resources, often select one or a few cities, increasing their attraction over the other cities in the urban system and favoring urban primacy.

Dependency Theory and Regional Urban Growth in Latin America and the Caribbean

However, recent studies have shown a decrease in urban primacy in three Latin American countries and five Caribbean countries, including Haiti (Portes 1989; Portes 1994). They show that these changes in the urbanization process are due to profound transformations induced by the economic crisis of recent years and seem to reflect the rapid adjustment of Latin American countries to the debt-induced economic crisis. The decrease in urban primacy was observed in countries that have developed export-production zones and export-assembly plants in the search for new sources of foreign exchange. However, this is not sufficient to explain the decrease of the primate cities. Three additional factors need to be considered: the locations of export zones, their relative viability, and the growth of other foreign-oriented sectors such as tourism and agriculture. Rondinelli (1983) has identified the same factors to explain the dynamic of growth of secondary cities in developing countries. Dependency alone does not explain the level of urban primacy: national and regional factors should also be integrated in the explanation. Moreover, the same factors that explain urban primacy also explain the growth of other cities within the urban system. The assumption is that cities with stronger ties with the international market will grow faster than the other cities. These last findings require further research, this assumptions is tested in the present study filling a gap in the literature.

There are four principal measure of economic dependency is measure mainly have been tested and widely accepted (Van Rossem 1996): three measures of market dependency and one measure of investment dependency.

Trade market dependency indexes measure the extent of exposure of the economy to the international market. There are three:

- Trade market dependency: is the ratio of the total foreign trades to GDP. Trade market dependency is conceptualized by the ratio of foreign trade to the GDP. It measures the exposure of a country to the global economy. An economy is trade dependent if the total of foreign trade represents at least 1 % of its GDP. Rossem suggested this cutting point because "1% of the GDP is substantial". The loss of these revenues can have damaging impacts on the economy with major consequences for employment and other related sectors of the economy.
- Trade partner concentration: measure the percentage of export - import with each trade partner. Having a few trade partners puts peripheral economies in a dependent situation toward the demands on the partners national market. A decrease of the demand can result in enormous difficulty to sell the production or the necessity to sell at a lower price.
- The trade concentration measure the percentages of export - import with each trade partner.
- Trade composition index: extend to which a country import raw and manufacturing products. The measures used here is the percentages of raw and manufactured goods in the total of the exports.

The investment dependency index assesses the extent to which is dependent on foreign investments. The measure used is the ratio of net foreign investment to GDP.

The data to compute some these indexes are available at the national level but not at the sub-national level in Haiti. The only data pertaining to international trade available are the import taxes. The import taxes are used as a proxy to measure the level of dependency of the economy of the regional capitals toward the international market.

Dependency, Urban Primacy and Urban System in Haiti: an Historical Overview

In Haiti, today's urban primacy level, location and size of the regional capitals find their roots in the country's urban history and the linking of the Haitian economy with the international market. The colonial period (1492–1804) marks the establishment of an urban system with the main purpose of exploiting the resources of the colony for the benefit of the colonial power. During the French colonial period, industrial development was almost entirely limited to producing sugar from sugarcane. The entire production was shipped to France and Europe. The economy of Saint Domingue was completely dependent of the international market.

As a result, the urban network of Hispaniola (and later Saint Domingue) was composed of small inland urban centers and a more developed network of port cities. The inland urban centers served as concentration/transit points for the exportation of agricultural products. They were mainly established in the heart of the most productive regions. The coastal urban centers mainly served as gateways for raw products (gold, coffee, sugarcane) from the hinterland to the colonial metropolis. The smallest coastal cities were linked by coastal trade to the most important cities, from which goods were imported and exported between Saint Domingue and Spain and later France (Geggus 1990; Knight 1991).

In addition, Haiti was a typical exploitation colony ruled by the "predominantly monopolistic" French colonial policy (Knight 1991) that limited administrative and political local

power (Cardoso 1971). Therefore, the administrative and political status did require any important administrative centers and did not induce any major urban growth. As a result, the towns of eighteenth-century Saint Domingue surprised the visitors by "their extremely small size relative to the volume of trade that they handled even by the standard of colonial plantation societies" (Geggus 1990). All of today's regional capitals are former colonial main port cities, except for Hinche. The location of the main cities illustrates the role of economic dependency they have played in the shape of Saint Domingue's urban system.

In the early national period, the new country sought to replace the former colony on the international market by producing the same agricultural goods but the new administrative structures and the end of slavery introduced some important changes in the urban system. They adopted the colonial economic policy maintaining the dependency of the Haitian economy toward the international market. The colonial urban system kept its economic functions as concentration points and gateways for the exportation of agricultural goods (Renaud 1934; Madiou 1947/1948; James 1949; Moral 1961; Thebaud 1967; Gaillard-Pourchet 1990).

The new leaders also established political and administrative structures that reinforced the existing urban centers and favored the rise of new ones. The existing urban centers became the sites for the political and administrative powers of the new rulers, where they established the principal organs of control and local political (Madiou 1947/1948; Gaillard-Pourchet 1990). This induced the growth of the main urban centers.

Finally, the end of slavery introduced changes in the urban landscape. The newly freed slaves left the former plantations to migrate to the cities and towns and establish new agglomerations and communities. The end of slavery also boosted the growth of the main urban centers.

The American occupation marked another turning point in the level of dependency of the Haitian economy and in the shape of the Haitian urban system and more importantly the raise of Port au Prince as a primate city. The occupation introduced important changes to the economy, the administration, and the transportation system. The occupant imposed a series of reforms allowing and reinforcing American investments in the national economy in diverse sectors such as agriculture and transportation (Doura 2001). The constitution had been mandated to allow foreigners to own lands, inducing the injection of foreign capital in the country. Other laws allowed the expropriation of the farmers to reinstate the big plantations controlled by foreign investors, such as the contractor Donald McDonald (Doura 2001). The flow of foreign investments touched other sectors such as mining (e.g., copper, bauxite) or subcontracts in clothing, sport equipments, or telecommunication (Turnier 1955; Pierre Charles 1967). The investments in agriculture and the expropriations deprived small farmers of their land and forced more of them to migrate to the urban centers, where limited investments had been made in urban economic activities. The American occupation of Haiti re-enforced the dependency of the Haitian economy toward the international market.

Another consequence of the American occupation of Haiti is the rise of the capital to the rank of primate city. The investments had been almost exclusively made in Port-au-Prince. The economic changes increased urban-rural migration toward the main urban centers, but mostly towards Port-au-Prince. The occupation force established administrative structures to ensure the overall control of the economy and maintain political stability. To do so, it reinforced the central administrative power and weakened the local institutions; it also made changes in the existing infrastructure to support its policy. For example, it closed some of the regional ports and built roads linking the main regional cities to Port-au-Prince (C.E.G.E.T. 1985). The main regional urban cities lost a progressively larger part of their economic power and resources, to the benefit of Port-au-Prince. The American occupation of Haiti played a determining role in the structure of the actual

urban system, characterized by the primacy of the capital (Corvington 1991). The primacy of Port au Prince is one of the consequences of the dependency of the Haitian economy under the American occupation (Cardoso 1971; Evens 1980; Bornschier 1981; Bradshaw 1991).

After the U.S. occupation the successive Haitian governments, because of their limited resources and the desire to control all aspects of the country's political life, kept the same politico-administrative structure and infrastructure. This once again increased the dependency of the Haitian economy and contributed to the growth of Port au Prince to the rank of a primate city.

The Failure of Decentralization and Regional Development Policies in the Third World and in Haiti

The negative impacts of urban primacy on development have become a major concern for development planners in Third World countries and in Haiti. This concern has created the emergence of dual function development policies that aimed to improve sectors of the economy and social services (health or education) while at the same time integrating geographic dimensions into the policies (Rondinelli 1983; Doan 1995; Glaeser 1999; Bardhan Automn 2002). At the same time, decentralization policies have become increasingly popular in matters of governance all around the world and in Third World countries in particular (Olowu 2001; Bardhan Automn 2002).

Definition of Decentralization

There are several definitions of decentralization. One of the best general definitions is provided by Rondinelli, et al.: "the transfer of responsibility for planning, management, and resource-raising and allocation from the central government to (a) field units of central government ministries or agencies; (b) subordinate units or levels of government; (c) semi-autonomous public authorities or corporations; (d) area-wide regional or functional authorities; or (e) NGOs/PVOs." (Rondinelli 1981). In addition, Wolman (in Bennet, 1990) identifies types of decentralization: *political decentralization, administrative decentralization*, and *economic decentralization*. For the purposes of the study,

the concern is economic decentralization. Political and administrative decentralizations are not successfully being applied in Haiti and are at the forefront of the debate surrounding decentralization. Economic decentralization is put on the back burner, but as the literature review will show, economic decentralization is necessary for the successful implementation of political and administrative decentralizations.

Decentralization, Democracy and Poverty Reduction in the Developing World

Decentralization has been experimented with throughout Asia, Africa, and Latin America (Rondinelli 1983; Burki 1999; World-Bank 2000).[5] The enthusiasm for decentralization found its roots in the continued failure of centralized states to induce development and reduce poverty because of corruption and the heaviness of the administrative structure. Decentralization works to fragment and reduce the authority of the central government by transferring some of it to local institutions that are administrated by locally elected officials. This new framework of power should make local governments closer to their constituency and more accountable in the delivery of public services. Progress in technology should also make it easier to locally manage services such as electricity or communication. Finally, the smaller size of the territory to manage requires smaller, and therefore more efficient, administrative structures (Wolcott 1994; Asthana 2003; Andrianova 2004; Fjeldstad 2004; Bardhan and Mookherjee 2006). Decentralization should reduce poverty in developing countries by improving governance and accountability (Loquai, Bah et al. 2001; Crook 2003; Schneider and University of Sussex. Institute of Development Studies. 2003)).

[5] Decentralization has several definitions and can take different forms. In this study, I refer to the "devolution of political decision making to local level smaller entities" (Bardhan, p.186)

The Need for Economic Decentralization and the Role of Secondary Cities

However, in spite of its promises, decentralization policies have so far failed to deliver tangible spatial and governance results: both urban primacy and poverty are increasing in most developing countries. Central governments do not have the capacity (or sometimes the political will) to implement decentralization, and the local administrations do not have the sustainable capacity to undertake the new responsibilities that come with decentralization.

Some scholars explain the failures of decentralization by citing the lack by the lack of economic decentralization policy and more specifically the lack of secondary cities, which are cities that are large enough to perform important economic and social functions for their own populations and those in surrounding areas (Rondinelli 1983). In other words, a city that will be able to diffuse development at a regional level, attract and retain rural migrants, and slow the growth of the primate city. Secondary cities are crucial to the development of developing countries because of the roles that they can play, such as reducing urban concentration, reversing polarization, alleviating problems in larger cities, reducing regional inequities, stimulating rural economies, reducing urban poverty, and increasing productivity (Rondinelli 1983). Secondary cities are therefore crucial to slowing the growth of primate cities and reducing poverty in rural areas. Decentralization policies may fail because of the lack of secondary cities that can support economic activities requiring high population thresholds and extensive services and facilities (Rondinelli 1983). The present study has identified, among the regional capitals, the secondary cities or regional growth poles that need to be re-enforced in order to increase the chances of success of the decentralization process in Haiti.

The consequences of the primacy of the national capital Port au Prince over the national economy has become a major concern for the Haitian government since 1986. Before 1986, the Duvalier dictatorship wanted to control all aspects of the national life by maintaining a strong and

highly centralized government and by concentrating all the socio-economic activities in the capital Port au Prince. Since the end of the Duvaliers' regime in 1986, there have been several policy efforts to address them including the insertion of decentralization as one of the most important innovations of the 1987 Haitian constitution. This innovation in the constitution aimed at decentralizing the central government and to give more power to existing and newly created sub-national institutions.

In addition, there have been several attempts to reopen some of the regional ports to international trade. These efforts were aimed at diverting trade traffic away from the port of Port-au-Prince and decreasing congestion in the port. They have been successful in some places and unsuccessful in others. For instance, the ports of Cap Haïtien, Saint Marc, Jacmel, and Miragoane were rehabilitated for that purpose. These attempts were parts of ongoing efforts to address the consequences of the primacy of Port au Prince and to implement a broader decentralization policy by encouraging the delocalization of economic activities outside of the MAPAP. However, much remains to be done to halt the growth of the MAPAP.

Like in Haiti, decentralization policies have been implemented in the Third World in part to address the consequences of urban primacy. The assessment of the outcomes of decentralization policies in Third World countries has given birth to a flourishing literature. Most research focuses on administrative performance in resource management and service delivery in the areas of education, water and sanitation or health care for instance (Ferrer, Alvarez et al. 2002; Asthana 2003; Larson 2003; Mønnesland 2003; PAD 2003). Unfortunately, the research / evaluation focuses on how the policy as a whole is carried out by the central government and not on the performance of specific local collectivities. In addition, when such studies are conducted, it is to assess the performance of the particular local entities being studied and not to, eventually, draw conclusions between their characteristics (population size, economic potentials, and so on) and the outcomes of

decentralization. More importantly, decentralization outcomes have very rarely been studied from a geographic standpoint with an emphasis on the urban system.

The focus on local governance and the performance of local institutions is unfortunately also predominant in the design phase of decentralization policies. The idea is also that in order to promote democracy all citizens, all the local institutions should be treated equally and should be awarded the same rights and powers (Fukasaku, Hausmann et al. 1998; Aspinall, Fealy et al. 2003; Tvedten and Orre 2003; Jütting 2005). Therefore, there would often be little differentiation in status based on fundamental differences in terms of wealth or real institutional capacity to promote local development. The policies and literature surrounding them mainly focus on political and administrative decentralizations.

However, as Rodinelli (1983) points out so clearly, to achieve the other goals of decentralization, to promote development and reduce urban primacy, it is necessary to enable the other cities to play a more active role in the economy; it is necessary to promote an urban policy that will decrease the attraction of the primate city and increase the attraction of other cities in the system (Bodineau 1995). In other worlds, economic decentralization is necessary to achieve political and administrative decentralization. The development of smaller towns and cities stimulates rural development by creating closer markets for primary staples (Bos 1965; Boudeville 1966; Boventer 1970). The dispersion of economic activities lowers the cost of products and the transfer of innovative values from the cities to the countryside (Brown 1981). More importantly, the development of secondary cities should be integrated into the policy design, considering the role that they can play in increasing the chances of success of decentralization in Third World countries. Finally, cities and more specifically secondary cities in developing countries concentrate an important part of the national economic activities and the population. These economic and demographic characteristics of cities make it easy to raise sufficient local taxes (that are already raised

by the central government) to carry out the new responsibilities of local institutions. Insufficient potential local taxes are often one of the main obstacles to decentralization (Fukasaku, Hausmann et al. 1998; Aspinall, Fealy et al. 2003; Tvedten and Orre 2003; Jütting 2005)

This study will formulate policy recommendations to support Haiti's efforts to implement decentralization by focusing on the deconcentration of socioeconomic activities outside of the Metropolitan Area of Port-au-Prince (MAPAP). Strengthening of institutions alone is not sufficient to ensure the success of the process. The existing literature on the decentralization process in Haiti does not explore the wide range of possible explanations for the failure of the current decentralization policy in Haiti and elsewhere. Additional explanations can be found in the fields of regional and urban economies and general development.

Indeed, the lack of spatial economic policy to support decentralization can limit the impact of the administrative measures enacted to improve local governance. Economic growth determines, to a large extent, administrative capacities (Rondinelli 1983). Economic growth requires investments that investors will seek to protect by participating in the local political life; it also requires skilled human resources that will be likely to engage in local political activities. Therefore, economic growth may provide the regions with qualified public servants. Moreover, economic growth increases local fiscal assets and therefore, potential public investments in services and infrastructures. This study has explored additional venues to explain the failure of the ongoing decentralization process and offer the elements to design the spatial economic policy to support it and increase its chances of success.

Spatial economic policies rely on the framework of the growth pole theory for their design and evaluation. However, the application of the growth pole theory as a policy framework or to evaluate decentralization and regional planning policies in the Third World has not been very successful as described in the previous chapter. One of the reasons is the lack of data. This research

takes advantage of a rare opportunity to test the growth pole theory in a Third World country. Very often, the lack of data is the main obstacle to conducting research in the field of regional study in developing countries (Rondinelli 1983). Fortunately, Haiti conducted its last census in 2003, more than twenty years after the previous one. The Haitian Census Bureau made it its priority to collect a very detailed set of information and to use the latest technologies available and usable in the Haitian context. All the data collected is today in a computer database and technicians can run requests and produce specific sub-datasets, like the one used for this study. Such detailed information is rarely available in the developing world. This offers a unique opportunity to conduct research in urban and regional studies and to realistically test the growth pole theory in a developing country. This study will bring important missing elements to the field of regional studies in the Third World.

Growth Pole Theory and its Application as a Policy Framework in the Third World

This chapter presents the application of the growth pole theory in the Third World on which the identification of regional development poles relies. Regional development poles are usually cities that are targeted to receive public and private investments in order to create jobs and socioeconomic activities that will attract people who would otherwise migrate to the primate city. In this sense, the regional development poles are designed to decrease the growth of the primate city.

The Growth Pole Theory

Perroux first introduced the notion of economic growth poles (Perroux 1955). Perroux argued that a group of industries around a leading propulsive industry will innovate and grow faster than those outside the group or pole. The propulsive industry will use inputs from smaller industries or raw materials from the primary sector, boosting inter-economic activities and innovation rates to meet its evolving needs and expansion. The concept of "dominance" was important in the context

of economic growth pole. The flow of goods and services from the dominant, firm X to Y is a greater proportion of X's output than the flow from Y to X is of Y's output.

This notion was later transferred to geographical space and broadened to include the concentration of population and economic activities and named "growth pole". Growth pole theory is based on the work of Losch (Losch 1954; Christaller 1966; Von Thunen 1966). Chistaller and Von Thunen have discussed how urban centers dominate and organize their surrounding area. The level of domination and the effectiveness of such organization depend on the urban center's position in a hierarchical scheme. The larger an urban center is, the larger and better organized its dominating territory will be. Von Thunen (1966) studied the influence of cities on the spatial organization of agricultural production in Germany.

Several dependant industries might be geographically regrouped around the propulsive industry, creating a polarized region around a regional (or growth) pole. A polarized region is defined as a heterogeneous, continuous area localized in geographical space, centered around a regional center of gravity and whose different parts are interdependent through mutual complementary relation (Richardson 1975).

A regional pole is a set of expanding industries located in an urban area that induces the development of economic activities throughout its zone of influence. The attraction power of a pole increases with its size, and its effect decreases with distance; isolated industries will struggle to grow. There is a push and pull factor that comes into play where the larger urban centers have a stronger attraction power than the smaller cities. The larger cities also have a stronger ability to retain their own population (Boudeville 1966). The assumptions of the effects of the size of the poles, the size of the other cities in their regions, and the distance between the poles and the other cities in their regions are tested in this study.

The factors that explain a pole are not only economic but institutional and social, and the effects of a pole have the same dimensions: "The growth pole is a set that has the capacity to induce growth of another set (growth being defined as a lasting increase in the dimensional indicator); the pole of development is one that has the capacity to engender economic and social structures whose effects are to increase the complexity of the whole and increase its multi-dimensional return" (Perroux 1988, page 49). Myrdal explains the overall development of the pole and its region by the "cumulative causation" by which a change in a social system will "not call forth countervailing changes but, instead, supporting changes which move the system in the same direction as the first change but much further" (1957, p. 13). The development of a growth pole should induce not only economic growth but the overall socioeconomic development (Hirschmann 1958).

In the case of this study, the analysis is extended to migration between the regional capitals (the poles) and the other cities of their respective regions. The attraction power of a pole over its region is measured by the number and percentage of migrants received. The strongest poles are identified as the urban centers receiving the most migrants from a defined geographic entity. The strongest poles also attract migrants even from the other large cities of their regions and from cities that are far away. These assumptions and hypothesis are tested in this study.

Migration is a good proxy to study attraction power and the potential for economic growth. Migrants are attracted by wage differentials between their place of origin and their destination. However, unemployment rates are very high in cities across the country and wages are sometimes lower than in rural areas. *Expected* wages differentials explain the increase in migration to urban centers. (Todaro 1970; Todaro March 1969). Above all, migrants hope not only to find better paid employment in the formal sector but also to take advantage of all the economic opportunities in the informal sector and services, retail activities for a growing population as well as subcontractors for larger enterprises in the formal sector (Andrei 1982; Andrei Rogers 1982; IHSI 2001). The

destination is the city with the most potential to fulfill the migrants' dreams. Migration is therefore a good proxy to study the attraction power of potential growth poles.

The Application of the Growth Pole Theory as a Policy Framework in the Third World and in Haiti

Growth pole theory not only explains the existing poles but also opens the doors for its applications in formulating regional policy. Regional and urban planners started to use growth pole theory in order to design spatial economic policies to reduce the growth of primate cities by stimulating regional poles (Richardson 1975). Unfortunately, the strict application of the geographic assumptions of growth pole theory in Third World countries did not produce the expected results. Indeed, instead of promoting regional development, regional planned or natural poles tend to function like enclaves. The main causes identified are the high concentration of economic activities and administrative and managerial resources in primate cities, which is very difficult to reverse; the geographic isolation of the potential growth poles in their regions; the weaknesses of the policies; regime changes; and the lack of political will (Jefferson 1939; Linsky 1965; Coraggio 1972; Coraggio 1973).

Additional explanations of the failure of the application of the growth pole theory in developing countries are provided by comparing the urbanization process in the First World to that of the Third World. The theory was originally formulated in the European context, which is completely different from that of today's Third World countries. Indeed, in Europe, urbanization was the combined product of agricultural modernization and industrialization. In the developing countries, a combination of overpopulation, of poverty and persistence of traditional agriculture in the rural area and limited industrial development explains urban growth. Moreover, the relationship between the different sectors of the economy is also different. While in the First World the primary sector produced raw material for the development of industrial activities, the primary sector of

industry in the Third World (mainly agriculture) produces raw materials almost exclusively for the external market. The raw materials produced are not used to develop industrial activities and produce value-added goods.

Above all, it is very difficult to accurately assess the uses of growth pole theory as a planning strategy in the Third World because an important part of the results can be explained by factors that are external to the theory itself, such as the policy implementation process. It is also difficult to test the assumptions of the theory in Third World countries because of the lack of detailed data. More research needs to be conducted to fairly assess the growth pole theory as a policy framework in the Third World context. The present study has filled part of this gap in the literature.

The spatial assumptions of growth pole theory are based on the linkage between rural and urban economies; this linkage supports the process through which urban centers will propel development in their hinterland and where urban centers will grow based on the wealth of their hinterland. Unfortunately, this linkage is broken in developing countries because the international market plays a key role in Third World countries' economic activities.

There is no existing study of the Haitian urban system or about the test or application of growth pole theory. The latest government national development program does not have a comprehensive approach to address the problems raised by the high level of primacy of the MAPAP. In 2007, the Ministry of Planning and External Cooperation published the National Strategy for Growth and Poverty Reduction Document (NSGPRD) for 2008 – 2010. This document presents the government's and other stakeholders' proposed interventions in the country for this period. It was elaborated based on a participative approach promoted by the World Bank in developing countries. The United Nations Development Program (UNDP) usually provides the necessary technical assistance as it was the case in Haiti (MPCE November 2007).

