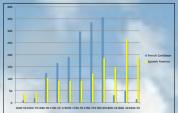


Introduction

The island of Hispaniola is in the northern part of the Caribbean Sea, just to the east of Cuba and west of Puerto Rico. It is a relatively large, mountainous island, with a land area that measures slightly less than 76,200 square kilometers. Roughly two-thirds of that area is the Dominican Republic and the remaining third, on the western portion of the island, is Haiti.

The political, social, economic, and environmental situations in the Island's two constituent countries present a striking contrast. Historical analysis of developmental trends in Haiti and the Dominican Republic reveals that several factors have contributed to the contrasting levels of environmental degradation in the two countries.

Haiti's predominantly slave population and the adoption of small-scale subsistence agriculture by the majority of the populace led to an otherwise disproportionate level of deforestation and environmental degradation.





Estimated Slave Imports (in 1000s)

Total Estimated Slave Imports (in 1000s)

1751 – 57 – Macandal leads first largescale slave rebellion. It is unsuccessful.

!720s - French Colonists flood

into Saint-Domingue (Haiti).

1492 – 93 – Columbus lands in
Hispaniola, establishes Santo Domingo

1740s – Saint-Domingue is the wealthiest colony in the Western Hemisphere.

1513 – First shipping line for slaves established between West Africa and the Caribbean.

1697 - Treaty of Ryswick signed, ceding Western Hispaniola to French 1789 – Agricultural productivity of Saint-Domingue has doubled in the past decade. The colony is worth more than the rest of the Caribbean combined.

1791 – Toussaint Louverture leads slave rebellion. 10,000 slaves and at least 1000 French colonists are killed. 1845 – 1915. Twenty-two successive leaders are either killed or deposed, while the economy remains crippled by the collapse of the plantation system and the harsh tariffs imposed by the French to pay Boyer's agreed-upon debt of 150 million francs. The division of agricultural land that had begun under Pétion continues, made more extreme by inheritance laws that allow for further subdivision among sons of previous landowners.

1983 - 1983 - Drought continues to wreak havoc with Haitian agriculture. Growing population, subdivision and deforestation dramatically increase the rate of environmental degradation. This is a period commonly cited as a major turning point for the ecosystem in Haiti. Analysis of previous historical trends clearly shows that the anthropogenic factors at play during this point in fact have their origins much earlier.

1982 - Hurricane Allen destroys a considerable percentage of the few remaining coffee plantations. A drought 2010 - An earthquake hits Haiti, killing more than 300,000 people and leveling much of Port-au-Prince. Homelessness and disease, including cholera, have further exacerbated the issues facing the country.

1600s – French presence in the region gradually increases.

1700s - Santo Domingo does not see the same massive influx of venture colonists in the 1700s that so characterized Saint-Domingue. The population remains largely self-sufficient and imports little food. This is in contrast with the Western portion of the island, which imports large amounts of food to feed the slave labor force there. Because subsistence is possibly and plantation agriculture is not the end all and be all of the entire colony, Santo Domingo has relatively few slaves compared to Saint-Domingue.

1806 - 1820 - Dessalines is assassinated, and is replaced by President Henry Christophe and legislative head Alexandre Pétion. Christophe reverst to state-controlled plantations, while Pétion begins the practice of partitioning land into small seements and selline it off at low

1791 – 1803 – Slave rebellion results in a decade of violent conflict involving the French, Spanish, and British forces, as well as various local factions.

1822 - 1844 - Haiti occupies Santo Domingo and attempts to impose the Rural code without success. The Haitian army in Santo Domingo takes supplies from the locals. The population of Santo Domingo is in decline and mainly practicing subsistence agriculture, with some minor cash crop cultivation and ranching.

1915 - The United States, having established a controlling interest in the majority of Haitian industries and public works during the unstable years after Boyer, invades the country and occupies it until 1929.

1930 - Trujillo is elected president in the DR. Over the next thirty years the country's economy grows under Trujillo's control, and the ailing sugar industry is giving new life

by instability. Rapid political changes

forces. Trends apparent after the

resume soon after the withdrawal of US

deposition of Boyer are once again in the

Doc" Duvalier holds power, crippling the economy still further and inspiring large scale emigration.

1957 – 1971 - François "Papa

1971 - 1986 - Jean-Claude "Baby Doc"
Duvalier continues his father's tradition of
embezzlement, corruption and
extravagance in the face of his country's
poverty.

Environmental Impact

The majority of the land under cultivation in Haiti is extremely steep and not suitable for intensive use. Thus, soil erosion is a massive concern. As the cultivated land degrades it is often left fallow or abandoned entirely, and new land must be cleared for subsistence use. Sedimentation from crosion has wreaked havoc on the patterns of surface water flow and storage, further damaging the agricultural productivity of the land.

With less than two percent of the country remaining forested and the population still increasing, the issues are only growing more extreme.

In the Dominican Republic a slowly growing population and developing industrial base followed the gradual decline of the plantation system. With more land to utilize, a lower population density, and the lack of rampant agricultural subdivision, the human impact has not devastated the ecosystem to the same extent as Haiti. Soil degradation and deforestation are present, but fully 30% of the country remains forested, and the areas under the heaviest cultivation are relatively flat plains in the south of the country.

Future directions

Haiti is careening toward complete ecological collapse, and various reforestation efforts seem unlikely to reverse the course of the destruction without massive international aid. Given Haiti's lack of significance on a global scale, such aid seems equally unlikely. Efforts to improve farming techniques in the country would be of some benefit, but have proven difficult to implement.

The Dominican Republic still has a functioning ecosystem and some stretches of relatively unscathed forestland. However, a growing population continues to put pressure on the environment and deforestation is increasing, not decreasing. Similarities in climate and terrain between the two countries suggest that deforestation of land in the Dominican Republic will have a similar result to such deforestation in Haiti, albeit tempered somewhat by the subsequent patterns of land use in those deforested areas. A high priority placed on preservation and reforestation will be necessary to prevent such destruction from gaining unstoppable momentum.

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