

Haiti Global Risk Analysis: AgBiome Case Study

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ABSTRACT

In recent years, Haiti's 11 million people have experienced a multitude of devastating crises. Since the onset of the Covid-19 pandemic in 2020, the nation has seen its legislative bodies collapse, former President Jovenel Moïse fatally assassinated in his home, and a major earthquake on August 14, 2021, devastate its infrastructure. Gang violence has exacerbated inequalities between the political elite and the poor and places innocent civilians at considerable risk. Most recently, Haiti's political situation has significantly deteriorated, as powerful gang alliances move towards the capital city of Port-au-Prince and seek to occupy the region. The highly unstable, corrupt government is becoming increasingly vulnerable to gang control, creating a key political risk for both citizens and outside investors. The effects of violence and lawlessness translate into dangerous social risks, as certain demographic groups are frequent victims of assault and violence, and the overall humanitarian crisis continues to worsen. For Haiti specifically, its political and social risks warrant the greatest attention in 2022 and beyond.

Client

AgBiome, a North Carolina based agricultural biotechnology corporation focused on research and development of plant products, including new microbial and genomic technology. With its proposals, AgBiome aims to produce higher quality plant products and reduce the effects of climate change on agriculture.

Client Proposal

AgBiome seeks to capitalize on the Haitian agricultural market, a heavy exporter to the United States and a sector which constitutes around two-thirds of the Haitian economy. AgBiome will target Haiti's primary crops, including coffee, cassava, and corn among others, which are crops that are traditionally modified through the use of pesticides, herbicides, or insecticides.¹ The corporation looks to enter the Haitian crop industry and take a reformative, climate-oriented approach to crop protection and preservation for both its domestic and international consumers.

Time Frame

This paper synthesizes information from 2010 through August 2022, although its analysis is most relevant in 2022 because of the Haitian elections, tentatively scheduled for 2023. Elections were originally postponed indefinitely due to the assassination of President Jovenel Moïse in July 2021, and the August 2021 7.2 magnitude earthquake.

¹ *IDEA*. <https://idea.usaid.gov/cd/haiti?comparisonGroup=region>.

Political Risk: High

Leadership Collapse- High

Haiti's largest political risk lies in the risk of gang coalitions usurping interim government power, leading to an overall loss of freedom for Haitian citizens. Freedom House notes the loss of freedom in Haiti from 'Partly Free' at 41/100 in 2019 to 'Not Free' at 33/100 in 2022.² This is partly due to the nation's volatile political state, allowing a wide variety of gangs to flourish and limit personal liberties. Haiti's two main gang alliances include G9 and G-PEP; G9 backs the incumbent Haitian Tèt Kale Party (PHTK), while G-PEP is consistently anti-government in nature. Some gangs, including G9, have close ties to leading Haitian politicians, including late President Jovenel Moïse, who then exploit their influence and resources to retain power.³

In recent years, Haiti's major cities have become informally divided into districts controlled by separate gangs, and their conflict is the source of most extreme violence and crisis in Haiti. In the aftermath of President Moïse's assassination and the devastation from the August 2021 earthquake, G9 and G-PEP members have congregated in both Port-au-Prince, the capital, and Cité Soleil, a G-PEP stronghold. From January to June 2022, over 470 people have been injured or killed, and gangs have set fire to key evidentiary documents used in the investigation into Moïse's assassination.^{4 5} In 2021, there were over 1,200 reported kidnappings and homicide rates increased by seventeen percent.⁶

Citizen protests against the political elite are frequent and serve to increase resentment between state actors and citizens. However, G9 or G-PEP simply topple opposition using force. They have repeatedly destroyed numerous communities and displaced thousands. It appears likely that without significant change to gang activity in Haiti, political leadership will fall and gangs will usurp even more power, using it to advance their interests at the expense of millions, including AgBiome employees.

Governmental Legitimacy and Institutional Crisis- High

While increasingly influential gangs look to take political charge, the existing government's legitimacy has been consistently marred due to its lack of execution, as its main institutions fail to deliver on their promises for justice and the public good. These inconsistencies have direct links to destabilizing shock events like the assassination of President Jovenel Moïse in 2021. For example, neither the Haitian police force nor the government has sufficient funding and resources or the trust to protect one another. On the evening of President Moïse's assassination, police forces put up no resistance to the perpetrators who were able to easily infiltrate the president's residence and assassinate him using mass weaponry.⁷ While international actors such as the United States have helped identify a group of Colombian

² "Haiti: Freedom in the World 2022 Country Report." *Freedom House*, <https://freedomhouse.org/country/haiti/freedom-world/2022>.