Although urban development is mentioned several times in the document, there is no overall urban development program/activities that will address the problems raised by this study. The first mention of urbanization appears on page 92 under the section "*Specific cross-sector and transversal policies*," "*Environment and sustainable development*" in the chapter named "*The poor and out-of-control urbanization*." The section deals mainly with favoring urbanization outside of environmentally sensible areas like swamps, river basins or steep slopes.

The second mention appears under the chapter "State Capacity building" in the section "Decentralization" on page 98. The activities mainly focus on the training of the local elected officials and the staff of the local collectivities, reforming the legal framework, advocacy to explain the advantages and challenges of decentralization and, capacity building.

Urban development re-appears on page 100 as a section in the chapter "Specific cross-sector and transversal policies." This section focuses on how to restore order in the poor neighborhoods by rebuilding the physical environment, creating jobs, re-establishing the presence of the local and central authorities, increasing the capacity of the local authorities in terms of slum management and promoting participative neighborhood planning. Finally, the section "Land Management" of the chapter "Specific cross-sector and transversal policies" aims at promoting relationship between the urban and rural areas at the regional, arrondissement and communal levels.

These proposed actions do not address the problems raised by this study, mainly how to slow the growth of the MAPAP and build a balanced urban system. The present study provides the rational for including a more integrated urban development strategy approach at the national level.

Research Design

General Considerations

One of the objectives of the study is to identify potential growth poles among the regional capitals. The poles should be reinforced with important public investments in infrastructure that will make them as attractive to private investors than MAPAP. In addition, private investments should be promoted by measures such as tax exemptions or other financial incentives.

I wanted to focus on decentralization at the national level and draw comparisons and conclusions that will provide me with the elements to formulate policy recommendations that will promote economic decentralization and halt the growth of MAPAP. In a developing country like Haiti, consistent data collection is not a priority and there are very few complete sets of data on the eight regional capitals. Because of these considerations, I have primarily used data that are available for the eight regional capitals, while other data are used to explain the results and findings.

The Case Study Design

To conduct this research, I have used the case study design, Haiti being the case. The research has several characteristics that justify this choice. Urban growth in the context of regional migration and economic dependency is a complex, contemporary phenomenon in which the boundaries among the different factors are not always clear (Yin 2003). For instance, the location of a city in a region with export-oriented agricultural activity will not induce population growth if this city is not a port-city (public or private investments) or if it is not at a crossroad of the transportation of the goods to their gateway.

The topic to be investigated and the theoretical framework to be used are complex and require a flexible strategy to integrate several scientific fields and a variety of types and sources of data. Assessing the role of the departmental capitals in their regions requires elements and techniques from geography, economics, and demography. I also use qualitative, quantitative, and geographic data from all these disciplines. The case study strategy gives the flexibility to navigate

among different tools, techniques, and data in a mixed methodology approach (Singleton 1998; Creswell 2003; Yin 2003).

The research is an explanatory case study in the sense that the objective is to understand *how* the different factors explain population growth in the units of analysis. At the same time, the factors cannot be manipulated, which makes an experiment impossible to conduct in this context (Yin 2003).

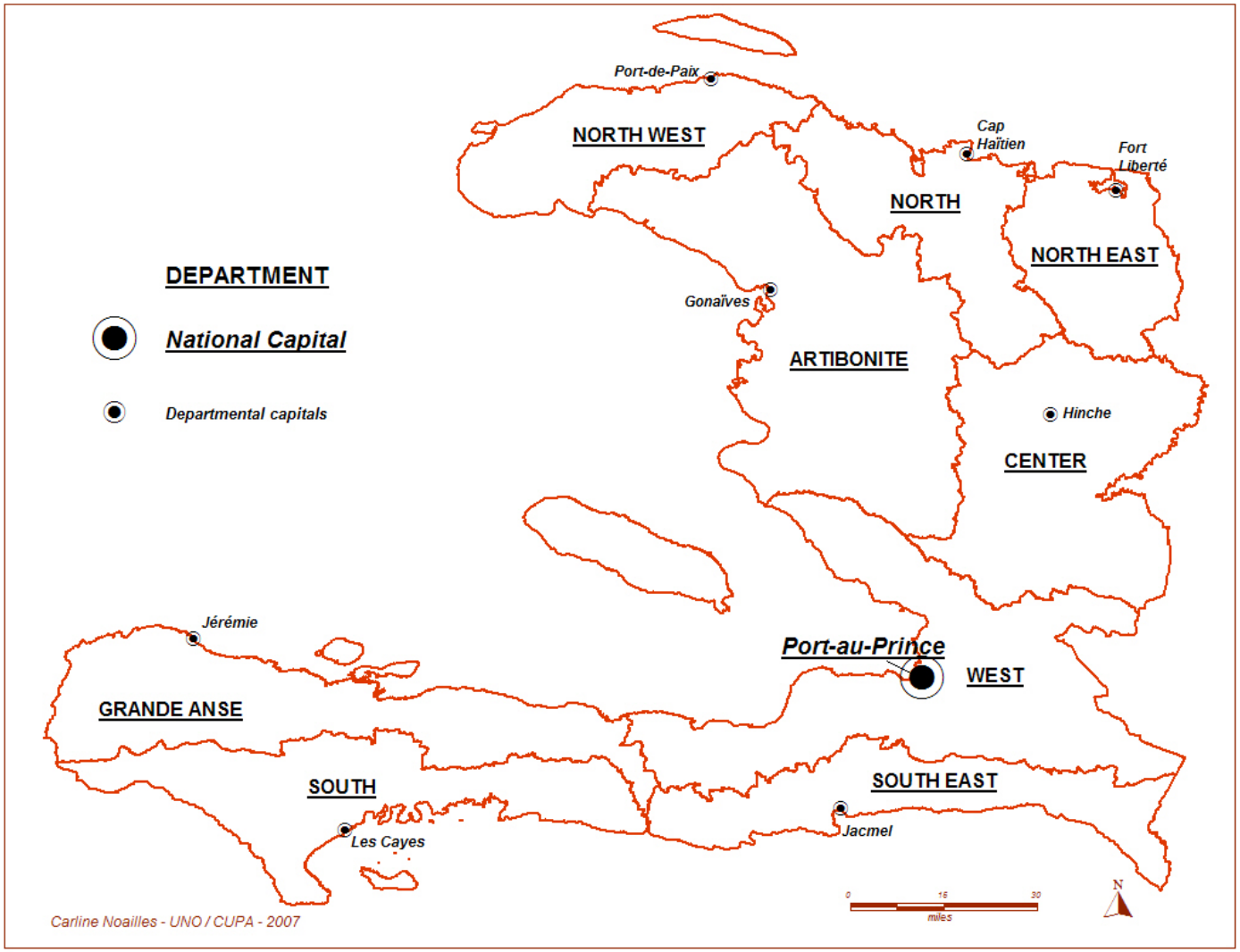
Haiti, the case, is not meant to be representative of the Third World; rather the growth pole and dependency theories are used as templates to understand the population growth in the units of analysis, the regional capitals. The findings of the study will serve as an empirical test of the theory and will lead to "analytical generalization" of the theoretical propositions and hypotheses (Yin 2003).

Units of Analysis

Units of analysis are the primary entity to be studied. They can be an individual, an event, or an entity. In a case study design, the "definition of the unit of analysis (…) is related to the way the initial research questions have been defined" (Yin 1994). In addition, there are many ways to select the units of analysis in the field of regional study. The parameters vary from political, administrative, economic or military functions to demographic characteristics (Ullman 1941; Boventer 1970; Coraggio 1973; Richardson 1975; Rondinelli 1983). In our case, the criterion is administrative. The primary units of analysis are: Gonaives, Cap Haïtien, Port de Paix, Fort Liberté, Hinche, Jacmel, Les Cayes, and Jérémie (map 2). They are the regional capitals of Haiti and as such, have a leadership role to play in promoting the development of their respective region and share common political and administrative characteristics. The selection of the regional capitals as primary units of analysis is related to the main objective of the study, which is to identify and explain growth poles/secondary cities in Haiti.

The following map shows the boundaries of the nine departments of Haiti and the location of the capitals. Only eight departments and their capitals, the potential regional poles, are studied in this research. The capital of the West department is Port-au-Prince, the national capital, which along with its surrounding cities forms MAPAP, the primate city (Map 2).

Map 2: The departments of Haiti and their capitals



The regional capitals are different in terms of demographic characteristics (table 4, appendixes 1 and 2). The populations of the capitals vary, from 16,625 inhabitants for the city of Fort Liberté in the North East, to 204,058 for Cap Haïtien in the North. The average population of 83,176 and the standard deviation of 63,911 show important variations in the size of the cities. The urban populations of the departments show the same disparities: it varies from 59,642 for South East to 626,928 for Grande Anse. The sizes of the regional capitals and of the urban population are determining factors in the attraction power of a city. Consequently, these disparities in population should result in disparities in the attraction power and migration patterns.

Table 4: Urban and rural populations of the eight departments and the population of their capitals

Department	Total population	Rural population	Urban population	Capital	Capital Population
North	823,043	497,725	325,318	Cap-Haïtien	204,058
North East	308,385	190,513	117,872	Fort-Liberté	16,625
South East	484,675	425,033	59,642	Jacmel	30,183
Center	581,505	486,886	94,619	Hinche	24,131
Grande Anse	522,153	104,775	626,928	Jérémie	103,889
North West	531,198	412,400	118,798	Port-de-Paix	70,742
South	621,651	512,028	109,623	Les Cayes	55,276
Artibonite	1,299,398	876,922	422,476	Gonaïves	160,501
Minimum	*308,385*	*104,775*	*59,642*		*16,625*
Maximum	*1,299,398*	*876,922*	*626,928*		*204,058*
Average	*646,501*	*438,285*	*234,410*		*83,176*
Standard deviation	*280,969*	*217,141*	*190,495*		*63,911*

Source : IHSI–RGPH –2003

The Data

This study will rely on different types and sources of secondary data that are both quantitative and qualitative. I have primarily used data that are available for all the units of analysis. This approach was necessary to be able to compare the results and draw conclusions that are essential to formulating recommendations to implement economic decentralization. For each type of data, I have presented the rationale behind the choice as well as the limitations of using such data. The data are processed to conduct statistical analysis and test the research questions and hypothesis.

Rarely Available Census Data

The 2003 Census Data

New census data are rarely available in a developing country like Haiti. In 2003, Haiti held its first census in 20 years. During the 2003 Census, the Haitian Institute of Statistics and Computer Science (IHSI) sent interviewers all over the country with questionnaires to be completed for each dwelling unit. Among the questions, the interviewers asked each person in the dwelling unit their birthplace and whether or not it is in a rural or urban area. People whose birthplace is different from their place of residence are considered migrants for the purpose of this study.

IHSI created a matrix for each department that provides, for each commune, the total population, number of natives (persons whose birthplace is the same as the place of residence), and number of migrants (persons whose birthplace is different from the place of residence). For the number of migrants born in another commune of the same department, the matrix gives the name of the birth commune and states whether it is an urban or rural area (table 5). For the purpose of this study, I am going to use the number of migrants from one city to another (persons born in an a city and living in a different city); I will refer to these numbers as "urban-to-urban migrants." I will use primarily the number of urban-to-urban migrants between each unit of analysis (the regional capitals of the eight departments of the country – except for the department of the West where MAPAP is located) and the cities of their respective departments. I will use the other data to support, illustrate and re-enforce my findings.

Table 5: Matrix of migration data from the same department

Residence place	Birthplace									
	Commune 1		Commune 2		Commune 3		Commune 3		Commune N	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Commune 1										
Urban										
Rural										
Commune 2										

Urban										
Rural										
Commune N										

Relevance of Demographic and Migration Data

Demographic and migration data are very relevant for studying and identifying development poles in Third World countries. Natural growth alone cannot account for the rapid urban population growth. Natural population growth in an urban setting is lower since fertility rates are lower than those in rural areas: rural dwellers tend to be more educated, modern and to have less children than their rural counterparts. Therefore, migration plays an important role in urban population growth in developing countries. However, migrants are mainly young adults at the peak of their fertility who are most likely to have children, which should also contribute to urban growth. In this sense, migration contributes in two different ways to urban growth (Todaro 1979).

Migration is also a good proxy to study attraction power and the potential for economic growth. Migrants are attracted by wage differentials between their place of origin and their destination. However, unemployment rates are very high in cities across the country and wages are sometimes lower than in rural areas. *Expected* wages differentials explain the increase in migration to urban centers. (Todaro 1970; Todaro March 1969). Above all, migrants hope not only to find better paid employment in the formal sector but also to take advantage of all the economic opportunities in the informal sector and services, retail activities for a growing population as well as subcontractors for larger enterprises in the formal sector (Andrei 1982; Andrei Rogers 1982; IHSI 2001). The destination is the city with the most potential to fulfill the migrants' dreams. Migration is therefore a good proxy to identify potential growth poles.

Limitations of the Census Data

Unfortunately there are no data on the number of people who migrate from one regional capital to another. This information would have been useful to measure the ability of the capitals to retain their migrants or natives or their ability to attract migrants from the other capitals; in other words, the competitiveness within the national urban system. However, one can still know, for each city, the number of total migrants from every other department (table 6).

Table 6: Matrix of migration data from the other departments and overseas

Residence place	Birthplace				
	Department of West	Department of North	Department of N1	Department of N2	Foreign
Commune 1					
Urban					
Rural					
Commune 2					
Urban					
Rural					

Finally, the data do not include the temporal aspect of migration, i.e., date of migration. This information would have allowed me to analyze trends in migration patterns over the course of several years. Instead, the data provide just a "snapshot" for the year 2003, which still provides a good proxy of migration trends.

Geographic Data

The geographic data include numeric data (the distances between cities) and vector spatial data such as land use, topography, hydrology, and road maps. In addition, the census data described above are integrated in a geographic information system (GIS) and linked to geographic features such as the cities' location. The numeric data are used to study the effect of distance on the number of migrants.

Economic Data

I will use quantitative and qualitative secondary economic data. A first set of data is the value, in ***gourdes*** (the Haitian currency), of import taxes collected at each of the tax collection points in the country. Data pertaining to exports do not exist because Haiti does not collect taxes on exports as part of the requirement of the Structural Adjustment Program mandated by IMF. These data are used to assess the impact of the international market on these cities and are published by the Ministry of Finances (table 12).

The amount of import taxes collected at each tax collection point reflects the volume of international trade handled. A greater level of import taxes is a sign of stronger ties with the international market. These data are used to test the assumptions of dependency theory that cities with stronger ties with the international market tends to attract more migrants.

Data regarding the total value of goods imported–exported are only available at the national level and not by trade locations. Data on the private sector/employment for all the regional capitals are not available in a country where 68% of non-agricultural activities function in the informal sector. However, for the fiscal year of 2008–2009, for example, the Haitian GDP was 14,015 million gourdes while the value of imports was 18,317; the value of exports was 4,312 million gourdes (BRH 2010). These data show that Haiti imports more goods than it produces and that the value of exports is minimal compared to the value of imports. Data on imports provide a good estimation of international trade activities in the regional capitals.

Research Questions, Hypothesis, and Data Processing

The main objectives of the study are:

- To identify among the regional capitals the cities that have the characteristics to be potential "growth poles" or "secondary cities."
- To explain how these cities differ from the other regional capitals and from the other cities (except the cities of the MAPAP).
- To formulate policy recommendations to strengthen the growth of these poles in order to increase the chances of success of the decentralization process and reduce the negative consequences of urban primacy in Haiti. These recommendations will improve the NSGPRD.

The objectives of this study are reached by answering six research questions and testing six hypotheses. The questions are formulated to take full advantage of the available data and use them to identify the growth poles and explain the factors that differentiate them from the other cities. By identifying and explaining the most attractive poles, I have reached two of the main objectives of the study. In addition, by reaching the first two objectives, I gathered elements to reach the third objective, i.e., to formulate policy recommendations to strengthen their attraction, which will enable them to attract migrants who would otherwise go to the MAPAP. Because I used the growth pole and dependency theories as frameworks, the study also tests some of their hypotheses.

The data processing includes basic statistical analysis and the mapping of the data to test the hypotheses of the growth pole theory and dependency theory and visualize complex migration patterns.

Identification of the Poles

The first three research questions identify the strongest growth poles among the eight regional capitals by testing hypotheses pertaining to urban primacy and growth pole theory. With these questions, I will identify the regional capitals that have the stronger attraction power expressed by their ability to attract 1) the largest number of migrants to their departments compared to the MAPAP, 2) the largest substantial number and percentage of cities that have a certain population size and, 3) the largest substantial number and percentage of migrants from cities that are far away within their departments. The regional capitals with the strongest attraction power are the preferred locations to concentrate public investments, promote private investments and, relocated socio-economic activities from the MAPAP. The availability of jobs and socio-economic infrastructure will strengthen their already strong attraction power and they will be able to attract migrants that would otherwise go to the MAPAP.

Question 1: How does the urban primacy of the MAPAP affect the attraction power of the regional capitals?

Hypothesis 1: The MAPAP receives more migrants from the regions than the corresponding regional capitals and the number of migrants to the MAPAP decreases when the distance between the MAPAP and the regional capitals increase

This first question tests the main assumption of the primate city concept that the primate city overwhelmingly dominates all the socio-economic activities of the country (Jefferson 1939). As a primate city, the MAPAP should attract more migrants from anywhere in the country than the regional capitals. At the same time, this question tests the growth pole theory hypothesis that such domination decreases when the distance increases (Perroux 1955; Boudeville 1966).

To answer research question 1 and test hypothesis 1, I have computed the ratio of the total number of migrants from each department living in the MAPAP to the total number of migrants of the same department living in the regional capital.

$$\text{Ratio} = \frac{\text{Number of migrants from department } X \text{ living in its regional capital}}{\text{Number of migrants from department } X \text{ living in the MAPAP}}$$

The regional capitals with the smallest ratio are the strongest poles at the national level where socio-economic activities should be relocated from the MAPAP; it is where public and private investments in infrastructure, social services and job creation activities should be concentrated and promoted.

Question 2: How does the population size of the cities of origin explain the share of migrants?

Hypothesis 2: The percentage of migrants out decreases when the size of the cities of origin increases.

Question 2 and hypothesis 2 test the assumption of growth pole theory that the larger cities have a stronger attraction power and have the capacity to retain their population (Von Thunen 1966). In reverse, small cities have limited attraction power and their population tends to migrate to larger cities. It is a sign of strong attraction power for a regional capital to attract migrants from large cities within region.

To answer research question 2 and test hypothesis 2, I have built the following table for each department (table 7, appendix 3):

Table 7: Example of the tables used to answer to Q2 and H2: Department of Artibonite: population and number of migrants sent to the regional capital by city of origin

Cities of origin	Population	Number of migrants sent to the regional capital
Anse Rouge	8,867	749
Desdunes	18,970	516
Dessalines	18,224	321
Ennery	3,132	248
Estère	13,046	286
Grande Saline	2,824	118
Gros Morne	21,207	942
La Chapelle	3,665	0
Marmelade	5,355	142
Pte. Rivière de l'Artibonite	27,012	59
Saint Marc	90,382	167
Saint Michel de l'Attalaye	21,458	277
Terre Neuve	906	898
Verrettes	26,927	50

Source, Haitian Institute for Statistics and Informatics (IHSI)-RGPH 2003

Then, I ran a regression analysis testing the correlation between the number of migrants and the size of their cities of origin:

$$r = \frac{1}{n-1} \sum \left(\frac{x - \overline{x}}{s_x} \right) \left(\frac{y - \overline{y}}{s_y} \right)$$

Where:

Xi = the number of migrants sent to the regional capital by city of origin i

Yi = the population of city of origin i

n = the number of observation (cities) in the analysis

S_x, S_y = the standard deviations of X and Y respectively

r: the correlation between the size of the city of origin and the number of migrants sent to the regional capital.

The regional capitals that do not support this hypothesis are the strongest poles, i.e., they attract migrants even from large cities that should have the ability to retain their own population. This is where socio-economic activities should be relocated from the MAPAP and where public investments should be concentrated and private investments promoted.

Question 3: How does the distance between the cities of origin and the destination (regional capital) affect the number of migrants?

Hypothesis 3: The number of migrants decreases as the distance increases.

Question 3 and test hypothesis 3 test the assumption of growth pole theory that the influence of the larger cities decreases when distance increase (Perroux 1955; Boudeville 1966).

To answer research question 3 and test hypothesis 3, I have built the following table for each department (table 8, appendix 4):

Table 8: Example of the tables used to answer to Q3 and H3: Department of Artibonite: number of migrants sent to the regional capital by city of origin and distance between the regional capital and each city of origin

Cities of origin	Number of migrants	Distance from the regional capital
Anse Rouge	749	32.79
Desdunes	516	20.2
Dessalines	321	20.24
Ennery	248	18.39
Estère	286	15.16
Grande Saline	118	33.47
Gros Morne	942	18.45
La Chapelle	0	59.29
Marmelade	142	32.8
Pte. Rivière de l'Artibonite	59	37.61
Saint Marc	167	33.88
Saint Michel de l'Attalaye	277	34.26
Terre Neuve	898	17.76
Verrettes	50	44.15

Source, IHSI-RGPH 2003

Then, I ran a regression analysis testing the correlation between the number of migrants received by the regional capital and the distance to the regional capital from each city of origin.

$$r = \frac{1}{n-1} \Sigma \left(\frac{x - \overline{x}}{s_x} \right) \left(\frac{y - \overline{y}}{s_y} \right)$$

Where:

X_i = the number of migrants received by the regional capital i

Y_i = the distance of city i from the regional capital

n = the number of observation (cities) in the analysis

S_x, S_y = the standard deviations of X and Y respectively

r: the correlation between the number of migrants from each city of origin and the distance between each city of origin and the regional capital.

The regional capitals that do not support this hypothesis are the strongest poles i.e. they attract migrants from cities that are located far away, which illustrates the geographic extent of their attraction power. This is where socio-economic activities should be relocated from the MAPAP and where public investments should be concentrated and private investments promoted.

These three questions combined will help identify the strongest regional poles. I have constructed an index with the results to these three questions. For each question, a number from 1 (weakest) to 8 (strongest) is assigned to each regional capital. The number is the rank of each regional capital among the 8 regional capitals. These numbers are added up for each capital to identify the overall strongest to the weakest poles.

Strength of a regional capital/pole = rank1 + rank 2 + rank 3

Where:

Rank 1= rank for the answer to Q1/H1

Rank 2= rank for the answer to Q2/H2

Rank 3= rank for the answer to Q3/H3

Explanation of the Attraction Power of the Strongest Poles

The fourth, fifth, and sixth questions explain the attraction power of the strongest poles by testing the assumptions of growth pole and dependency theories and the assumptions of the concept of urban primacy, namely the effect of the MAPAP, the effect of the distance between the MAPAP and the regional capitals on the impact of the primate city, the size of the regional capital and the links with the international market expressed. The links to the international market is measured by the amount of local import taxes collected. The strategic location and the infrastructure provide an interface with the international market. The amount of taxes shows the presence of a private sector taking advantage of this interface.

Question 4: How does the distance of the regional capital from the MAPAP explain the number of migrants in the regional capitals?

Hypothesis 4: The number of migrants to the regional capitals increases when the distance between the MAPAP and the regional capital increases

Question 4 and Hypothesis 4 test the assumptions of the primate city concept that the primate city will dominate the entire urban system (Jefferson 1939); such domination extends to all socioeconomic activities including migration. They also test the growth pole theory hypothesis that the influence of a large city, in this case the MAPAP will decrease when the distance increases (Perroux 1955; Boudeville 1966).

