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Migrant Crisis in the Darien Gap

Addressing the Demand for
Humanitarian Aid

APPLIED POLICY PROJECT

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DISCLAIMER

This research uses publicly available data from Migración Panamá, the Panamanian Government and academic papers. The content does not reflect the views of the State Department Bureau of Democracy, Human Rights, and Labor (DRL). This paper is submitted in partial fulfillment of the course requirements for the Master of Public Policy degree. The judgments and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, by the University of Virginia, or any other agency.

HONOR STATEMENT

On my honor as a student, I have neither given nor received unauthorized aid on this assignment.



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ACRONYMS AND DEFINITONS

DRL - State Department Bureau of Democracy, Human Rights, and Labor

ERM - Migrant Reception Station

GAR - Government Assisted Refugees

IFRC - International Federation of Red Cross and Red Crescent Societies

IOM - International Organization for Migration

MERCOSUR - Southern Common Market

NGO - Non-Governmental Organization

PADF- Pan American Development Fund

PRM - U.S State Department Bureau of Population, Migration, and Refugees

SENAFRONT - The National Border Service

UNHCR - United Nations High Commissioner for Refugees

UNICEF - United Nations Children's Fund

USAID - United States Agency for International Development

USFROH - Humanitarian Border Security Unit

Refugees are persons who are outside their country of origin for reasons of feared persecution, conflict, generalized violence, or other circumstances that have seriously disturbed public order and, as a result, require international protection (UNHCR).

Migrants are people who change country of usual residence, irrespective of the reason for migration or legal status. Generally, a distinction is made between short-term or temporary migration, covering movements with a duration between three and 12 months, and long-term or permanent migration, referring to a change of country of residence for a duration of one year or more (UNHCR).

EXECUTIVE SUMMARY

Migrant traffic through the Darien Gap has steadily risen over the last decade, but an unprecedented 250,000 migrants crossed in 2022. Economic insecurity, political upheaval, violence, natural disasters and climate change are driving record numbers of migrants from their home countries (Roy, 2022). Furthermore, most migrants traversing the Darien Gap are extremely poor and cannot afford alternate, safer travel routes (Wolfe, 2022).

Travelers face treacherous terrain, exposure to disease, and violence at the hands of criminal groups on their journey. 66 percent of migrants need medical assistance post-journey and arrive at the migrant reception stations (ERM) in Panama with leg and foot injuries and other conditions caused by harsh travel conditions (Mixed Migration Center, 2022). My analysis demonstrates that 85,000 migrants sustained leg or foot injuries in 2022, a rate that supersedes the reported number of healthcare consultations performed at the ERMs. Untreated injuries may lead to serious healthcare complications and cause a higher financial burden for the host country. Migration safety requires attention from the Panamanian government and international allies to uphold international humanitarian principles and reduce downstream healthcare costs as migrants continue northward.

The U.S. Department of State Bureau of Democracy, Human Rights, and Labor (DRL) has a unique opportunity to spearhead additional humanitarian relief efforts in the region. This analysis investigates three policy alternatives using three criteria: cost, effectiveness, and administrative and political feasibility. The proposed alternatives are:

1. Humanitarian Checkpoints in the Darien Jungle: establish stations every ~ 8.5 miles staffed by the Panama humanitarian police force and humanitarian workers to provide medical aid packs.
2. Aid Provision in Colombian Towns: increase NGO presence in Colombian towns of Turbo, Necoclí, and Acandí to provide proactive medical aid.
3. Regional Messaging Campaign: inform prospective travelers of the risks and dangers alongside practical suggestions to reduce injury risk.

This analysis recommends a staged rollout of aid provision in the Colombian border towns and a regional messaging campaign. Aid provision was nearly three times cheaper and is projected to reach 12,600 more migrants than creating humanitarian checkpoints. A regional information campaign will supplement medical aid procurement by providing accurate information about the many dangers and information on how to use the aid items. Together, these solutions are projected to reach over 100,000 travelers with accurate information on travel risk and sufficient medical supplies to care for leg and foot and injuries.

INTRODUCTION

The Darien Gap is a 60-mile rainforest between Colombia and Panama that notably terminates the Pan-American highway. The jungle-covered mountains, swamps and poisonous animals have precluded human travel for centuries. Spanish conquistadors who trekked most of Latin America notably avoided the Darien jungle, citing it as a heart of darkness rife with yellow fever and malaria (Otis, 2021). The Darien's reputation as a no man's land has since abated; record numbers of migrants are leveraging the Jungle as a transit point route to reach North America. Lacking U.S. visas and access to safer air and sea routes, hundreds of thousands of migrants are traveling by foot through the jungle.

Image 1



FERNANDO VERGARA/ASSOCIATED PRESS

Image 2



FERNANDO VERGARA/AP PHOTO

Increased traffic volume has led to growing humanitarian concerns regarding the safety of the travelers. Migrants encounter treacherous terrain and are exposed to disease and violence at the hands of criminal groups and human smugglers. Thirty-six corpses were recovered in 2022, yet anecdotal evidence suggests that figure represents a fraction of the total fatalities as many bodies are unreported or uncovered (IOM, 2022). A young traveler reported seeing nine bodies, others reported seeing seven (Aljazeera, 2021). Those who complete the journey are not unscathed. NPR, Council on Foreign Relations, New York Times, and CNN journalists repeatedly feature stories of migrants who experienced unimaginable horrors. Images one and two depict the conditions of the journey. Travelers retroactively share stories of despair, challenge, and regret. Carolina, a Venezuelan mother laments "Nobody knows but this jungle is hell; it's the worst. At one point on the mountains, my son was behind me, and he would say, 'Mom, if you die, I'll die with you.'" (CNN, 2022). Another traveler, Lezi, shares "I thought this road was easier, but it's more dangerous," he said. "If you asked me to do this again, I could not" (Linthicum, 2023). Chief of Missions at the International Organization of Migration Giuseppe Loprete frames the challenge: "Many have lost their lives or gone missing, while others come out of it with significant health issues, both physical and mental."

Unregulated travel through the Darien has led to greater shares of migrants sustaining injuries. The illnesses most frequently reported by migrants are foot funguses, gastrointestinal problems, and respiratory infections (Suarez, 2021). Médecins sans Frontières, or Doctors Without Borders (MSF) reports foot damage as one of the most common conditions presented by migrants after traversing a tropical rainforest for days, as seen in image three (MSF, 2021). Lacking robust injury data from the ERMs, A Mixed Migration Center survey indicates around 80 percent of travelers reported some severity of illness or injury from the harsh conditions (MMC, 2022). The three temporary migration reception service stations (ERM's) have reached over forty thousand injured migrants (from 2021 to 2022), yet repeatedly convey an inability to meet the increasing demand (Refugees International, 2023).

Image 3



Lucero, an MSF nurse, listens to a patient while the patient keeps her feet up; Panama has taken in record numbers of migrants this year who have been forced to cross the dangerous Darién jungle. Panama, June 2021.

PHOTO: SF/SARA DE LA RUBIA

PROBLEM STATEMENT

Too many migrants traveling through the Darien Gap are sustaining injuries without timely access to medical care.

The Darien Gap, once coined the most dangerous place for humans on earth, is now a route of increasing popularity to reach North America (see Figure 1). This dense terrain between Colombia and Panama is a 60-mile lawless jungle brimful of venomous species, paramilitary organizations, and drug cartels. Impenetrable by vehicles, this remote, roadless jungle has held a reputation of being virtually uncrossable up until the last decade. The number of migrants traveling through the Darien Gap reached an all-time high in 2022; almost 250,000 migrants were recorded by the Panamanian government, nearly double the figures from the year before, and twenty times the annual average from 2010 to 2020 (Villalón, 2023). More than 40,000 children have made the journey this year and have faced extreme conditions in the pursuit of safety. Alongside women, they are particularly exposed to violence, including sexual abuse, trafficking, and extortion from criminal gangs (UNICEF, 2021). The sub-governmental and NGO implementers in Panama are unable to meet the demand for safety and critical care services (Pappier, 2022). Thousands of migrants are sustaining untreated, life-threatening injuries rendering them unable to continue through Central America promptly. Such under-provision of humanitarian relief represents a government failure.

Figure 1: Map of the Darien Gap, Panama



IMAGE: VOICE OF AMERICA; NASA, 2022

CLIENT ROLE

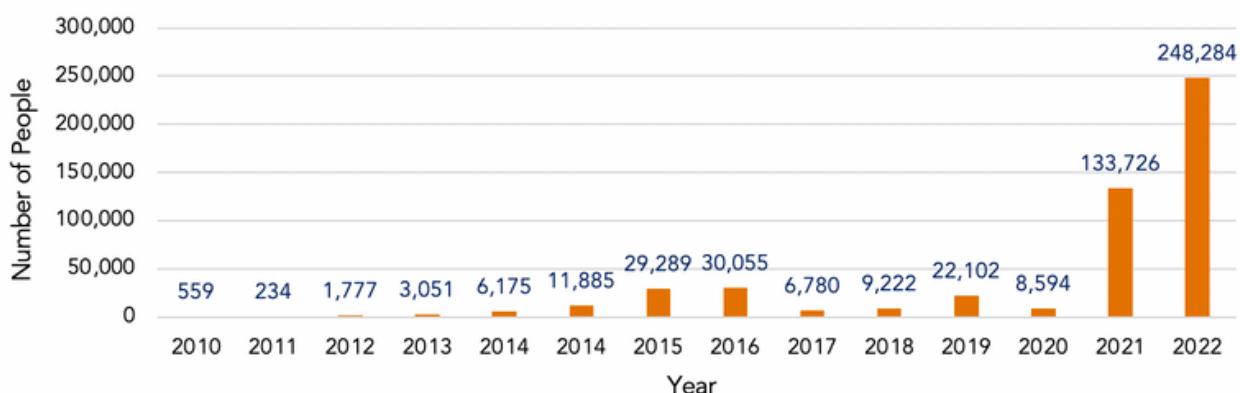
My applied Policy Project is prepared for the United States Department of State Bureau of Democracy, Human Rights, and Labor (DRL). The Bureau advocates for human rights and basic freedoms, universal values, and democratic institutions. DRL operates within an interagency effort to secure sustainable economic development and poverty reduction for the region, and to combat drug trafficking, transnational crime, irregular immigration, and to promote the human rights of individuals negatively affected by these problems (U.S. Dept. of State, 2022). The DRL has monitored the Darien Region following its resurgence as a migrant pathway, particularly as more Venezuelan refugees travel north. Moreover, the Bureau is currently monitoring and evaluating the state of affairs in Panama, including the number of migrant fatalities, the response capability of the Colombian and Panamanian governments, and the efficiency and impact of relief programs.

