

## Climate Change and Human Trafficking

An investigation into how climate change and natural disasters increase the risk of human trafficking and how it can be intercepted in the future

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**Abstract:**

Human trafficking is an exploitative crime occurring worldwide. According to the International Organization on Migration (IOM), research on human trafficking's underlying causes is lacking; particularly the role of climate change and natural disasters. Environmentally displaced persons (EDPs) are vulnerable to human trafficking, but this connection is not widely understood. In order to contribute to the understanding of and solutions to the problem, I conducted a systematic literature review and a document review of protocols for disaster response. From the literature review, there were two clear connections: (1) natural disasters increasing due to climate change lead to human displacement, and (2) EDPs are more vulnerable to human trafficking. The connection between 1 and 2, however, was seriously underdeveloped. Furthermore, the document review exposed a lack of measures in place to intercept human trafficking.

To analyze these gaps, I use the environmental justice framework in order to conceptualize the reasons why certain displaced populations become vulnerable to human trafficking. My aim is to identify which injustices need to be addressed in order to prevent EDPs from facing a further risk of human trafficking. My research reveals the lack of legal protection for EDPs, how their socioeconomic status greatly affects their risk, and the general lack of prevention and protection in disaster response protocols to handle their exposure to human trafficking. To address these injustices, I highlight the importance of further research and interdisciplinary action to intercept human trafficking risk in the face of future natural disasters. Additionally, I provide a practical recommendation using Emergency Response Planning (ERP), urging countries and aid organizations to have precautionary plans in place for future disasters. Human trafficking is a serious threat to human security that is not to be taken lightly. With this in mind, I urge the importance of future research and action taken to reduce the incidences of trafficking after natural disasters.

**Keywords: human trafficking, natural disasters, climate change, human displacement, environmental justice, capabilities**

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**List of abbreviations in order of mentioning:**

IOM: International Organization for Migration

EDP: Environmentally displaced person

IPCC: The Intergovernmental Panel on Climate Change

UN: United Nations

TiP: Trafficking in Persons

UDHR: The Universal Declaration of Human Rights

EJ: Environmental Justice

SLR: Systematic Literature Review

UNCHR: United Nations Refugee Agency

UNFCCC: United Nations Forum on Combatting Climate Change

UNISDR: United Nations Office for Disaster Risk Reduction

OCHA: United Nations Office for the Coordination of Human Affairs

UNDP: United Nations Development Program

FEMA: United States Federal Emergency Management Agency

ED: connection between Environmental/climate change and human Displacement

DT: connection between human Displacement and human Trafficking

EDT: connection from Environmental/climate change to human Displacement to human Trafficking

ILO: International Labor Organization

UNHCR: The UN High Commissioner for Refugees

SS: Sustainability Science

ERP: Emergency Response Planning

MPP: Minimum Preparedness Plan

APA: Advanced Preparedness Action



## 1 Introduction

At the third Global Forum on Migration and Development, the United Nations Secretary-General called for special attention towards human trafficking victims who he labeled as the most vulnerable of all migrants (Yakzhyk, 2015). According to Kuusipalo (2017), there is a strong consensus that climate change is dramatically increasing human displacement, especially in poverty-stricken regions where people have fewer resources to respond to devastating natural disasters or slow-onset changes such as sea-level rise. As humans are displaced, they face a wide range of vulnerabilities, including the risk of human trafficking. However, according to the International Organization for Migration (IOM) (2016), the connection between climate change and human trafficking is exceptionally under-researched.

Environmentally displaced persons (EDPs) face many factors common to individuals most vulnerable to human trafficking: poverty, loss of livelihood, and forced displacement (Molinari, 2017). However, these similarities are widely unrecognized. Due to government agencies' lack of information on this particular cause and effect, EDPs severely lack protection under international law (Westra, 2009). This exposure leaves EDPs not only in hardship due to the potential loss of their livelihood but leaves them legally unprotected at a time when they need protection the most. Current discussions on the connection between climate change and threats to human security have been vague, do not address underlying causes of EDPs' vulnerability, and have not included the threat of human trafficking they face (Molinari, 2017). Since human trafficking is a severe human rights violation and climate change is an undeniable threat to the future, I was intrigued by this gap in knowledge and wanted to understand their connection further.

The purpose of this paper is to investigate the connection between climate change and human trafficking, gain theoretical understanding for why the two are connected and create a suggestion to intercept human trafficking risk in the face of future climate change. My research was based on the following questions:

- 1 How is climate change leading to human trafficking and how robust is the understanding of this connection in scientific literature?
- 2 Based on disaster response protocols, what mechanisms, if any, are in place to prevent and intercept human trafficking in the face of a natural disaster?
- 3 How can understanding the connection between climate change and human trafficking lead to increased justice for vulnerable persons?