³ Mistler-Ferguson, Scott. "G9 vs. G-PEP - The Two Gang Alliances Tearing Haiti Apart." *InSight Crime*, 21 July 2022, <https://insightcrime.org/news/g9-gpep-two-gang-alliances-tearing-haiti-apart/>.

⁴ Abi-Habib, Maria, and Andre Paultre. "Gangs Advance on the Seat of Haitian Government Power: 'Haitians Are Hostages.'" *The New York Times*, 30 July 2022. *NYTimes.com*, <https://www.nytimes.com/2022/07/30/world/americas/haiti-government-gangs.html>.

⁵ *Haiti's Gangs: What Can Be Done to Loosen Their Grip?* <https://www.aljazeera.com/program/the-stream/2022/8/10/haitis-gangs-what-can-be-done-to-loosen-their-grip>.

⁶ "New Gang Battle Lines Scar Haiti as Political Deadlock Persists." *Crisis Group*, 27 July 2022, <https://www.crisisgroup.org/latin-america-caribbean/haiti/new-gang-battle-lines-scar-haiti-political-deadlock-persists>.

⁷ Human Rights Watch. "Haiti: Events of 2021." *English*, 2021. *Human Rights Watch*, <https://www.hrw.org/world-report/2022/country-chapters/haiti>.

militants who are believed to be potential suspects, Haiti's own investigation into the murder of its president produced no significant leads for months despite its earlier promises to deliver an efficient answer to the crime.⁸

The government's lack of consistency has only placed more stress on the tenuous relationship with the Haitian National Police (PNH) in recent weeks. As the country's capital and major cities are falling under gang control, the government has failed to provide additional forces or funding to the police force who bears the most responsibility in combating the rise of gang violence and crime.⁹ From January to June 2022, twenty-five Haitian police were killed due to gang violence, yet Haiti's leadership has not launched any investigations to prosecute perpetrators.^{10 11} This pattern would be dangerous for AgBiome leadership if equipment or employees were ever placed in danger in Haiti.

Extreme Political Corruption- Medium to High

In addition to a lack of clear policy to execute, Haiti's political leadership is extremely corrupt. Haiti operates under its 1987 Constitution,¹² which calls for a President, Prime Minister, and an equally strong Parliament to balance the executive branch. Prior to 2020, Haiti's directly elected, 30-member Parliament consisted of a bicameral legislature with a Senate and Chamber of Deputies. Each Senator or Chamber member served six-year terms. But since 1987, the Constitution's provision has been largely ignored, creating a constitutional crisis.

Before his assassination, the Moïse government repeatedly sought to edit the 1987 Constitution to more closely align with their administration's wishes of an authoritarian President. In October 2019, Moïse's administration canceled elections for the next consecutive term and Parliament disbanded in January 2020, leaving Moïse as the sole ruler despite the Constitution's outline for a democratic state.¹³ The already-postponed elections were further delayed in the wake of Moïse's assassination, now indefinitely postponed after being originally scheduled for 2022. Not only are the delays violations of the political process, but they factor into a larger trend of constitutional violations and corruption in Haiti under recent Presidents.^{14 15} Current President Ariel Henry has also dealt with corruption, condemning gang violence in the past but lying to Haitians regarding the status of ongoing crises with fuel and food insecurity.

In the past few years, Haiti more closely resembles an authoritarian dictatorship, both under Moïse and now the interim President Ariel Henry. Both administrations have consistently violated the Constitution and legislate primarily to retain power, as their leadership has been neither transparent nor effective. In fact, Transparency International ranks Haiti as 164th out of 180 total countries on its Corruption Perceptions Index.¹⁶ In the future, this widespread corruption and failure to address social issues has the potential to warrant revolt from citizens, especially prior to the upcoming elections as Haitians have demanded change all throughout 2022.

⁸ "Haiti President's Assassination: What We Know so Far." *BBC News*, 20 Jan. 2022. [www.bbc.com, https://www.bbc.com/news/world-latin-america-57762246](https://www.bbc.com/news/world-latin-america-57762246).

⁹ CNN, Nick Paton Walsh, Natalie Gallón, Etant Dupain and Brice Laine. "Gangs Gain the Upper Hand in War with Haitian Police." *CNN*, <https://www.cnn.com/2022/08/09/americas/haiti-gang-violence-npw-intl-latam/index.html>.