Various executive agencies including the Bureau of Population, Migration and Refugees (PRM), actively monitor the Panama-Colombia region and assists to migrants, refugees, and other displaced people through financial investments and quasi-governmental cooperation ("Bureau of Population, Refugees, and Migration," n.d.). U.S. Secretary of State Antony Blinken and Secretary of Homeland Security Alejandro Mayorkas are cognizant of complexity of Western Hemisphere migration flows. In August 2022, they attended a Ministerial Convention hosted Panamanian President Laurentino Cortizo Cohen and Panamanian Foreign Minister Erika Mouynes (Cuffe, 2022) Mouynes verbalized the fixed supply of their resources and facilities and proposed policies to reduce the allotted daily flow through the Darien (Embassy of Panama, 2022).

BACKGROUND ON THE PROBLEM

Figure 2 demonstrates that while approximately 250,000 migrants crossed the Darien in 2022, the region hasn't always seen such high volumes of travelers. According to the Panamanian Migration Department, a total of 109,293 migrants were recorded from 2010 to 2019, or an average of 11,000 migrants each year (Migración, GOB. Panama, 2019). Thus, 2022 marked a 2,173 percent increase in annual traffic volume (see appendix A).

Figure 2: Increase in Annual Foot Traffic Through the Darien Gap, Panama

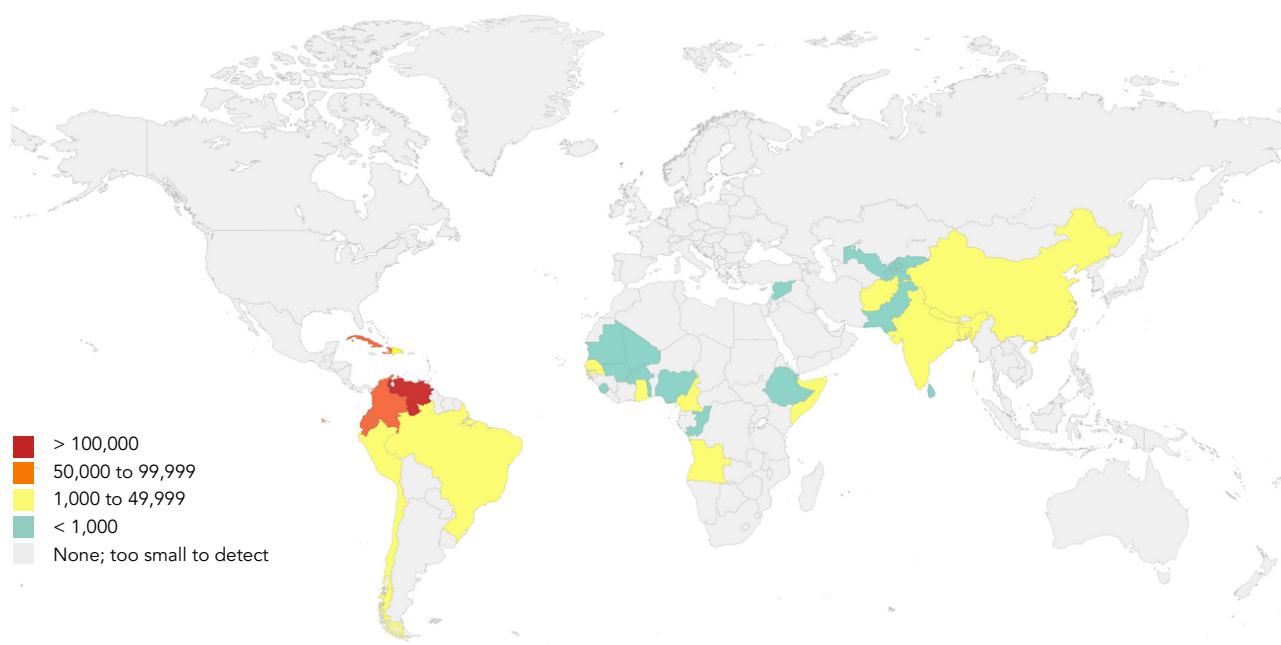


DATA: MIGRACIÓN PANAMÁ

Behind the spike in foot traffic lies a nuanced story of people of over fifty nationalities traveling through the Darien jungle as a last resort option to leave their homes. The increased flow of migrants and the under-resourced migrant centers in Panama underpin the shortage of humanitarian relief services in the Darien region. Migrants from each nation are driven by a unique mix of push and pull factors and circumstances. In 2022, Venezuelans, Haitians, and Cuban migrants comprised a majority of the total traffic volume (Migración, GOB. Panama, 2022). Figure 3 illustrates the volume of migrants recorded in the Darien Gap, by country. While individuals of nationalities outside the Western Hemisphere, including Senegalese, Congolese, and Indians, are likewise traveling through the Darien, over fifty percent of migrants originate in the Caribbean or South America. The diversity in the origin of the travelers complicates creating solutions to swiftly curb migration traffic.

In the next section, I investigate the root causes of Venezuelan, Haitian, and Cuban migration through the Darien and assess the current capacities of the migrant reception centers (ERM's). Two questions must be answered: why are so many migrants present in the Darien, and how has Panama responded before 2020?

Figure 3: Origin of Migrants Recorded at the Panama - Colombia Border, 2022



BACKGROUND ON THE PROBLEM

Over five million Venezuelan refugees resettled in South America and began to migrate north in 2018 due to increased xenophobia and anti-immigrant sentiment (IOM, 2022). Large masses of Haitian and Cuban migrants are escaping environmental destruction (hurricanes and earthquakes) and political crises. Further, the human rights violations and scale of migrant mortalities via the Mediterranean migration route and diminishing economic prospects in Europe have led migrants from Central and South Africa, Afghanistan, and India to likewise travel to South America with the intent of traversing through the Darien (IOM, 2022). The absence of visa-free travel routes to the U.S. and regional push factors has led to a perception of the the Darien Gap as a means to an end, a last resort. These independent, yet concurrent contextual factors explain the 2021 spike in migrant traffic.

The 100,000 arrivals in early 2023 support projections that migration through this corridor will continue to rise over the next few years (República de Panamá, 2022). Travel volume in January, February and March of 2023 has surpassed 2022 figures by 84,791 people. Calculation and assumptions can be found in Appendix B.

Venezuela

More than 6 million Venezuelans have left their country since 2014 (UNHCR, 2021). This displacement is entangled with Nicolas Maduro's succession of former President Hugo Chávez in 2013. Once considered the wealthiest nations in Latin America thanks to its vast oil reserves, Maduro's Venezuela faces hyperinflation, violence, and food and medicine shortages (Reid, 2022). Venezuelans are fleeing for many reasons: severe shortages of medicine and food, arbitrary arrests, and prosecutions of civilians. In the immediate aftermath of this mass exodus, many nations in the Americas affirmed solidarity and opened their borders to refugees. Venezuelan refugees relocated to neighboring countries of Colombia, Peru, Ecuador, and Chile. In 2018, one million Venezuelan refugees resided in Colombia, 395,000 in Peru, 250,000 Venezuelans in Ecuador, and more than 84,400 lived in Chile (HRW, 2021). Those estimates have continued to increase. As of November 2022, over 2.8 million refugees lived in Colombia, 1.9 million in Peru, 502,000 in Ecuador, and 448,000 in Chile (R4V, 2021).

Host countries initially offered temporary or permanent visa status; still, more refugees lacked legal status in the country of intermediary residence. The second wave of Venezuelan refugees in 2018 influenced host countries like Colombia, Ecuador, Peru, and Chile to renege humanitarian visa policies. For example, Ecuador declared a humanitarian emergency after recording over 4,200 daily entries, announcing they would require a passport to enter the country (HRW, 2018). The Human Rights Watch Group reinforces the notion that refugees' uncertain status undermines their ability to obtain work permits, send their children to school, and are at increased risk for labor exploitation or acts of violence. The final impetus, Covid-19, further exacerbated shrinking economic prospects, increased xenophobia, and the portrayal of migrants as invaders. Despite border closures at the onset of the pandemic, thousands of Venezuelans began traveling north. Between January and August 2022, 102,067 entered Panama from the Darien Gap; 67 percent were Venezuelans (Gobierno de Panamá, 2022).

Haiti

Natural disasters incited the two waves of Haitian departures to the Darien region. The 2010 earthquake caused more than 217,000 deaths and left more than 1.5 million homeless (Yates, 2021). The epicenter was the nation's capital, Port-au-Prince, which harbored 65 percent of Haitian economic activities before the earthquake (World Bank, 2018). The United States Agency for International Development (USAID) reported an estimated displaced population of 1.25 million in February 2010 (Kato & Lee, 2022). Akin to Venezuelan refugees, Haitians first resettled within Latin America. The Migration Policy Institute (MPI) estimated that 85,000 arrived between 2010 and 2017 in Brazil; the Brazilian government offered humanitarian visas to certain displaced Haitians. As of 2020, Brazil's Haitian population had grown to an estimated 143,000. Chile similarly extended visa-free resettlement to around 12,000 Haitians in 2015 and eventually to 103,000 in 2017 (Yates, 2017).

The election of presidents Jair Bolsonaro and Sebastián Piñera of Brazil and Chile, respectively, marked a turning point in the policies and explicit attitudes towards Haitians. Dwindling job opportunities and the economic downturn exacerbated the ever-present challenges of assimilation. According to the World Bank, Haiti is the poorest nation in Latin America and the Caribbean, ranking 163 out of 191 countries on UN's Human Development Index in 2021.

Cuba

Cuba always had a steady migration flow to the United States following Fidel Castro's ascension in 1959. Motivations for leaving Cuba include unlivable salaries and poor economic prospects due to the failing communist state (Fandi, 2017). In 1995, the United States instituted a wet-foot, dry-foot policy, which granted Cubans entering with or without a visa the right to stay and get on a fast track to citizenship. (Grenier, 2017). For the next ten years, thousands of Cuban migrants arrived at the Yucatan peninsula and Quintana Roo State in Mexico and traveled to the Texas-Mexico border. Traffic through this channel curbed in 2008 when Cuban Foreign Minister Felipe Perez Roque announced that Mexico would begin to repatriate Cubans who arrived without proper documentation (Wasen, 2009). Just a few years later, former President Obama revoked this policy in the final days of his administration, rendering undocumented status and potential deportation to any Cubans entering U.S. soil (Florido, 2017). The amalgamation of these policies has redirected the flow of immigrants. Cubans who still live in Cuba and lack a U.S. visa can reach the U.S. via an overland route through South and Central America through the Darien (Otis, 2021).