- 4 What practical steps can be taken in disaster scenarios to reduce human trafficking risk for environmentally displaced persons?

The following background information illuminates why climate change and human trafficking are pressing issues on their own. Then, to understand the range of potential connections between these two issues, I will introduce the environmental justice framework that will be further explored in the Discussion section.

## **2 Background**

### **2.1 Why climate change?**

Over the past few decades, the frequency of natural disasters has doubled as a result of anthropogenic climate change (Islam & Shamsuddoha, 2017). In addition to natural disasters, climate change is expected to worsen perilous conditions such as extremely high and low temperatures, windstorms, and droughts, which are already taking a toll on human populations (Bellard, Leclerc, Hoffmann, & Courchamp, 2016). These consequences of a changing climate are increasingly acting as environmental push factors leading to migration and displacement (Islam & Hasan, 2016). This is particularly true in coastal communities, where sea-level rise is predicted to displace about 400 million people (Nicholls, Tol, & Vafeidis, 2008).

The Intergovernmental Panel on Climate Change (IPCC) AR5 Summary for Policymakers (2014) lists a range of potential consequences due to climate change but mentions that preparing for and preventing these consequences includes acting without complete certainty. There is additional uncertainty on the exact effect climate change has on displacement, with predictions ranging from 23 to 62 million EDPs per year (Gerrard, 2013; Islam & Hasan, 2016). With estimates of displacement this large, it is shocking that no international mechanism exists to legally protect EDPs (Westra, 2009). If a person is forced to move from their homeland due to a climate change related event, be it slow onset or a sudden natural disaster, they are not legally protected under the 1951 Convention Related to the Status of Refugees (Jayawardhan, 2017). The only exception under the convention would be if a specific religious or political group was facing the environmental burden more than the entire population and felt as though they were facing discrimination from their government (Jayawardhan, 2017).

Although its consequences are devastating, climate change is providing opportunities to study human behavior because inequalities are more visible in the face of environmental disasters (Forgette, King, & Dettrey, 2008). Impoverished populations will face a disproportionate amount of the burden of

environmental displacement as their habitual places become uninhabitable through disasters (Gerrard, 2013). According to Nicholls (2008), the public's understanding of climate change's potential harms is concentrated in the drama of sea level rise, but the myriad of social and environmental consequences of climate change is not widely understood. This is partially due to difficulty defining what exactly makes someone a climate change migrant or an EDP since migration is never solely due to climate change, but rather a compounding result of vulnerabilities (Warren, 2016).

Nevertheless, there is consensus that climate change will certainly lead to mass displacement, increasing vulnerability, particularly of the poor (Gerrard, 2013; Islam & Hasan, 2016). EDPs must go somewhere, and their vulnerability is easy to take advantage of, as I will argue when connecting displacement to human trafficking.

## **2.2 Why human trafficking?**

According to the United Nations (UN) Palermo Protocol, trafficking in persons (TiP) is defined as “the recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation” (UNODC, 2000 pg.2). In short, TiP is using force, fraud or coercion to exploit another human being. Common purposes for human trafficking include textile factories, involuntary sex work, domestic servitude, commercial fisheries, farm work, child marriage, brick making, among many others. This exploitation often takes place due to high demand for cheap labor and weak governance mechanisms in place to protect people from harsh working conditions. TiP has been nicknamed “modern-day slavery,” and today, there are an estimated 40.3 million modern day slaves worldwide (Zimmerman & Kiss, 2017).

To traffickers, humans are an excellent commodity as they are not easily perishable and can be re-used, re-transported, and re-sold over extended periods of time, the chances of persecution for trafficking are much lower than other criminal activities, and there is no need for significant investments upfront (Bales, 2007; Omar Mahmoud & Trebesch, 2010; Shelley, 2010). TiP is commonly seen as yielding high profits with low risks as a human can be sold many times without being discovered by legal authorities (Shelley, 2010). The only exceptions to multiple uses are organ trafficking and children trafficked through adoption, as these transactions only take place once (Shelley, 2010).

Traffickers target vulnerable groups who are more willing to take an offer of employment due to harsh socioeconomic conditions and hope of protection if the opportunity to move to a new country is presented (Gurung & Clark, 2018). Recruiting from populations facing strife such as economic crises, discrimination, or environmental displacement is easier since there is a larger pool of vulnerable people in search of means for livelihood (Shelley, 2010). Children without parents, refugees, the poor, and those facing deep crises are common prey for traffickers as they are easy to manipulate (Shelley, 2010).