To answer research question 4 and test hypothesis 4, I have built the following table (table 9):

Table 9: Distance to the MAPAP and number of migrants received by regional capital

Regional Capital	Distance from the MAPAP	Number of urban-to-urban migrants received
Cap Haitien	203.35	44,470
Fort Liberte	243.95	2,098
Gonaives	151.98	24,702
Hinche	115.96	1,941
Jacmel	80.43	2,357
Jeremie	286.52	3,359
Les Cayes	190.74	10,590
Port de Paix	228.50	14,686

Source, IHSI-RGPH 2003

Then, I ran a regression analysis testing the correlation between the number of migrants received by the regional capital and the distance of each regional capital to the MAPAP.

$$r = \frac{1}{n-1} \sum \left(\frac{x - \overline{x}}{s_x} \right) \left(\frac{y - \overline{y}}{s_y} \right)$$

Where:

X_i = the number of urban-to-urban migrants received by regional capital i

Y_i = the distance between regional capital i and the MAPAP

n = the number of observation (cities) in the analysis

S_x, S_y = the standard deviations of X and Y respectively

r: the correlation between the number of urban-to-urban migrants received by each regional capital and the distance between each regional capital and the MAPAP.

If the data support the hypothesis, concentrating the public investments and promoting private investments in the furthest regional capitals will have the fastest impact in attracting a larger number of migrants to those capitals.

Question 5: How does the size of the regional capitals explain the number of migrants?

Hypothesis 5: The percentage of migrants to the regional capitals increases with the size of the population of the regional capitals

To answer research question 5 and test hypothesis 5, I have built the following table (Table 10).

Table 10: Population and number of migrants received by regional capital

Regional Capital	Population	Number of migrants received
Cap Haitien	204,058	44,470
Fort Liberte	16,625	2,098
Gonaives	160,501	24,702
Hinche	24,131	1,941
Jacmel	30,183	2,357
Jeremie	33,829	3,359
Les Cayes	55,276	10,590
Port de Paix	70,742	14,686

Source, IHSI-RGPH 2003

Then, I computed the coefficient of correlation between the total population of the capitals and the number of migrants received and the coefficient of correlation between the percentage of the total urban population of the department represented by the regional capitals and the percentage of migrants in the capitals.

$$r = \frac{1}{n-1} \Sigma \left(\frac{x - \overline{x}}{s_x} \right) \left(\frac{y - \overline{y}}{s_y} \right)$$

Where:

X_i = the number of migrants received by regional capital

Yi = the population of regional capital i

n = the number of observation (cities) in the analysis

S_x, S_y = the standard deviations of X and Y respectively

r: the correlation between the size of the regional capital and the number of migrants received.

Question 5 and hypothesis 5 test the growth pole theory hypothesis that the attraction power of a city increases with its size (Perroux 1955; Boudeville 1966). If the data support the hypothesis, concentrating the public investments and promoting private investments in the largest regional capital will have the fastest impact in attracting a larger number of migrants to those capitals.

Question 6: How does the dependency of the economy affect the migration patterns in urban centers?

Hypothesis 6: The amount of import taxes collected is higher in the strongest regional capitals.

The amount of import taxes collected is used as a proxy to measure the ability of the local population to take advantage of economic opportunities linked to the international market available because of the location of the regional capitals. This question tests the hypothesis that, outside of the primate cities, other cities in the Caribbean including Haiti, cities with economic activities linked to the international market tend to grow faster (Portes 1989; Portes 1994; Portes 1997).

To answer research question 6 and test hypothesis 6, I have built the following table (Table 11).

Table 11: Amount of import taxes collected and number of migrants received

Cities	Total import taxes in gourdes	Number of migrants
Gonaives	75,639,219.34	4,773
Cap Haitien	157,897,655.24	16,050
Miragoane	108,607,104.60	296
Port de Paix	26,987,838.37	4,998
Saint Marc	90,153,466.86	1,896
Ouanaminthe	11,736,285.58	1,513
Jacmel	970,227.32	710
Cayes	4,813,272.58	2,842
Jérémie	698,645.53	1,384
Belladère	1,300,239.36	225
Fort Liberté	2,099,326.24	827
Anse à Pîtres	34,919.53	839

Source, IHSI-RGPH 2003 and BRH

Then, I have computed the coefficient of correlation between the number and percentage of migrants received by the regional capitals and the amount of taxes collected.

$$r = \frac{1}{n-1} \Sigma \left(\frac{x - \overline{x}}{s_x} \right) \left(\frac{y - \overline{y}}{s_y} \right)$$

Where:

X_i = the number of migrants received by regional capital i

Y_i = the amount of import taxes collected in regional capital i

n = the number of observation (cities) in the analysis

S_x, S_y = the standard deviations of X and Y respectively

r: the correlation between the total amount of import taxes in gourdes collected in each regional capital and the number of migrants received.

The dynamism of the local private sector will increase the return on the public investments and attract new private investments in a multiplying effect. It may be necessary to energize the private sector in places where it is less dynamic.

Mapping Methodology to Illustrate the Migration Patterns at the Regional Level

The Geographical Information System (GIS) software MapInfo 5.0 was used to create maps for this study. GIS is a powerful tool that can be used to display and visualize otherwise complicated geographic data and trends. The data used for this research are geographic (location of the cities and distance) and demographic (population of the cities, number of migrants). The phenomena being studied are both spatially static (population and distance) and dynamic (migration flows); they interact to explain the migration patterns at the regional level. Mapping the data allows for the visualization of complex patterns and helps illustrate the tables.

The migration maps are created following a three-step process, with one map for each region. A map is created with the population data in a first step, and with the migration data in a second step. In the third step, both maps are combined to provide a complete picture of migration patterns in relation to the size of the city of origin and the size of the regional capitals, the relative location of the cities, and their distance to the regional capitals.

The maps are used to illustrate the findings and describe and illustrate identified geographic migration patterns.

Step 1: Urban population map

The urban population map has the following layers:

- A map with the limits of the communes
- A map with the location of the chef-lieux of communes (capital/principal city), including the regional capital to which are annexed population data

A first map is created with these two layers. In the background it contains the limits of the communes. On top of this layer is overlaid a thematic layer: each city is represented by a round symbol, the size of which is proportional to its population size.

Mapping these data projects the cities in the geographic space: The cities are no longer separate entities but are located in relationship to each other. More importantly, the cities are located in relation to the regional capital.

In addition, the proportional size symbols allow the reader to visualize where the largest or smallest cities are located and their relative distance to the regional capital. The reading of the map will help identify geographic patterns and answer questions: for example, are the largest cities further away from the regional capital or are they closer? In other words, does distance from the regional capital affect the size of the cities of origin?

Step 2: Mapping the migration data

The second step is the mapping of migration data: the number of migrants between each city of origin and the regional capital. The layer used in this step is created using Map Info's "*spider*" tool. *Spider* works by using two layers of point features; the first must contain the destination point and the second the origin point. The spider tool creates a series of lines feature that links each origin to one destination, creating a spider web design, hence the name. The created lines are saved in a new layer and constitute new geographic line objects/features to which attribute data can be added.

For the purposes of this research, the first layer of the destination feature point contains the regional capitals. The second layer of the origin feature points contains the other cities of the department. The lines link each city of origin to the regional capital. The data added to the lines features are the number of migrants from each city of origin to the regional capital. The migration data are represented by the width of each line.

Step 3: Building the final map: mapping the migration patterns

The final step of the mapping process is putting together the final maps. The maps created during the two previous steps are overlaid; with the population maps at the bottom of the pile and the migration data on top. The resulting maps provide at the same time the visualization of the population and migration data projected in the geographic space. This combination provides a picture of the effects of distance, location, size of the cities of origin, and size of the regional capitals on the number of migrants.

The final maps provide a visual test of the growth theory and dependency theory hypotheses. Are the migrants coming mainly from the smallest cities? Are they coming mainly from the closest cities? Do cities located in strategic areas with economic ties to the international market attract more migrants?

The mapping of migration data using the spider tool projects these data into the geographic space. By doing so, it also provides a visualization of geographic migration patterns: the geographic origin of the migrants, their destination, the distance between the two, their relative location to each other, and the significance of the migration flows. This image helps identify geographic trends and provides a visual answer to the research questions.

In addition, topographic, hydrographic, and road data will be placed as layers over the demographic maps; allowing one to investigate whether factors such as natural barriers, sub-regional geographic entities, or transportation networks can also provide additional explanations of the results.

Results and Findings

In this chapter, I present the results to each of the research questions and hypothesis and the implications of those results for the growth pole and dependency theories and, for the objectives of the research.

The Regional Capitals: Primary Destinations for Urban-to-Urban Migrants of their Respective Department

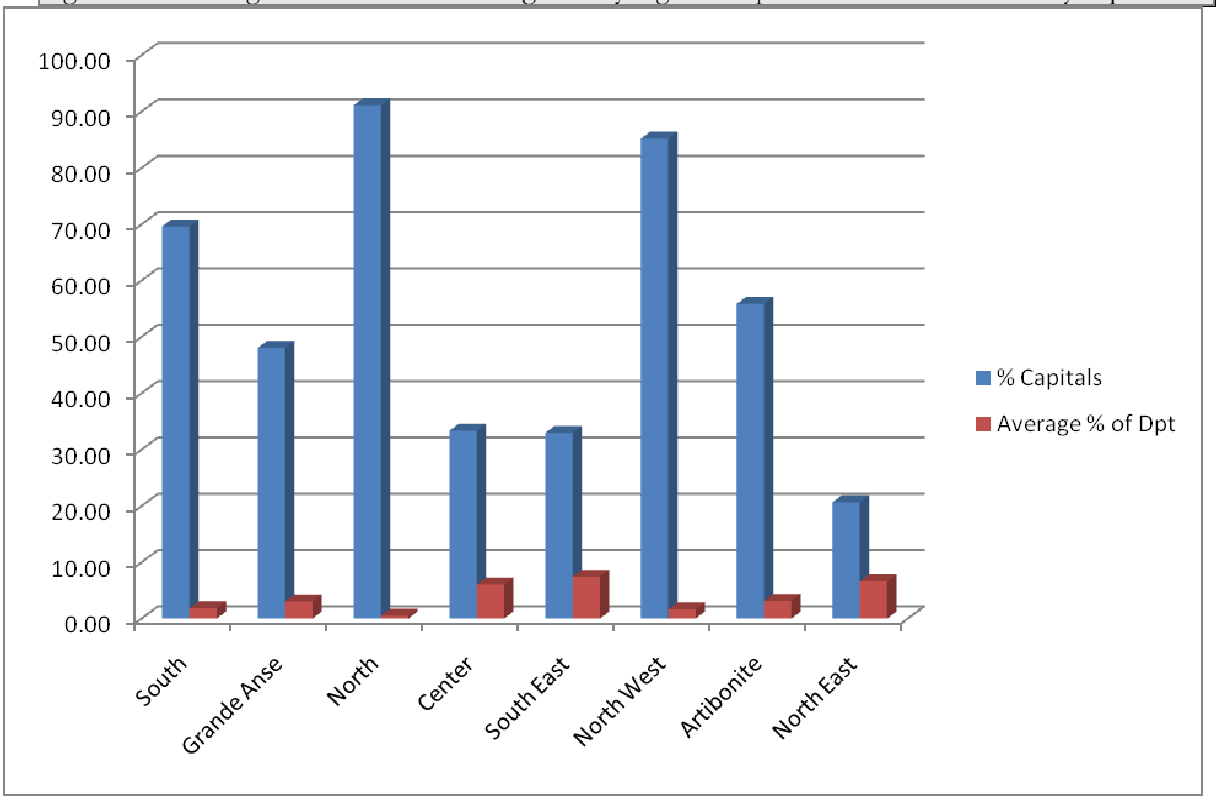
It is important to assess whether the regional capitals are also the regional poles of their respective departments. If they are all regional poles, this will decrease the significance of one of the limitations of this study, the selection criteria of the units of analysis based on administrative status. This assessment is made by comparing, for each department, the percentage of urban-to-urban migrants received by the regional capitals versus the percentage received by the other cities of the same region or elsewhere. The percentage of migrants in each city's population will also be compared.

The data show that the regional capitals stand out as regional attraction poles in their respective urban system: they are the primary destination for urban-to-urban migrants of their department. On average, the department capitals receive 54.61% of the migrants from their respective regions. Comparatively, the other cities attract only an average of 3.79% of the urban-to-urban migrants—an average that is 14.41 times less than the capitals. The standard deviation of 25.67 shows important differences among the capitals for which the percentage varies from 20.67% for Fort Liberté to 91.12% for Cap Haïtien. Although there are important differences among the percentage of migrants received by each capital, they all attract a substantially higher percentage of migrants than the other cities of their respective department (table 12; figure 4).

Table 12: Percentage of urban-to-urban migrants by place of residence by department

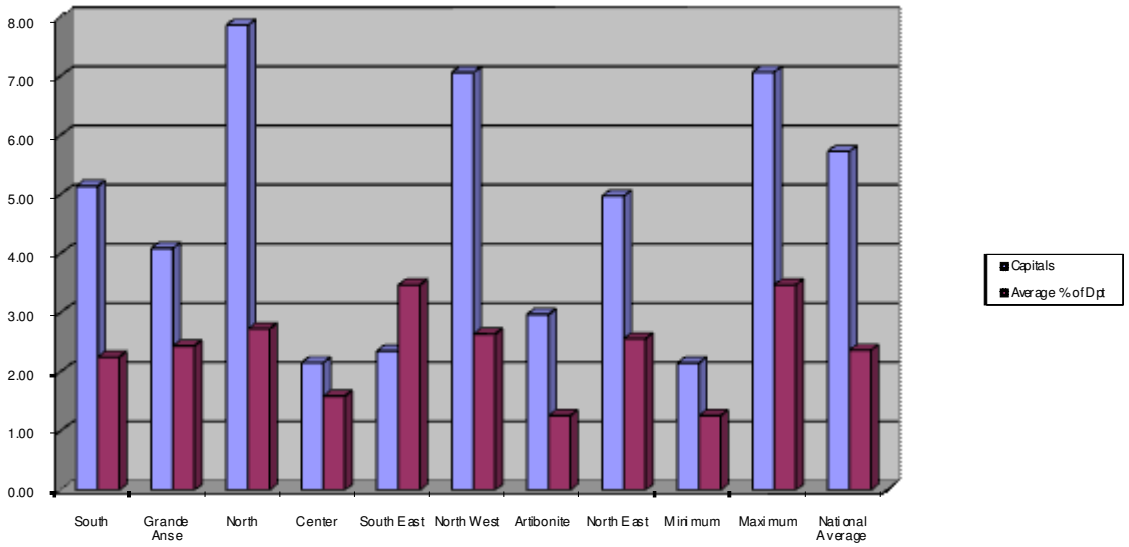
Department	Percentage of urban-to-urban migrants by place of residence			Percentage of urban-to-urban migrants received by place of residence		
	Capitals	Average Percentage of Department	Ratio	Percentage Capitals	Average Percentage of Department	Ratio
South	5.14	2.25	2.29	69.64	1.86	37.44
Grande Anse	4.09	2.44	1.68	48.07	3.05	15.76
North	7.87	2.73	2.88	91.12	0.49	185.96
Center	2.15	1.59	1.36	33.35	6.05	5.51
South East	2.35	3.47	0.68	32.96	7.44	4.43
North West	7.07	2.64	2.68	85.21	1.64	51.96
Artibonite	2.97	1.26	2.36	55.86	3.15	17.73
North East	4.97	2.56	1.94	20.67	6.61	3.13
Minimum	*2.15*	*1.26*	*0.68*	*20.67*	*0.49*	*3.17*
Maximum	*7.07*	*3.47*	*2.36*	*91.12*	*7.44*	*185.96*
National Average	*5.73*	*2.37*	*1.98*	*68.58*	*4.78*	*40.24*
Standard Deviation	*2.19*	*0.69*		*28.08*	*2.80*	

Figure 4: Percentage of urban-to-urban migrants by regional capitals and the other cities by department



The percentage of migrants in the population of the capitals also remains modest. The average percentage of migrants in the total population of the regional capital is 4.58%. This number varies from 2.15% for the city of Hinche to 7.87% for Cap Haïtien. A standard deviation of 2.11 shows a homogenous group. Despite these low numbers, the regional capitals have an average of approximately twice (1.98) the percentage of migrants than the other cities in their own departments. Except for the city of Jacmel in the South East department, all the capitals have a higher percentage of migrants than other cities in their department (table 12; figure 5).

Figure 5: Presence of urban-to-urban migrants in cities



All the regional capitals are poles in their respective region when it comes to the percentages of urban-to-urban migrants received. In term of the percentage of migrants in the total population, only the city of Jacmel does not have a higher percentage than the other cities in the South East Department. Because all the capitals meet at least one criteria of a regional pole 1) the largest number of migrants to their departments compared to the MAPAP, 2) the largest substantial number and percentage of cities that have a certain population size or, 3) the largest substantial number and percentage of migrants from cities that are far away within their departments. The

limitations of the research design should have less of an impact on the outcome of the study and the tests of the hypotheses.

Identification of the Strongest Poles

The strongest poles at the national level: Influence of the MAPAP in the migration patterns

Question 1: How does the urban primacy of the MAPAP affect the attraction power of the regional capitals?

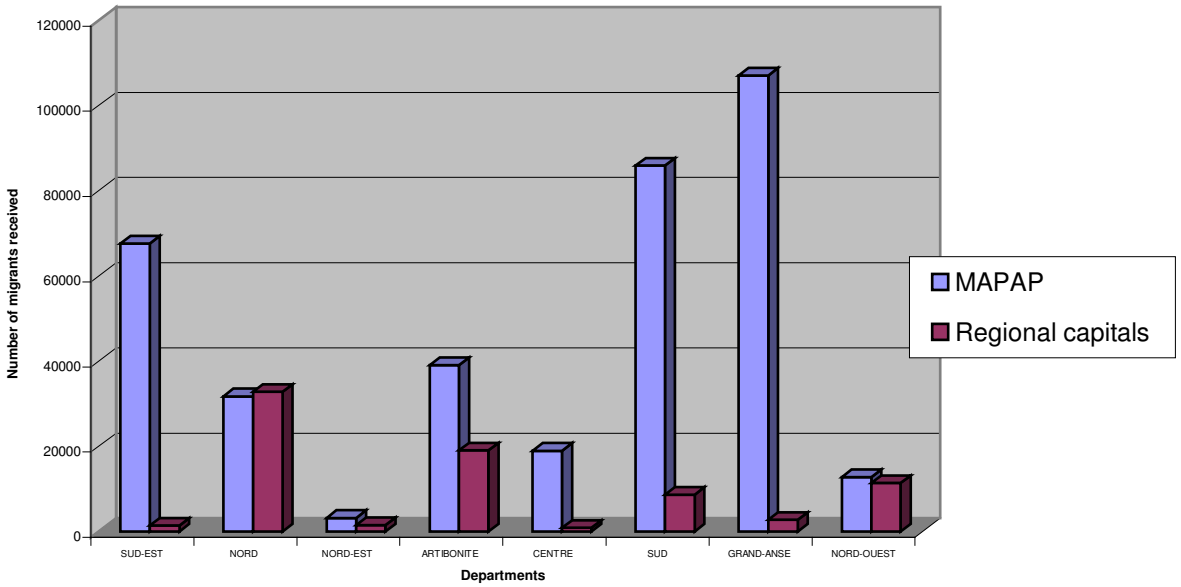
Hypothesis 1: The MAPAP receives more migrants from the regions than the corresponding regional capitals and the number of migrants to the regional capitals decreases when the distance between the MAPAP and the regional capitals increase

Even at the regional level, the regional capitals face fierce competition from the MAPAP in attracting intradepartmental migrants. There is an average 4.67 times more migrants from each department in MAPAP than in the regional capitals. Except for Cap Haïtien with a ratio of 0.97, more migrants from each region go to MAPAP than to their regional capitals: Cap Haïtien is the strongest pole with the ability to compete against the MAPAP when it comes to attracting migrants from the Department of the North. Port de Paix in the North West (1.12), Gonaives in the Artibonite (2.05), and Fort Liberté in the North East (2.17) are strong poles. The highest ratios are in the South East, with 49.60, followed by Grande Anse (38.82) and the Center (21.48). The capitals of these departments (respectively Jacmel, Jérémie and Hinche are completely overshadowed by the MAPAP and are the weakest poles (table 13 and figure 6).

Table 13: Migrants from the departments to MAPAP and to the regional capitals

	Jacmel	Cap Haitien	Fort Liberte	Gonaives	Hinche	Les Cayes	Jeremie	Port de Paix	Total
MAPAP	67,652	31,746	3,224	39,069	18,989	85,878	107,067	12,794	366,419
Regional capitals	1,364	32,857	1,487	19,035	884	8,623	2,758	11,412	78,420
Ratio MAPAP/RC	49.60	0.97	2.17	2.05	21.48	9.96	38.82	1.12	4.67

Figure 6: Migrants from the departments to the MAPAP and the regional capitals



The gap between MAPAP and the regional capitals is also more important in terms of the total number of migrants from other departments living in urban areas. MAPAP receives 88.42% of the total number of migrants from other departments living in urban areas; the average for the regional capitals is 0.72%; only Cap Haïtien and Gonaives have more than 1%, and all the other regional capitals have less than 1% (table 12, 13).

The influence of the MAPAP over the entire Haitian urban system including the regional capitals confirms theory of the overwhelming domination of a primate city over the entire country (Jefferson 1939). However, Cap Haïtien, Port de Paix, Fort Liberté and Gonaives do have a strong enough attraction power within their region to compete against the attraction power of the MAPAP (Table 14).

Table 14: Percentages of the total number of migrants living in the regional capitals and the MAPAP

Place of residence	Total number of migrants	% in the RC population	% of migrants from other cities	Number of migrants from other depts.	%	% of migrants from other depts. living in urban areas
Jacmel	2,357	0.27	0.35	850	0.10	0.21
Cap Haïtien	44,470	5.16	6.66	10,718	1.24	2.59
Fort Liberté	2,098	0.24	0.31	386	0.04	0.09
Gonaives	24,702	2.87	3.70	5,565	0.65	1.34
Hinche	1,941	0.23	0.29	998	0.12	0.24
Les Cayes	10,590	1.23	1.59	1,728	0.20	0.42
Jérémie	3,359	0.39	0.50	568	0.07	0.14
Port de Paix	14,686	1.70	2.20	2,998	0.35	0.72
MAPAP	500,002	57.99	74.85	366,419	42.50	88.42
Total number of migrants	*862,166*					
Total number of migrants to urban area	*667,961*					
Total number from other departments	*467,016*					
Total number living in urban areas from other departments	*414,385*					

The size of the cities of origin

Question 2: How does the population size of the cities of origin explain the number of migrants?

Hypothesis 2: The percentage of migrants decreases when the size of the cities of origin increases.

Depending on the department, the correlation between the number of migrants moving to the regional capitals and the size of the cities of origin either weakly supports or rejects the hypothesis. Only the North West, Grande Anse, and Artibonite departments support the hypothesis with a weak negative correlation of -0.33, -0.39, and –0.18. The data for the remaining five departments reject the hypothesis with a weak to moderate positive correlation: the number of migrants tends to increase with the size of the city of origin. The Center, South East and South

departments have a very weak positive correlation of 0.2, 0.12, and 0.065, respectively. The rejection of the hypothesis is somewhat moderate for the North East and the North, which have a positive correlation of 0.53 and 0.45 (table 15, maps 3, 4, 5, 6, 7, 8, 9, 10).