HISTORY OF THE MIGRANT RECEPTION CENTERS (ERMS)

In 2015, the Global Detention Project reported two immigration detention facilities: one for men (Albergue Masculino de Detención) and another for women (Albergue Femenino de Detención) located in Panama City. Each facility had a capacity of seventy, which reflected the smaller volume of travelers. The lack of formal reports posted on the Panama Migration website and by implementers such as the International Federation of Red Cross and Red Crescent Societies (IFRC) and MSF indicate that health service provision wasn't a publicized priority until the Darien became a more popular travel route. They were last reported in use in 2018 and were supplemented by stations closer to the jungle's perimeter. 2020. The Lajas Blancas ERM opened between 2015-2016 with a four-hundred-person capacity (ReliefWeb, 2022). Faulty structural materials led to the ERM's deterioration (IFRC, 2022). Bajo Chiquito's ERM opening date is unknown. The San Vicente ERM, built between July and September 2020, continues to serve as the primary ERM. San Vicente shelters migrants arriving from Canaán Membrillo with a 250-person capacity (UNICEF, 2022).

Doctors Without Borders (MSF) provides health and psychological services at the Bajo Chiquito and San Vicente Migrant Reception Centers located to the west of Canaán Membrillo, the first village migrants reach in Panama. Their \$1 million annual expenditure in 2021 funded a seven-member team that served 44,100 people (MSF, 2021). The Ministry of Health Services, along with UNICEF and the Panama Red Cross, are also active service providers. The Panama Red Cross operates in the Colombian border town of Necoclí, aiding travelers before the trek. There is scarce public data that captures the government's service provision rate at the three reception stations north of the Jungle. The only non-MSF estimations I encountered were published by the IFRC. Since 2019, they have provided more than 20,000 humanitarian interventions including psychosocial support, health care, access to water, and information on the migratory route (IFRC, 2021). It is unclear whether these interventions occurred at ERMs.

Even with contributions from different groups, structural inadequacies prevent aid procurement to all who survive the jungle. Former Minister of Foreign Affairs of Panama, Erika Mouynes, frames the challenge: "We've maxed out, in terms of our budget, what we can do. And with the numbers that are increasing, it becomes extremely challenging for us during the midst of a pandemic" (Welsh, 2021).

Service Provision at the ERMs'

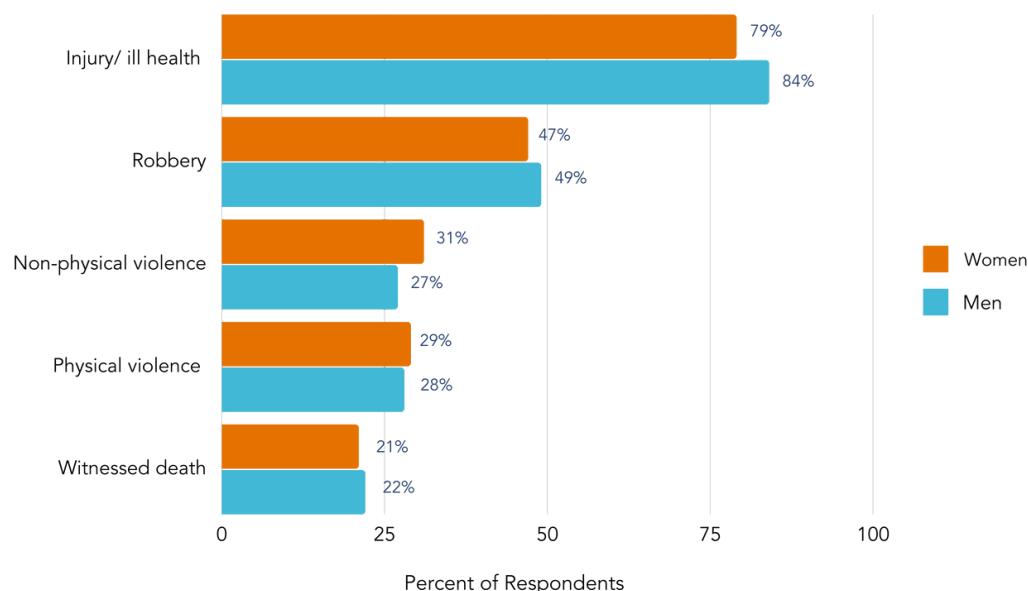
According to MSF, there are hundreds of daily arrivals in Canaán Membrillo, the first village in Panama after crossing the dangerous Darién Gap. Yet, they do not receive any medical care there. Migrants are relocated via boat to the San Vicente migrant center. (ReliefWeb, 2022). In May 2022, the MSF team reportedly treated 78 patients a day on average, primarily for skin diseases and body aches. Around 300 migrants are reported to arrive at the reception center daily, meaning an average of 222 go unseen by care providers. Shares of migrants waiting for care contribute to facility overcrowding and result in relocation to Panama City or the Costa Rican border for healthcare. Just accounting for MSF's reported consultations, around 1,550 migrants lack critical healthcare services per week, or two-thirds of the total arrivals at the

San Vincente center. Assuming constant traffic flow, approximately 80,600 migrants are not seen by medical professionals. This figure represents a lower-bound estimate of the deficit in service provision. The center's current capacities are alarming when considering the travel volume in 2022 and projected travel volume in 2024.

Estimating Injuries

As of April 2023, there isn't a publicized injury rate for migrants traveling through the region. In lieu of primary data from the ERM centers, I approximate the number of injured migrants in 2022 using data from the Mixed Migration Center (MMC). The MMC surveyed 219 migrants over two months (4 July to 4 September) at the Panama-Costa Rica border and in central Costa Rica. The question about abuses and dangers experienced during the journey in the Darien Gap, by sex is key in my analysis. The seven response options include injury, robbery, non-physical violence, physical violence, witnessed death, sexual violence, or bribery/extortion. Figure 4 reveals that injuries were the primary concern, with 84 percent of men and 79 percent of women selecting the category. I employ an average adult injury rate of 81 percent to account for the six percentage-point variance in the responses between the sexes. The MMC survey reported that 66 percent of respondents mentioned needing medical assistance due to injuries, and many respondents arrived at the ERM in Panama with leg and foot injuries and other conditions associated with the journey. To account for sampling bias, such as data collectors surveying migrants who systematically reporting higher injury rates, I use a conservative estimate of fifty percent of adults who travel through the Darien jungle will sustain a leg or foot injury and will need care. Appendix C explains the calculation for projecting the injury rate in 2022.

Figure 4: Abuses and dangers experienced during the journey in the Darien Gap, by sex



DATA: MIXED MIGRATION CENTER (MMC), 2022

OVERVIEW OF STAKEHOLDERS AND OBSTACLES

The Panamanian police are authorized auxiliaries to exercise immigration control (Pikielny, 2021). Police services are present in the Colombian border towns of Necoclí and Apartadó and villages on the Panamanian side of the Darien. The Panamanian Police and the National Border Service (SENAFRONT) are distinct entities. To serve the migrants who fall under Panama's jurisdiction, the Panamanian government combined several law enforcement agencies into one security entity, SENAFRONT, or the Servicio Nacional de Fronteras, that patrols Panama's land borders and seas, intercepts drugs and weapons trafficking, and counters guerilla violence overflows from Colombia (Lawfare, 2019). The scale of SENAFRONT's responsibilities (and U.S. funding) has proportionally increased alongside rising migration traffic. In 2016, the US provided Panamanian security forces like SENAFRONT with more than eight million dollars in funds, an almost 800 percent increase from 2014 as the countries' migration and security cooperation increased (Lawfare, 2019).

Non-Governmental implementers include the Panamanian Red Cross, IFRC, Doctors Without Borders (MSF), IRC, IOM, UN refugee Agency, UNHCR, UNICEF. Their involvement is formally and informally requested through executive decrees, public policy, international trade agreements, and by citizens and local interest groups. UNHCR collaborates with state entities and advocates to the government, civil society and private companies in support of exercising migrant freedoms. For instance, UNHCR donated two mobile clinics to the Ministry of Health in Panama for primary medical care to increase access to health services for Panamanians, refugees, asylum seekers and migrants at the community level (UNHCR, 2021). The Panama Red Cross aids migrants before and after they travel through the jungle. Lastly, the United Nations Children's Fund (UNICEF) works in tandem with the Red Cross to protect the rights of child migrants throughout the region. Since 2021, UNICEF and the Red Cross together have provided more than 74,000 liters of drinking water per day, delivery of 6,800 personal hygiene kits and other items such as newborn baby kits, water cans, mattresses and mosquito nets, among other essential elements to assist the migrant population (ReliefWeb, 2021). See appendix D for a condensed list of the NGO stakeholders.

The presence of paramilitary organizations and criminal groups complicates efforts to make the Darien jungle safer. The increase in migrant traffic has disrupted decades of illicit business pathways, and criminal groups are now profiting from migrant flows. Researchers are limited in understanding the details of each organization, yet their presence can intimidate and threaten migrants at best and result in robbery, sexual assault, or senseless murder at worst. Rival gangs Calor Calor and Baghdad's main economic activity is drug trafficking and providing services to larger transnational crime groups (Yagoub, 2021). The Revolutionary Armed Forces of Colombia (FARC) and Urabeños have historically operated in the Jungle smuggling drugs and human beings. FARC has cocaine processing laboratories in the Darien area, which poses a danger for any travelers who innocently encounter these camps (Yagoub, 2016). Migrants must also exercise caution of coyotes, or paid human smugglers, who often abandon their clients and further expose them to danger. The amalgam of these factors explain why ameliorating danger in the Darien immigration channel is not feasible in the short term.

SOCIAL RESPONSIBILITY

As a United Nations (UN) charter member, the United States espouses to create, follow and respect UN humanitarian policy. The UN High Commissioner outlines migrant rights to adequate shelter and the opportunity to rest at arrival centers and receive food, water, and sanitary items. One of the UN healthcare principles states that the care migrants receive (in health facilities and concerning goods, services, and conditions) should meet human rights standards, be non-discriminatory and gender-responsive, culturally and linguistically appropriate, and tailored to migrants' needs (Ohchr, 2018). Key players in the Panama crisis, including the United States and Latin America, are members of the UN and ascribe to its rules and principles. South America's union of nations, MERCOSUR, likewise recognizes and enforces human rights law. Through bilateral, regional, and sub-regional agreements, partnering countries agree to recognize the human rights of migrants independent of their migratory condition, promoting a policy of free movement of people and developing a progressive plan for regional citizenship (IOM, 2015). Panama and neighboring countries share a duty to adequately provide and coordinate aid to thousands of migrants sustaining injuries on the journey. The gap in these shared espoused ideals compared to the reality of the crisis should mobilize involved parties towards thoughtful interventions.