After decades of little attention paid to TiP, it is becoming a more commonly discussed topic (Omar Mahmoud & Trebesch, 2010). Early conversations have centered around the sexual exploitation of women and girls for the global sex trade, but public awareness of trafficked exploitative labor is increasing (Zimmerman & Kiss, 2017). The Universal Declaration of Human Rights (UDHR) Basic Rights of All Persons includes “the right to not be held in slavery or servitude, the right to not be subjected to torture or to cruel, inhuman, or degrading treatment... free choice of employment, and just and favorable conditions of work” (Martin, 2010 pg. 402). Additionally, according to the International Criminal Court, enslavement or inhumane acts that cause severe bodily or mental suffering are classified as Crimes against Humanity (Westra, 2009). However, these are simply statements on paper. The general awareness, understanding, and proper prosecution of TiP lack greatly, and not much is known about the nature of conditions that allow it to exist. While global economic inequalities are relatively understood in academic literature, there is a lack of understanding of how these inequalities lead to TiP (Molinari, 2017). Since TiP thrives on exploitation of human beings, be it economic or physical exploitation, basic human rights are violated, thus calling for an urgent need to understand its causes and how to eradicate it (Omar Mahmoud & Trebesch, 2010).

### **2.3 Understanding climate change and TiP using an environmental justice lens**

I use the environmental justice (EJ) framework in this thesis to conceptualize the various reasons people go from encountering a natural disaster that displaces them to being at risk of TiP. I use it to argue for how climate change can end up leading to TiP by highlighting the injustice faced by EDPs. Ideally, my research will uncover the unjust factors that EDPs face when they are displaced. Additionally, I will aim to identify what injustices and occurrences need further research to understand exactly how to prevent EDPs from TiP.

In the 1960s, the EJ movement began in the United States as an outrage against a noticeable pattern of environmental harms such as contaminated soil and water disproportionately affecting communities of color (Banerjee, 2014). Since then, it has become a global movement and recognition that marginalized communities commonly face greater environmental and health issues, while white, affluent communities face far fewer burdens, largely due to the greater amount of decision making and political power they hold (Bullard, 1994). Today there is indisputable proof, through hundreds of cases in the United States and an increasing amount of cases worldwide, that environmental injustice is a common pattern (Westra, 2009).

Today's discourse of environmental protection has legitimized a pattern of polluter pays principles, normalized human exposure to harmful toxins and environmental hazards, compromised human health for the profit of polluting corporations and made environmental protection a general afterthought (Bullard, 1994). There is a clear disconnection between those making informed choices to pollute and those who are facing the consequences (Walker, 2009). Additionally, those reaping the benefits of the polluting actions are rarely the ones facing the consequences for their actions (Walker, 2009). This is inherently unjust for the vulnerable, as I will argue in the discussion.

The basic concept of the EJ movement is the belief that all people, regardless of their race, socioeconomic status, or class deserve fair and equal protection from environmental and health harms (Mohai, Pellow, & Timmons Roberts, 2009). Through greenhouse gas emissions, affluent developed countries have contributed a great deal to climate change. However, they are not the ones who are currently facing the brunt of climate change. Certain countries are already prone to disasters (e.g., Bangladesh's susceptibility to flooding), and often, these countries are not the ones responsible for the majority of climate-altering emissions. As the climate warms, increases the frequency of natural disasters and intensifies extreme environmental conditions, human vulnerabilities will be exacerbated by displacement. This paper is based on the idea that it is an environmental injustice for EDPs to face an increased risk of human trafficking due to the harmful actions of others, and this theory will be the basis through which I explore, explain and elaborate the connection.

## **2.4 Rationale for research methods**

My initial motivation for this research came from an attempt to write a blog post for an anti-trafficking organization on how climate change is contributing to TiP. The shortage of research available sparked my

interest in understanding what is currently understood about the connection and what needs additional research to be further developed. This led me to conduct a systematic literature review. Next, I presumed that since the research is sparse, the on-the-ground practice of intercepting TiP in the face of a natural disaster may also be lacking. To test this hypothesis, I reviewed documents and protocols in place for natural disaster response.

The following section will outline my methodology for understanding the current state of knowledge of and action taken towards the climate change-TiP connection to answer research questions 1 and 2. Then in the discussion section, I will use the EJ lens to understand the phenomenon and make the case that this connection is unjust, furthermore aiming to understand the factors that make one vulnerable to TiP in the face of climate change. Additionally, I will use the capabilities framework to further understand the injustices faced by EDPs and argue why the connection needs further research and on-the-ground action. This will address research question 3. Finally, I will provide a recommendation for practical preventative action to be taken in the face of natural disasters to answer research question 4.

### **3 Methods**

I conducted this research using two methods: (3.1) a systematic literature review (SLR) to analyze the current academic literature covering the issue and (3.2) a document review of disaster response and preparedness protocols to identify the presence, or lack thereof, of acknowledgement that natural disasters increase the risk of TiP when they cause displacement, and furthermore understand how I can contribute to improving the practice of preventing TiP in section 5.

