Madagascar

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Abstract

Madagascar is the world’s fourth largest island. It was first inhabited by people from Southeast Asia around 2,000 years ago. Madagascar is a country in Sub-Saharan Africa and it is extremely impoverished. The country’s gross domestic product (GDP) is estimated to be worth 20.73 billion dollars as of 2011. About 50% of the population is estimated to live below the poverty line. In Madagascar, 1 US Dollar is worth 2,062.5 Malagasy Ariary, which illustrates the hyperinflation of the country. Madagascar currently has an unemployment rate of 20%, and is rated the 10th poorest country in the world. The country is also considered to be at high risk for diseases such as malaria, diarrhea diseases, typhoid fever and the plague. Although the United Nations set Millennium Development Goals for the year 2015 in Madagascar, reports in 2007 showed that the country was behind and will be unlikely to meet the goals. This is due to resource shortages, health issues, and a lack of strong leadership. In Madagascar 50% of the population experiences transitional food insecurity, and 8% suffers from chronic food insecurity. Over 50% of the children living in Madagascar suffer from slow growth due to a chronically inadequate diet. The Global Hunger Index lists Madagascar to be at alarming level of hunger. In terms of improving on this dismal situation, the future of Madagascar does not look bright. This is due to an already low GDP and the natural disasters in Madagascar that destroy the crops year after year. These disasters include, but are not limited to, droughts, cyclones, and locust infestations. The country averages more than one major natural disaster each year. Therefore, the crops cannot grow and the country is too poor to import food. One possible solution might be to increase education in the country. Increasing education would educate women on topics like birth control, which would in turn help the population to steady its growth, instead of continuing at the current rate. Another proposed solution is to build on the country’s tourism industry, which is popular due to the country’s biodiversity.

Figure 1: Map of Madagascar (http://www.pbs.org/wgbh/nova/madagascar/explore/maps.html 2011: Fig 1)
Background to Madagascar

Madagascar is an island country off the eastern coast of Africa. Africans and Indonesians first inhabited the country in the 5th century A.D. They were followed by Muslim traders from Comoro Island and East Africa, who established trade posts in the 9th century A.D. Today this island is home to eighteen ethnicities, including the Indonesian groups known as the Merina and the Bétsiléo, and the African groups known as the Betsimisaraka, the Tsimihety, the Sakalawa and the Antandroy. There are also small numbers of French and South Asians. In 1500, the Portuguese, Dutch, and English began to visit Madagascar. Between 1600 and 1619, Portuguese Roman Catholic missionaries tried to convert the Malagasy to Christianity, but were largely unsuccessful. (Anonymous 2008:1).

By the mid 17th century the French established a colony in Madagascar and by 1904 the French had full control of the island. The French governed the Malagasy through a divide-and-rule policy, and as a result, development was concentrated in the Tananarive region. This was the location of the Merina and it encouraged Merina nationalism. In 1916 the Merina made their first attempt toward independence when a secret society was formed with the hopes of overthrowing colonialists. This plan failed however when the French found out and subdued the rebellion (Anonymous 2008:1). The Malagasy did not give up though. In fact, the next attempt was made from 1947 to 1948. However, the French also crushed this rebellion, killing between 11,000 and 80,000 Malagasy. Nevertheless, Indigenous political activity increased in 1956, and the Social Democratic party, led by Philibert Tsiranana, gained dominance in Madagascar. Finally, On Oct. 14, 1958, the country became autonomous of French rule and Tsiranana was elected president. On June 26, 1960, it became fully independent. However, like most African nations after colonialism, political instability ensued and soon after the first president took office, protests forced Tsiranana to step down. The army, led by General Gabriel Ramanantsoa, then took control of the government. This newly formed military government started developing closer ties with the Soviet Union, causing more resentment among the people and a government crisis in 1975. On February 1975, Colonel Richard Ratsimandrava was assassinated after only a few days as president. Not only did this shift of power between civilian and military government continue but the demonstrations and violence in the political arena continued until October 1991 when Guy Razanamasy, the new prime minister, and opposition representatives signed an agreement for a new unified government (Hellington 2010).