The extent of the danger migrants face should be universally concerning and summon a call to action. Society ought to minimize violence against vulnerable populations, especially children. The cost of migrant deaths is incalculable, and their prevention should be prevented and prioritized.

EXISTING EVIDENCE

A majority of the existing evidence on migration policy is oriented toward migrant deterrent policies rather than how to bolster safety practices. A comprehensive review of several migrant crises around the globe demonstrates that few interventions before 2010 directly targeted in-transit migrants. Most policies and laws were deterrent-oriented or did not explicitly outline procedures for treating migrants in transit. This literature review indicated that municipal officials periodically oppose the government provision of humanitarian services (Schmidtke, 2022). Understanding different decision makers' biases and commitments will aid in the evaluation of the administrative and political feasibility of each policy alternative. Businesses involved in the tourist industry or criminal groups could influence decision-makers to block the construction of physical infrastructure. I identified one case in Panama and three comparative cases to understand the approaches and best practices to address the policy problem of under-provision of health services to migrant populations.

Personnel Investment: Expansion of the new Humanitarian Border Security Unit (USFROH) unit

Panama has invested in its policing capacity to respond to the increase in migrant flow over the last decade. The two largest changes in the Panama Police are the creation of SENAFRONT in 2008 and Humanitarian Border Security Unit (USFROH) in 2021. SENAFRONT patrols Panama's land borders and seas, interprets drugs and weapons trafficking, and counters guerilla violence overflows from Colombia (Lawfare, 2019). Conversely, USFROH provides security for migrants, first aid, rescue and location of people lost in the jungle, and humanitarian assistance. The unit members who operate in the jungle help direct travelers to reception stations and work to protect migrants from fatal injuries. In one month in 2021, they successfully aided 2,300 migrants in the town of Bajo Chiquito (Migration, 2022). The creation of this unit demonstrates Panama's willingness to confront the crisis and provide aid rather than ignoring it. Based on many news publications highlighting USFROH's success, one can expect increased deferred responsibilities.

The numbers of adults and children the USFROH units serve relative to the demand for care defines the program's success. This policy response's strength lies in its utilization of the country's current capacity and resources. In his paper about physicians serving migrants in Germany, Castañeda advocates for governments to centralize migrant's care rather than solely defer to NGOs. He writes, "the more successful NGOs are in treating the illnesses of marginal populations, the more these allegedly temporary services become the norm" (Castañeda, 2011). As SENAFRONT is a government entity, they should continue to bear a more extensive share of the burden which historically falls to NGOs. Through continued investment in SENAFRONT and USFROH, Panama's implementers would be better prepared to respond to current and future internal crises.

Quasi-Governmental Collaboration

A Canadian case study demonstrates a solution to shorten patient wait times and increase patient turnover. Around 28,000 refugees arrived in Canada and were welcomed in six Ontario cities: London, Hamilton, Toronto, Ottawa, Windsor, and Kitchener. Almost a quarter of these refugees were classified as Government Assisted Refugees, or GAR's. Canada's service care provision was initially insufficient due to high institutional and systemic barriers to entry, including a lack of trained professionals, policies restraining access to care, bureaucratic burdens, and a lack of system coordination (Riza, Elena, et al, 2020). Ontario cities experienced a shortage of family physicians designated to care for the under-serviced GAR's".

Quebec encountered similar variance in how each province treats access to health care for uninsured migrants. In a mixed methods study, researchers aimed to recruit around 500 medical clinicians, primarily from Doctors without Borders. As of 2018, 633 clinicians and caregivers have been recruited through local outreach with an average residency of 2.5 years. (Matlin, Stephen A., et al, 2018). This exemplifies both the positive impact of cross sector collaboration between the government and NGOs and the scale of Doctors without Borders work in other nations. The refugee population to physician ratio is far higher in Canada compared to Panama. There are likely exogenous explanatory factors including total nation size, foreign relations, and total presence of healthcare professionals in the country. Notwithstanding these differences, Doctors without Borders in Panama should have more than seven employees to serve the 220,000 travelers that arrived just in 2022.

The Power of Grassroot Citizen Support

Serbia became the point of intersection of several migration routes between 2015 and 2017. As migrant traffic shifted from the Macedonian and Bulgarian borders due to EU external border control, hundreds of thousands of migrants became stuck in Serbia (Stojic Mitrovic, 2018). During the initial shock, there was no organized reception or aid distribution beyond individual local initiatives led by citizens and sporadic NGO involvement. A few citizens in northern Serbia advocated for constructing a road for migrants to reach their destination of Presevo. Locals formed coalitions and petitioned UNHCR to help prevent the abuse of migrants by taxi drivers and others who overcharged them. Citizen engagement predicated forming a safer, organized migrant corridor (Stojic Mitrovic, 2018).

Institutionally, Serbia and neighboring countries investigated avenues to manage complicated circumstances. The Serbian government established the Working Group for Solving Problems of Mixed Migration Flows following a conference held by the Serbian Commissariat for Refugees and Migrations (Migration Network, 2021). This task force created a center in Presevo that distributed 72-hour permits to shorten the service time and mobilized bus companies to transport people directly from Presevo to the north of Serbia (Stojic Mitrovic, 2018). The Serbia case highlights the influence and power of local coalition building and intervention in federal policy creation. Their policy of transit control was highly effective and could translate in the Panamanian context.

Government Investment in Institutional Healthcare

Germany is the largest host of refugees in the EU and spent €20 billion domestically in 2016 (Matlin et al., 2018). Aid had proportionally risen with demand; the Official Development Assistance from Germany increased by more than a third in 2016 due to the scaling up of its overall aid program and the doubling of in-donor refugee costs compared to 2015 (Matlin et al., 2018) Beyond increasing direct funding, cities like Berlin and Hamburg have demonstrated keen resilience and an openness to expanding the role of civil society. In 2015, Hamburg established an early warning system to preemptively communicate migrant crises across various federal government levels. The city rapidly scaled infrastructure development and healthcare provision; in 2015, expenditure on healthcare for refugees in reception centers reached €58.6 million. Investments led to the hiring of forty-two doctors and nurses who saw over 64,000 patients (Matlin et al., 2018). Policies that accounted for the heterogeneity of the patients succeeded in increasing the total number of consultations. One unique aspect of Germany's response was the establishment of on-site interpretation teams with over 50 languages available in under two minutes. The city-states also established an early warning system for the federal republic to employ a more proactive approach when responding to the migrant crisis.

POLICY ALTERNATIVES

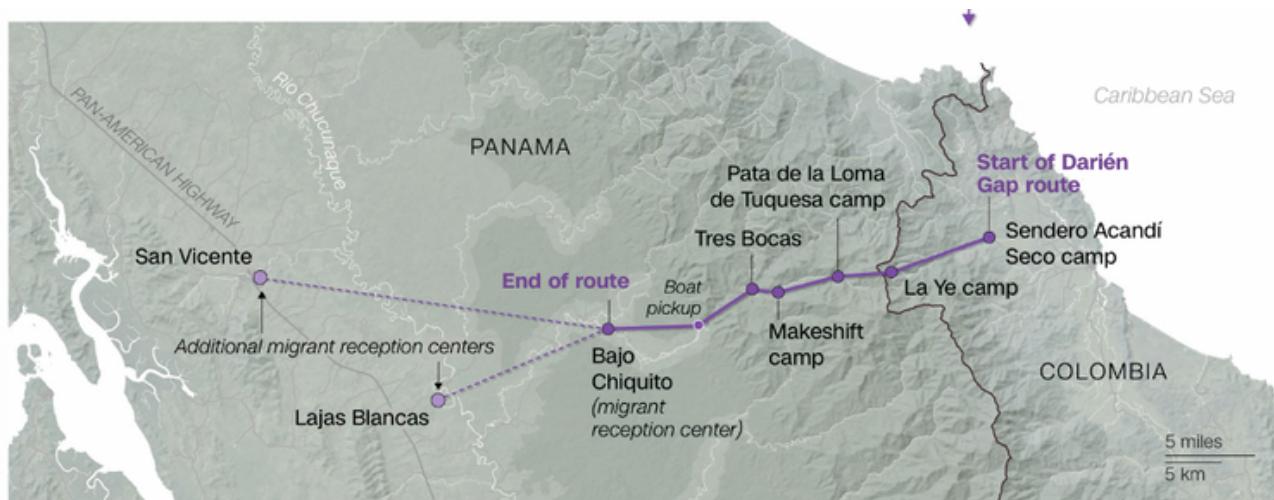
This section considers how DRL can address the injury rate and migrant safety within the Darien Gap. Viable alternatives have been scoped down from five to three. Collaboration with indigenous tribes was omitted due to political infeasibility and safety concerns. The three remaining alternatives were selected based on robust evidence, prior effectiveness, and potential to benefit migrants in the critical phases of the journey.

The central objective is reducing the number of migrants injured in the Darien Jungle. My three alternatives include direct and indirect solutions to this humanitarian challenge. Direct solutions function on the ground level (ie. aid provision) and intervene to reduce the number of injured migrants. The second-best alternatives are indirect solutions that reduce the number of migrants through some policy or action. Indirect solutions aim to reduce the net number of travel travelers through the Darien to limit exposure to injury risk.

1. Humanitarian checkpoints in the Darien Jungle

Migrants who travel through the Darien Jungle enter at their own risk, yet many who completed the trek reported being unprepared for the danger and difficulty of the journey (Cole, 2016). One mechanism to reduce migrant injuries is to establish humanitarian checkpoints throughout the jungle, as migrants traverse approximately 60 miles of land before they reach the first reception center in Bajo Chiquito. These checkpoints would provide humanitarian aid items tailored to treat and prevent lesions and injuries. A combination of migration police and humanitarian first responders at the aid-checkpoints should deter smugglers and traffickers.

Figure 5: Migration travel route



SOURCE: CNN, 2022

The journey on foot takes anywhere from seven to ten days (Roy, 2022). A 2020 research paper states that a large share of migrants travel by boat across the Gulf of Uraba (Angulo et al., n.d.). The boats travel 37 miles through the Gulf of Uraba from Necoclí to Acandí, cutting around half of the total commute mileage. Assuming the average traveler walks 8.5 miles per day,⁴ checkpoints should be constructed. This would ensure that migrants can access aid within forty-eight hours.