#### **3.1 Systematic Literature Review**

The IOM's claim of little research connecting climate change to TiP motivated my SLR to discover what academic understanding if any, exists on TiP caused by natural disasters. The purpose of a SLR is to uncover all available academic literature on a topic and analyze the quality of the research with the goal of summarizing the current knowledge on the topic (Leuderitz et al., 2016). According to Okoli and Schabram (2010), SLRs are an excellent tool for students as they allow a student to synthesize knowledge on a subject matter of their interest, strengthen a student's research skills and rigor, and potentially open the door for future research.

I began the SLR process by formulating a search string to be used in one or several databases. I followed the guidance of Leuderitz et al. (2016) by performing background research for the search SLR string on a “grey database” such as Google Scholar, and conducting the final search on the scholarly databases Web of Science and Scopus. Once I had used the search strings on their own databases, the titles and abstracts were evaluated to determine whether or not they are relevant (Leuderitz et al., 2016). Once relevant literature was chosen, I read and codified it in a manner that distinguished which literature covered certain criteria or topics. The process of a SLR is arduous and requires a great deal of patience and open-mindedness since the method of understanding all that is known about a certain topic is time-consuming and tedious. Additionally, the purpose of a SLR is not to simply repeat research that has already been conducted. Rather, the research should be conducted with criticism, using theory-based arguments to analyze literature available on the subject (Okoli & Schabram, 2010). Therefore, in the discussion, I will evaluate my findings through the EJ framework.

Preliminary research included several Google Scholar searches to analyze the current discussions on the topic. Most of this literature fell into two categories: one addressed climate change and natural disasters leading to human displacement, the other addressed human displacement leading to TiP. The research within these two categories was strong, particularly on natural disasters leading to human displacement, but the connection between the two was missing. This confirmed my initial insight. So, after analyzing the current body of background literature on ‘grey’ databases, I narrowed down exact wording to use in a systematic literature review on the Web of Science and Scopus databases.

Words that were chosen were those used most frequently and with the most clarity in their definitions, but this was difficult. For example, literature from Google Scholar has a variety of wording to describe humans who have been displaced from their permanent places of living due to a disaster. Some refer to them as “refugees,” but this makes their legal status confusing since they are not refugees by legal definition. Other resources use the term “forced migrant,” but these were few and far between. The term most commonly used with the clearest meaning was “displacement.” Even if certain literature had used the terms “refugee” or “forced migrant,” they also included the term “displacement” to describe the action that people were facing. For the sake of this research, “displacement” was chosen as the best identification. In addition, there is an increasing amount of research using the term “environmentally displaced person” (EDP) to identify those who have had to leave their habitual living place due to natural disasters or climate change.

Due to the frequency of usage in preliminary literature research, the following search strings were used:

Web of Science search string:

TOPIC: ("climate change" AND "human displacement") OR TOPIC: ("natural disaster\*" AND "human displacement") OR TOPIC: ("climate change" AND "human trafficking") OR TOPIC: ("natural disaster\*" AND "human trafficking")

Scopus search string:

( TITLE-ABS-KEY ( "climate change" AND "human displacement" ) OR TITLE-ABS-KEY ( "natural disaster\*" AND "human displacement" ) OR TITLE-ABS-KEY ( "climate change" AND "human trafficking" ) OR TITLE-ABS-KEY ( "natural disaster\*" AND "human trafficking" ) )

These search strings yielded results that either connected two phrases (e.g., a common result was a paper connecting “natural disasters” to “human displacement”) or ideally all phrases. I will present the results with a matrix created to classify the categories of the literature.

### **3.1.1 Research limitations**

When conducting a SLR, it is expected that there will be a large body of literature. However, when conducting a SLR on a topic that is under-researched, this may not be the case. The process of choosing the search string was extremely arduous, and either yielded a massive amount of results or a small number of results. When the result was a large amount of literature, this was because the scope had not been narrowed down. For example, when simply using the word “displacement” in the search string, the result was a large body of literature on climate change leading to species displacement. My focus was specifically on humans being displaced, so after adding “human” to the search string, the number of results dramatically dwindled.

Since scarcity is simply the nature of the literature available, I decided to keep going and use the small amount of literature as a reason to call for more research on the topic. With a topic that is new and relatively unexplored in academic literature, a SLR is an appropriate starting point to assess the current knowledge on the topic, which specific disciplines are conducting the research, patterns in assumptions



made about the connection between climate change and TiP, and places where further research needs to be done. Additionally, I use EJ as a method to gain a deeper understanding of the problem, even though the amount of literature is sparse.