¹⁰ Times, The Haitian. "Haitian Police Say They're Victims Too, Demand Better Support to Squash Violence." *The Haitian Times*, 10 June 2022, <https://haitiantimes.com/2022/06/10/haitian-police-say-theyre-victims-too-demand-better-support-to-squash-violence/>.

¹¹ Porter, Catherine, and Natalie Kitroeff. "'It's Terror': In Haiti, Gangs Gain Power as Security Vacuum Grows." *The New York Times*, 21 Oct. 2021. *NYTimes.com*, <https://www.nytimes.com/2021/10/21/world/americas/haiti-gangs-kidnapping.html>.

¹² *Haiti: Constitution, 1987*. <https://pdba.georgetown.edu/Constitutions/Haiti/haiti1987.html>.

¹³ "Jovenel Moïse Tries to Govern Haiti without a Parliament." *The Economist*. *The Economist*, <https://www.economist.com/the-americas/2020/01/18/jovenel-moise-tries-to-govern-haiti-without-a-parliament>.

¹⁴ *Haiti's Problematic Electoral Dynamics*. <https://www.csis.org/analysis/haitis-problematic-electoral-dynamics>.

¹⁵ *Haiti Elections Postponed Indefinitely amid Political Crisis*. <https://www.aljazeera.com/news/2021/9/28/haiti-elections-postponed-indefinitely-amid-crisis>.

¹⁶ "Haiti." *Transparency.Org*, <https://www.transparency.org/en/countries/haiti>.

Shock Event: Governmental Collapse- Complete Control by Gang Rule

Haiti's most likely shock event would be a government collapse at the expense of G9 or G-PEP rule. In recent months, gangs have increasingly mobilized to major cities of Port-au-Prince and Cité Soleil and currently seek to occupy the capital or other official government buildings, as they have already infiltrated them in an attempt to escape prosecution due to President Moïse's assassination. With this occupation, gangs can begin to wield their political power and even initiate reconstruction of the government to include those who align with gang ideals. While the government officials may not be ousted completely, with the risk of this shock event they will still be rendered effectively useless, acting as 'political pawns' because gangs wield more power than ever. For AgBiome specifically, the company risks employee killings and injuries in turbulent city environments due to gang rule. The crisis would worsen if gangs were able to overturn the political process and rule exclusively with no system of balance in the business, agriculture, or scientific sectors.

Social Risk: High

Active Oppression of Liberties- High

Recently in Haiti, free speech and social freedoms have been increasingly under attack, as both the government and gangs take an active role in citizen oppression. Those with dissenting opinions against Haitian leadership, such as journalists or activists, are repressed by the government and face physical threats or defamation.¹⁷ Diego Charles, a Haitian activist and media leader was killed by unidentified men, likely gang members, shortly before the assassination of President Jovenel Moïse in 2021.¹⁸ This pattern continues through 2022 with the killings of Wilguens Louissaint and Amady John Wesley by gang members on January 6, 2022.¹⁹ The Haitian government takes little action into investigating these murders, and is even accused of allying with gang leaders to limit slander or libel against political figures. When Haitians protest in opposition to the government or gangs, they frequently risk their lives and social liberties as armed conflicts are widespread. Four people were shot and killed at a protest in November 2019, followed by random killings of 15 protestors shortly after in Port-au-Prince. Investigations concluded gang members were responsible but also suggested a possible government connection.²⁰

As Haiti further destabilizes, both political and gang leaders will take more measures to threaten personal liberties in order to advance their agenda. While activists will be highly censored, gang or government allies will access, and therefore gain, political power, widening the gap between the political elite and the Haitian citizenry. This distance creates a key risk, as the government allocates resources away from citizens and pushes policy that stands in contrast to the will of the Haitian majority.

Post-Disaster Humanitarian Crisis- High

Haiti has long been a poor and under-resourced country. In recent years, however, its situation has escalated into a social and humanitarian crisis, largely because of natural disasters and government failure to support recovery.

¹⁷ *Haiti | Global Humanitarian Overview*. <https://gho.unocha.org/haiti>.

¹⁸ "Haitian Journalist Diego Charles Shot and Killed in Port-Au-Prince." *Committee to Protect Journalists*, 1 July 2021, <https://cpj.org/2021/07/haitian-journalist-diego-charles-shot-and-killed-in-port-au-prince/>.