Checkpoints for this group could begin at the Panama port cities and continue until the San Vicente migrant reception centers. Figure 5 illustrates a frequented route from the town of Acandí to the ERMS. Although this route is shorter than the others, checkpoint aid systems should still provide value to the migrants considering the lack of local resources. In Necoclí, migrants report a lack of access to shelter, information, healthcare, and water; nor is there specialized support for women and children. In Capurganá, Refugees International witnessed a very well-organized smuggling operation that whiskers migrants away from public spaces and pushes them underground, where it is difficult for authorities or humanitarian organizations to access them (Schmidtke, 2022). I posit that creating checkpoints among the most populated travel routes will incentivize migrants to take one primary route (rather than a less populated one.) This should allow USFROH and SENAFONT to better monitor migrant traffic flows and reach a greater share of the total number of travelers.

It is challenging to estimate the likelihood of Doctors Without Borders or UNHCR working in the jungle. Service providers are not trained to deal with the criminal groups, and it is uncertain how they would reach a checkpoint 40 miles deep in the jungle. Panama's new humanitarian border security unit, USFROH, could collaborate to provide aid within the jungle. They are better positioned than SENAFONT who specializes in border patrol. In its current capacity, USFROH provides security for migrants, first aid, rescue and location of people lost in the jungle, and humanitarian assistance. The unit members stationed in the jungle could direct travelers to reception stations and provide aid packs for injury prevention and relief at the stations. Aid packs would consist of waterproof bandages, gauze, splint, socks, antibacterial ointment, and disinfectant. Appendix E explains the rationale behind the proposed aid items.

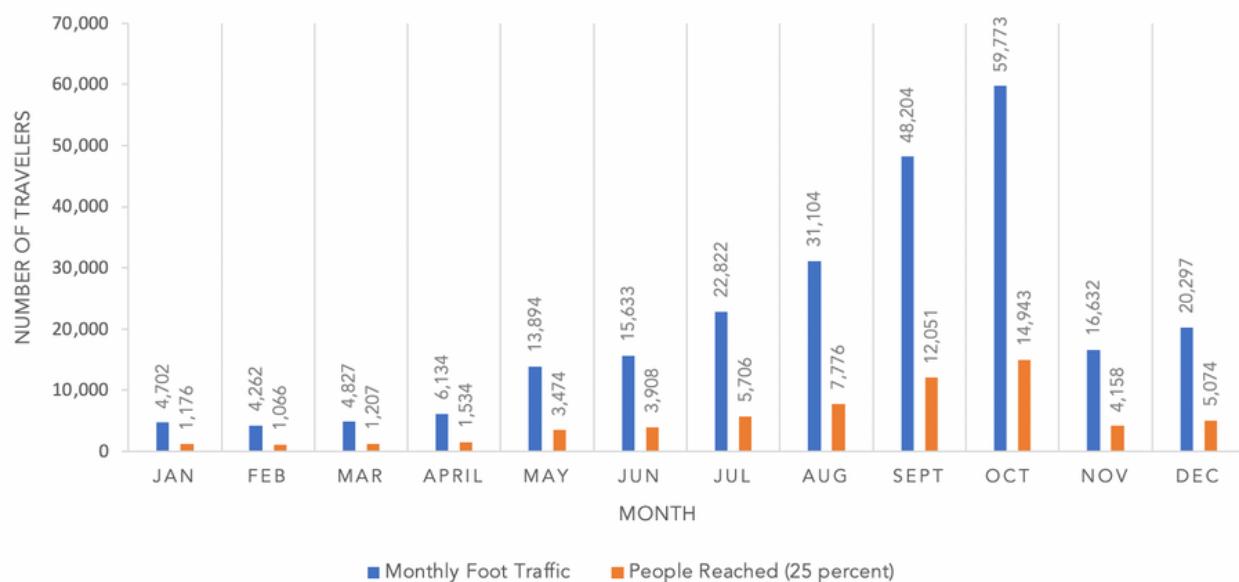
As previously discussed, the scale of assistance required depends on the month of travel. To illustrate, around 4,700 irregular migrants traveled through the Darien in January compared to 31,000 in August (Migración, Panama, 2022). Because the gap in aid provision is highest in peak season, I estimate the costs of aiding ~200 migrants per week per checkpoint. Each checkpoint should be equipped to help 200 people per week. If all four checkpoints could aid 800 individuals per week, USFROH could assist an additional 3,200 migrants per month before reaching the migrant reception centers. These numbers are likely inflated and do not account for material and personnel shortages or items soiled by weather conditions.

¹ 60 total miles of jungle divided by the average of 7 days to cross the Darien = ~ 8.5 miles traveled per day; 35 miles divided by ten miles = 3.5 checkpoints

2. Aid Provision in Colombian Towns

The DRL Bureau could proactively provide medical aid items in the Colombian border towns of Turbo, Necoclí and Apartado to supplement efforts on the Panama side of the Darien. Six NGOs are active in the region as of April 2023: IOM, IRFC, PADF, UNICEF, UNHCR and Refugees International, yet none provide pouches of medical items before the journey. UNICEF has built water stations, which some use to shower; UNHCR has donated three housing units for refugees to the municipality of Turbo, which function as spaces for migrant care. High demand for food, water, and shelter persists in spite of NGO efforts (Schmidtke, 2022). While injury-danger is likely not top of mind before the journey, NGOS can embrace the opportunity to proactively intervene and provide material relief items and information. Rather than assign an arbitrary fixed monthly quantity, I suggest NGOs try to reach 25 percent of the monthly travelers. This design, as shown in Figure five, accounts for variation in monthly foot traffic and ensures aid is scaled to meet larger volumes of travelers during peak season of June to October. If NGOs meet this goal, they will serve around 51,000 migrants per year.

Figure 5: Estimate of the People Aided Through Humanitarian Checkpoints



DATA: MIGRACIÓN PANAMA, 2022

Item weight is a universal concern in the early stages of the journey. Multiple interviews indicate that many travelers leave valuables and goods in the Colombian towns because they are too heavy (Schmidtke, 2022). Any aid given must be purposeful, lightweight, and fit inside a standard backpack or drawstring bag. Most of the material aid specified in alternative 1 fit these parameters. Waterproof bandages, gauze, splints, and antibiotic ointment packets are lightweight and small enough that migrants would not have to forgo other necessities to bring them on the journey. Items will be packed in a travel pouch to minimize lossage. Aid provision is ineffective if the items don't stay with the travelers; reducing usage barriers will ensure the items are used during the travel.

² The IRFC reports that migrants are most concerned with food, water, shelter, and recouping money that has been spent or stolen when they arrive in Necoclí and Turbo in Colombia

3. Regional Messaging Campaign

A regional messaging campaign would equip migrants with the knowledge of the various risks and dangers they face in the Darien. There is a general lack of directional information in Necoclí signaling the travel paths and information as to what is needed for the journey (Schmidtke, 2022). Refugees International documented several Venezuelan and Cuban women who were unaware of the high levels of sexual violence and danger in the jungle. The NGO also interviewed migrants who couldn't afford a coyote, proceeding without a guide. Most confessed their ignorance to the nature of the dangers within the jungle or the safest routes through it.

My client contact, Mike Katula, suggested there is strong anecdotal evidence that deterrent-intentioned information campaigns have not been effective in preventing migrants from continuing north. The previous administration's goal was to prevent migrants traveling in Central America from continuing the journey north to the United States. The framing would shift from preventing travel to accepting that some will undertake the journey. The campaign would provide accurate information about injury, sexual assault and child abuse risk, the danger of some cayotes, the time to cross the jungle, and the various travel routes. Providing consistent information in a breadth of languages would fight disinformation about the journey circulating on platforms like Tik Tok. Objectives include migrants' increased awareness of the risk and dangers, fewer injuries, or fewer migrants traveling through the jungle. While information campaigns do not directly reduce injuries, reaching travelers with accurate information of the dangers increases the likelihood they can equip themselves with the necessary protective aid.

EVALUATING ALTERNATIVES

This section evaluates each of the three alternatives — humanitarian checkpoints in the Darien, regional aid delivery, and an information campaign — against three criteria: cost, effectiveness, and administrative and political feasibility. The criteria are derived from quantitative and qualitative measures and are equally weighted. Appendix F describes the evaluative criteria design. Appendix G details the cost calculations of each alternative.

1. Humanitarian Checkpoints in the Darien Jungle

Cost

Fixed costs such as tents and tarps, and variable costs like aid items and personnel costs are included in my estimate. Each checkpoint will have gauze, splints, waterproof bandages, disinfectant, and socks, and should have the capacity to serve around 200 migrants per week per station. To meet this demand, a monthly quote of 3,200 of each aid item is required. I relied on wholesalers like Alibaba to estimate the cost of materials. Checkpoint staffing was the most significant cost:

- USFROH police hourly rate = 13.22 PAB ("Police Officer Salary in Panama," n.d.)
- 10 hours worked per day * 13.22 PAB = \$132.20 PAB daily salary for one police officer
- \$132.2 PAB daily salary for one police officer * 7 days/week = \$925.40 PAB weekly salary for one police officer
- 4 stations * 3 police members per station = 12 personnel needed
- \$925.40 PAB weekly salary * 12 personnel = \$11,104.80 PAB total weekly salary
- \$11,104.80 PAB * 4 weeks/month = \$44,419.20 PAB total monthly salary
- PAB to USD is 1:1 ratio - \$ \$44,419.20 USD monthly salary costs.

Figure 6

Checkpoint Cost Estimate	
Item	Cost
Tents *	\$6,282.48
Tarps *	\$639.20
Waterproof Bandages	\$3,168
Hydrocolloid Dressing	\$440.00
Gauze	\$2,675.20
Splint	\$5,113.60
Disinfectant	\$383.68
Socks	\$2,928.00
Travel Pouches	\$1,312.00
Police Force	\$44,419.20
Monthly Cost	\$60,440
Annual Cost	\$732,198

* fixed cost

See appendix G for an itemized, quantified list of the aid items and fixed costs. \$60,440 USD is the estimated monthly cost of establishing checkpoint stations within the Darien. It will cost \$732,198 USD to upkeep a rate of 3,200 migrants aided per month, or 38,400 per year. Depending on the volume of travelers, NGOs can adjust their aid stock to avoid excess waste. This cost estimate does not include marketing campaigns to circulate the checkpoint locations among the traveling migrants.

Effectiveness

Literature suggests that aid such as splints have a moderate to large effect for pain and small to moderate effect for function in the medium-term but not in the short term (Buhler et.al, 2019). Hydrocolloid dressings, or waterproof bandages, decrease healing times of the wound site by about 40 percent compared with traditional treatments like paraffin gauze (Thomas, 2008). Elastic adhesive bandages were found to be a reliable technique in slowing bleeding wounds in trauma victims and can be effective in less severe cases (Naimer & Chemla, 2000). Thus, I estimate 25 to 50 percent of the migrants who receive aid will be positively impacted by the items given, or 9,600 to 19,200 people. Desirable outcomes include decreased healing time, minimized injury severity, and subsequently, less time spent at the ERM stations in Panama.