### **3.2 Document Review**

The motivation for this document review was based on Gurung & Clark's (2018) claim that government and NGO plans for disaster response are not likely to intersect with their measures taken to prevent TiP. They mention that, although it seems understandable for general rescue and rehabilitation actions after a natural disaster to hold more importance than actions taken to reduce TiP risk, this only reinforces the protection gap causing EDPs vulnerability to trafficking. If a person is already vulnerable to trafficking before a natural disaster, experiencing environmental displacement increases their need for proper mechanisms protecting them from trafficking (Gurung & Clark, 2018). Therefore, mechanisms in place should ideally provide interceptions that prevent EDPs from becoming even more vulnerable to TiP *in addition to* basic humanitarian aid. According to Gyawali et al. (2017), disaster relief plans need to include mechanisms to prevent and combat TiP explicitly. This is particularly important for EDPs who are not protected under international law (Warren, 2016). These recommendations from literature led to an exploration of disaster relief and preparedness documents to identify whether the risk of TiP is considered. To clarify, the disaster response and preparedness documents analyzed are those in place for sudden-onset disasters such as floods, hurricanes, earthquakes, landslides, typhoons, etc.

To begin, a review of documents from the United Nations Refugee Agency (UNCHR), United Nations Forum on Combatting Climate Change (UNFCCC), United Nations Office for Disaster Risk Reduction (UNISDR), United Nations Office for the Coordination of Human Affairs (OCHA), United Nations Development Program (UNDP), American Red Cross, and the United States Federal Emergency Management Agency (FEMA) was conducted. These documents were chosen due to their credibility, particularly the UN documents. Many of the literature sources from my preliminary gray literature discussed UN bodies in some form or another in the context of TiP. Since the UN is a wide-reaching body of governance providing humanitarian aid, I presumed that at least one of their documents would include a protocol for intercepting TiP risk in a natural disaster scenario. Lastly, I chose to assess agencies from the United States (FEMA and Red Cross) since I have experience working with anti-trafficking organizations in the U.S. and wanted to identify whether or not its agencies consider TiP in their response plans.

Each one was assessed using the following criteria: (1) Is there a mention of TiP in this document? (2) Identify the gaps where TiP could be mentioned in an effort to reduce the vulnerability of those facing the disaster. The main goal of the document review was to gauge whether TiP is at all acknowledged in disaster response and preparedness plans. This document review will ideally complement the SLR in understanding the current attention given to TiP resulting from natural disasters and climate change. Furthermore, I hoped that my knowledge from the SLR would provide critique of current protocols in place and inform recommendations for disaster response in the future.

### ***3.2.1 Research limitations***

This document review was limited by the fact that not all disaster response and preparedness protocols are made equally. Depending on the agency that created them, the scope of the disaster they are prepared for, or the audience they are aimed towards, they were quite diverse. Some documents, such as the UNHCR Emergency Handbook, were made specifically for first responders and volunteers. Others, such as documents provided by the American Red Cross, were geared towards both first responders and victims of the disaster. Because of this difference in audience, the documents varied in tone and urgency. The American Red Cross also had different kinds of documents for different disasters. For example, the preparedness and response documents available for hurricanes were not the same kind of documents available for floods or wildfires. The disasters that did not have as many documents available exposed a gap in protection and awareness of potential risks associated with certain natural disasters compared to others.

These documents tended to be difficult to find. Some searching led to a dead end when a website would return an “access denied” message. Other web pages led me in circles where links would return me to a site that I had already seen earlier in the search process. Additionally, the documents tended to be vague in nature, and if they did mention serious risks, they were rarely specific to which real risks were faced by victims of disasters. For example, OCHA’s language is heavily focused on providing humanitarian need, but the practical steps to deliver humanitarian aid are not presented. Overall, the UN documents were lacking in practical steps. One exception was the UNHCR Emergency Handbook. This is a database available online and in an app, geared towards first responders and volunteers. It provides some instructions for what to do in certain scenarios, but the general database is disorganized.

Discontinuity is something to be expected when analyzing documents from different organizations and governments. However, the degree of ambiguity in these documents is concerning considering they are meant to handle serious, life-threatening humanitarian crises.

## 4 Results

### 4.1 Systematic literature review

The search on Web of Science and Scopus yielded a combined total of 73 papers. Once narrowed down based on the relevance of the titles and abstracts, the final number of papers was 24. This number alone verifies the IOM's claim of little research covering this topic. Once the papers were narrowed down and read, they were assigned to a matrix based on letters identifying the topic(s) they covered:

E = Environmental disasters, natural disasters, climate change

D = Human displacement

T = TiP

Ideally, all papers would identify with all three letters, EDT. However, that was not the case for many of them- half of the papers covered natural disasters or climate change and human displacement. Figure 1 displays the frequency of the topics in the literature analyzed. Only three papers covered the full connection between natural disasters, human displacement, and TiP. There was a clear connection in the literature between natural disasters → human displacement and human displacement → TiP, but the connection between the two is still in an early phase of research according to the literature review.