Depending on the department, migrants will come from smaller urban centers (North West, Grande Anse, and Artibonite), slightly more from larger urban centers (Center, South East, and South) and mainly from larger urban centers (North East and North).

Fort Liberté in the North East and Cap Haïtien in the North are the strongest poles that have the capacity to attract migrants even from the other large cities of their departments. Port de Paix in the North West, Jérémie in the Grande Anse and Gonaives in the Artibonite are the weakest.

Table 15: Correlation between distance, population, and number of migrants

Department	**Correlation between size of the cities of origin and the number of migrants**	**Correlation between distance and number of emigrants**
North	0.53	-0.48
North West	-0.33	-0.53
North East	0.45	-0.59
South East	0.12	-0.46
Grande Anse	-0.39	-0.76
Artibonite	-0.18	-0.6
Center	0.2	-0.74
South	0.065	-0.11
Correlation between population of the regional capitals and number of migrants		*0.891960468*
Correlation between distance and number of migrants		*0.418266465*

Size of the Cities of Origin

Question 3: How does the distance between the cities of origin and the destination (regional capital) affect the number of migrants?

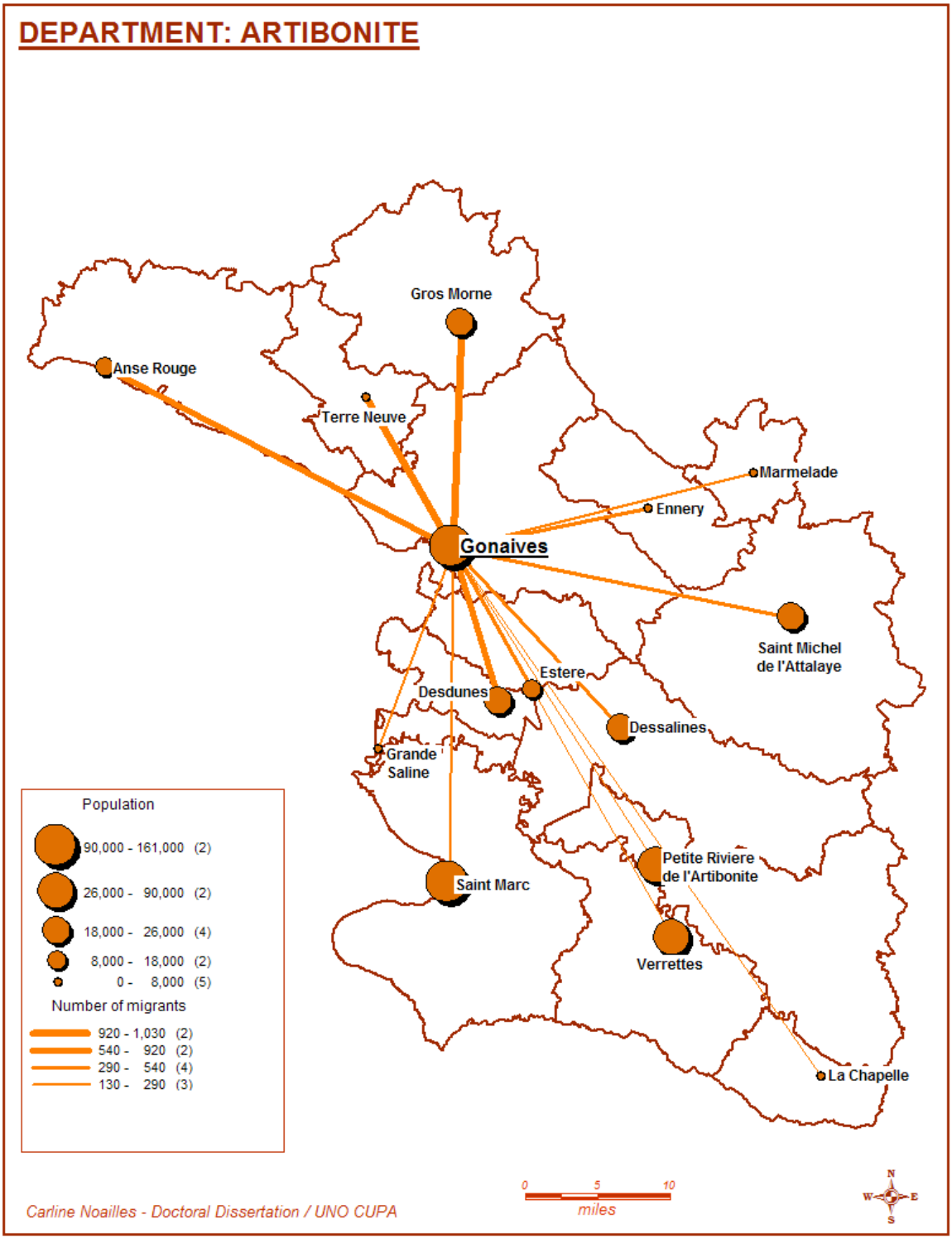
Hypothesis 3: The number of migrants decreases as the distance increases.

The correlation between the number of migrants and the distance between the cities of origin and destination supports the hypothesis, at different levels. All the departments present a negative correlation. The attraction power of the regional capitals tends to decrease with distance. The migrants principally originate from the closest cities. This result support Boudeville's assumption that the influence of a growth pole decreases with distance (Boudeville 1966).

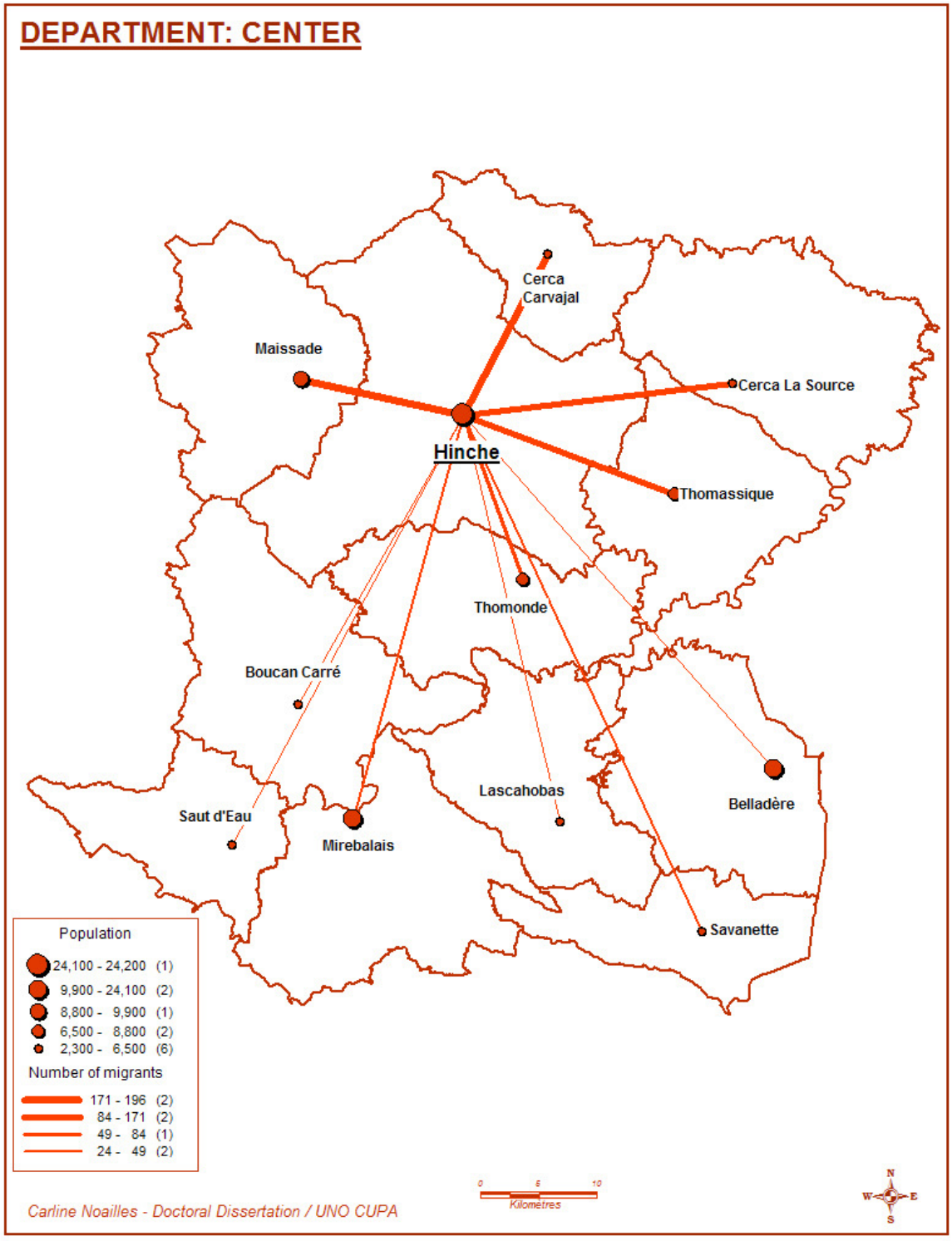
The coefficient of correlation varies from a weak -0.11 for the South to a strong -0.76 for the South East. (table 15, maps 3, 5, 6, 7, 8, 9, 10).

Among the regional capitals, Les Cayes in the South has the largest geographic attraction power while Jacmel in the South East has the weakest.

Map 3: Artibonite



Map 4: Center


DEPARTMENT: CENTER
Cerca Carvajal
Maissade
Cerca La Source
Hinche
Thomassique
Thomonde
Boucan Carré
Lascahobas
Belladère
Saut d'Eau
Mirebalais
Savanette
Population
24,100 - 24,200 (1)
9,900 - 24,100 (2)
8,800 - 9,900 (1)
6,500 - 8,800 (2)
2,300 - 6,500 (6)
Number of migrants
171 - 196 (2)
84 - 171 (2)
49 - 84 (1)
24 - 49 (2)
0 5 10
Kilometres
N
W E
S
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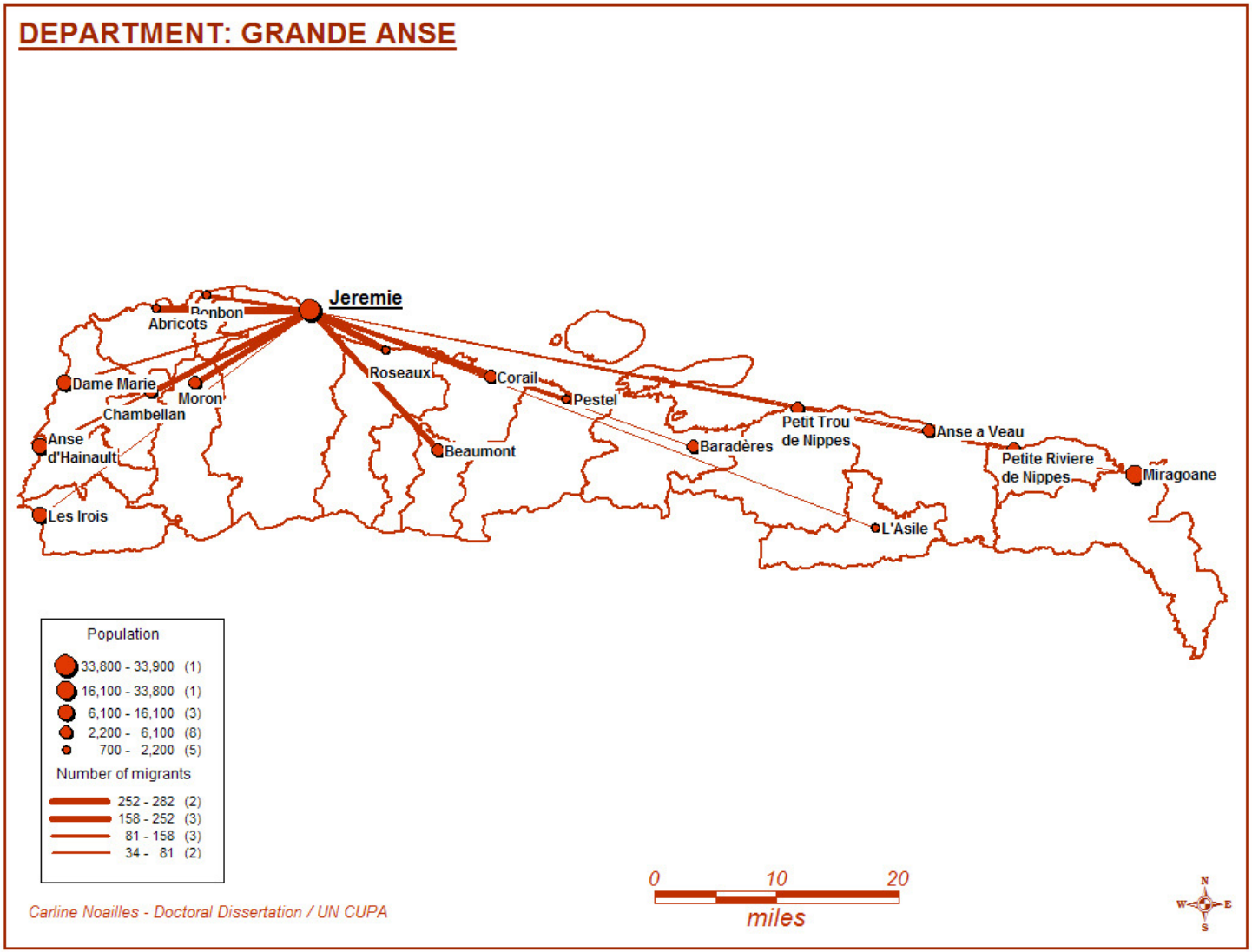
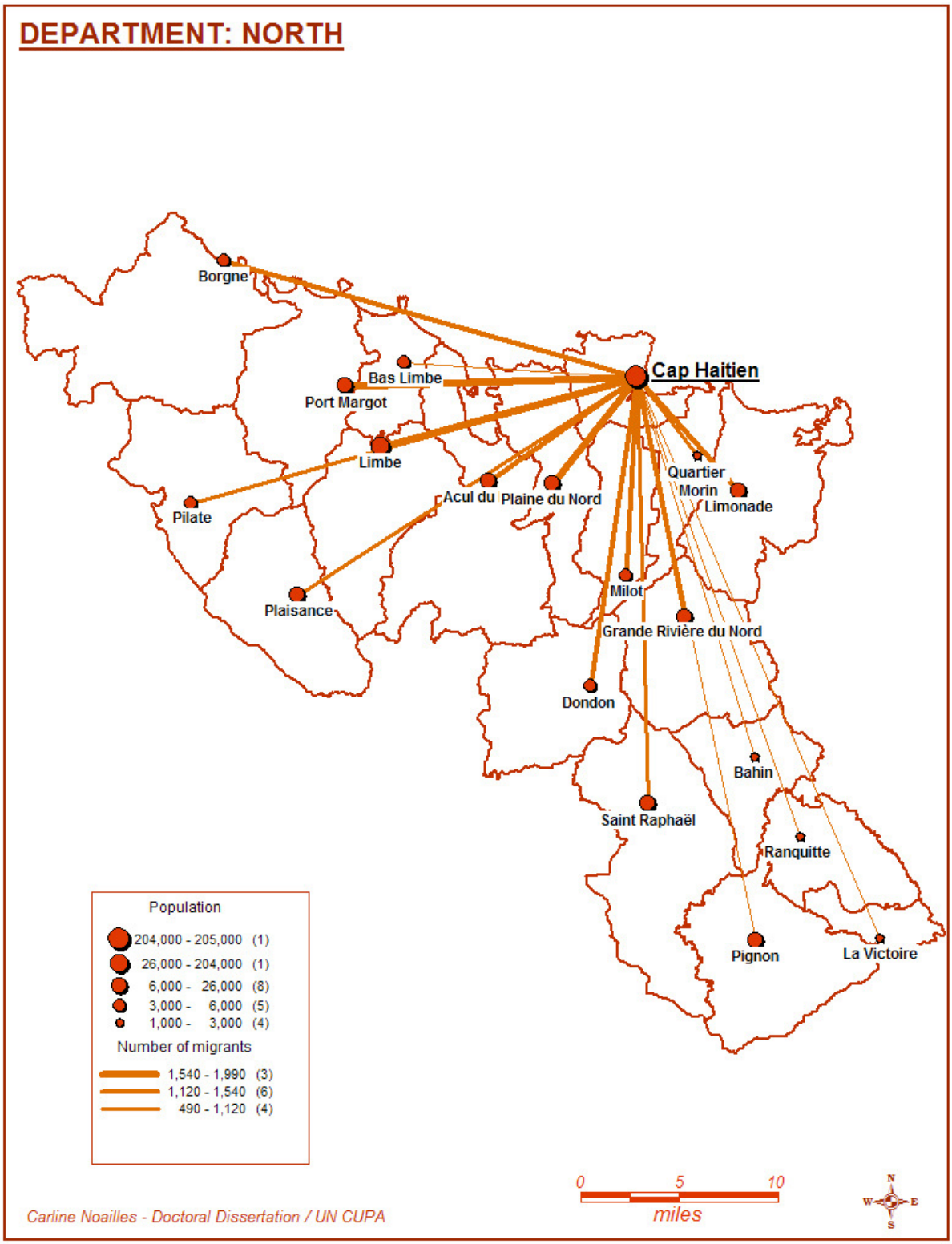
Map 5: Grande Anse



Map 6: North


DEPARTMENT: NORTH
Borgne
Bas Limbe
Port Margot
Cap Haitien
Limbe
Quartier
Morin
Limonade
Acul du
Plaine du Nord
Pilate
Milot
Plaisance
Grande Rivière du Nord
Dondon
Bahin
Saint Raphaël
Ranquitte
Pignon
La Victoire
Population
204,000 - 205,000 (1)
26,000 - 204,000 (1)
6,000 - 26,000 (8)
3,000 - 6,000 (5)
1,000 - 3,000 (4)
Number of migrants
1,540 - 1,990 (3)
1,120 - 1,540 (6)
490 - 1,120 (4)
0
5
10
miles
N
W
E
S
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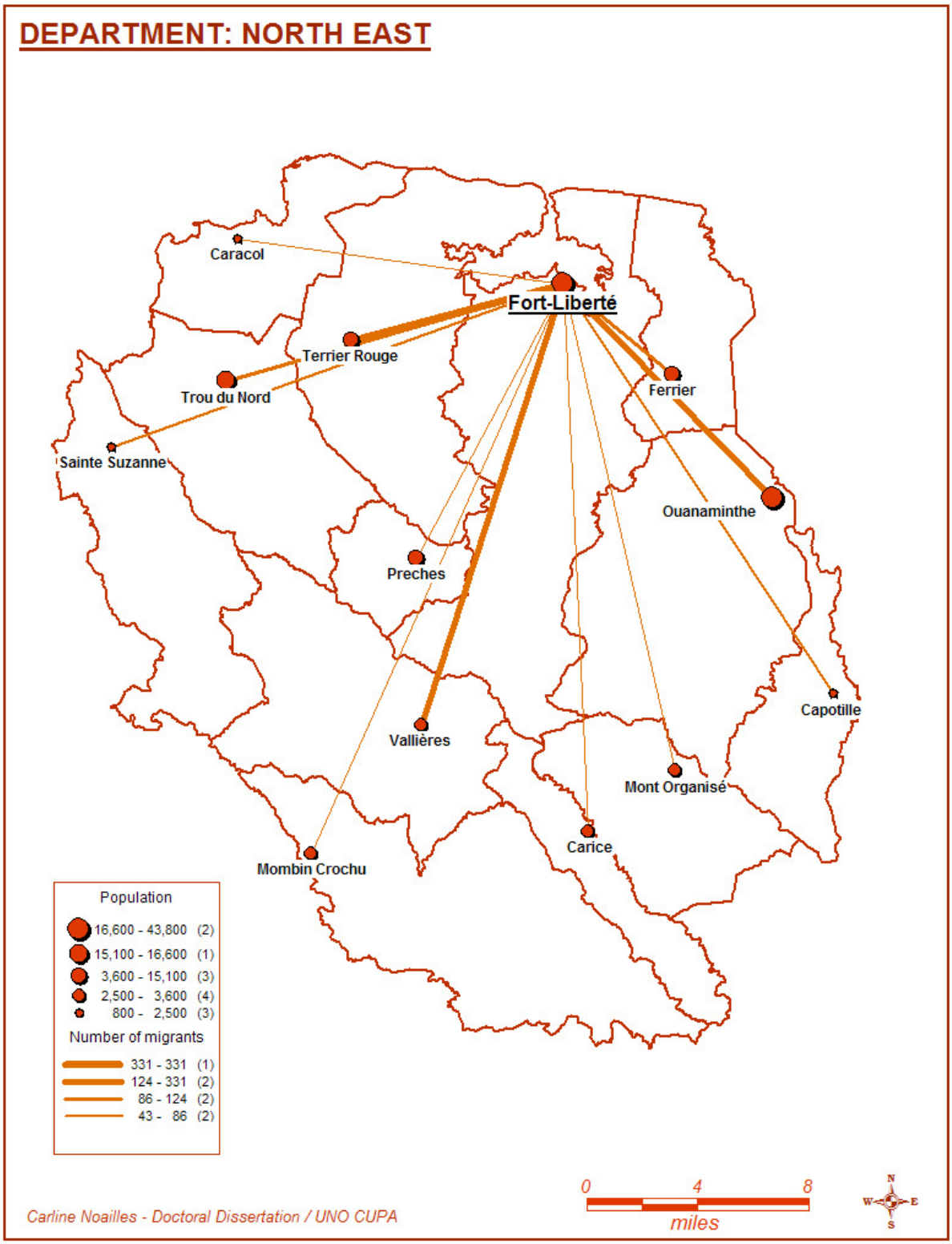
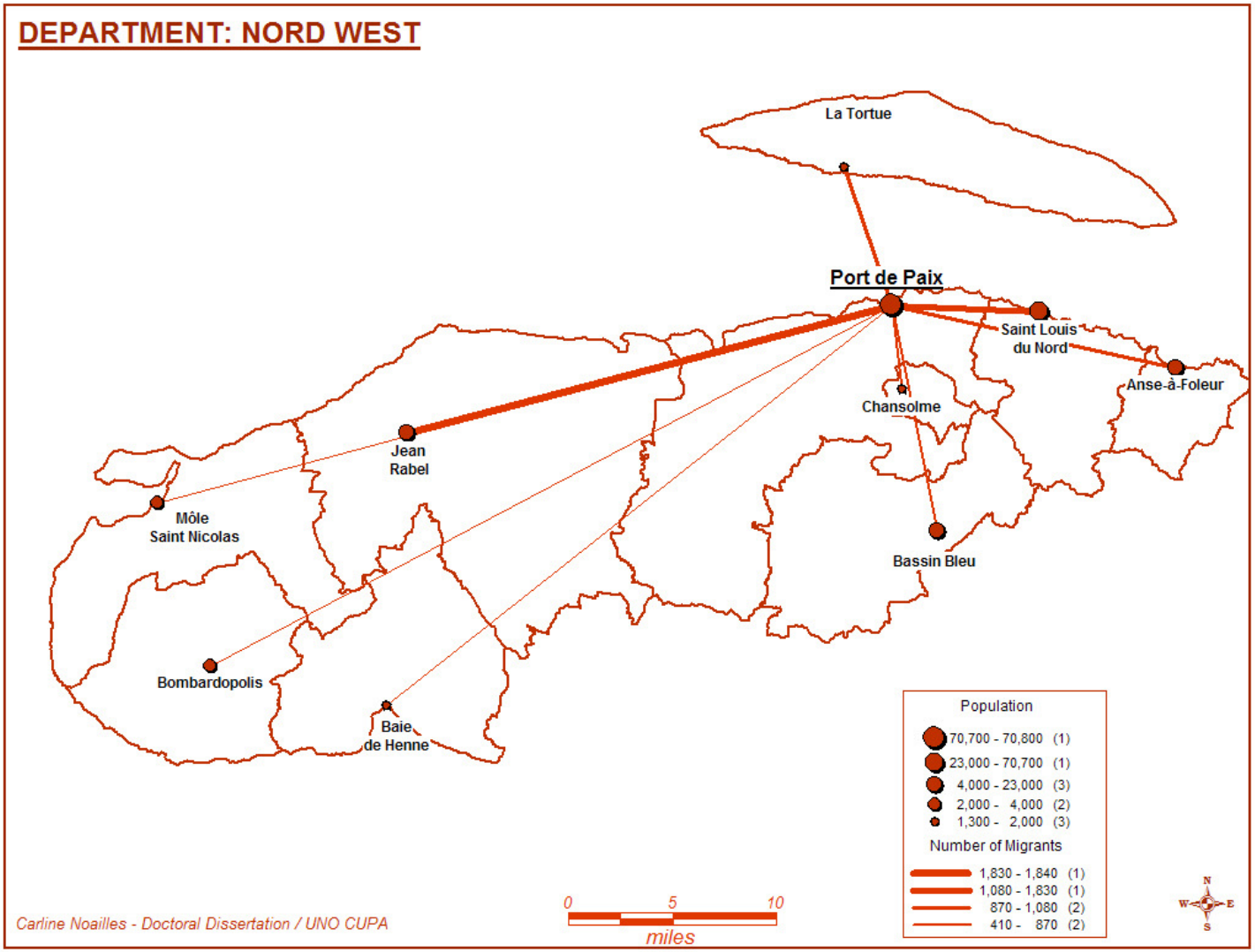
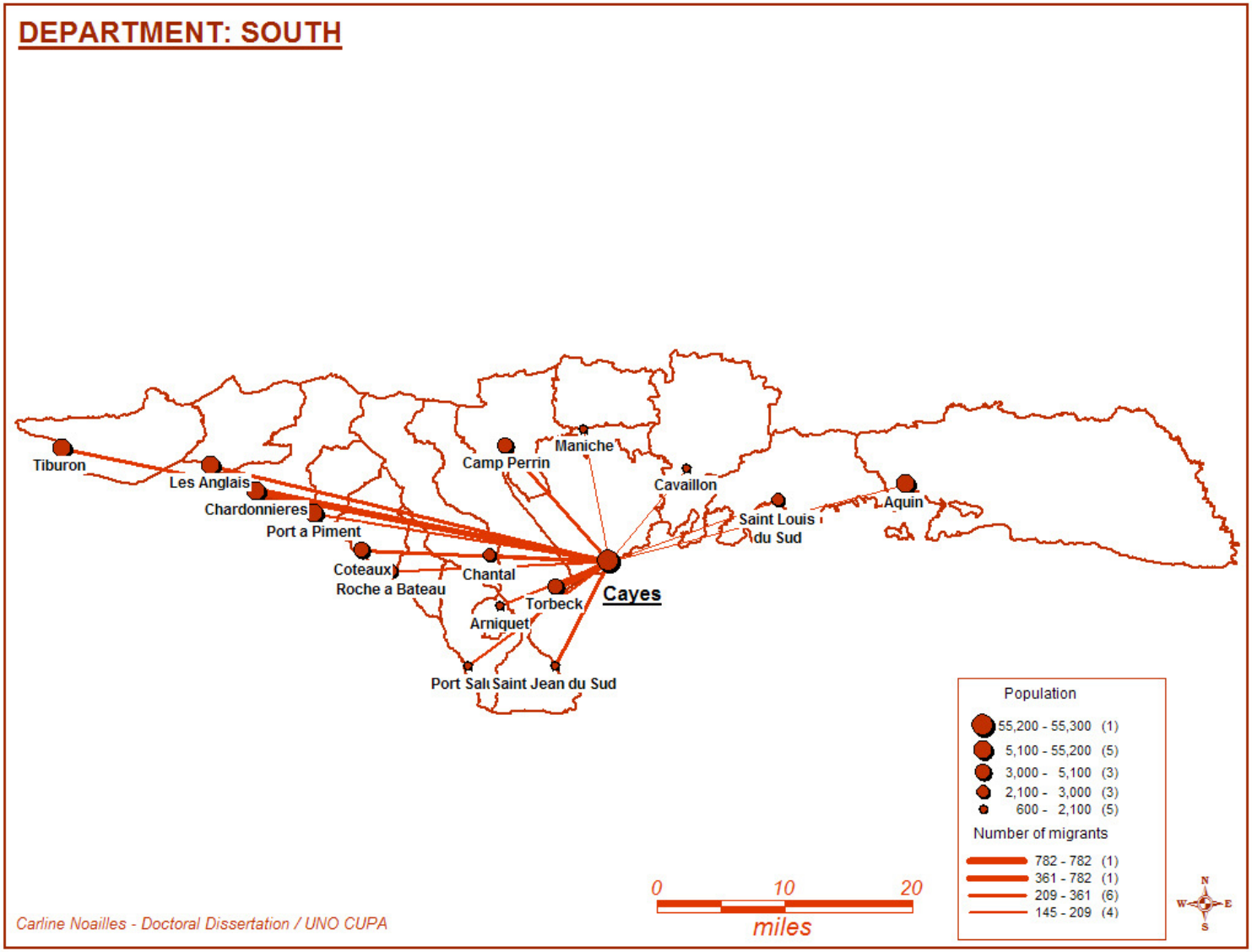
Map 7: North East