In addition to the political turbulence, environmental issues plague this island as well. On March 2004, a cyclone left around 600,000 people homeless and an estimated 465,000 people were dead or seriously injured. The burning of land in Madagascar is also contributing to the many problems of this region. “Every year, fires consume up to half of the island’s vast grasslands and thousands of square kilometers of its rainforests and secondary brush” (Kull 2002:1). This burning is a technique that the tantsaha, Malagasy farmers and herders, use to manage their lands. After the tantsaha have utilized a piece of land and have exhausted the soil, they set grass fires which inhibit the re-establishment of forest vegetation. These fires affect not only the island’s vegetation patterns, but also its nutrient cycles, and soil erosion rates (Kull 2002:3). With all these problems Madagascar faces, it is no wonder it is considered the 10th poorest country in the world.

Politics and Economics
Madagascar is an extremely impoverished nation with a GDP of $20.73 billion. Most of its population lives below the poverty line, with the richest 10% of the nation making 41.5% of the income. 26.5% of the country’s revenue is produced from agriculture (CIA 2011). In the past, political disputes have had strong effects on the economy, with a disputed election in 2002 causing fuel shortages to the highlands. This resulted in dramatic fuel price increases (Falchamps and Minten 2006: 579-580). Political unrest in Madagascar has recently escalated as the President Marc Ravalomanana and former mayor of Antananarivo Andry Rajoelina began a feud. This caused various unconstitutional shifts in power and ultimately the resignation of President Ravalomanana in 2009 (Ploch 2010: 1). Ravalomanana handed over power to the military in hopes that this will keep the country under control, but the military betrayed him and handed over their power to Rajoelina. After reforming the constitution to change the age requirement for presidency so that he could qualify, Andry Rajoelina declared himself as the president of Madagascar’s transitional government (Mattis 2010: 32.3). Both Ravalomanana supporters and the leaders of Southern African nations opposed this new government. On October 6, 2010 an agreement was reached on how the government would be run making Rajoelina the until the next election, as long as Rajoelina does not run. Rajoelina rejected this proposal and ran for presidency without opposition and assigned his allies as government officials (Ploch 2010: 14). The United Nations, European Union, African Union, Southern African Development Community, and World Bank refuse to acknowledge this new Malagasy regime and are threatening economic punishment if Rajoelina does not step down (Mattis 2010: 32.3). This only intensifies Madagascar’s political and economic woes. International donors have begun to cut aid to Madagascar citizens. Between 2007 and 2009, the United States donated approximately $176.4 million in aid directed towards health programs. The United States also aided Madagascar’s environmental preservation efforts while supporting Ravalomanana, but with Rajoelina in power this aid may be cut significantly (Ploch 2010: 9). This political unrest has Madagascar on the verge of civil war with hundreds already killed in riots. In September 2010, Rajoelina sentenced Ravalomanana to a life sentence of hard labor. Rajoelina’s regime has put Madagascar in both a political and economic standstill and it is greatly impacting the Malagasy people. International aid has accounted for about 70% of Malagasy government spending and without it social services such as education, healthcare, and environmental protection will be paralyzed. This caused a 25% increase in child labor and a spike in illegal exports through unlawful logging (Mattis 2010: 32.3).

Most of the country’s rainforests are already destroyed. Massive erosion and depletion of water sources in arid regions are among the major problems Madagascar has faced through the years. With over 80% of Madagascar’s citizens being agrarian, the country’s future looks bleak (Kull & Marcus 1999: 1). Vanilla, coffee beans, and cloves are the leading agricultural exports of Madagascar. Unfortunately, these crops are not food staples worldwide and they are not exclusive to Madagascar, the possibility of the export of these products decreasing only worsens the nations economic woes (Szal 1988: 740). Already prone to natural disasters, Madagascar has received warning that an impending locust infestation will deplete the nation’s crops in record proportions during its rainy season. This news comes shortly after Madagascar suffered damage from Tropical Storm Hubert in March 2010 along its coast that left over 37,000 homeless (Mattis 2010: 32.3).