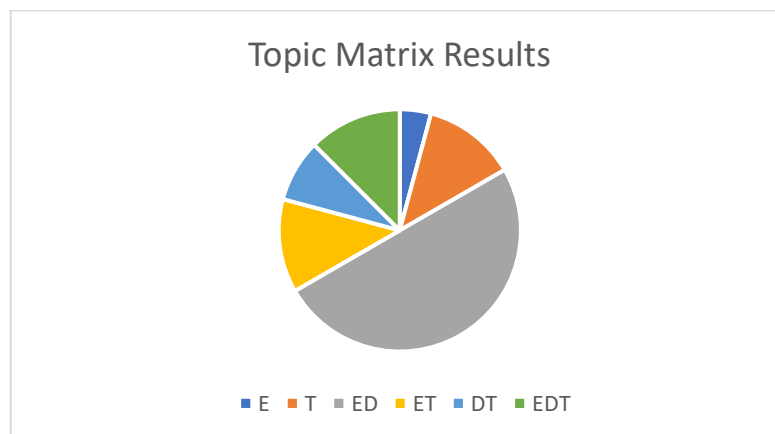


Figure 1: Distribution of matrix results based on literature topic (own figure)

The following section is a summation of the existing literature connecting climate change and natural disasters to TiP. I have divided the results from the literature into two main categories: the first will cover what is understood regarding the phenomenon, then the second will cover what research needs to be expanded upon and why. First, I will present an overview of how climate change and natural disasters are leading to increased human displacement (ED connections), followed by an overview of human displacement leading to increased vulnerability to and incidences of TiP (DT connections). This is followed by a short summation of the literature that covers the EDT topics, making the full connection between climate change and TiP. Finally, in the second category, I present an overview of the research that calls for more intense studies to be done on the specifics of TiP and what shortcomings exist in literature today.

#### **4.1.1 What is understood in the literature?**

##### ***How does climate change lead to human displacement?***

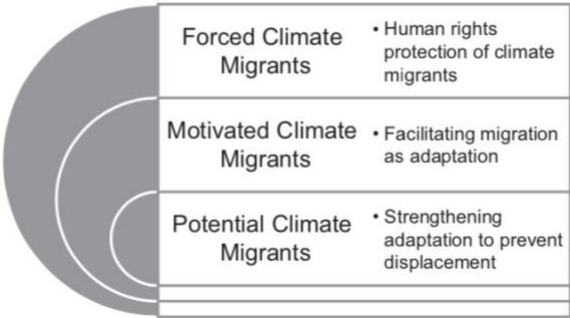
As climate change worsens and increases the frequency and severity of natural disasters, it is leading to large fluxes of migration, particularly of the poor and those who depend on natural resources for their livelihood (Islam & Hasan, 2016). Natural disasters are not an unexpected force, as they have been affecting every region of the world for the entirety of human civilization, but the amount of EDPs today is unprecedented and will only continue growing.

There are two main types of disasters that lead to displacement: sudden-onset events such as floods or wildfires, and slow-onset events such as droughts or sea level rise. Sudden-onset events typically lead to mass amounts of displaced persons leaving quickly, while slow-onset events steadily bring strife to natural resources, employment prospects, and agricultural accessibility, leading to a slow movement of people out of the area (Islam & Shamsuddoha, 2017). It is important to note that displacement is rarely caused solely by the natural disaster. Rather, it is caused by the natural disaster combined with socioeconomic factors and increased vulnerabilities that make it impossible for people to stay in their habitual land. In many of these cases, migration is not an option, but a necessary tool for survival (Islam & Shamsuddoha, 2017).

One reoccurring environmental threat identified in the literature is sea level rise and its definite risk to those who live in coastal zones. Wetzel, Kissling, Beissmann, and Penn (2012) studied Southeast Asian and Pacific islands and found that coastal areas alone are predicted to lose 3-32% of their land mass to sea level rise. They found that this amount of sea level rise would lead to an estimated 8 to 52 million displaced

persons. Sea level rise is often discussed in the media as a commonly known consequence of climate change, but its actual consequences are rarely discussed in public platforms. There is an acknowledgment that the sea level will rise, but the conversation tends to end there. What happens to the people living on or near the coastline? What if their livelihood depends on an ocean-based activity such as fishing and they are forced to relocate to a place where this job is not an option? What if their only option is to leave, but leaving means they have to enter a new country? Humans living in these coastal areas have two options: to implement adaptation measures or to leave (Nicholls et al., 2008).