Administrative and Political Feasibility

Will the proposal encounter opposition?

Through research and conversations with my client I conclude that the Panamanian government would welcome programs that aid migrants, particularly if funded by foreign aid. Panama is a model of democratic governance in Central America and has previously supported humanitarian assistance efforts. Panamanian politicians or government employees may be concerned about the environmental impact of increased waste. Under the current administration, the U.S. Department of State has partnered with NGOs and contributed financially to global humanitarian efforts, including the Ukraine War (United States Department of State, 2023). The U.S. has a vested interest in reducing the number of deaths or serious injuries. Opposition could include concerns about tasking police groups with procuring humanitarian aid, particularly following claims of abuse by workers at the ERM stations (Fernández, 2023).

Number of implementation steps?

This alternative seeks to mobilize the active migrant police force to procure aid in the jungle. Building off the current humanitarian police branch initiative would mitigate early questions as to what group would be responsible for implementation. The responsibility of implementation falls to the Panamanian Public Forces, the group that oversees SENAFRONT and USFROH. The four steps to actionalize this alternative are conversations between the Panamanian public forces and the PRM or DRL Bureaus, agreement and contracting among the police forces, funding secured from the U.S., and buy-in from the USFROH border police group (increased hires or training).

USFROH has grown from an initial battalion of 150 members in April 2021 to over 500 as of January 2023 (IOM, 2021 & 2023). The growth of the organization represents an increasing demand for police figures within the jungle. SENAFRONT and USFROH continue to train new members, which suggests training 30 to 40 new recruits is feasible.

Degree of government responsibility on outcomes?

While the proposed alternative is not a new law, the government will be responsible for the efficacy of the police groups. SENAFRONT will be responsible for training new members, preventing the aid items from being ruined or stolen, and ensuring that they are protecting and not further hurting the migrant population. A PRM officer raised safety concerns regarding migrants receiving aid from police groups in an informational interview. While SENAFRONT and USFROH's purpose is to help migrants on the journey, police forces and troops can often be a source of violence. If the risk occurs in the Darien region, the Panamanian government might be concerned about negative press and withdraw support from the initiative.

2. Regional Aid Provision in Colombia

Cost

To meet the goal of reducing serious injuries or lesions, most items provided through this alternative are first aid items. I identified aid items that are not currently provided or are underprovided by NGOs working in the region. I relied on e-commerce wholesaler websites to estimate the costs of providing gauze, waterproof bandages, men and women's socks, wound disinfectant, splint, and water disinfectant tablets. These estimates may be inflated as the active NGOs likely work with cost-effective vendors. Monthly costs vary depending on the foot traffic that month. Providing aid kits to 25 percent of monthly travelers in 2022 would cost \$259,436 annually.

Cost estimates include labor costs and fixed costs such as a military-grade tent, signage, and travel pouches to hold the items. Salary estimates of international humanitarian aid workers on Indeed.com informed the cost assumptions. I estimate three workers are needed to execute this alternative. In practice, the staff count could be reduced to two, as Doctors Without Borders (MSF) had seven staff members working in the ERM's in 2021.

Figure 7

Regional Aid Cost Annual Estimate	
Item	Cost
Tents *	\$3,141.24
Table *	\$440
Signage *	\$440
Waterproof Bandages	\$2,182
Hydrocolloid Dressing	\$7,144.71
Gauze	\$22,137.00
Splint	\$50,018.75
Disinfectant	\$4,326.52
Bacitracin	\$3,965.67
Socks	\$28,145.82
Aquatabs	\$7,269.41
Travel Pouches	\$20,784.60
NGO Staff	\$109,440
Annual Cost	\$259,436

* fixed cost

Effectiveness

NGOs have worked in Panama and Colombia to aid migrants since 2019 when foot traffic spiked. Without literature assigning a numeric value to the benefit of deploying aid, NGOs measure effectiveness as the number of travelers they can reach with services. For instance, in 2022, UNICEF provided 3,100 migrants maternal and child health services and 14,145 psychosocial services to children and caregivers at Canaán and the ERM's, with 93 percent of beneficiaries rating the service as excellent (UNICEF, 2022). In their 2022 report, the IFRC compared their targeted reach to actual implementation figures of healthcare aid outcomes. They aimed to target 8,000 migrants with first aid services and people with health activities and reached 5,009 (ReliefWeb, 2022). I extrapolate an effectiveness ratio of 60 percent from this study. Given the 2022 volume, the goal would be to provide 62,000 aid pouches. Using a realistic "reach" ratio of 60 percent, I posit this alternative may actually reach 37,200 travelers.

Administrative and Political Feasibility

Will the proposal encounter opposition?

This alternative would be spearheaded by international NGOs with a local presence in the Darien. The aid material would be funded by NGOs and U.S. Bureaus; there would be minimal financial commitment required from Panama. Thus far, the Panamanian government has welcomed deferring humanitarian procurement to the NGO sector. NGOs are currently present in Panama and the Colombian border towns of the Darien, indicating that few will formally oppose a slight increase in NGO presence to deliver medical aid.

Number of steps to implement the alternative?

Three steps: First, the PRM or DRL Bureau will coordinate with NGOs (likely Panama Red Cross or PADF) who want to undertake the project. I suggest the Panama Red Cross and UNHCR because they already engage in similar outreach activities in the region. The second step is securing funding and the personnel to work on the ground. Discussions will include the necessary materials to set up stations, salaries for workers, and where workers will live. Implementation is the final step, and entails selecting a location to establish their presence. Concerns in the implementation phase may include securing supply chain and transportation for the medical supplies.

Degree of government responsibility on outcomes?

I anticipate a low degree of government responsibility in implementing this alternative. When governments devolve projects to the NGO sector, they transfer responsibility to the implementing organizations. The Panamanian government has commended NGO efforts in the region, and I found little evidence to suggest a negative opinion of NGO involvement or complaints of past initiatives. While Panama's government has promoted the success of NGO work, they do not actively partake in implementation activities.

3. Regional Messaging Campaign

Cost

To estimate costs, I met with a PRM Officer with extensive knowledge of the challenges in the Darien region. The PRM Bureau nor the DRL could provide an exact cost estimate (for security reasons), but conveyed that campaigns are “relatively inexpensive,” and mostly cost less than one million dollars. As a secondary approximation, I relied on the EU’s migration campaigns post-2015. From 2015 to 2019, the EU spent 23 million euros on 129 information campaigns (IOM, 2019). Assuming an equal budget per campaign, it costs around \$191,471 to create and circulate an information campaign to prospective migrants. Given the ceiling provided by PRM, the cost of an information campaign likely ranges from \$200,000 to one million USD.

Effectiveness

Estimating messaging campaign effectiveness is an imperfect science. I rely on research and Randomized Controlled Trials (RCT’s) which test the effectiveness of prior migrant information campaigns. The goal is to identify an estimate the share of migrants who changed their behavior after interacting with the campaign materials.

IOM’s “Migrants as Messengers” (MoM) campaign, which aims to raise awareness about the risks related to irregular migration in Senegal, Guinea, and Nigeria, serves as a proxy for my analysis. An impact evaluation was conducted in 2018 which measured the effectiveness of town hall events (which included Q&A sessions) in Senegal. Around 1,000 prospective migrants were surveyed several times over a five-month period after being randomly selected to participate in a screening group (treatment) or a placebo. Screening group participants were 19 percent more likely to report that they felt well-informed about the risks and opportunities related to migration and 25 percent more aware of the risks associated with irregular migration compared to the control group. RCT design lies in appendix H.

Likewise, the treated group was 8.6 percentage points more likely to perceive a risk of violence (IOM, 2019). I use these two figures to create floor and ceiling estimates of the share of migrants who would report increased awareness from information campaigns. See Appendix I for the full calculations. Approximately 40,000 to 52,000 of the 260,000 migrants who traveled in 2022 would have been cognizant of risk levels and safety tips had they been exposed to the information campaign. Expected outcomes of an information campaign include an increase in danger awareness, feeling well informed, and a slight decrease in irregular travel.

³ This could mean: brought specific items that target injuries commonly sustained in the Darien, identifying a safer travel route, or not undertaking the journey.

Administrative and Political Feasibility

Will the proposal encounter opposition?

The U.S. has embraced information campaigns to inform or deter prospective migrants in the Western Hemisphere (Dempster & Tjaden, 2021). Historically, efforts are spearheaded by NGOs and federal Bureaus such as the DRL or PRM. There are fewer administrative burdens if an NGO such as UNHCR was to undertake creating an information campaign. Depending on the administration's goals and policies, NGOs can coordinate funding and implementation efforts. There is similarly low opposition with power to prevent an information campaign for the DRL or PRM Bureaus. The president establishes agendas and specifies tasks for administrative agencies, leaving slim opportunities for opposition with the power to block the DRL or PRM Bureau from executing strategic objectives. Agency executives can attempt to stall implementation tactics, but could be dismissed for insubordination (Gresko, 2021).

Number of steps to implement the alternative?

I estimate five steps to actualize a migration campaign in Panama and Colombia. Steps include program design and impact measurement, interagency discussion and agreement, budgetary allocations, solidifying implementation timeline and specifying/tasking personnel. I suggest a coordinated effort between DRL and NGOs, which will expedite planning efforts and de-politicize the information circulated in the campaign.

Degree of government responsibility on outcomes?

The U.S government will be responsible for furnishing accurate information and ensuring program effectiveness. Similar to alternative two, NGO involvement means deferred responsibility from the government to the NGO. If the organization uses federal funds to finance the campaign, they will be expected to demonstrate the project's effectiveness. When NGOs collaborate with the government, like Nicaragua and IOM's #YoCamino campaign, the NGO was ultimately responsible for the implementation efforts and outcomes. Nonetheless, program mismanagement could reflect negatively on Panama or Colombia and stymie future quasi-governmental collaboration ("IOM Launches Five Campaigns to Prevent Irregular Migration in Mexico and Central America," 2019).