**Hunger in Madagascar**

Madagascar is classified as a food-deficit nation with over 50% of children under the age of three suffering from impaired growth due to an inadequate diet. Madagascar also has the highest prevalence of malnutrition in the world. (Alcorn 2011: 36). Many Malagasy children are deficient in iodine and Vitamin A (Gaffikin et.al 2007: 17). These deficiencies affect the children’s immune systems, making them more susceptible to diseases later in life. During 1970-1979 there was a population growth of more than 3% each year. However, rice production grew by only 1%, resulting in a food deficit (Library of Congress 2004). As of 2006, Madagascar’s population was growing at a rate of 3.3%, which places it in the top 5% of nations for population growth (Gaffikin et.al 2007: 17). According to the World Food Program, Madagascar is a low-income, food-deficit nation with 70% of the population living below the poverty line. 50% of children suffer slow growth due to a chronically inadequate diet (Dostie 2002). A study done in a group of households from 2003-2004 showed that 90% of the families reported having an inadequate amount of food during the year that was studied (Gaffikin et.al 2007: 17). The 2009 Global Hunger Index stated that Madagascar has a global hunger index label of alarming, at a value of 27.5. In 2010, the label remained at alarming, but the value increased to 28.3. The values are based on a scale of 0, which is no hunger, to 100.

In 1896, Madagascar became a French Colony (Jarosz 1993: 370). Colonial rule in Madagascar changed agriculture practices and land use, altering the country’s forest cover. During this time, agriculture was shifted to cash crops for export, such as coffee. Coffee causes rates of soil erosion that are twice that of many subsistence crops (Jarosz 1993: 370). The shift to cash crops began to cause inadequate rice production, as the most fertile land was used to grow these crops. Food insecurity began to spread across the eastern regions of the nation. Rice was even imported to meet food needs. Under Colonial rule, slash and burn methods were banned, but logging and railroad building continued the deforestation throughout the country (Jarosz 1993: 375). By the time Madagascar became independent in 1940, most forests had become cash crop fields and lumber had been cut down for other uses (Jarosz 1993: 376). As of 1985, only 34% of the original forests in Madagascar remained (Green and Sussman 1990: 213). Deforestation has dramatically altered the environment of the nation. This directly affects hunger by limiting resources and decreasing the amount of land available for agriculture. 75% of Madagascar’s population lives in rural areas (Gaffikin et.al 2007: 17). The high population in these rural areas has caused further declines in forest cover, which is continuing to decrease resources in the country and contribute to soil erosion. 50% of the forests left after colonial rule were gone by 1985, likely due to shortages and increasing population (Green and Sussman 1990: 213). Furthermore, the crop yield in rural areas is below what should theoretically be produced. The rice crops yield only 15% of what they should theoretically produce (Gaffikin et.al 2007: 17). This problem is caused by several factors. These include the widespread unsuitable land and a poor system for transportation throughout the country.

In the second half of 1985, rice prices increased by more than three times. “Rice being the source of 80 percent of caloric intake of urban households, and accounting for a large part of household budgets, this price increase simply exceeded the income capacity of the poorest households.” (Herdt 2004: 512). Although the poor are the primary group to suffer from reduced food production and increased rice prices, those that produce their own food also suffer from bad weather or pest attacks on their crops (Herdt 2004: 512). During Madagascar’s lean season, there is an increase in diseases such as diarrhea which may, coupled with malnutrition during this season may, result in deaths (Dostie 2002). In fact, malnutrition is identified as the most important of the secondary causes of infant deaths. Unfortunately, there is no information available for the rural poor but it can be assumed, due to their seasonal movements and higher prevalence of disease, that the lean season is even more devastating for the rural poor (Dostie 2002).