Figure 2 from Naser (2015) divides EDPs into three categories in order to identify and suggest political solutions for each subgroup. The groups are (1) Forced Climate Migrants: those who have already had to flee their habitual land in a rush due to a sudden-onset natural disaster, (2) Climate Motivated Migrants: those facing slow-onset events who may have more time to contemplate leaving, but will resort to migrating in the future, and (3) Potential Climate Migrants: those who will have to flee in the future. Naser uses these three groups to identify three policy recommendations for working with EDPs. To address Forced Climate Migrants, Naser suggests prioritizing the use of human rights organizations and overall protection of their rights as humans. Second, Naser suggests that Climate Motivated Migrants need to be covered by laws that support using migration as an adaptation mechanism to climate change. Lastly, he recommends improved adaptation mechanisms to prevent Potential Climate Migrants from having to migrate. While these recommendations are starting points for future policy changes to ensure the legal coverage of EDPs, the most pressing issue as of now is that EDPs, no matter which category they fall under, are not protected by international law. Due to this lack of coverage, Naser questions whether there should be overarching policy to address all EDPs first, or if each of the three EDP types needs specific attention in creating protective laws.



**Figure 2:** 3 categories of climatically displaced persons and potential solutions for each one (Naser, 2015)

Based on the ED connection in the SLR, there is strong theoretical background supporting the climate change and displacement connection. In other words, it is safe to assume that climate change will indefinitely cause the need to move. However, according to Islam and Hasan (2016), the consequences of this displacement and migration are not fully known yet, and current knowledge is based on common sense assumptions rather than solid evidence. These assumptions use sociological knowledge to predict how humans will act when they are displaced, but data from actual cases is lacking. This may be due in part to the fact that displaced persons are difficult to study, and studies that have taken place might not be applicable to the entirety of EDPs. The main takeaway of this literature is that climate change will lead to worsening natural disasters in the future, forcing the displacement of more people. When a natural disaster is combined with limited availability of resources, threats to livelihood and employment, and increased vulnerability, displacement must occur (Islam & Shamsuddoha, 2017).

#### ***How does human displacement lead to TiP?***

When an individual endures a natural disaster, their economic security may be stripped from them, forcing them away from their homes and into an extremely vulnerable state that isn't legally protected (Bowersox, 2018; Jayawardhan, 2017). Any time there is a large influx of increasingly vulnerable people, this is the ideal setting for traffickers. TiP is already a globally occurring phenomenon that happens regardless of climate change, but populations who have just experienced a crisis leading to displacement face a much higher risk of being trafficked (Gyawali et al., 2017). For example, in 2004, a massive flood in India led to an increase in trafficking of orphans and children displaced from their families. So, when another flood occurred in 2008, there was an adoption freeze implemented to prevent the trafficking of children (Shelley, 2010).

According to Bowersox (2018), people who experience displacement are at a higher risk of security threats because they fall into a protection gap between what they need and what is actually available for them. This brings into question the state's governance structures in place for displaced persons. While some states provide extensive measures to protect the displaced, others fall short, leading to increased exposure to safety threats for their citizens. However, Bowersox points out that no matter how strong a state's safety measures are, an increase in trafficking will undoubtedly exist after displacement regardless of the governance structures in place to prevent it.

Traffickers often use the guise of a job recruiter, providing illegitimate yet attractive work offers such as overseas work with high pay and the opportunity to start over in one's career. Displaced persons might find offers from traffickers appealing, especially with promises of providing transpiration and a desirable job in a place that is not undergoing a crisis (Gurung & Clark, 2018). The promise of these jobs is deceptive, and they may end up being trafficked for labor or sex. This is not the case for every displaced person, as some find legitimate forms of work and migration, but socially and economically vulnerable EDPs are more likely to accept a risky offer from a human smuggler. Human smuggling is not TiP, but the lines between the two are often blurred, and human smuggling can quickly lead to TiP (Bowersox, 2018). Dangerous situations may seem less severe in the face of a disaster, leading EDPs to take a job for the sake of exiting their current state of displacement (Bowersox, 2018). Traffickers may also recruit for scenarios other than jobs, luring EDPs in with the promise of marriage into a desirable lifestyle, particularly targeting women and children (Molinari, 2017).

EDPs are not exclusively at risk of being trafficked. Due to a high demand for traffickers to meet the increased supply after a natural disaster, displaced persons may also become last-minute traffickers themselves (Gurung & Clark, 2018). It is also likely that inhabitants of rural areas are more vulnerable to TiP because they are potentially harder to reach by governments and humanitarian organizations after a disaster (Gurung & Clark, 2018).