Map 8: North West



Map 9: South


DEPARTMENT: SOUTH
Tiburon
Les Anglais
Chardonnieres
Port a Piment
Coteaux
Roche a Bateau
Camp Perrin
Maniche
Cavaillon
Chantal
Torbeck
Arniquet
Cayes
Port Sal
Saint Jean du Sud
Saint Louis du Sud
Aquin
Population
55,200 - 55,300 (1)
5,100 - 55,200 (5)
3,000 - 5,100 (3)
2,100 - 3,000 (3)
600 - 2,100 (5)
Number of migrants
782 - 782 (1)
361 - 782 (1)
209 - 361 (6)
145 - 209 (4)
0
10
20
miles
N
W
E
S
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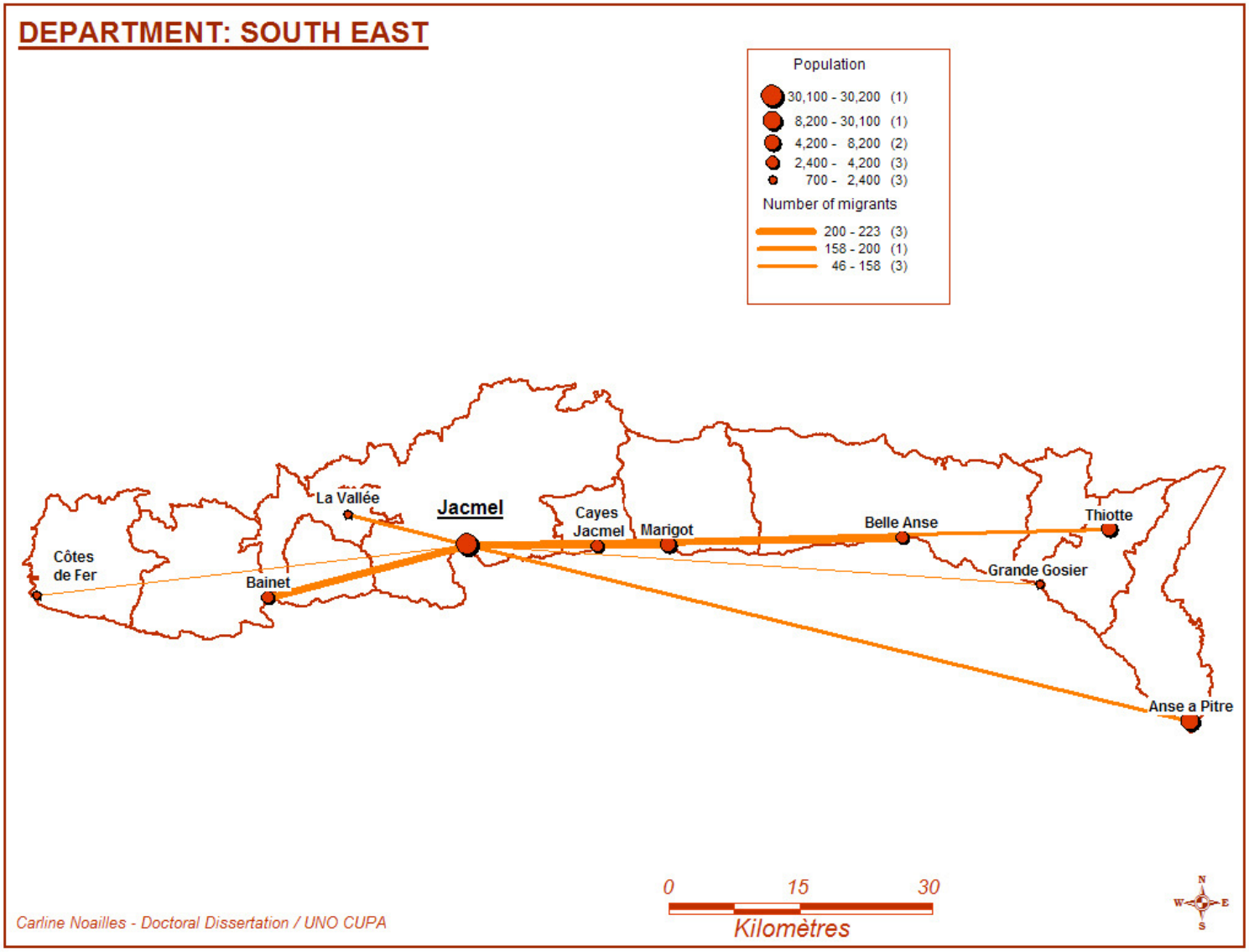
Map 10: South East



The composite index built with the ranking of the regional capitals by the scores for each of the previous questions gives an overall ranking of the regional capitals illustrating their attraction power. Cap Haïtien in the North is by far the strongest regional pole both at the national and regional levels with a score of 22. It is followed by Les Cayes in the South (16) and Fort Liberté (16) in the North East. Socio-economic activities should be relocated, public investments should be concentrated, and private investments promoted in these cities to have the most important impact (Rondinelli Jan-83; Rondinelli Oct-83). Even investing in the weakest pole like Jérémie in the Grande Anse (with a score 4) will induce the development of the smaller towns and the rural area of its department (Rondinelli 1978; Rondinelli Oct-83) (table 16).

These findings are a strong argument for aggressive government interventions in order to make the regional capitals more attractive to migrants. This should initiate a more effective decentralization process.

Table 16: Rank and composite index of attraction power

Regional capitals	**Rank Correlation between size of the cities of origin and the number of migrants**	**Rank Correlation between distance and number of emigrants**	**Rank ratio of** migrants from the departments to MAPAP and to the regional capitals	**Composite index**	**Rank based on the Index**
Cap Haitien	8	6	8	22	1
Port de Paix	2	5	7	14	4
Fort Liberte	7	4	5	16	2-3
Jacmel	5	7	1	13	5
Jeremie	1	1	2	4	8
Gonaives	3	3	6	12	6
Hinche	6	2	3	11	7
Les Cayes	4	8	4	16	2-3

Explanation of the Poles' Attraction Power

The Distance from the MAPAP

Question 4: How does the distance of the regional capital from the MAPAP explain the number of migrants in the regional capitals?

Hypothesis 4: The number of migrants to the regional capitals increases when the distance between the MAPAP and the regional capital increases

The regional urban systems also exist in the larger national system. According to the growth pole theory and the assumptions of urban primacy, a primate city like Port-au-Prince will have an important impact on the entire national urban system (Jefferson 1939). The impact of Port-au-Prince on the capacity of a regional capital to attract urban-to-urban migrants from its department will decrease with distance (Perroux 1955; Boudeville 1966). In short, the regional capital furthest to Port-Au-Prince will attract more migrants.

With a correlation of 0.41 between the distance from MAPAP and the number of migrants, the primate city has a moderate effect on the number of migrants: the distance between the regional capitals and the MAPAP has a moderate effect on the number of migrants received and the regional capitals located further from MAPAP tend to receive a slightly more significant number of migrants. However, some exceptions explain the moderate correlation. For instance, Cap Haïtien and Fort Liberté are at relatively similar distance from Port-au-Prince (203.35 and 190.74 miles, respectively) but attract different percentages of migrants from the other cities of their department (91.2% and 20.67%, respectively) (table 17). Although the size of MAPAP has an important impact on the attraction power of the regional capitals, the moderate level of such influence provides a hint that other factors also contribute greatly in explaining the attraction power and the need for future research. Distance from the MAPAP should not be an important concern when choosing the regional pole to re-enforce. The evidence does not support the

assumption of the urban primacy concept that the MAPAP, a primate city, will have an overwhelming impact over all the cities of the Haitian urban system. At the same time, the evidence moderately supports the assumption of the growth pole theory hypothesis that the influence of the MAPAP will decrease when the distance increases.

Table 17: Size of the regional capitals, number of migrants, and distance from the MAPAP

Regional capitals	Population	Number of migrants	Distance from Port-au-Prince (miles)
Cap Haïtien	204,058	16,050	203.35
Fort Liberté	16,625	827	190.74
Gonaives	160,501	4,773	243.95
Hinche	24,131	520	151.98
Jacmel	30,183	710	115.96
Jérémie	33,829	1,384	80.43
Les Cayes	55,276	2,842	286.52
Port de Paix	70,742	4,998	228.50

Size of the Regional Capitals

Question 5: How does the size of the regional capitals explain the number of migrants?

Hypothesis 5: The percentage of migrants to the regional capitals increases with the size of the population of the regional capitals

The data support the hypothesis with a strong correlation of 0.89 between the total population of the regional capitals and the number of migrants received. There is also a strong correlation of 0.78 between the percentage of the total urban population of the department represented by the regional capitals and the percentage of migrants received. The largest regional capitals and the regional capitals with the largest share of the urban population of their

department attract more migrants. They are therefore the strongest poles (table 16, maps 3, 4, 5, 6, 7, 8, 9, 10).

The larger the regional capitals, the more migrants they attract from their own region (Boudeville 1966; Boventer 1970). Thus, regional capitals of Cap Haïtien, Gonaives, and Port de Paix will be able to play a more important role in decreasing the growth of the primate city of Port-au-Prince.

The Local Private Sector

Question 6: How does dependency affect the migration patterns in urban centers?

Hypothesis 6: The amount of import taxes collected is higher in the strongest regional capitals.

Tax collection points are located in all the regional capitals (except Hinche) as well as in key urban centers that play a role in international trade (table 18).

Table 18: Import taxes by tax collection points (2001–2002)

Cities	Total import taxes (in gourds)	Number of migrants
Gonaives	75,639,219.34	4773
Cap Haïtien	157,897,655.24	16050
Miragoane	108,607,104.60	296
Port de Paix	26,987,838.37	4998
Saint Marc	90,153,466.86	1896
Ouanaminthe	11,736,285.58	1513
Jacmel	970,227.32	710
Cayes	4,813,272.58	2842
Petit Goave	4,500.00	N/A
Jérémie	698,645.53	1384
Belladère	1,300,239.36	225
Fort Liberté	2,099,326.24	827
Anse à Pitres	34,919.53	839

The location of the collection points coinciding with the cities attracting the larger percentage of migrants is the recognition, by the Haitian government, that the volume of international trade occurring in those places will generate an amount of taxes significant enough to justify such investments.

The data support the hypothesis that the more attractive cities have stronger ties with the international market. There is a strong positive correlation between the amount of taxes and the number of migrants (0.70).

The amount of taxes collected depends on the volume of trade and the performance of the local tax collection office. However, it is a very common practice to bribe customs officers to avoid paying taxes. Local tax collection offices are often ill-equipped and understaffed, unable to fully recover the taxes. Those two parameters vary from one collection point to another. The historically high level of corruption in the Haitian public administration and the weakness of the local institutions make it very unlikely that the amount of taxes reflects the actual trade volume at each point. The tax data are used here with caution and the results must be interpreted with care.

In Cap Haïtien and Saint Marc there has been an increase in import-export activities, a respective growth rate of 19.71% and 732%. Miragoane experienced a small decline of 10.04% while Jacmel experienced an important decline of 85.56% (table 19).

Table 19: Growth rate of importation taxes by collection point (2000–2001 and 2001–2002)

Cities	Importation taxes		
	2000–2001	2001–2002	Growth rate
Gonaives	165,826,300.37	75,639,219.34	(54.39)
Cap Haïtien	131,902,009.42	157,897,655.24	19.71
Miragoane	120,724,376.73	108,607,104.60	(10.04)
Port de Paix	24,597,034.26	26,987,838.37	9.72
Saint Marc	10,829,544.13	90,153,466.86	732.48
Ouanaminthe	9,980,072.38	11,736,285.58	17.60
Jacmel	6,718,306.78	970,227.32	(85.56)
Cayes	5,964,046.87	4,813,272.58	(19.30)
Petit Goave	3,578,613.80	4,500.00	(99.87)
Jérémie	2,276,266.47	698,645.53	(69.31)
Belladère	500,576.19	1,300,239.36	159.75
Fort Liberté	185,708.87	2,099,326.24	1,030.44
Anse à Pitres	135,148.96	34,919.53	(74.16)

Source: Research and Statistics, AGD

Cap Haïtien is the farthest from Port-au-Prince (203.5 miles), while Saint Marc (52.20 miles) and Miragoane (58.20 miles) are both relatively close to the national capital. The distance from Port-au-Prince plays in the favor of Cap Haïtien. The city is the main port for the entire northern part of the country and the second largest city of the nation.

The proximity of Port-au-Prince plays in the favor of cities like Saint Marc and but to a lesser extend in favor of Miragoane. The import taxes at the ports of these cities are less expensive than Port-au-Prince and less congested. In addition, because of the short distance, it is easy to use these ports to export goods that otherwise would have been shipped through Port-au-Prince. These ports also have easy roadways access to the market of Port-au-Prince.

A similar attempt to increase the use of the port of Jacmel has been unsuccessful. The port of Jacmel has been rehabilitated, but there has been little increase in import-export activities. Jacmel is further away from Port-au-Prince (115.96 miles) than Saint Marc and Miragoane but is still only two hours from Port-au-Prince. The population of Jacmel is not large enough to provide a market for international trade.

However, Jacmel was in the past a very prosperous city, independent of Port-au-Prince with striving import/export activities. Jacmel directly exported the coffee produced in the surrounding areas. It also imported goods to be sold on its market and throughout the department. The port of Jacmel was closed during the U.S. occupation (1915 – 1934). In addition, a new road between Jacmel and Port-au-Prince was built to transport to the capital the coffee to be sold on the international market (Gilles 1995).

The businessmen involved with coffee exports in Jacmel soon left the city to settle in Port-au-Prince, owning until today the largest coffee export companies in the country. The rehabilitation of the port of Jacmel occurred after national businessmen have already invested in

cargo ships and warehouses in Saint Marc and Miragoane. The shares of the import/export trade activities that could have gone to Jacmel were already taken over by these two cities.

Public investments in infrastructure alone did not stimulate the economy of the cities. There was the lack of a dynamic private sector capable of taking advantage of such investments. In addition, because of the small size of the country, the port cities are competing against each other and all of them will not have enough share of the total trade activities to make such investments sustainable.

The data support the dependency theory hypothesis. The link with the international market explains the growth of growth poles outside of the primate city. A combination of strategic location (on the coast), public investments (port facilities) and the local private sector explain the growth of the strongest poles (Rondinelli 1983; Portes 1989; Portes 1994; Rondinelli Jan-83). However, economic dependency also has important negative effects on the development of developing countries and such dependency of the regional capitals' economy might not lead the economic growth and development of the country (Cardoso 1971; Evens 1980; Bornschier 1981; Bradshaw 1997).

Conclusion

The main objectives of the study are:

- To identify, among the regional capitals, the cities that have the characteristics to be potential "growth poles"
- To explain how these cities differ from the other regional capitals
- To formulate policy recommendations to strengthen the growth of these poles in order to increase the chances of success of the decentralization process and reduce the negatives consequences of urban primacy in Haiti. These recommendations will improve the National Strategy for Growth and Poverty Reduction Document (NSGPRD).

In the concluding chapter I present an evaluation of my findings in light of the literature presented and the contribution of the research to the body of knowledge on Haiti, decentralization, dependency, urban primacy, and development theories. I will also discuss the policy relevance and implications of the research, made even more relevant by the devastating earthquake of January 12, 2010.

A New Light on Urban Primacy and Decentralization Prospects in Haiti and the Third world

Haiti is an example of extreme urban primacy, where if the Metropolitan Area of Port au Prince (MAPAP) ratio was set at 100 people (population of 2.5 millions inhabitants), the second city ratio in Cap Haïtien would be 8.1 (population of 204,508 inhabitants), and the third city ratio in Gonaives would be 6.42 (population of 160,501 inhabitants). Twenty-five percent of Haiti's total population and 60% of the total urban population live in MAPAP. The migration data show that the influence of MAPAP is overwhelming: 63.80% of the total number of migrants live in

the Department of the West and 57.99% live in MAPAP; 84.10% of the number of migrants from other departments live in the West and 78.46% live in MAPAP. The other departments attract between 2.07% (North East) and 8.31% (Centre) of the total number of migrants (Table 2). The data confirm the literature about the consequences of urban primacy, such as the overwhelming domination of most aspects of the national life by the primate city (Jefferson 1939).

The population of the primate city of MAPAP is more likely to increase due to the current migration patterns. If nothing is done to halt this trend, the consequences of urban primacy in the primate city will also worsen. Such consequences include social and spatial exclusions (Fay 2005; Davis 2006; Koonings and Kruijt 2006; World Bank. Europe and Central Asia Region. Infrastructure Sector Unit. 2006)); high unemployment rates; lack of basic services such as decent housing, health care, clean water, and sanitation in slum-like neighborhoods in the primate city; (Fay 2005) and violence (Moser and McIlwaine 2006).

The overwhelming number and percentage of people migrating to MAPAP also perpetrates a polarized system where the other cities, including the regional capitals, attract a relatively low number and percentage of migrants. This slows the growth of the other cities and limits their capacity to contribute to the cessation or reduction of the growth of the population of MAPAP or to play an innovative diffusion and development role over their surrounding areas (Pedersen 1970; Brown 1981).

The data show that the influence of MAPAP varies from one department to another and that there are regional disparities in this influence. At the regional level, MAPAP attracts on average 4.67 times more migrants from each department than the regional capital. Cap Haitien is the only exception; it attracts 32,858 migrants while MAPAP attracts 31,746 from the Department of the North. For the other regional capitals, the ratio of the number of migrants to

MAPAP over the number of migrants to the regional capital varies from 1.12 for Port de Paix to 49.60 for Jacmel. These regional capitals can be divided into two groups based on the ratio. The first group has a low ratio and includes Fort Liberte (2.17), Gonaives (2.05), Les Cayes (9.96), and Port de Paix (1.12). The second group has a high ratio and includes the Jacmel (49.60) and Jeremie (38.82) (Table 20).