A study consisting of 30 children between the ages of 1 and 9 was completed in May and June 2008 and shows the alarming high numbers of hunger and malnutrition. The results of this study showed that 40% of the children suffered from chronic malnutrition and 26.7% of the children were underweight (Gaffikin et.al 2011: 143). These numbers were lower than what the World Food Program had recorded as their numbers. The answer to this inconsistency may be because the children receive enough food during the season where rice is readily available, which is the time of year that this study took place. Poor farmers practice slash-and-burn methods of rice production, 13 million people live on less than one dollar a day, highlighting the rural poor (Norris 2006). Much of the hunger problem in Madagascar stems from high dependence on a single crop, which is only grown during a particular season. Parents have been encouraged to supply the families’ diet with other alternative foods that grow well in the local climate, such as beans, tomatoes, and avocados (Alcorn 2011: 144).

In 2000, the United Nations set Millennium Development Goals to be met in 2015 by all of its 191 countries (Gaffikin et.al 2007: 17). These would reduce poverty and hunger in underdeveloped countries like Madagascar. As of reports in 2007, Madagascar was behind in meeting these goals. The lack of health, limited amount of resources, and poor leadership of the president are all problems that must be addressed in order to reach these goals.
Prospects and Strategies for Hunger Reduction in Madagascar

Madagascar is in serious need of solutions. One study showed Madagascar to be one of the countries that will continue to be a “hunger hotspot” in Sub-Saharan Africa (Liu 2011:232). This is due to the fact that they rely on subsistence agriculture in an increasing population. Furthermore, they have little purchasing power due to a low GDP. The reason that the crops are not sufficient is because Madagascar is very likely to experience natural disasters including drought, cyclones, floods, and locust infestations. In the past thirty- five years, the country has experienced fifty of these natural disasters, which directly contribute to food insecurity because crops are killed in these disasters (World Food Program). In addition, only 5% of the land is arable (CIA Factbook). If something is not done, per capita calorie availability could decrease up to 30% in the next twenty years (Liu 2011:232).

Solutions to these problems include ways of manipulating crops in order to increase production, such as increasing crop variety and utilizing better water and fertilizer management. But these solutions will be largely ineffective due to the many natural disasters. So then we turn to improving the GDP so that food imports may be increased. In Madagascar 43.1% of the people are ages 0 to 14 (CIA Factbook). This is a problem because this type of age structure will provide for a rapidly increasing population which the country cannot support. One solution could be to increase education. If women are educated about birth control they may have fewer children (Miller 2006: 251). Malagasy women have an average of five children each. If they received an education and a job, this would postpone child rearing and lead to fewer children per mother. Also, if more jobs were created, then more money would be brought into the country to increase things like production and infrastructure and ultimately, GDP. However, these results would be long term.

Another solution to the hunger problem would be to build on the tourism industry in Madagascar. The country is a popular destination because of biodiversity (Sarrasin 2004: 53). This biodiversity is protected by international funding. However, tourism is contributing to the degradation of this environment. This provides for a catch -22 because tourism is such an economic boost. This was seen in 1991 when tourism rapidly decreased due to a period of political unrest. The National Committee for the Development of Tourism in Madagascar was then formed and air traffic was transformed so that there were more flights to the country, which also helped fares to decrease. These changes along with the newly established political stability helped increase tourism. In 2001 the tourism industry brought in 94 million U.S. dollars and generated over 17,000 jobs (Gossling 2006: 61). However, the environmental damages cannot be overlooked as these include the disappearance of species due to tourist demand, pollution, and the clearing of land for hotels. Possible solutions to reducing these negative impacts include management policies such as area management plans and environmental impact assessments. This way, the endemic species could be protected and the tourists could still enjoy them (Christie 2003: 64). In addition, although the tourism industry provides the indigenous people with economic benefits, it seems to have created a barrier between the local people of Madagascar and the ecosystems that are being conserved. “Good sociological tourism must never treat the local people as an exhibit. The ideal scenario would be one in which the residents held most of the power for the management of their interactions with tourists, although clearly these interactions would need to be facilitated by a sensitive translator” (Birkinshaw 2005:383). The tour guides in most conservation sites of Madagascar focus on the biodiversity of the region and less on the lives of the local people who interact with these conserved ecosystems. And on rare occasions when such information is provided, it is usually superficial, inaccurate and negative. The indigenous people are presented as either a problem to conserving the biodiversity of the ecosystem or stereotyped as people who have held on to rigid or bizarre traditions. Most tourists seem to be uninterested in the lives of those who live around protected areas (Birkinshaw 2005:383).