¹⁹ *Criminal and Barbaric: Two Haitian Journalists Killed by Gang*. <https://www.aljazeera.com/news/2022/1/7/criminal-and-barbaric-two-haitian-journalists-killed-by-gang>.

²⁰ "Why Haitians Say They Won't Stop Protesting." *PBS NewsHour*, 5 Dec. 2019, <https://www.pbs.org/newshour/world/why-haitians-say-they-wont-stop-protesting>

Poor government leadership after the 2010 7.0 magnitude earthquake, which took 225,000 lives, left over 3.5 million people to recover for themselves through deaths, injuries, and severe displacements.²¹ In the aftermath of the similar 2021 7.2 magnitude earthquake, millions were displaced, over 130,000 structures were destroyed, including 70% of all schools, and around 15,000 people were killed or injured. The already-collapsed government (due to the President's assassination a month prior) failed to allocate humanitarian aid to those most in need.²² Instead, citizens are in an uproar regarding the government's usage of the aid, which has only exacerbated the humanitarian crisis and prolonged the nation's recovery.

In conjunction with the government's wrongdoing, Haiti's rival gangs have exacerbated the humanitarian crisis. In recent weeks, G9 and G-PEP members have mobilized towards Port-au-Prince and have flattened entire communities using heavy machinery such as bulldozers, leaving thousands homeless and without access to food, water, or shelter, young children vulnerable to kidnappings or killings, and creating a widespread sense of hopelessness.^{23 24 25}

Relative to the nation's size and population, the humanitarian crisis affects such a significant portion of Haiti that international attention is critical for initiating recovery. Without it, the crisis will only continue to escalate due to increased mob rule of gangs and government, who are creating a pattern of deprivation that will perpetuate if no change is initiated.

Human Rights Violations Against Vulnerable Communities- Medium

Haiti is a highly volatile and dangerous nation for underrepresented minorities such as women, children, and LGBTQ+ citizens. While Haiti attempted to pass progressive legislation in 2020 against discrimination and assault, affording rights and privileges to these communities, it met extremely harsh resistance from opposing political groups who sharply limited the legislation's influence. Because there is little enforcement against Haitian Constitutional violations, there is no legislation making domestic abuses or sexual harassment illegal. This allows perpetrators to attack even more victims, a majority of which are women, children, or LGBTQ+ citizens. In recent months, corrupt politicians and constantly growing gangs have taken advantage of this social loophole and committed mass atrocities against women and children in the form of rape, kidnappings or random killings, resulting in over 1,300 kidnapped or killed persons in the first half of 2022.^{26 27} The frequency of atrocities against women continues to rise, with 26% of women reporting their experiences with gender-based violence. The United Nations also ranks Haiti as 152nd on its Gender Equality Index, suggesting systematic inequalities between men and women in Haiti.²⁸

LGBTQ+ citizens also face strict social oppression due to cultural conflicts. In 2017, the Senate passed bills that 1) Made homosexuality a means for denying a citizen a valid penal record, 2) Banned marriage for and fined

²¹ "2010 Haiti Earthquake Facts and Figures." *Disasters Emergency Committee*, <https://www.dec.org.uk/article/2010-haiti-earthquake-facts-and-figures>.

²² "Estimating the Potential Economic Impact of Haiti's 2021 Earthquake." *Ideas Matter*, 28 Sept. 2021, <https://blogs.iadb.org/ideas-matter/en/estimating-the-potential-economic-impact-of-haitis-2021-earthquake/>.

²³ Marczak, Jason. "Haiti Needs the World's Help. Now." *Atlantic Council*, 16 Aug. 2021, <https://www.atlanticcouncil.org/blogs/new-atlanticist/haiti-needs-the-worlds-help-now/>.

²⁴ Porter, Catherine, and Natalie Kitroeff. "'It's Terror': In Haiti, Gangs Gain Power as Security Vacuum Grows." *The New York Times*, 21 Oct. 2021. *NYTimes.com*, <https://www.nytimes.com/2021/10/21/world/americas/haiti-gangs-kidnapping.html>.

²⁵ *Post-Disaster Needs Assessment In Haiti*. International Labour Organization, p. 78, ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_831127.

²⁶ "Land Grabs in Haiti Sow Climate Vulnerability and Violence against Women." *OpenGlobalRights*, <https://www.openglobalrights.org/land-grabs-in-haiti-sow-climate-vulnerability-and-violence-against-women/>.

²⁷ "Haiti Archives." *Amnesty International*, <https://www.amnesty.org/en/location/americas/central-america-and-the-caribbean/haiti/report-haiti/>.