Table 20: Migrants from the departments to MAPAP and to the regional capitals

	South East	North	North East	Artibonite	Center	South	Grande Anse	North West	Total
MAPAP	67,652	31,746	3,224	39,069	18,989	85,878	107,067	12,794	366,419
Regional capitals	1,364	32,857	1,487	19,035	884	8,623	2,758	11,412	78,420
Ratio MAPAP/RC	49.60	0.97	2.17	2.05	21.48	9.96	38.82	1.12	4.67

Although these findings confirm the overwhelming influence of the primate city of MAPAP over the migration patterns of the entire nation, they also show that there are spatial/regional variations to this influence. These variations allow for the identification of cities among the regional capitals that 1) attract more migrants than MAPAP (Cap Haitien); 2) attract a number of migrants that is lower than MAPAP's (Fort Liberte, Gonaives and Port de Paix); and 3) attract a number of migrants that is very small compared to MAPAP (Hinche, Les Cayes, Jacmel, and Jeremie).

In addition, the data show that the regional capitals are all the primary destinations for migrants in their respective departments. On average, the department capitals receive 54.61% of the migrants while the other cities attract only an average of 3.79% of the urban-to-urban migrants—an average that is 14.41 times less than the capitals. The numbers vary from 20.67% for Fort Liberté to 91.12% for Cap Haïtien at the regional level.

These findings show that, even in the case of extreme urban primacy like Haiti, there can be cities that have more influence over a given geographical area than the primate city (Cap Haitien) while other cities have a somewhat comparable influence (Gonaives and Port de Paix).

These findings bring new light in the literature about urban primacy that tends to be pessimistic and generic: the primate city of MAPAP does not have an overwhelming and uniform influence over the entire national territory. There are regional disparities and there are regions where the influence of the primate city is lower than that of the largest city within the region. This adds to the body of literature about urban primacy in general and urban primacy in Haiti in particular.

The findings of the present study bring new prospects to the future of decentralization policies in countries with extreme cases of urban primacy like Haiti. Some scholars explain the failures of decentralization by citing the lack of secondary cities, which are cities that are large enough to perform important economic and social functions for their own populations and for populations in surrounding areas (Rondinelli 1983). In other words, cities that will be able to diffuse development at a regional level, attract and retain rural migrants, and slow the growth of the primate city. Cap Haitien, by attracting more migrants than MAPAP in the department of the North, fits this description. The cities of Fort Liberte, Gonaives, Les Cayes, and Port de Paix that attract a slightly lower number of migrants from their respective region than MAPAP can be reinforced to attract more migrants and fit the description of secondary city as well. These cities can be instrumental in halting the growth of MAPAP.

In addition, the regional capitals are the main destination for migrants in their respective regions. The regional capitals are already regional poles that can be reinforced to play a more important role in inducing development in their region. The combination of secondary cities at the national level and poles at the regional level is a positive sign in the prospect of a successful decentralization process in Haiti.

The identification of regional poles is an important contribution to the debate surrounding decentralization in Haiti. Opponents of decentralization have argued that the local collectivities are not strong enough to carry out the new powers that come with decentralization

(Deshommes 2000; Oriol April 2000). While that may be true for the majority of the local collectivities, especially the municipalities, the ones where the regional capitals (and more specifically where the three poles identified earlier) are located are clearly strong enough to compete with MAPAP at the national level and can be reinforced by the policymakers to become real engines of development at the regional level. They are strong enough to be used to implement a successful decentralization process.

The findings also provide arguments for an incremental implementation of the decentralization process to maximize the use of scarce public funds by focusing on the cities that will have the greatest impact in halting the growth of MAPAP and inducing substantial regional development. Indeed, not all the local collectivities are identical and the poles identified earlier can play an important role in rebalancing the spatial distribution of socioeconomic activities. The poles are the secondary cities as described by Rondinelli (1983) and should be reinforced to maximize the chances of success of the current decentralization policy in Haiti.

Finally, the study adds a new element to the debate by analyzing the Haitian urban system and how it can help reshape the spatial distribution of socioeconomic activities.

Urban primacy is widespread and is increasing in the developing world. The challenges caused by urban primacy in the developing world are very hard but not impossible to overcome. Even in the case of extreme urban primacy like Haiti, this study has been able to identify cities with the potential to halt or reverse the consequences of urban primacy. In addition, Haiti is a relatively small country and given the influence of distance in explaining the existence of potential poles, the results are encouraging. Larger countries, even with extreme cases of urban primacy, will probably have potential growth poles.

Future of Testing the Growth Pole Theory in a Third World country

The study tested some of the hypotheses of the growth theory, namely the impact of the size of the cities and the distance between cities in explaining the number of migrants. The distance between the regional capitals and MAPAP has a moderate effect on the number of migrants received and the regional capitals located further from MAPAP tend to receive a slightly more significant number of migrants. The moderate effect of distance is to be expected given the overwhelming influence of the primate city of MAPAP over the national territory.

However, overall the number of migrants tends to decrease when the distance between the regional capital and the city of origin increases. The data show different levels of support for the growth pole theory hypothesis that the attraction power of a pole decreases when the distance increases (Perroux 1955; Boudeville 1966). The influence of the regional capitals over the regional urban systems is less strong than the influence of MAPAP over the national urban system.

The data strongly support the assumption that the attraction power of the regional capitals increases with population size. The data support the hypothesis with a strong correlation of 0.89 between the total population of the regional capitals and the number of migrants received. There is also a strong correlation of 0.78 between the percentage of the total urban population of the department represented by the regional capitals and the percentage of migrants received (Perroux 1955; Boudeville 1966). The regional capitals with the largest population are the strongest poles. Increasing the size of a pole by providing job opportunities or education and health facilities will in return strengthen its attraction power exponentially.

The data also provide evidence that, depending on the department, migrants come from cities with largely different population sizes, weakly supporting or rejecting the growth theory hypothesis that migrants will come from smaller cities (Perroux 1955; Boudeville 1966). Only the North West, Grande Anse, and Artibonite departments support the hypothesis with a weak

negative correlation; the Center, South East, and South departments have a very weak positive correlation, and the North East and the North moderately reject the hypothesis. Depending on the department, migrants will come from smaller urban centers (North West, Grande Anse, and Artibonite), slightly more from larger urban centers (Center, South East, and South), and mainly from larger urban centers (North East and North). This shows that the attraction power of the regional poles is strong even over the largest urban centers of their regions. However, this can also imply that even the more important urban centers, including possibly the regional capitals, have difficulty retaining their populations. A question to investigate in the future is whether the larger urban centers are temporary destinations before migrating to MAPAP. If the answer is yes, another question to investigate is how to retain these transitory migrants. In addition to attracting more migrants, the poles need to be able to retain them and retain their own population.

My findings do not definitively support or reject the hypotheses of the growth pole theory that I have tested. The theory selects poles by the concentration of economic activities. In the case of this study, the selection is solely based on the administrative characteristics of the regional capitals while the regional capitals have different demographic and socioeconomic characteristics. I have used this selection method because I wanted to use the results to formulate policy recommendations that reflect the constitution of Haiti. Those differences may explain the different levels of support or rejection to the hypotheses, depending on the department.

The growth pole theory was useful, however, in helping identify potential regional growth poles in a developing country with an extreme case of urban primacy like Haiti with its mega city, MAPAP. The findings confirm that despite the overwhelming influence of the primate city, it is still possible to identify urban centers that are suitable places to begin implementing decentralization. One of the main obstacles in testing the growth pole theory in a Third World

country is the lack of or limited availability of data (Rondinelli 1983). To conduct this research, I was fortunate enough to have data available and such data are becoming more widely available; this study illustrates how to use census data to address the consequences of urban primacy in developing countries. An increasing number of developing countries are conducting census operations on a regular basis. The United Nations Population Funds (UNFPA) and its partners have mobilized funds for a census round every 10 years in developing countries. UNFPA and its partners are also working on standardizing the census' instruments and modernization the operations by using GPS, GIS, Personal Digital Assistant (PDA), and database software in order to improve the quality of the data.

The activities of UNFPA and its partners aim at better monitoring the progresses made in achieving the Millennium Development Goals (MDG). However, the availability of new census data eliminates the obstacles for testing the growth pole theory in the developing countries. In addition, the actors are also promoting the use of census data to support development programs. This will provide a lot of opportunities to test the growth pole theory hypothesis in the third world, including cross-country or temporal analysis to assess the impact of a decentralization policy.

Dependency Theory and Regional Urban Growth in Haiti

All the regional capitals except Hinche have local import tax collection agencies. The establishment of the tax collection agencies in these cities is a recognition that substantial international trade activities are occurring. Although there is a positive correlation between the amount of taxes collected and the number and the percentage of migrants received, this result should be used with caution because of the poor quality of the data.

Except for Hinche, all the regional capitals are coastal cities. They are in strategic locations that put them at the forefront of the link of the Haitian economy to the international

market. This role is reinforced by the existence of port facilities and the presence of a vibrant private sector involved in substantial trade activities.

The integration of their economic activities into the international economic system due to their location, reinforced by port facilities and substantial export-oriented economic activities, explains the growth and attraction power of the regional capitals and rival poles.

Finally, the data support the hypothesis of dependency theory stating that the cities with the strongest attraction power have the strongest ties with the international market; these ties are expressed by the amount of import taxes collected (Portes 1985; Portes 1994). These results and findings support the dependency theory hypotheses and more specifically Portes' that, outside the primate city, cities with export-oriented economic activities grow at a faster pace (Portes 1994; Portes 1997). Is the effect of dependency on the growth of other urban centers yet another indicator of how economic dependency overall affects urban growth? Or, finally, is it an indicator of stronger integration of not only the economy but also of all the parts of the Haitian territory in the international economy? Haiti is a developing country and as such, the dependent nature of its economy will have a negative impact on its socioeconomic development (Cardoso 1971; Bradshaw 1987; Bradshaw 1991; Bradshaw 1997).

Recommendations for Future Research

The Limitations Due to the Lack of Data

I have primarily used data that are available for all the units of analysis. This approach was necessary to be able to compare the results and draw conclusions that are essential to formulate recommendations to implement economic decentralization. However, this approach also limited the quantity of data available to fully understand the issues. In a developing country like Haiti, there are few institutions that collect routinely data on socioeconomic activities to inform policymakers. This situation makes it often difficult to conduct research in the Third World.

The first set of data that I have used is the census data that give, per department, the number of natives and the commune of place or birth (urban and rural). Unfortunately there are no data on the number of people who migrate from one regional capital to another. This information would have been useful to measure the ability of the capitals to retain their migrants or natives or their ability to attract migrants from the other capitals; in other words, the competitiveness within the national urban system. However, one can still know, for each city, the number of total migrants from every other department (table 6).

The second set of data is the amount of import taxes to measure the dependency toward the international economy. This choice was dictated by the lack of economic data at the regional level. Data about the total value of goods imported–exported are only available at the national level and not by trade locations. Data on the private sector/employment for all the regional capitals are not available in a country where 68% of nonagricultural activities function in the informal sector. However, for the fiscal year of 2008–2009 for instance, the Haitian GDP was 14,015 million gourdes while the value of imports was 18,317 and the value of exports was 4,312 million gourdes (BRH 2010). These data show that Haiti imports more than it produces and the value of exports is really minimal compared to the value of imports. Data on importations provide a good estimation of international trade activities in the regional capitals.

The study calls for future research that will help explain some of the findings and better understand the Haitian urban system and the attraction power of the regional capitals. The future research will also provide policymakers with additional elements to design a more detailed economic decentralization policy. The list of recommendations for future research presented here is in no mean exhaustive.

Test the Growth Pole Theory Using Other Criteria to Select the Units of Analysis

One of the characteristics of the research design is the selection of the units of analysis based on their administrative status as regional capitals. The regional capitals vary largely in terms of population size. They also vary in terms of the percentage of the total urban population they represent.

These variations may have affected the outcomes of the analysis and the results and findings. Conducting a similar analysis with, for instance, an urban center with the same population size or the same percentage of the total population of their departments may give a different outcome in testing the assumptions and hypotheses of the growth pole theory.

Study of the Attraction Power of the Regional Capitals Beyond the Limits of the Regions

Because the study analyzes migration patterns within regions, I cannot evaluate the attraction power of the regional capital beyond their region. I cannot evaluate the competition among regional capitals to capture migrants beyond the borders of their respective departments. Finally, I cannot assess if one regional capital has a broader attraction power even over another regional capital. For instance, does Cap Haitien attract more migrants from the North East than Fort Liberte, its regional capital? Or does Cap Haitien attract more migrants from the North East than MAPAP?

The answers to those questions will be useful to policymakers to design an economic decentralization policy between the national level and the regional level, regrouping several departments. Such policy will reinforce existing spatial dynamics and better allocate limited public resources.

Understanding the Migrants' Journey to Better Understanding of the Attraction Power of the Regional Capitals

The 2003 Haitian census questionnaire asks the respondents about their birthplace and whether it is urban or rural. The respondents whose birthplace differs from the place of residence are the migrants. However, this information does not provide a complete picture of the migrants' journey. For instance, have they migrated to another place before settling in the current place of residence? For how long? Are they planning on staying or moving to another place? Why did they move? Why do they want to move again?

The answers to these questions will provide a more complete picture about what attracts migrants to the regional capitals or other places. Knowing where people move and why they move is essential to designing a spatial policy to attract them to specific places and to retain people in those places. These policies should focus on offering to the potential migrants the elements that are missing in the current place of residence that they want to have access to by migrating.

A Better Understanding of the Structure of the Regional Capitals' Private Sector

The analysis of the import tax data to understand how dependency toward the international market affects population growth in the regional capitals shows a high level of correlation.

The data also show that in Cap Haïtien and Saint Marc there has been an increase in import-export activities, a respective growth rate of 19.71% and 732%. Miragoane experienced a small decline of 10.04%, while Jacmel experienced an important decline of 85.56% (table 19).

Cap Haïtien is the farthest from Port-au-Prince (203.5 miles), while Saint Marc (52.20 miles) and Miragoane (58.20 miles) are both relatively close to the national capital. The distance

from Port-au-Prince plays in the favor of Cap Haïtien. The city is the main port for the entire northern part of the country and the second largest city of the nation.

The port of Jacmel has been rehabilitated, but there has been little increase in import-export activities. Jacmel is further away from Port-au-Prince (115.96 miles) than Saint Marc and Miragoane but is still only two hours from Port-au-Prince. The population of Jacmel is not large enough to provide a market for international trade.

An analysis of the history of the city of Jacmel shows, for instance, that a change in the local private sector can help explain why the city is no longer able to engage in trade activities, as was the case in the past, despite heavy public investments in port facilities. A study of the local private sector involved in trade will help explain this issue, and help to design a policy to support the emergence of a more dynamic local private sector that will be able to increase the return on public investments.

Spatial Modeling to Understand and Predict Migration Patterns

The results and findings of the present study and of future research can be used with other spatial data to model migration patterns in Haiti. They should be combined with other spatial data such as satellite images, aerial photos, road maps, and topographic maps. GIS, remote sensing, and other technologies in the fields of spatial analysis can incorporate the various data to build a complex spatial model. Policymakers can use this model to better understand migration patterns but also predict the effect of specific policies on these patterns. Finally, such a model can be used as a monitoring and evaluation tool to assess the outcome of a national spatial economic decentralization policy.

Policy Relevance and Implications

After the devastating 7.0 earthquake that hit Haiti on January 12, 2010, the international community responded swiftly during the rescue and the immediate post-disaster relief efforts. The international community also made the commitment of continuing support for the rebuilding of Haiti. The Haitian government has expressed a strong determination to place the rebuilding effort in the context of the overall development of the country. The Haitian government and its partners held a first meeting in Montreal on January 25, 2010, and another meeting was held in New York on March the 31, 2010, during which the government presented the Preliminary Damage and Needs Assessment (PDNA) and the National Strategic Development Plan (NSDP) for the country to the donors.

To elaborate the PDNA and the NSDP, the government has been conducting intensive consultations with members of the international community and groups of the Haitian civil society. According to the government, the result of the process is a document that should continue the program that the government had in place with the NGPRSD but will also address the issues brought to light by the earthquake. Because the PDNA and the NSDP have not been released yet, the policy recommendations will focus on the NGPRSD but will also address the elements of the new national reconstruction program that have been released to the press so far.

Elaborate a Comprehensive Economic Decentralization Policy Based on the Reinforcement of the Strongest Growth Poles

The NGPRSD proposes activities as if Haiti will remain a rural country. The issues raised by this research are not addressed in a coherent and comprehensive manner in the NSGPRD. Elements of the solutions are scattered all over the documents and some elements are completely missing.

The NGPRSD presents a series of activities pertaining to urban development at the city level. All these activities are essential to addressing important issues facing the Haitian cities. They will all contribute to creating vibrant and safe urban centers, improving the urban environment and providing employment opportunities and basic services to urban dwellers.

However, instead of scattering them throughout the document, it would have brought focus and attention to regroup them in a single comprehensive chapter, as is the case for rural development. Such a chapter would include the existing elements as well as a section of urban economic activities. Urban economic activities like industrial activities are missing from the NGPRSD. This chapter should also include strategic and spatial components. The NGPRSD should include a chapter on how the government plans to increase public investments in activities that will make specific cities as attractive as MAPAP (e.g., water, electricity, communications, and transportation infrastructure). At the same time, the government should lay out this plan to promote private investments in essential services such as banking. Finally, the government should provide incentives for existing private industries to relocate outside of MAPAP and to new investors to establish their companies outside MAPAP. These efforts should focus on the strongest regional poles identified in the present study.

Decentralization of Economic Activities: Focus on the Strongest Poles

Real decentralization will be achieved by delocalizing socioeconomic activities outside MAPAP. The primary beneficiaries of the delocalization of economic activities and social services outside Port-au-Prince should be the strongest poles: Cap Haitien, Port de Paix, and Gonaives. These cities should be in the mind of public officials when they are working with investors for non-geographic based economic activities. Some activities that can be delocalized are, for instance, the manufacturing jobs in textiles. In each of the three strongest poles, there is the

necessary labor force, the basic infrastructure in electricity, water, and communications to support these activities, and the international port facilities to ship the manufactured goods to the national and international markets.

Cap Haitien has direct flights to and from Miami and Port au Prince. Gonaives is only 37.28 miles from MAPAP. However, Port-de-Paix is more isolated, with a single roadway connection to Cap Haitien that also connects the city to the rest of the country.

Goods from production sites in Cap-Haitien and Gonaives can more easily reach the national market. Investors in these sites could more easily reach their investment sites for quality control or other operation activities. For Port-de-Paix to present the same advantages, significant public investments in roadways should be made. Cap Haïtien is the second largest city in the country and is at all levels the most attractive pole outside MAPAP. It can play an important role in attracting migrants not only from the department of the North but from all the northern parts of the country as well.

The road network should be improved and rehabilitated in this perspective. Targeting the most attractive cities in a more aggressive manner can be the best way to still have the most impact while using limited resources. Similar important public investments in an important number of cities competing for the same markets/resources can limit the returns of such investments.

Some of the elements of this part of the policy recommendations are already in the NGPRSD. However, they are not regrouped in the identified poles and are not part of an overall strategy to implement decentralization. There must be a better coordination of effort towards reinforcing the strongest poles in order to maximize their impact.

Encourage Spatially Based Economic Activities

Besides these three cities, the other regional capitals already have most of the basic necessary infrastructure (electricity, phone, internet, water), although some improvements are needed. They have port facilities that link them to international markets in the case of export-oriented production. They also have a population large enough and often more educated than those of smaller cities to offer the manpower to support the initial activities. The creation of jobs and the availability of social services will increase the attraction power of the regional capitals.

At the same time, it is necessary to maintain activities that are locally based in other places and cities as well. Such activities would include the development of local tourism and the rehabilitation of the old town of Jacmel, for example. In the NGPRSD, tourism focuses on the departments of the West, the North, the South East, and the South because of their potential in this sector. These activities are expected to create an significant number of employment opportunities outside MAPAP. This will contribute to the reduction of the concentration of job opportunities in the primate city, halting its growth while contribution the population growth of the regions.

In addition, public investments in infrastructure and roadways should seek to strengthen the relationship between regional capitals and the other cities of their region in order to transform the hinterland into a market for the sale of the goods produced or imported in the regional capitals. At the same time, the regional capitals will become a market for the production of smaller cities and the rural areas in their region.

Toward a Less Dependent Economy: Promote National Production for the National Market

The study shows the role of economic dependency in explaining the growth of the regional capitals. However, economic dependency also has a very negative impact on the socioeconomic development of developing countries (Cardoso 1971; Myrdal 1978; Bradshaw 1991). The increase of the national production is a major component of the NGPRSD. However, the new economic policy should also strive to find the balance between production for the national market and production for the international market. This will reduce the dependency of the Haitian economy and the negative impact of such dependency on the socioeconomic development of the country.

Effective Leadership

The rural area has a single institution in charge: the Ministry of Agriculture, Natural Resources and Rural Development (MANRRD). The mission of the MANRRD is to "Define the policy of the economic sector of the Haitian government in the areas of agriculture, cattle raising, renewable natural resources and rural development." The urban area has no institution in charge of coordinating efforts and resources. Several governmental entities share responsibilities over the urban area: the Ministry of Public Works, the Ministry of Planning and External Cooperation, and the Ministry of Local Collectivities. At the local level, the municipalities are in charge. Because of the multiplicity of actors there is no clear vision, instead there is a lack of leadership or coordination and an overlapping of roles, goals, and responsibilities.

This lack of *one* focal point explains why this document contains all the dimensions of urban development and no vision. Such an organ will:

- Set a vision
- Coordinate actions

- Bring all the actors together
- Do advocacy and fundraising

This organ would bring urban development issues to the forefront of the national debates.

An effective decentralization policy requires not only strong leadership from the Haitian government, but also the inclusion of the private sector, the donors, the local institutions, and many other stakeholders in the process. It also requires the same leadership ability from the local institutions. All the policy recommendations have no real value until real changes occur within the Haïtian government, which is still considered among the weakest and the most corrupted in the world by Transparency International. In addition, the quasi-permanent state of political instability of the country often discourages potential investors. The chances for a successful implementation of an effective decentralization policy rely on substantial changes in all aspects of the social, political, and economic life of the country. Fortunately, the relative stability of the past five years and the progress made in terms of governance offer good hope that the overall environment might be improving.

The Impact of the Earthquake

Local and foreign investors are still reluctant to invest in Haiti because of the constant political turmoil of past 2–3 decades. However, a large majority of violent events usually occur in MAPAP; the rest of the country remains safe. Thus, the strongest poles and the regional capitals are a safe and secure alternative to MAPAP. In addition, there has been an overall improvement in security in Haiti. As former U.S. President Bill Clinton, currently the special envoy of the United Nations to Haiti, recently stated, "It is time to invest in Haiti" (Lacey 2009). This new hope should be channeled to address the problems caused by the primacy of MAPAP. Unfortunately, all the new hope changed with the January 12, 2010, earthquake.