OUTCOMES MATRIX

Alternative	Implementation Cost	Effectiveness	Political Feasibility
Humanitarian Checkpoints within Jungle	\$737,195	38,400 Reach	Low Opposition: Medium Steps: Four Gov't Responsibility: High
Regional Aid Distribution	\$259,436	37,200 to 62,000 Reach	High Opposition: Low Steps: Three Gov't responsibility: Low
Information Campaign	\$200k to 1 million	40,000 to 52,000 Reach	Medium Opposition: Low Steps: Five Gov't responsibility: Low

RECOMMENDATION

I recommend a scaffolded rollout of medical aid in the Colombian towns of Turbo, Necoclí and Apartado and a regional information campaign, respectively. Regional aid distribution is the most economical alternative with the potential to reach the most migrants (compared to the other alternatives). While humanitarian checkpoints would be a resource during the journey, regional aid distribution will provide identical aid items to alternative one and will provide more specialized items like Aquatabs. Combining regional aid with an information campaign can foster increased awareness of the dangers in the jungle and equip travelers with the necessary medical aid to continue their journey northward. A benefit of NGOs ownership over aid initiatives is the speed at which the rollout can occur. This is especially true for humanitarian NGOs responding to natural disasters and large-scale refugee crises.

IMPLEMENTATION AND NEXT STEPS

Roll-out of Alternative 2

A partnership with an NGO is necessary to execute aid procurement. UNHCR and IRFC are feasible implementation partners. The DRL Bureau can collaborate with the PRM Bureau to advocate for increased funds allocated to the Darien region. Their role is to set objectives and secure funding to catalyze the project. They can initiate discussion with UNHCR or IRFC to lock in an implementation partner. UNHCR and PRM's long-standing partnership since 2002 suggests that the organization would engage in the initiative (UNHCR, n.d). The PRM Bureau has been UNHCR's top donor; U.S. funding will allow this project to materialize.

If UNHCR agrees to engage, for example, next steps include identifying objectives and defining success metrics. The organization has formal planning processes which distinguish outputs from objectives. The outputs are the aid items provided, while the objective is to reduce the severity of future injuries sustained during travel (see Appendix J for more details on the impact evaluation process). The NGO should then secure suppliers for the agreed-upon items. I proposed providing waterproof bandages, gauze, splints, antibacterial ointment, socks, and water purification tablets. Wholesalers like Alibaba and medical item shops, including Firstaid supplies online and Simplymedical, are cost-effective options. Humanitarian groups likely have preexisting relationships with suppliers and can harness economies of scale to reduce expenditure. The expected lead time ranges from three months to a year. Literature mostly informs natural disaster response time, and research varies on a specific implementation timeline.

Roll-out of Alternative 3

The rollout framework for the information campaign is similar to alternative two. The PRM or DRL Bureau will identify an NGO partner, likely UNHCR, IOM or PADF (Pan-American Development Fund). PADF and IOM are prospective partners as they engage in regional information campaigns. Similarly to alternative two, PRM/DRL will collaborate with the NGO to establish success metrics, ways to survey travelers post-journey, and a budget. Goals should include reported increased awareness of the dangers in the Darien jungle, knowledge of actionable steps to avoid hazards and how to quickly care for injuries or lesions. Establishing a methodology to survey migrants pre and post-travel is critical to measure the success of the information campaign. IOM spearheaded a "Think Twice" campaign in El Salvador, Guatemala, and Honduras in 2021 to combat false information and misleading offers related to trafficking in persons, migrant smuggling, and other frauds. They employ a combination of surveys (accessible through social media), focus groups, and community calls to measure program effectiveness (Programa Mesoamerica. IOM, 2022). Takeaways include the power of producing videos or products based on human testimonies and lived experiences in the communities and considering the digital divide among the target population. After solidifying an implementation and measurement plan, the NGO must make messaging decisions and look to translate the information across various languages. The campaign can circulate on social media platforms like TikTok, or via flyers and posters in the Colombian towns.

Information should be available in at least five languages: Spanish, Haitian Creole, Portuguese, Hindi, and French (Migración Panama, 2022). Language offerings should expand as the program continues.

The roadblocks to implementation include funding distribution. Panama relies heavily on NGOS, PRM, and DRL Bureaus for funding. Those groups would need to financially support this initiative; Panama cannot financially support the effort alone. Procuring aid at migrant checkpoints is a direct intervention to provide aid within the Jungle, and therefore will be effective in providing aid.

CONCLUSION

More than 250,000 migrants crossed the Darien Gap in 2022, a figure expedited to grow to 400,000 in 2023 (AP, 2023). Too many of these travelers are sustaining mild to life threatening leg and foot injuries without timely access to medical care, alongside other risks and dangers. A survey by the Interagency Group on Mixed Migration Flows estimates 47 percent of the people interviewed reported not having access to health services (ACAPS, 2023). Lack of access to healthcare results in migrant bottlenecks in Panama that slow travel northward and downstream medical cost incurred by the host country.

This report identified and evaluated three evidence-based alternatives to increase migrant's safety while traveling through the Darien: humanitarian checkpoints in the jungle, regional aid provision, and an information campaign. While creating checkpoints within the Darien would provide an additional protection mechanism for migrants, the political and administrative challenges make this alternative less viable in the short term.

Currently, a staged rollout of regional aid provision and an information campaign emerged as the best alternative to balance expenditure, reach (effectiveness) and administrative and political feasibility. The U.S. Department of State Department of Democracy, Human Rights and Labor can partner with regional NGOs to provide medical aid packs in the Colombian towns of Turbo, Necoclí and Acandí. An information campaign conveying the safety risks and practical safety recommendations will supplement regional aid provision.

APPENDIX

Appendix A – Calculating change in migrant traffic from 2010-2019 to 2022

2022: 250,000 migrants

2010-2019 annual average: 11,000

(250,000-11,000) / 11,000 = 2172.73% change or ~2,1723% increase

Appendix B – Calculating the change in migrant traffic from Jan-March 2022 to 2023

98,582 Jan-Mar. 2023 - 13,791 Jan-Mar. 2022 = Increase in 84,791 travelers

Year	Jan	Feb	March	Total
2022	4,702	4,262	4,827	13,791
2023	49,291	24,634	24,657	98,582

Appendix C – Calculating the Injury rate among migrants in the Darien Region

I. 2022 Irregular Migrants - Estimating Injury Rate and Number of Leg and Foot Injuries (81 percent)

2022 Irregular Migrants - Estimating Adult Injury Rate (81 percent)

	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Total monthly traffic	4,059	3,527	3,958	5,358	11,885	13,296	19,784	26,939	41,183	48,842	12,893	16,122	207,846
Number injured	3,308	2,875	3,226	4,367	9,686	10,836	16,124	21,955	33,564	39,806	10,508	13,139	169,394

2022 Irregular Migrants - Estimating Adult Leg and Foot Injuries (50 percent)

	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Number injured	3,038	2,875	3,226	4,367	9,686	10,836	16,124	21,955	33,564	39,806	10,508	13,139	169,124
Number of leg/foot injuries	1,519	1,438	1,613	2183.5	4,843	5,418	8,062	10,978	16,782	19,903	5,254	6,570	84,562

II. Calculations Assumptions

Assumptions

Injury Rate for

Men 0.84

Injury Rate for

Women 0.79

Avg. Combined

Injury Rate 0.815

Leg and Foot

Injury Rate 0.50

Migrants in 2022 248,284

Appendix D – List of NGO Stakeholders in Panama and Colombia

Organization	Activities
Doctors without Borders	Provides medical care, psychological care and treatment for sexual violence at two ERM's in Bajo Chiquito
IFRC	Distributes clean water; promotes community and personal hygiene and distributes essential items, such as mosquito nets Provides healthcare and protection services including psychological services
IOM	Provides temporary shelter at government-run reception centres, mattresses, blankets, solar lamps, medicines, food items, and hygiene kits
PADF	Distributes hydration kits, reaches migrants with shelter, healthcare assistance, and psychological assistance ad trains local healthcare and government officials
Panama Red Cross	Provides health services, including psychological support and medication delivery, battery charging stations, and translation services
UNHCR	Provides core relief items like baby formula, reaches migrants with the ERMs with information on journey risk, and offers mental health and psychological services Provides information to migrants on the Panama asylum system Provides maternal and child health services at Canaan Membrillo and the Migrant Reception Stations of San Vicente, Lajas Blancas, and Los Planes de Gualaca.
UNICEF	Presence in five ERMs; provides safe drinking water, hygiene supplies, psychosocial and health services

Appendix E – Justification for First Aid Materials Included in Alternatives One and Two

Item	Purpose
Waterproof Bandages	Provide additional protection in moist environments and keep germs and viruses away from wounds
Gauze	Used to pad an injured area to increase comfort and protect tender wound sites
Splint	Immobilize musculoskeletal injuries, support healing, and to prevent further damage
Socks	Keeping feet dry and warm is critical to avoid contracting trench foot (changing socks was a frequently used tactic by soldiers in WWI)
Hydrocolloid Dressing	Provide a moist environment that allows wounds to heal properly from the inside out for faster healing and less scarring
Disenfectant	Antiseptics can kill or prevent the growth of microorganisms and clean the abrasion area
Bacitracin	Used to treat bacterial skin infections or to prevent infection of minor burns, cuts, or scrapes
Aquatabs	Kill micro-organisms in water to prevent cholera, typhoid, dysentery and other water borne diseases

Appendix F – Evaluative Criteria

Cost

I estimate the fixed and variable accounting costs required to actualize each proposed alternative. Using 2022 migration statistics, I projected the scale of aid items needed on a monthly basis. From there, I estimated annual expenditure per alternative. I relied on comparative literature and informational interviews to approximate the cost of migration campaigns. All cost estimates will have a margin of error.

Effectiveness

The goal of my APP is to provide policy alternatives to address migrant injuries. Some of the proposed alternatives directly address preventing and treating migrant injuries. Others more generally aim for a downstream effect of reducing the number of injured people. The principal unit of effectiveness is the reduction in the number of injured migrants. I weigh the number of migrants the alternative will reach alongside qualitative evidence that supports or refutes the alternatives efficacy. I rely on RCT's and clinical trials to assess the effect of the given strategy on the bottom line: reducing migrant injuries and keeping migrants safer on the journey.

Administrative and Political Feasibility

While NGO involvement is critical to realize the alternatives, their implementation may necessitate government involvement. I answer three questions to assess political feasibility: Will the proposal encounter opposition, the number of steps to implementation, and the degree of government responsibility for outcomes? These questions aim to understand the degree of government resistance and the likelihood of implementation.

I evaluate political feasibility on a low, medium, to high scale, with high being the most feasible. A low score indicates that the proposal will encounter opposition, multiple implementation steps, or a high degree of outcome responsibility on the U.S. and Panamanian governments. A medium score reflects either a high number of implementation steps or a high degree of government opposition. A high score will be awarded to any policy that requires minimal government investment, few implementation steps, and low likelihood of opposition. Alternatives that score high on question one but low on questions two and three are the most favorable.