²⁸ "Haiti." *UN Global Database on Violence Against Women, UN*, <https://evaw-global-database.unwomen.org/en/countries/americas/haiti>

homosexual individuals, 3) Outlawed social advocacy for queer or transgender rights. Prominent queer individuals, such as Charlot Jeudy in 2019, have faced death threats or have been killed over their sexual orientation and gender identity.^{29 30} Considering the global uptick in awareness against sexual violence and discrimination against minorities and the LGBTQ+ community, Haiti is regressing as those in power will now aim to legislate with the specific goal of depriving certain citizens of rights easily afforded to others. These human rights violations will likely become a prominent issue during the next election, originally scheduled for earlier in 2022; yet the attention will likely do little to create progress for women, children, and queer citizens due to high levels of corruption and electoral dishonesty.

Geopolitical Risk: Medium

Refugee Crisis- Medium

As the political and economic state of Haiti only appears to be worsening, increasing numbers of Haitian citizens look to become refugees in a nearby country, such as the United States, Mexico, or the Dominican Republic.³¹ In fact, the CIA World Factbook registers a migration rate of -1.88 migrants per 1000 population in Haiti. However, as the entire international community grapples with the shock events of the Ukrainian war with Russia, the ongoing Covid-19 pandemic, and a universal rise in hate and division, it is increasingly difficult for Haitians to secure protection in another country.

Seeking protection in the United States is more difficult than ever in 2022 for Haitian refugees. Despite President Donald Trump's derogatory remarks on Haiti during his term, the United States extended the protected status for the 59,000 Haitian refugees in the country until July 2019. More recently, however, President Biden has prevented thousands of Haitians from seeking refuge in the United States. In May 2022 alone, over 4,000 Haitians left on 36 deportation flights, bringing total deportations to over 25,000 since September 2021.³² Currently, the United States still 'strongly discourages' Haitian migration as it involves a treacherous journey to the mainland, and still frequently deports refugees who cross the border illegally.³³

Many Haitians also seek asylum in the neighboring Dominican Republic, where around 500,000 Haitian citizens already reside. Even before the pandemic, many Haitians sought asylum in the DR, as deportations were expected to reach 100,000 by the end of 2019.³⁴ However, the nation is distancing itself from Haiti as it is currently constructing an approximately 200-kilometer, 12.8-foot tall border wall along the border. The Dominican Republic's Interior Minister, Jesus Vasquez, has called Haiti a 'principal threat' to the Dominican Republic. He plans to increase surveillance of the border using 70 new towers and 41 new gates to ensure fewer total Haitians enter the country in search of refuge.³⁵ In 2022 and beyond, especially as the humanitarian and political crises in Haiti worsens, more citizens will travel across borders and into other nations, but their ability to escape from Haiti will become more limited, ultimately leaving the country more vulnerable to oppressive rule.

²⁹ "Haiti: Freedom in the World 2022 Country Report." *Freedom House*, <https://freedomhouse.org/country/haiti/freedom-world/2022>.

³⁰ Human Rights Watch. "Haiti: Events of 2021." *English*, 2021. *Human Rights Watch*, <https://www.hrw.org/world-report/2022/country-chapters/haiti>.

³¹ *The World Factbook - The World Factbook*. <https://www.cia.gov/the-world-factbook/>.

³² Sullivan, Eileen. "U.S. Accelerated Expulsions of Haitian Migrants in May." *The New York Times*, 9 June 2022. *NYTimes.com*, <https://www.nytimes.com/2022/06/09/us/politics/haiti-migrants-biden.html>.

³³ "U.S. Relations With Haiti." *United States Department of State*, <https://www.state.gov/u-s-relations-with-haiti/>.

³⁴ "Haiti: The Next Crisis by Dr Georges A. Fauriol." *Americas' Global Role*, <https://americas.chathamhouse.org/article/haiti-the-next-crisis/>.

³⁵ *Dominican Republic Begins Building Border Wall with Haiti*. <https://www.aljazeera.com/news/2022/2/21/dominican-republic-begins-building-border-wall-with-haiti>.