In addition, the earthquake shone a brighter light on most of the issues raised by the present research and makes its policy relevance even more important. Today, the Haitian government is working with its national and international partners to prepare the Post Disaster Needs Assessment and Recovery Framework (PDNA) and the NSDP. In his speech on February 18, 2010, the Prime Minister, who is also the Minister of Planning, acknowledges most of the issues raised by this study and put under a magnifying glass by the earthquake. Followed are two excerpts from the speech that clearly demonstrates that decentralization, deconcentration of socioeconomic activities, and territorial balance are important concerns of the Haitian government.

"We share a dream: the one to see Haiti as an emerging country by 2030, a simple and equal society, just and united, living in harmony with its environment, its culture and a controlled modernity where freedom of association and expression et land management are established, with of a modern, strong, dynamic, competitive, open economy, and with large territorial basis where the basic needs to the population are met and manage by a strong government, united and protective of the general interests, strongly deconcentrated and decentralized."

"Our efforts focus on finding the balance between population and territory. Demography is an important issue and the deployment of the population on the territory is an issue as well. That is why we need to talk about regional development poles, about access to health and education services all over the national territory, about deconcentrated government services, of roads networks allowing for the circulation of people and goods. The country and its regions should position themselves in a network open to international partners and to economic ties with the outside."

In addition, according to an article published on the Voice of America website relating a joint news conference held by U.S. Secretary of State Hillary Clinton and the Haitian President

Rene Preval at the State Department in Washington, DC on March 9, 2010, the Haitian president acknowledges the role that past government policies focusing on MAPAP to the detriment of the regions have played in favoring migration toward MAPAP, the lack of urban planning, poverty, and inadequate housing that contributed to the mass casualties of the earthquake. According to the Prime Minister, "To rebuild Port-au-Prince as it was before would be a major historical mistake. And that is the message that I am trying to convey, not only to the Haitians, but also to my international partners."

Now the questions are:

- How will decentralization be implemented?
- Will the government once again focus on national agricultural production and neglect the urban economy? What kind of economic relationships will the government try to implement with the international market?

The answers to these questions will determine the chances of success of the decentralization process and the impact that the economic policies will have on the socioeconomic development of Haiti.

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Appendixes

Appendix 1: Population data by department

Department of Artibonite

COMMUNE	Total Population	Rural population	Urban population
Gonaïves	263,716	103,215	160,501
Ennery	39,104	35,972	3,132
Estère	33,860	20,814	13,046
Gros Morne	118,163	96,956	21,207
Terre Neuve	23,920	23,014	906
Anse Rouge	32,271	23,404	8,867
Saint Marc	199,637	109,255	90,382
Verrettes	109,474	82,547	26,927
La Chapelle	23,986	20,321	3,665
Dessalines	138,451	120,227	18,224
Pte. Rivière de l'Artibonite	129,360	102,348	27,012
Grande Saline	17,143	14,319	2,824
Desdunes	27,266	8,296	18,970
Saint Michel de l'Attalaye	114,175	92,717	21,458
Marmelade	28,872	23,517	5,355
Total	1,299,398	876,922	422,476

Department of the Centre

COMMUNE	Total Population	Rural population	Urban population
Hinche	93,899	69,768	24,131
Maïssade	45,869	36,466	9,403
Thomonde	35,307	28,289	7,018
Cerca Carvajal	18,102	14,584	3,518
Mirebalais	76,194	64,363	11,831
Saut d'Eau	30,499	27,209	3,290
Boucan Carré	43,813	41,437	2,376
Lascahobas	48,665	42,168	6,497
Belladère	67,526	57,606	9,920
Savanette	28,260	25,235	3,025
Cerca la Source	44,129	39,299	4,830
Thomassique	49,242	40,462	8,780
Total	581,505	486,886	94,619

Department of Grande Anse

COMMUNE	Rural Population	Urban population	Total population
Jérémie	70,060	33,829	103,889
Abricots	28,418	978	29,396
Bonbon	5,440	1,248	6,688
Moron	21,602	2,653	24,255
Chambellan	17,184	3,380	20,564
Anse d'Hainault	17,983	10,142	28,125
Dame Marie	21,653	8,357	30,010
Les Irois	11,963	6,109	18,072
Corail	21,215	3,245	24,460
Roseaux	26,351	1,530	27,881
Beaumont	10,908	4,349	15,257
Pestel	33,992	788	34,780
Miragoane	61,982	16,126	78,108
Petite Rivière de Nippes	19,935	2,276	22,211
Anse-à-Veau	50,199	2,233	52,432
Baradères	33,236	3,322	36,558
Petit Trou de Nippes	38,816	3,016	41,832
L'Asile	31,216	1,194	32,410
Total	522,153	104,775	626,928

Department of North

COMMUNE	Total Population	Rural population	Urban population
Cap-Haïtien	211,630	7,572	204,058
Quartier Morin	21,100	18,958	2,142
Limonade	42,530	32,731	9,799
Acul du Nord	43,118	37,097	6,021
Plaine du Nord	31,817	25,162	6,655
Milot	24,673	19,851	4,822
Grde Rivière du Nord	31,900	23,959	7,941
Bahon	17,932	16,655	1,277
St Raphaël	41,458	33,571	7,887
Dondon	26,688	21,448	5,240
Ranquitte	21,366	19,139	2,227
Pignon	33,366	26,176	7,190
La Victoire	8,129	5,650	2,479
Borgne	51,612	46,356	5,256
Port Margot	38,468	28,860	9,608
Limbé	65,788	39,612	26,176
Bas Limbé	16,118	12,113	4,005
Plaisance	53,665	44,679	8,986
Pilate	41,685	38,136	3,549
Total	823,043	497,725	325,318

Department of North East

COMMUNE	Total Population	Rural population	Urban population
Fort-Liberté	26,679	10,054	16,625
Ferrier	11,410	5,871	5,539
Perches	9,016	4,861	4,155
Ouanaminthe	82,549	38,775	43,774
Capotille	15,390	14,586	804
Mont Organisé	16,562	13,608	2,954
Trou du Nord	38,225	21,839	16,386
Sainte Suzanne	22,242	20,743	1,499
Terrier Rouge	23,474	8,376	15,098
Caracol	6,051	4,030	2,021
Vallières	18,620	16,091	2,529
Carice	10,709	7,800	2,909
Mombin Crochu	27,458	23,879	3,579
Total	308,385	190,513	117,872

Department of Nord West

COMMUNE	Total Population	Rural population	Urban population
Port-de-Paix	157,032	86,290	70,742
La Tortue	28,499	27,104	1,395
Bassin Bleu	46,458	42,371	4,087
Chansolme	12,594	10,953	1,641
Saint Louis du Nord	84,661	61,581	23,080
Anse à Foleur	22,052	17,935	4,117
Môle Saint Nicolas	24,787	22,366	2,421
Baie de Henne	19,985	18,434	1,551
Bombardopolis	26,392	24,368	2,024
Jean Rabel	108,738	100,998	7,740
Total	531,198	412,400	118,798

Department of the South

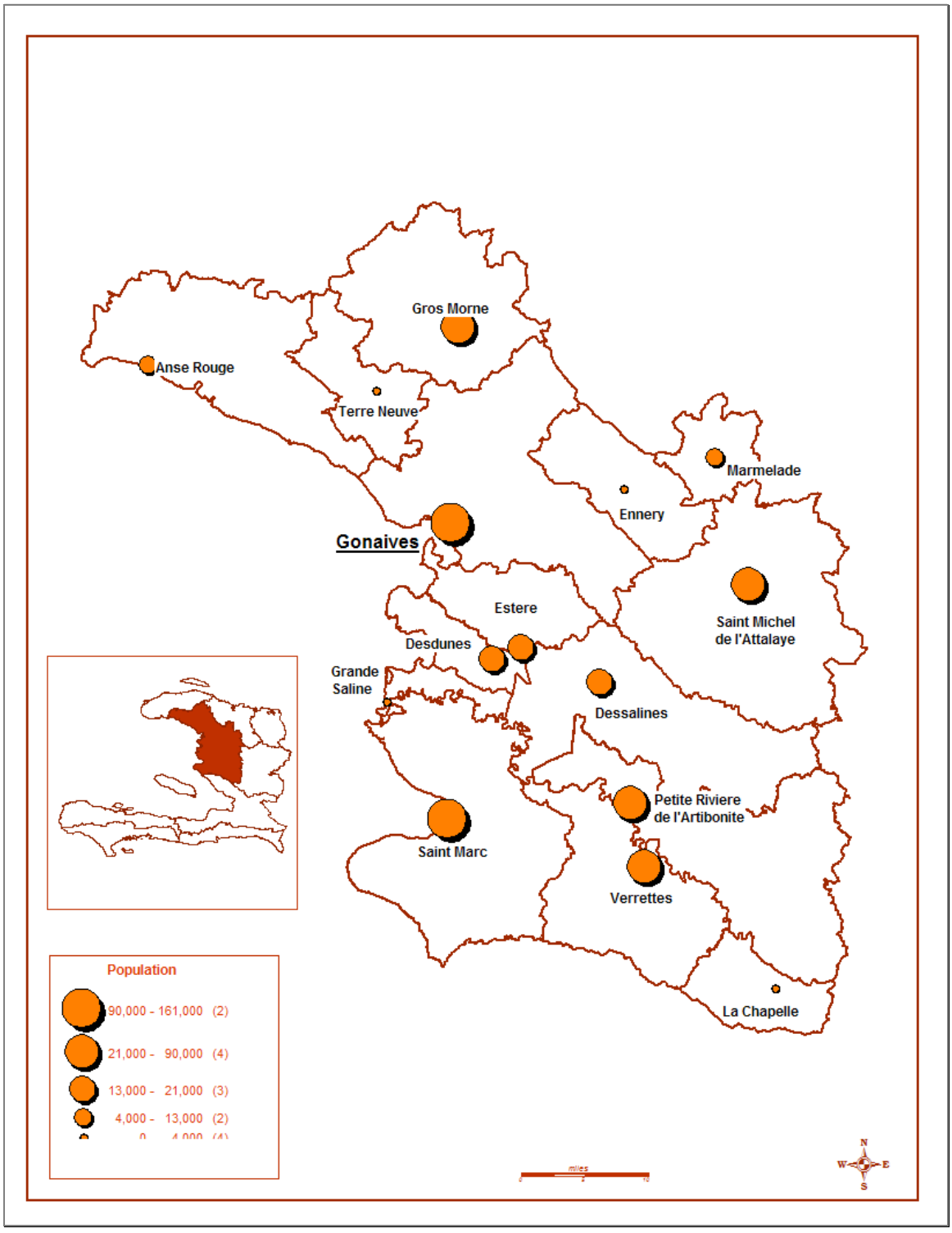
COMMUNE	Total Population	Rural population	Urban population
Les Cayes	132,406	77,130	55,276
Torbeck	61,080	57,786	3,294
Chantal	27,350	24,631	2,719
Camp-Perrin	36,124	33,032	3,092
Maniche	6,973	6,291	682
Ile-à-Vache	12,341	12,341	0
Port-Salut	29,987	28,527	1,460
Saint Jean du Sud	20,539	19,821	718
Arniquet	8,751	7,554	1,197
Aquin	83,525	74,832	8,693
Saint Louis du Sud	51,862	49,705	2,157
Cavaillon	41,476	40,000	1,476
Côteaux	16,987	12,660	4,327
Port-à-Piment	15,040	9,743	5,297
Roche-à-Bateau	14,719	12,520	2,199
Chardonnières	20,126	14,932	5,194
Les Anglais	23,840	17,886	5,954
Tiburon	18,525	12,637	5,888
Total	621,651	512,028	109,623

Department of South East

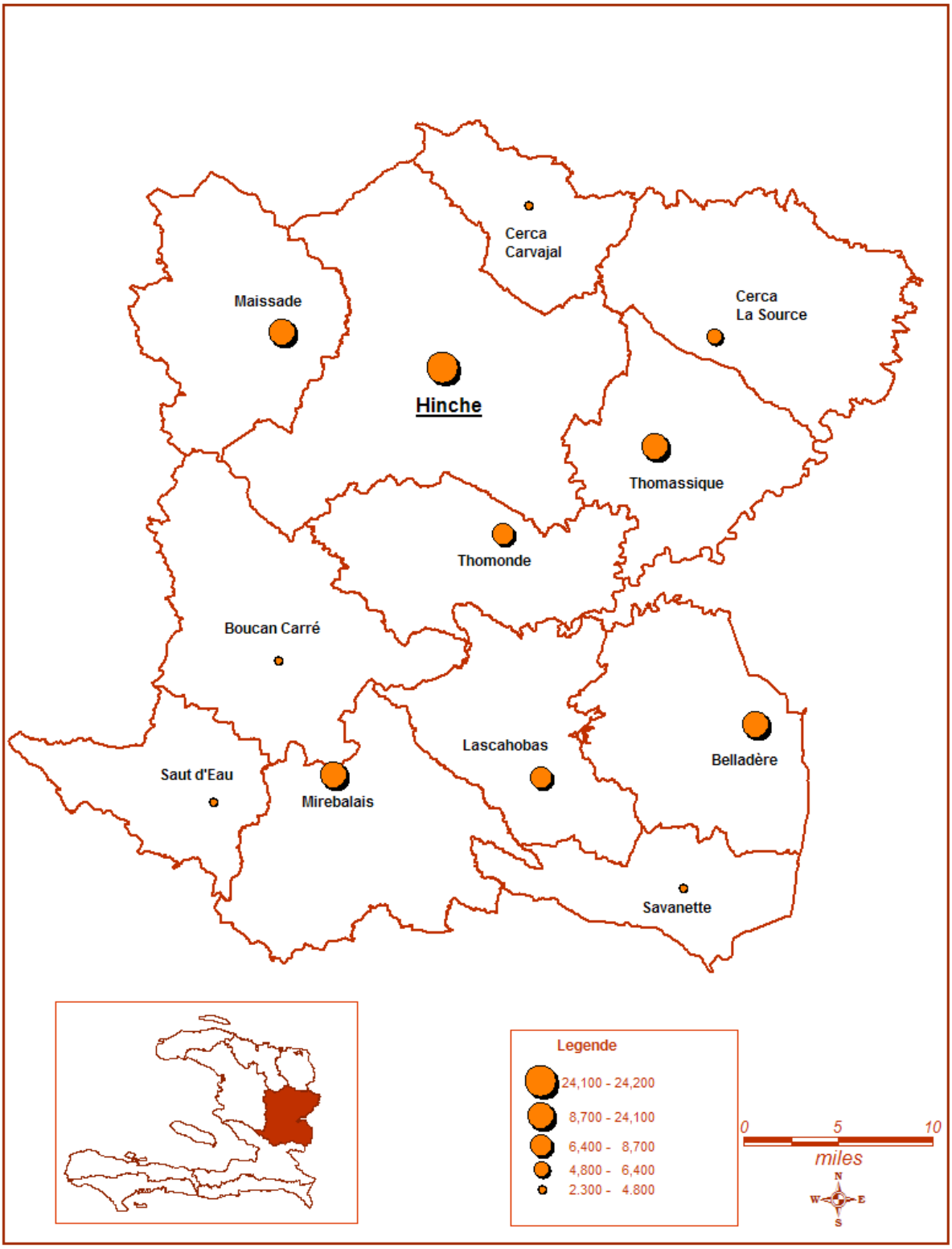
COMMUNE	Total Population	Rural population	Urban population
Jacmel	142,969	112,786	30,183
Marigot	57,311	52,256	5,055
Cayes-Jacmel	30,968	28,521	2,447
La Vallée	28,014	27,232	782
Bainet	66,694	64,204	2,490
Côtes de Fer	37,694	36,181	1,513
Belle Anse	58,352	55,291	3,061
Grand Gosier	13,067	11,394	1,673
Thiotte	26,722	22,490	4,232
Anse à Pitres	22,884	14,678	8,206
Total	484675	425033	59642