Another idea to improve tourism in Madagascar is to encourage the building of roads into the rural areas of the country. This would help bring industry to places that would otherwise not have as much of an opportunity for infrastructure. Other suggestions include making air travel to the island more flexible, increasing the fees to the national parks to further protect the biodiversity, and increasing the standards of the major hotels to make them more eco-friendly. (Christie 2003:68)

In addition to the ecosystem being vital for the attraction of tourists, there is also evidence that its protection is necessary for the Malagasy themselves. This includes water services which would be helpful due to the prevalence of water borne diseases (Rogers et. Al 2010: 53)

These suggestions would all enable more money to be brought into the country and hopefully allow the Malagasy to increase purchasing power and bring more food into the country.

Scholarly/Peer Reviewed Sources

Alcorn, S.J.


This article discusses the malnutrition which is present in Madagascar, focusing on a study in a small rural town including children and their food intake.

Christie, Iain, Crompton, Elizabeth


This was a useful article because it listed many solutions for the problems with the tourism industry in Madagascar.

Dostie, B., Haggblade, S., and Randriamamonjy, J.


This article highlights malnutrition and food consumption during the seasonal food periods, and how diseases lend a hand to an increased child mortality rate.

Fafchamps, Marcel and Bart Minten


This source gave statistics and background information on the economics and poverty in Madagascar.

Gaffkin, Lynne, Jeffery Ashley and Paul D. Blumenthal
This article outlines the goals that the United Nations outlined for Madagascar to improve poverty and hunger in the country, as well as the issues the country must overcome to meet these goals in the future.

Gossling, Stefan


This article was useful for outlining how useful tourism is to the economy of Madagascar.

Green, Glen M. and Robert W. Sussman


This article explains the deforestation that has taken place over the history of the country, as well as possible causes and effects.

Herdt, Robert


This is an informational article about the chronic and acute food shortages located in sub-Saharan Africa where there is a high need for food aid.

Jarosz, Lucy


This article explains the effect that colonial rule had on agriculture practices in Madagascar as well as the problem of deforestation in the country and its causes.

Kull, Christina.


This article is useful in understanding the many problems that make Madagascar such a "hungry country," namely when the land is not arable due to the fact that it is constantly being burned.

Liu, Jungue, Fritz, Steffen, van Wesenbeeck, C.F.A., Fuchs, Michael, You, Liangzhi, Obersteiner, Michael, Yang, Hong


accessed February 1, 2011.

This article outlines the future of Madagascar if it continues at this rate in terms of poverty.

Marcus, Richard R., Kull, Christian


This document describes Madagascar’s environmental issues and the role both national and international government has played in it.

Mattis, Arron


This article explains Madagascar’s recent political situation, how it is viewed internationally, and its affect on the economy and ecology.

Metz, Helen Chapin


This resource is an eBook with many facts about Madagascar which range from the economy, to the physical environment, society, and even strategic considerations such as the military and government.

Miller, Tyler G.


This book explains the human population in third world countries.
This article provides a detailed approach to Madagascar's biodiversity and the services which are provided by it.

This article provides detailed information about Madagascar's political crisis beginning in 2009.

This article provides information on how the ecosystem impacts more than just the tourism industry, but the Malagasy themselves.

This article was useful for describing the biodiversity in Madagascar.

This book is especially useful in determining the food production and crisis' in Madagascar.

This article is relevant because it shows that even though the tourism industry is seen as a hope for Madagascar's lift from poverty, there are some sociological problems that have been created as a result.

This is a great resource for statistics and background on Madagascar that give insight into what problems the country is facing. This includes information on the economy, politics and health of the country.

This website has a great map of Madagascar as seen in Figure 1.

This website also had relevant facts about the natural disasters in Madagascar.

This article is relevant because it gives a brief description of the tribes/people found in Madagascar.

This article is relevant because it discusses in depth the colonization of Madagascar and then shows how the country tries to rebuild after being under French rule for so many years.