Climate Change- Medium

As part of a broader global risk trend, climate change has not only affected the world as a whole but also particularly targets vulnerable countries, such as island nations like Haiti. Haiti's geography and topographic features make it susceptible to many visible effects of climate change like rising ocean levels and erosion. The nation lies in the 'hurricane alley' of the world and can bear significant damage from hurricanes originating in the Mid-Atlantic and traveling up towards the Southeast United States. Due to climate change, the likelihood of hurricanes in 2022 is expected to increase as the US's NOAA predicts an above average hurricane season.³⁶ These storms and the flooding that ensues has previously severely damaged infrastructure and decimated agriculture, a majority of citizens' physical and economic sustenance.^{37 38}

Haiti's extremely large earthquakes and rising sea levels can also be linked to climate change, as the land around tectonic plates shifts with erosion and global warming driving up the Earth's average temperatures. Additionally, the US Agency for International Development (USAID) predicts a sea level rise of between 0.05 and 0.22 meters in the Caribbean by 2030, which would jeopardize the Haitian communities at low elevation.³⁹

Unclear International Aid Policy- Low to Medium

Haiti's state of turmoil extends internationally, especially concerning the United States' policy for aid in the wake of natural disasters and humanitarian crises that plague the country. President Biden's administration has recently increased the rate and number of refugee deportations back to Haiti, bringing the total deported to over 25,000 people. As a result, multiple high level State Department officials have retired from their positions, saying the administration's deportation practices are inhumane, despite President Biden's progressive ideals. Biden's administration has simply continued President Trump's immigration and deportation policy by deporting and rounding migrants up using horses and rope, as widely broadcasted across the media.^{40 41} Given that President Biden's priority is the United States, especially in the summer of 2022, it is difficult to see his administration allocating significant resources towards Haiti. With a looming 2022 midterm, Republican candidates look to enforce stricter policy against all refugees and immigrants. In the future, coupled with the lack of international aid and human rights violations, Haitians will face even more dire circumstances and international actors will be less inclined to invest in Haiti's recovery.

Economic Risk: Medium

Poverty and Unemployment- Medium to High

Overall, Haiti has one of the highest unemployment and poverty rates of any country in the world. Well over one third of the population lives with food insecurity. Around 60% of Haitians live in poverty and 25% in extreme poverty, making resources increasingly unaffordable for those in the country. Haiti also faces crippling debt, worsened by

³⁶ NOAA Still Expects Above-Normal Atlantic Hurricane Season. <https://www.noaa.gov/news-release/noaa-still-expects-above-normal-atlantic-hurricane-season>.

³⁷ Economic Growth and Agricultural Development | Haiti | U.S. Agency for International Development. 10 Jan. 2020, <https://www.usaid.gov/haiti/agriculture-and-food-security>.

³⁸ Haiti | UNDP Climate Change Adaptation. <https://www.adaptation-undp.org/explore/caribbean/haiti>.

³⁹ "Climate Change Information Fact Sheet HAITI." USAID, United States Agency International Development, https://www.climatelinks.org/sites/default/files/asset/document/Haiti%20Climate%20Info%20Fact%20Sheet_FINAL.

⁴⁰ Salfiti, Robbie Gramer, Zinya. "Democrats See Broken Promises in Biden's Haiti Policies." *Foreign Policy*, <https://foreignpolicy.com/2021/10/08/biden-haiti-migration-refugee-democrats-backlash-state-department/>.

⁴¹ "Haitian-Americans Say Biden Is Turning His Back on a Country He Promised to Help." *Time*, <https://time.com/6143221/haiti-political-crisis-biden-administration/>.

2021's 7.2 magnitude tremor, placing Haiti into over 1.6 billion dollars in estimated recovery costs. To address Haiti's most pressing issues as a whole, the United States would need to invest around 375 million dollars as well as investing in additional officials to ensure the humanitarian aid reaches those most in need.⁴²

Additionally, the country's youth unemployment rate, with 'youth' defined as young individuals aged 18-24, hovers around 35%. Meanwhile, the older workforce continues to lose membership, creating an economic productivity 'hole' which is currently not being replaced.⁴³ As violence only escalates, youth will likely be increasingly motivated to join gangs or flee due to the lack of availability of work or income, increasing gang control of the nation as a whole and worsening the refugee crisis.