Appendix G - Cost Calculations

I. Alternative 1- Cost of Humanitarian Checkpoints

Item	Description	Link	Unit cost	Bulk cost	Bulk Quantity	No. of Uses	Quantity needed	notes	Total cost estimates (4 checkpoints)
Fixed Costs									
Tents	16' x 16 inches	https://celinar.com	\$1,570.62				4		\$6,282.48
Tarps	16' x 16' inches	https://www.google.com	\$39.95				16	at least 4 tarps/ location	\$639.20
Variable costs									
Aid									
Waterproof bag 7.5cm*4.6m	https://www.google.com	\$0.99				2	200		\$792
Gauze	4-1/2 Inch X 4-	https://www.google.com	\$0.84		100	4	200		\$668.80
Splint	-	https://www.google.com	\$7.99			1	90		\$1,278.40
Disinfectant antibiotic ointment	https://www.google.com	\$11.99			144	1	2		\$95.92
Fresh socks mens athletic cut socks		\$0.92				1	200		\$732.00
Hydrocolloid dressing	https://www.google.com	\$0.14	\$55.00		400	1	1		\$220.00
Pouches		\$0.41					200		\$328.00
Police force	https://www.google.com	-							\$11,104.80
Total weekly cost (variable)									\$15,219.92
Total monthly cost (variable)									\$60,879.68
ANNUAL COST									\$737,195.36

II. Police Salary Calculations

Unit Cost per Day	Personnel per Checkpoint	Daily Cost per Checkpoint	Daily Cost at all Checkpoints	Weekly cost all checkpoints	Total Monthly Costs
\$132.20	3	\$396.60	\$1,586.40	\$11,104.80	\$44,419.20

III. Alternative 2 – Monthly Variable Costs

Item	Description	Link	Unit Cost	Bulk Cost	Bulk Quantity
Gauze	4.5 x 4.5 inches	https://www.google.com		\$20.45	48
Waterproof bag 3 3/4 x 3 in	https://www.google.com			\$42.00	1000
Mens socks fits sizes 7-12	https://www.google.com		0.54	\$26.00	48
Womens socks fits sizes 4-10	" "		0.54	\$26.00	48
Disinfectant antibiotic ointment	https://www.google.com			\$11.99	144
Bacitracin	https://www.google.com			\$10.99	144
Splint	https://www.google.com		2.50	-	1
Hydrocolloid dressing 1.1 x 1.4 x 1.4m	https://www.google.com			\$55.00	400
Aquatabs one tab per packet	https://www.google.com		0.14	\$13.99	100
Pouches 14x9x4 cm	https://www.google.com		0.40	-	1

IV. Alternative 2 – Annual Fixed Costs

Name	Description	Link	Quantity in item	Quantity Needed	Unit Cost	Total cost
Tent	10x15 feet	https://www	1	2	\$1,570.62	\$3,141.24
Table	60 x 30"	https://www	1	4	\$110	\$440
Signs	-	https://www	1	4	\$110	\$440
Total						\$4,021.24

V. Alternative 2 – Labor Costs

Average Salary	People Needed	Hours per Day	Total Daily Cost	Total cost (5 days/week)	Total Monthly Cost	Total Weekly	Annual Cost
\$19	3	8	\$456	\$2,280	\$9,120	\$109,440	

VI. Alternative 2 - Cost Calculations for Regional Aid Provision

Fixed Costs
Labor Costs
Annual Cost

VII. Alternative 3 – Cost Estimate for Regional Information Campaign

EU Migrant Information Campaign Cost Estimate

Total Cost EUR €23,000,000

Number of Campaigns 129*

Cost per Campaign EUR €178,294.57

USD Cost per Campaign \$191,471.58

* Assuming equal cost per campaign

PRM Migration Campaign Cost estimate

Cost of One Campaign \$1,000,000 USD

Appendix H – Alternative 3 Effectiveness Calculation

I. Details of IOM RCT on information campaign effectiveness

IOM Randomized Controlled Trial

IOM conducted a randomized controlled trial to measure the causal impacts of the MaM campaign element on potential migrants' perception, information levels, knowledge and intention to migrate (irregularly) to Europe

IOM Survey Takeup	Outcomes
8450 invited to survey	19 percent more likely to report feeling well-informed about the risks and opportunities associated with migration compared to the control group
1393 received callback survey	25 percent more aware of the multiple risks associated with irregular migration compared to the control group
.165 participation ratio	20 percent less likely than the control group to report intention to migrate irregularly within the next two years Treated group was 8.6 percentage points more likely to perceive a risk of violence

Appendix I – Alternative 3 Effectiveness Calculation

I. IOM Literature Review on Migration Information Campaigns

IOM Literature Review on Migration Information Campaigns

Extensive lit review conducted by IOM to assess the success rate of information campaigns in fostering "knowledge generation" or "risk awareness." The studies sample size is a limitation; many of the studies were based on cross-sectional

Sample Size	Outcomes
60 relevant evaluations identified	49% (19 studies) reported a change in behavior
Only 30 were publicly available	52% (11 studies) reported a change in attitude
	89% (26 studies) reported increased knowledge
	Treated group was 8.6 percentage points more likely to perceive a risk of violence

II. Effectiveness Calculation Assumptions and Estimates

Calculation Estimates

Assumption

In person contact will double the survey participation compared to mail ins.

Ratio Estimates

0.33 Participation /exposure ratio

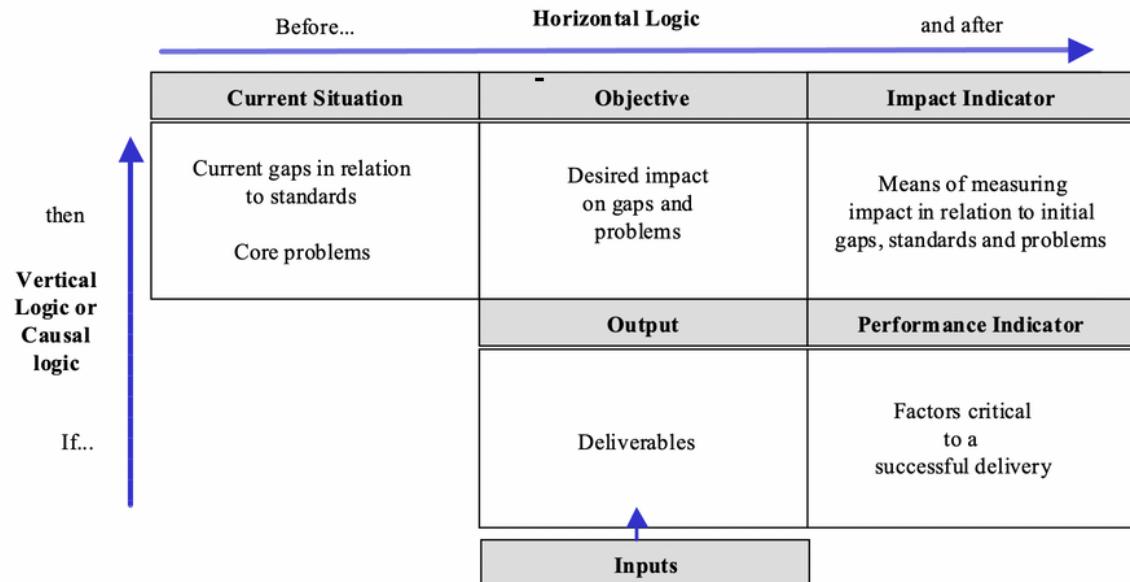
0.25 Upper bound (percentage)

0.19 Lower bound (percentage)

III. Estimation of Increased Knowledge with Information Campaign in 2022

Month	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Number	4,059	3,527	3,958	5,358	11,885	13,296	19,784	26,939	41,183	48,842	12,893	16,122	207,846
Upper bound	1,015	882	990	1,340	2,971	3,324	4,946	6,735	10,296	12,211	3,223	4,031	51,962
Lower bound	771	670	752	1,018	2,258	2,526	3,759	5,118	7,825	9,280	2,450	3,063	39,491

Appendix J – UNHCR Impact Evaluation Matrix



SOURCE: UNHCR, 2022

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HUMANITARIAN CRISIS IN THE DARIEN GAP

ADDRESSING THE UNDER - PROVISION OF HUMANITARIAN AID

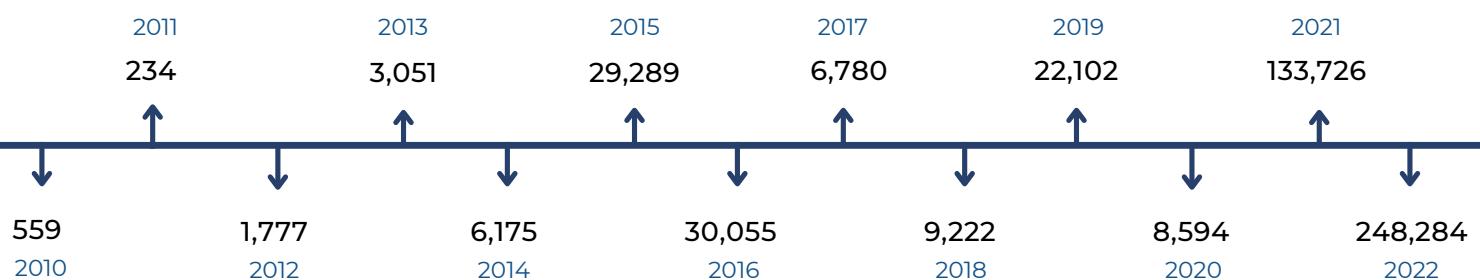
POLICY RECOMMENDATIONS

PREPARED FOR THE STATE DEPARTMENT BUREAU OF HUMAN RIGHTS, DEMOCRACY AND LABOR

1 PROBLEM

An increasing number of migrants are traveling through the Darien Gap, a 60-mile jungle connecting Colombia and Panama, to reach North America. Demand for humanitarian medical aid has eclipsed the current capacity of sub-governmental and NGO implementers.

IRREGULAR ENTRIES RECORDED AT THE PANAMA - COLOMBIA BORDER



2 POLICY OPTIONS



CHECKPOINTS WITHIN JUNGLE

\$1.25 MILLION USD

~ 38,400 REACH

LOW - MODERATE

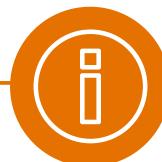


AID PROVISION IN COLOMBIA

- USD

50,000 REACH

HIGH



REGIONAL INFORMATION CAMPAIGN

\$200K - 1 MILLION USD

~ 40,000 to 52,000 REACH

MODERATE - HIGH

3 RECOMMENDATION

It is recommended that the DRL Bureau contract with UNHCR to scaffold a rollout of medical aid in the Colombian towns of Turbo, Necoclí and Apartado and a regional information campaign, respectively.