Appendix 2: Urban population maps for the eight departments

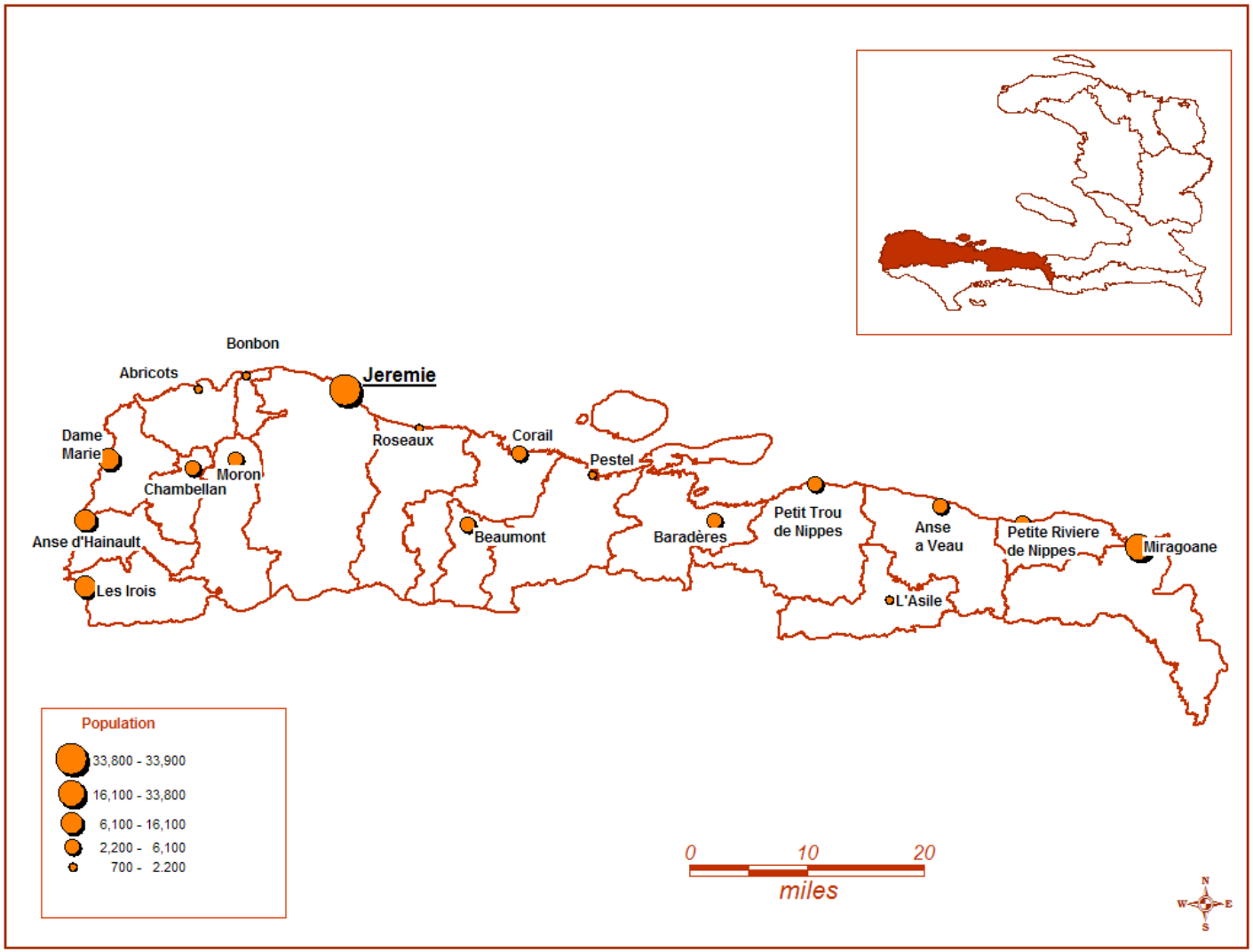
Department of Artibonite



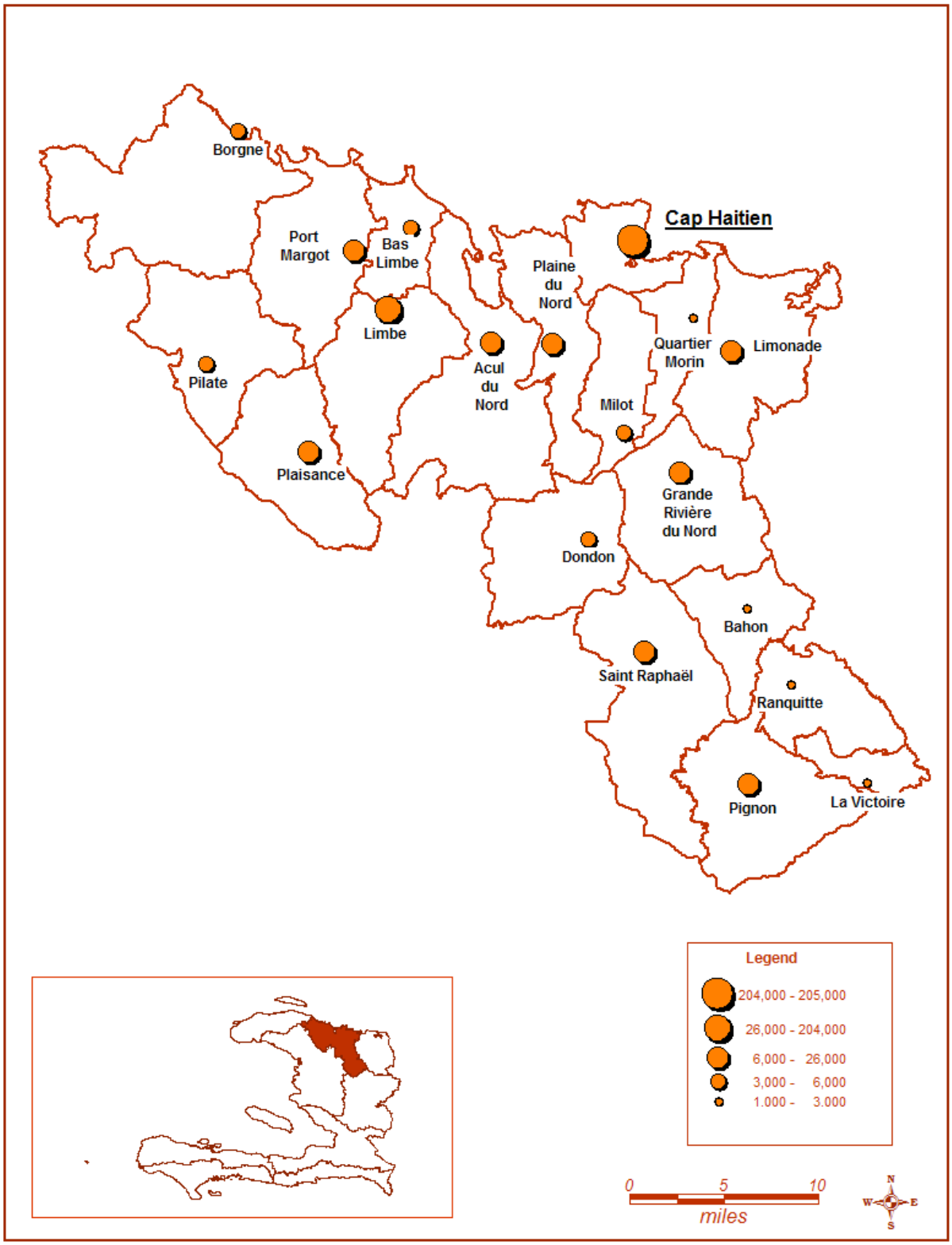
Department of the Centre



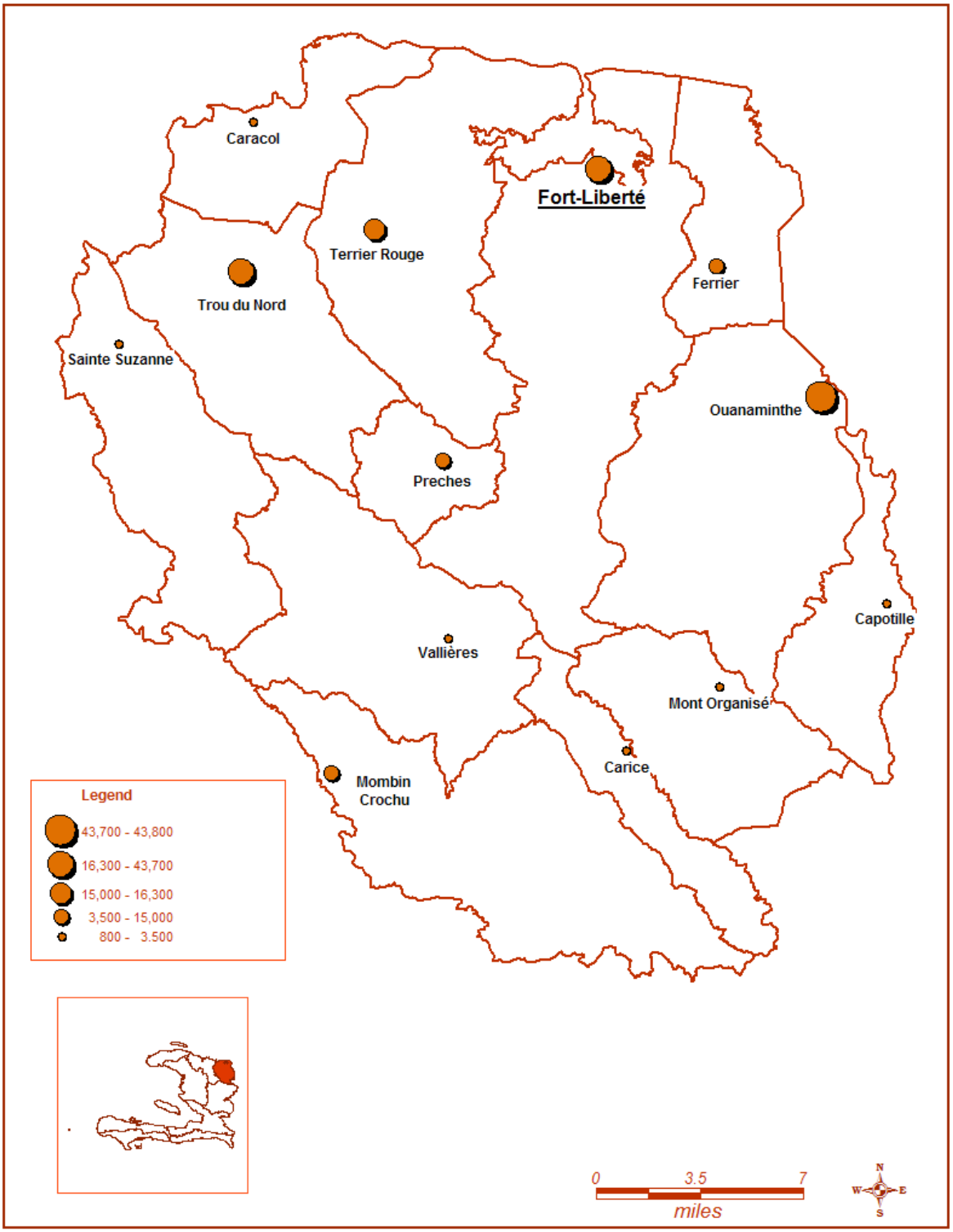
Department of Grande Anse



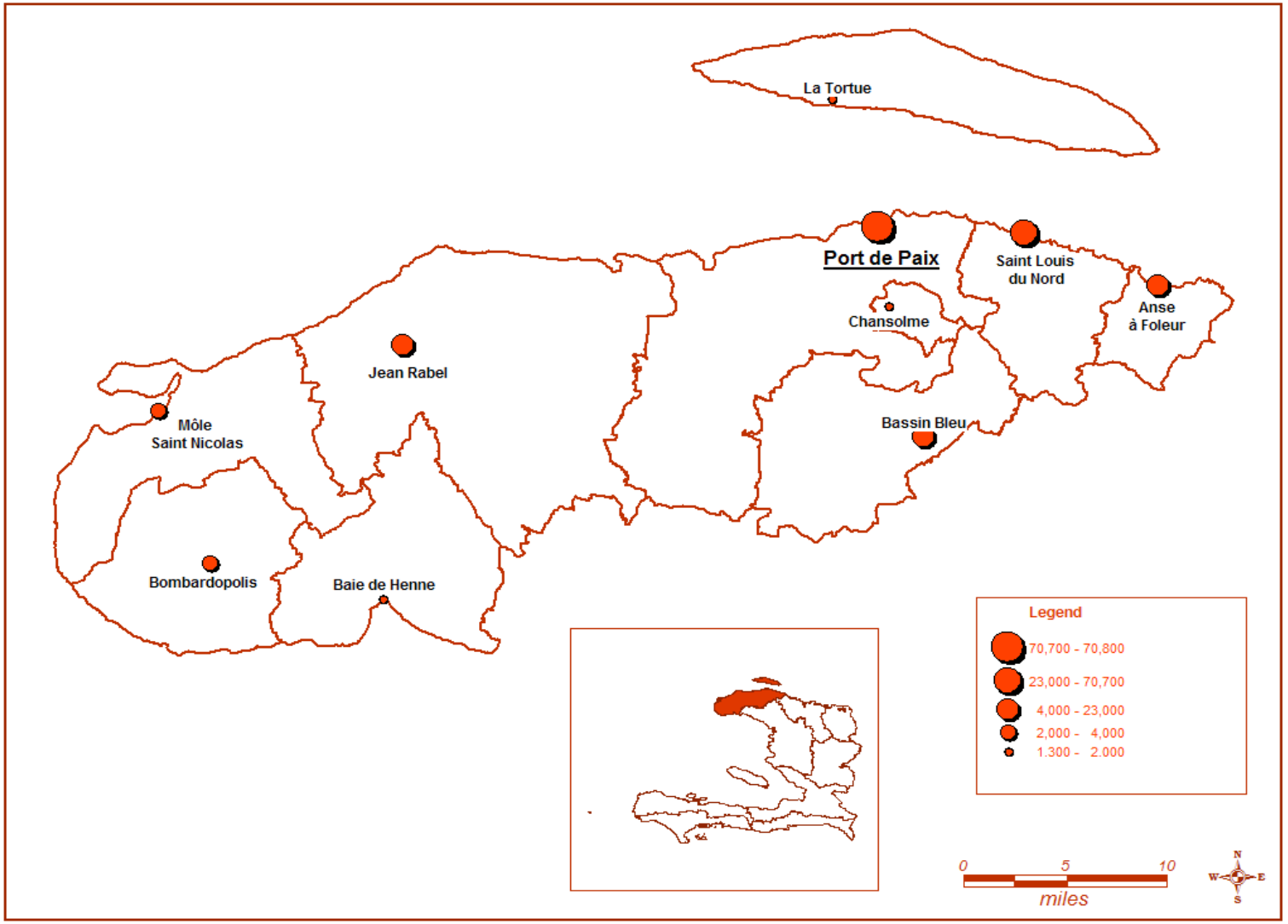
Department of Nord



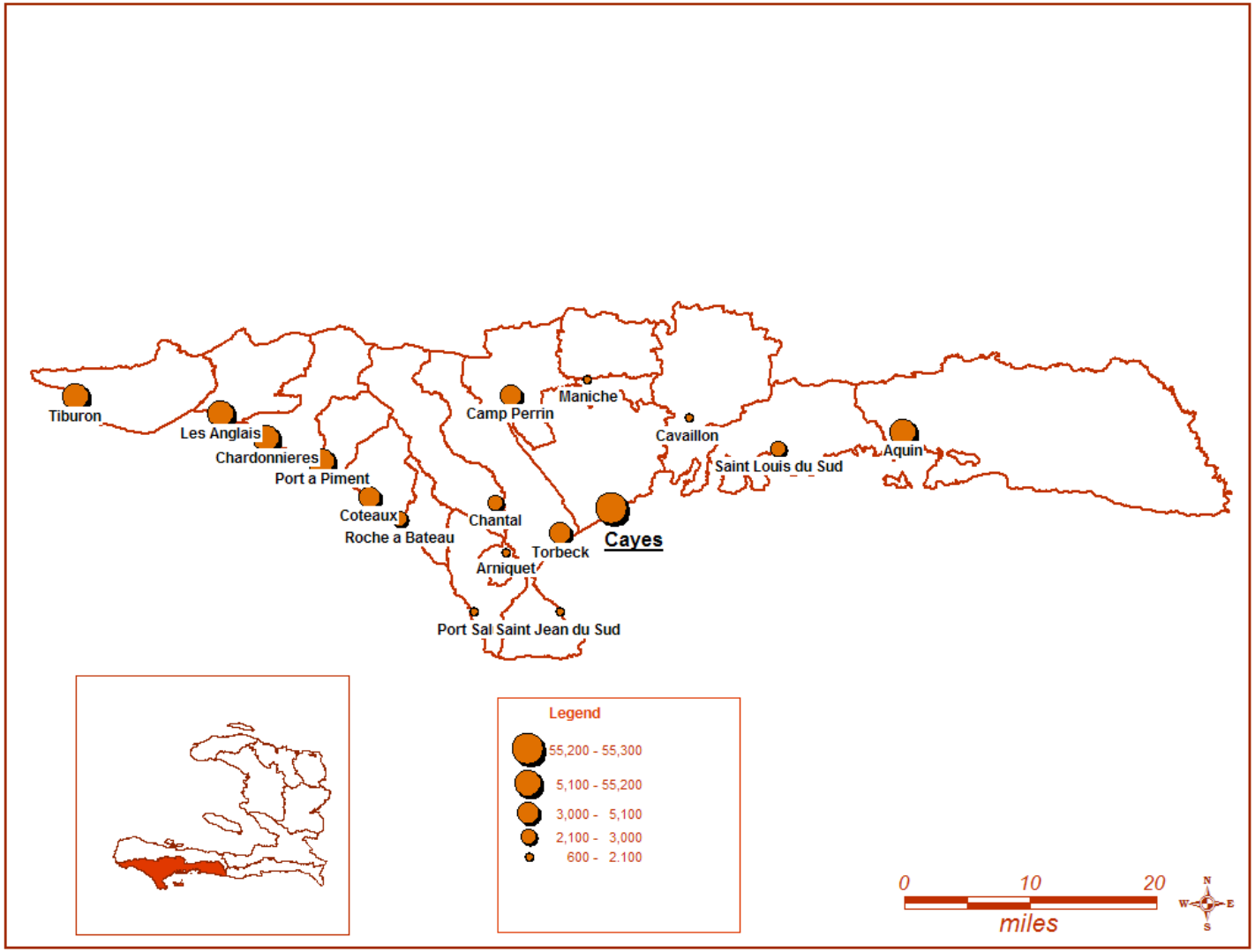
Department of Nord East



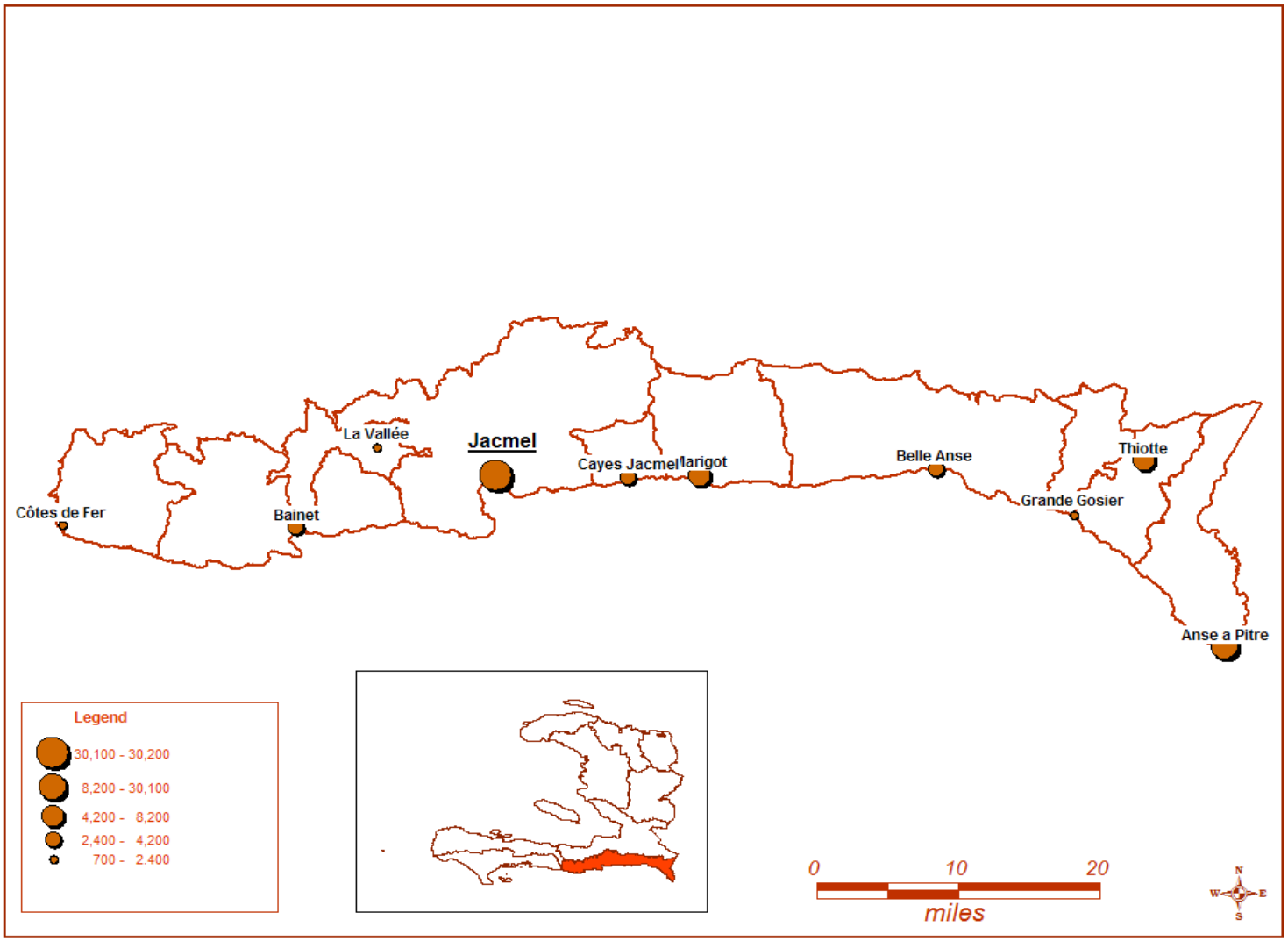
Department of the North West



Department of the South



Department of the South East



Appendix 3: Migration data by department

Artibonite

Cities	*Population*	*Number of migrants*
Anse Rouge	8,867	749
Desdunes	18,970	516
Dessalines	18,224	321
Ennery	3,132	248
Estère	13,046	286
Grande Saline	2,824	118
Gros Morne	21,207	942
La Chapelle	3,665	0
Marmelade	5,355	142
Pte. Rivière de l'Artibonite	27,012	59
Saint Marc	90,382	167
Saint Michel de l'Attalaye	21,458	277
Terre Neuve	906	898
Verrettes	26,927	50

Source: IHSI, RGPH 2003

Grande Anse

Cities	*Population*	*Number of migrants*
Abricots	29,396	276
Anse d'Hainault	28,125	31
Anse-à-Veau	52,432	2
Baradères	36,558	5
Beaumont	15,257	144
Bonbon	6,688	108
Chambellan	20,564	178
Corail	24,460	101
Dame Marie	30,010	57
L'Asile	32,410	0
Les Irois	18,072	12
Miragoane	78,108	1
Moron	24,255	153
Pestel	34,780	68
Petit Trou de Nippes	41,832	0
Petite Rivière de Nippes	22,211	0
Roseaux	27,881	248

Source: IHSI, RGPH 2003

Centre

Cities	*Population*	*Number of migrants*
Belladère	9,920	10
Boucan Carré	2,376	3
Cerca Carvajal	3,518	110
Cerca la Source	4,830	56
Lascahobas	6,497	10
Maïssade	9,403	160
Mirebalais	11,831	20
Saut d'Eau	3,290	8
Savanette	3,025	20
Thomassique	8,780	88
Thomonde	7,018	35

Source: IHSI, RGPH 2003

North

Cities	*Population*	*Number of migrants*
Acul du Nord	6021	1109
Bahon	1277	0
Bas Limbé	4005	295
Borgne	5256	1375
Dondon	5240	1316
Grde Rivière du Nord	7941	1170
La Victoire	2479	62
Limbé	26176	1512
Limonade	9799	1311
Milot	4822	1167
Pignon	7190	308
Pilate	3549	756
Plaine du Nord	6655	1650
Plaisance	8986	608
Port Margot	9608	1880
Quartier Morin	2142	496
Ranquitte	2227	227
St Raphaël	7887	808

Source: IHSI, RGPH 2003

North East

Cities	*Population*	*Number of migrants*
Capotille	804	33
Caracol	2,021	5
Carice	2,909	5
Ferrier	5,539	104
Mombin Crochu	3,579	2
Mont Organisé	2,954	2
Ouanaminthe	43,774	125
Perches	4,155	17
Sainte Suzanne	1,499	17
Terrier Rouge	15,098	325
Trou du Nord	16,386	77
Vallières	2,529	117

Source: IHSI, RGPH 2003

North West

Cities	*Population*	*Number of migrants*
Anse à Foleur	1,395	823
Baie de Henne	4,087	9
Bassin Bleu	1,641	371
Bombardopolis	23,080	67
Chansolme	4,117	358
Jean Rabel	2,421	1576
La Tortue	1,551	717
Môle Saint Nicolas	2,024	145
Saint Louis du Nord	7,740	932

Source: IHSI, RGPH 2003

South

Cities	*Population*	*Number of migrants*
Aquin	8,693	52
Arniquet	1,197	122
Camp-Perrin	3,092	137
Cavaillon	1,476	73
Chantal	2,719	235
Chardonnières	5,194	310
Côteaux	4,327	188
Les Anglais	5,954	172
Maniche	682	53
Port-à-Piment	5,297	106
Port-Salut	1,460	118
Roche-à-BΓteau	2,199	98
Saint Jean du Sud	718	215
Saint Louis du Sud	2,157	99
Tiburon	5,888	217
Torbeck	3,294	647

Source: IHSI, RGPH 2003

South East

Cities	*Population*	*Number of migrants*
Anse à Pitres	8,206	46
Bainet	2,490	127
Belle Anse	3,061	179
Cayes-Jacmel	2,447	129
Côtes de Fer	1,513	20
Grand Gosier	1,673	8
La Vallée	782	30
Marigot	5,055	148
Thiotte	4,232	23

Source: IHSI, RGPH 2003

Appendix 4: Distance and number of migrants by department

Artibonite

Cities	*Distance from the Dpt capital*	*Number of migrants*
Anse Rouge	32.79	749
Desdunes	20.2	516
Dessalines	20.24	321
Ennery	18.39	248
Estère	15.16	286
Grande Saline	33.47	118
Gros Morne	18.45	942
La Chapelle	59.29	0
Marmelade	32.8	142
Pte. Rivière de l'Artibonite	37.61	59
Saint Marc	33.88	167
Saint Michel de l'Attalaye	34.26	277
Terre Neuve	17.76	898
Verrettes	44.15	50

Source: IHSI, RGPH 2003

Grande Anse

Cities	*Distance from the Dpt capital*	*Number of migrants*
Abricots	16.54	276
Anse d'Hainault	38.23	31
Anse-à-Veau	113.31	2
Baradères	93.37	5
Beaumont	25.65	144
Bonbon	11.59	108
Chambellan	19.23	178
Corail	20.59	101
Dame Marie	30.03	57
L'Asile	97.18	0
Les Irois	46.71	12
Miragoane	129.24	1
Moron	14.31	153
Pestel	30.32	68
Petit Trou de Nippes	123.75	0
Petite Rivière de Nippes	119.08	0
Roseaux	10.29	248

Source: IHSI, RGPH 2003

Centre

Cities	*Distance from the Dpt capital*	*Number of migrants*
Belladère	65.85	10
Boucan Carré	39.53	3
Cerca Carvajal	14.51	110
Cerca la Source	24.83	56
Lascahobas	48.74	10
Maïssade	11.25	160
Mirebalais	34.99	20
Saut d'Eau	44.74	8
Savanette	58.4	20
Thomassique	14.51	88
Thomonde	11.64	35

Source: IHSI, RGPH 2003

North

Cities	*Distance from the Dpt capital*	*Number of migrants*
Acul du Nord	10.65	1109
Bahon	23.96	0
Bas Limbé	19.28	295
Borgne	33.79	1375
Dondon	19.79	1316
Grde Rivière du Nord	14.24	1170
La Victoire	43.95	62
Limbé	15.67	1512
Limonade	9.15	1311
Milot	11.48	1167
Pignon	38.56	308
Pilate	38.72	756
Plaine du Nord	8.25	1650
Plaisance	29.49	608
Port Margot	21.41	1880
Quartier Morin	5.94	496
Ranquitte	29.23	227
St Raphaël	27.19	808

Source: IHSI, RGPH 2003

North East

Cities	*Distance from the Dpt capital*	*Number of migrants*
Capotille	21.82	33
Caracol	20.68	5
Carice	31.39	5
Ferrier	5.33	104
Mombin Crochu	37.77	2
Mont Organisé	26.31	2
Ouanaminthe	13.1	125
Perches	15.98	17
Sainte Suzanne	21.71	17
Terrier Rouge	11.05	325
Trou du Nord	15.18	77
Vallières	22.42	117

Source: IHSI, RGPH 2003

North West

Cities	*Distance from the Dpt capital*	*Number of migrants*
Anse à Foleur	16.71	823
Baie de Henne	67.74	9
Bassin Bleu	15.52	371
Bombardopolis	54.24	67
Chansolme	5.33	358
Jean Rabel	27.2	1576
La Tortue	10	717
Môle Saint Nicolas	44.24	145
Saint Louis du Nord	8.04	932

Source: IHSI, RGPH 2003

South

Cities	*Distance*	*Number of migrants*
Aquin	33.39	52
Arniquet	9.89	122
Camp-Perrin	14.91	137
Cavaillon	12.1	73
Chantal	12.9	235
Chardonnières	41.52	310
Côteaux	30.88	188
Les Anglais	46.49	172
Maniche	12.76	53
Port-à-Piment	36.35	106
Port-Salut	16.33	118
Roche-à-BГteau	27.65	98
Saint Jean du Sud	14.1	215
Saint Louis du Sud	20.99	99
Tiburon	61.31	217
Torbeck	5.37	647

Source: IHSI, RGPH 2003

South East

Cities	*Distance from the Dpt capital*	*Number of migrants*
Anse à Pitres	92.91	46
Bainet	18.75	127
Belle Anse	48.82	179
Cayes-Jacmel	9.46	129
Côtes de Fer	39.56	20
Grand Gosier	66.15	8
La Vallée	12.72	30
Marigot	14.91	148
Thiotte	69.31	23

Source: IHSI, RGPH 2003

Vita

Carline Noailles was born and raised in Jacmel, Haïti, and received a master's degree in Geography at the University Paul Valéry in Montpellier, France.