Stagnant Economic Status and Inflation- Medium

Haitians are simultaneously living in an extremely volatile economy and one that is stagnant with little to no growth and progress. Even before the pandemic, the worsening political situation in Haiti led the country to lose 1.2 percent of its GDP in 2019, and recovery has been extremely slow compared to the rest of the world in a post-pandemic era with only a 0.9% growth rate in 2021. The country also struggles with persistently high inflation rates, averaging 16.16% across 2017-2021. In July 2022 alone, the inflation rate climbed to 29%. In 2022, partly due to the impact of shock events like the assassination of President Moïse, the devastating earthquake in August 2021 and its humanitarian effects, and the ongoing pandemic, resources are scarce, driving consumer prices up by 25% while the Haitian Gourde's value decreases.^{44 45 46}

As of August 2022, Haitian authorities were forced to postpone the start of the school year from September 5, 2022, to October 3, 2022 due to the widespread economic crisis. Recent fuel shortages and supply chain disruptions have limited the availability of educational supplies and school resources, now shortening the time Haitian children will spend in the classroom.⁴⁷ This postponement along with overall economic decline in Haiti is especially relevant through the lens of Ariel Henry's interim government, since it is unclear how long this government will remain in power.

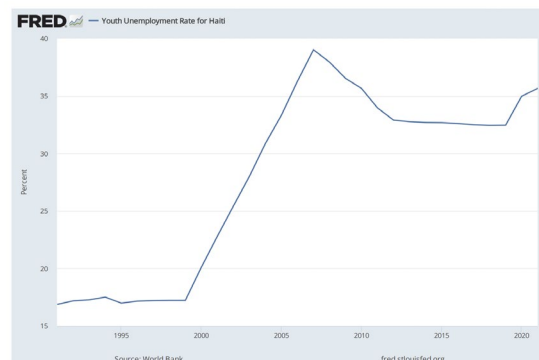


Figure 1. Haitian Youth Unemployment Rate, 1990-2022⁴⁸

⁴² *Haiti: Hunger, Economic Crisis Stall Recovery a Year after Devastating Earthquake - Haiti* | ReliefWeb.

<https://reliefweb.int/report/haiti/haiti-hunger-economic-crisis-stall-recovery-year-after-devastating-earthquake>.

⁴³ World Bank. "Youth Unemployment Rate for Haiti." *FRED, Federal Reserve Bank of St. Louis*, 1 Jan. 1991,

<https://fred.stlouisfed.org/series/SLUEM1524ZSHTI>.

⁴⁴ *Haiti Economy: Population, GDP, Inflation, Business, Trade, FDI, Corruption*. //www.heritage.org/index/country/haiti.

⁴⁵ *Haiti / Economic Studies - Coface*. <https://www.coface.com/Economic-Studies-and-Country-Risks/Haiti>.

⁴⁶ "Haiti." *International Monetary Fund*, <https://www.imf.org/en/Countries/HTI>.

⁴⁷ "Haiti Pushes Back School Year Start as Economic Crisis Bites." *France 24*, 27 Aug. 2022, <https://www.france24.com/en/live-news/20220827-haiti-pushes-back-school-year-start-as-economic-crisis-bites>.

⁴⁸ World Bank. "Youth Unemployment Rate for Haiti." *FRED, Federal Reserve Bank of St. Louis*, 1 Jan. 1991, <https://fred.stlouisfed.org/series/SLUEM1524ZSHTI>.

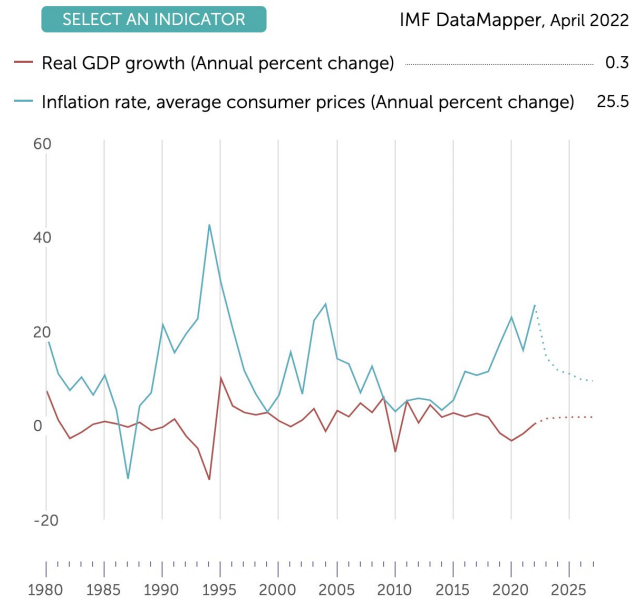


Figure 2. Predicted Haitian GDP and Inflation, 1980-2030 ⁴⁹

MAJOR MACRO ECONOMIC INDICATORS

	2019	2020	2021 (e)	2022 (f)
GDP growth (%)	-1.7	-3.3	-0.7	1.3
Inflation (yearly average, %)	17.3	22.9	16.2	15.5
Budget balance (% GDP)*	-1.3	-2.2	-2.1	-2.2
Current account balance (% GDP)	-1.2	3.4	-0.3	0.2
Public debt (% GDP)	27.5	24.3	26.8	26.6

(e): Estimate (f): Forecast *2021 Fiscal year from 1st October 2020 to 30th September 2021

Figure 3. Haiti's Major Macroeconomic Indicators ⁵⁰

International Resource Crisis- Low

Haiti's internal strife has reduced outside economic involvement for the nation, creating two major crises. First, the agricultural economy has suffered in the wake of the 2021 earthquake and annual flooding that threatens more acres of crops each year. Additionally, the Ukraine-Russia war threatens Haiti's economic stability. As a major producer of grain, Ukraine relies heavily on exports to support its agricultural sectors. The recent conflict with Ukraine has hurt Ukrainian exports as well as Haiti who depended on European grain. This is reflective of the global supply chain crisis exacerbated by this war, contributing to high inflation in Haiti as well as hundreds of other nations.⁵¹ Second, Haiti is

⁴⁹ "Haiti." *International Monetary Fund*, <https://www.imf.org/en/Countries/HTI>.

⁵⁰ *Haiti / Economic Studies - Coface*. <https://www.coface.com/Economic-Studies-and-Country-Risks/Haiti>.

⁵¹ Times, The Haitian. "Nine Ways the Russo-Ukrainian War Might Impact Haiti." *The Haitian Times*, 25 Feb. 2022, <https://haitiantimes.com/2022/02/25/nine-ways-the-russo-ukrainian-war-might-impact-haiti/>.

currently grappling with an extreme fuel crisis. While they have received recent shipments of gasoline and natural gas to Cité Soleil, gangs are stifling outside access; Port-au-Prince has no gas to use or sell as a result, hindering the productivity of the country as a whole.⁵² The overall failure of government to regulate or navigate through these crises will only exacerbate these risks in the future. Interim President Ariel Henry has yet to produce a statement as to how Haiti will move forward.

Recommendation- AgBiome

AgBiome's interest in Haiti is logical, as the company's goals align with Haiti's most pressing needs. AgBiome has the potential to be a useful corporation with rebuilding Haitian infrastructure in the wake of climate-change driven events like earthquakes, flooding, and hurricanes. However, Haiti's combination of risks should motivate AgBiome to reconsider investment in the region for now. Politically, the potential for gang violence to further escalate is extremely destabilizing and severely disrupts the country's development, including an investment AgBiome may decide to make. Corrupt political leadership will likely be disinterested in American corporations, especially given tenuous immigration policy between the two nations. Socially, Haitian citizens have never been more impassioned in revolt against the government, but they face more consequences now in 2022 than ever before. AgBiome would depend on many Haitian workers in addition to their own staff to maximize productivity, but thousands would be in danger, either due to protest or gang violence. Geopolitically, thousands of citizens are fleeing the country in search of better conditions, creating a hole in the workforce. AgBiome must also consider Haiti's vulnerability to climate change related disasters in the years after 2022. Economically, AgBiome would enter an unstable economy with record-high inflation, stagnant GDP, and soaring levels of poverty, all hindrances to operation in a foreign country.

AgBiome's specific production process of sequencing microbial genomes would be difficult to implement in Haiti. In 2022 and beyond, gangs will likely seek to occupy profitable agricultural areas and exploit them for profit, making it difficult for AgBiome employees to obtain sufficient research samples. Employees would face physical harm and extensively tested, costly technology would be at risk of damage, both in agricultural areas and major travel hubs where gangs regulate travel in and out of the region. Though Haiti exports a majority of crops to the United States where AgBiome is based, due to the precarious nature of Haiti as a whole and the potential for shock events, our recommendation is to avoid Haitian markets. If AgBiome still seeks to enter the Caribbean area, they may consider investment in the Dominican Republic, which currently has a relatively stable economy, friendlier tourism industry, and similar geographic composition to Haiti. Though investment in the Dominican Republic still involves risks, in the context of Haiti, other markets are stable enough to warrant AgBiome's exploration.

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⁵² "Why Haitians Say They Won't Stop Protesting." *PBS NewsHour*, 5 Dec. 2019, <https://www.pbs.org/newshour/world/why-haitians-say-they-wont-stop-protesting>.

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