The final, and what I argue is the most important finding from the DT connection, is Zimmerman and Kiss' (2017) point that when people are displaced and have to make quick decisions on migration, they are at a higher risk of being exploited. They posit that criminal networks looking for humans to exploit often take advantage of those who are facing a crisis situation. The main takeaway from the DT connection is that natural disasters destabilize and aggravate a population's vulnerabilities providing the chance for criminal activity to spike and for traffickers to take advantage of the large pool of recently displaced persons (Bales, 2007). Gurung and Clark (2018) explain the connection as a spike in the vulnerability of an individual increasing the agency of crime rings working with trafficking.

### ***What does the literature say about natural disasters leading to TiP?***

The papers that covered the full EDT connection came to the general consensus that there is a definite threat to human security, but that further research is needed on the topic. Each one took a different

approach in explaining the general problem, and focused on different kinds of TiP, providing a wide variety of research in a short number of papers.

Molinari (2017) found that both on local and global scales, there is a definite connection between climate change consequences and increased vulnerability, particularly gender-based vulnerability, to exploitation through TiP. They point to the gap in acknowledgment that gender heavily influences trafficking risk, using a case study in the Indian Sundarbans where TiP is mainly concentrated in sexual exploitation of women and children. They broadly conceptualize TiP vulnerability as a product of available adaptation options. When one has scarce adaptation measures in the face of a natural disaster, their risk of TiP increases. Since this is a straightforward theory proving the EDT connection, Molinari expresses frustration that more attention has not been paid on the increase in TiP vulnerability after natural disasters.

Gurung and Clark (2018) conducted statistical research based on the assumption that internal TiP occurs within countries regardless of natural disasters, then assessed the increase in internal TiP after a natural disaster. They found that after a disaster, there is an increase in both sex and labor internal trafficking, but the spike in sex trafficking is much more apparent. This was especially true in communities that were economically disadvantaged where resource competition surges after a perturbation and its inhabitants are seeking out some source of livelihood. Additionally, their discussion included many interesting points on the spike in TiP after disasters. They state that survivors of natural disasters, particularly children, may end up in TiP scenarios due to their parents' need for money or belief that their child may be safer in a job that takes the children elsewhere. Oftentimes, these situations end up trafficking the children. They found that most countries do not have proper governance structures in place to prevent parents from allowing their children to fall into a trafficking ring. Additionally, they discuss criminalization of TiP, claiming that current legislation prosecuting human traffickers is not enough because countries tend to implement trafficking laws under international pressure and often end up hastily creating weak laws that are difficult to enforce. Gurung & Clark's main conceptualization of the EDT connection is that any time there is a natural disaster, there is an increase in the pool of victims for traffickers to choose from (Gurung & Clark, 2018).

Barmania (2014) covers the connection of natural disasters and TiP by specifically looking into gender-based discrimination leading to an increase in TiP after Typhoon Haiyan in the Philippines. They state that in the post-disaster phase, there is an increase in violence towards and exploitation of females, sometimes



leading to TiP if recruiters are present and exploiting vulnerable women. Barmania's research is heavily focused on solutions to this issue and has assessed efforts being made to address gender-based violence and reduce the risk of women being trafficked. These have included increasing awareness and educating women of the dangers they could face during or after a disaster, in addition to creating women-friendly areas in post-disaster care facilities such as camps. These women-friendly areas act as a place for women to participate in activities together, and they are also educated on how to spot risks of violence and how to properly report it. The areas additionally act as entry points for other aid services if a woman expresses need in a different area of her life. Barmania calls for increased attention paid to the TiP risk that arises after typhoons, particularly for women.

This is the extent of literature existing on SCOPUS and Web of Science covering the full EDT connection. Clearly, more needs to be done in order to address the severity of TiP risk after a natural disaster.

#### **4.1.2 What needs to be expanded upon to understand the EDT connection?**

Although there is only a small body of literature covering the full EDT connection, there was one overwhelmingly common theme throughout the SLR: authors mentioning that there needs to be a serious increase in research done on the topic for TiP to be properly intercepted. This does not mean simply understanding the problem, but digging deeper to understand the root causes of the increased TiP risk. This section covers the reasons why the literature has called for increased research, first covering why TiP as an isolated event needs to be addressed, then why TiP as a result of climate change needs serious attention in the future.

##### ***Arguments for expansion of TiP research***

TiP has been recognized as a serious threat to human security worldwide. However, actual research on TiP has been and remains sparse (Bowersox, 2018). The same applies to gender-specific exploitation. There is recognition that women and children are disproportionately vulnerable to traffickers, but little action is being taken to protect them specifically (Gyawali et al., 2017). Since the current state of knowledge is lacking, there is little consistency in the manner in which TiP is studied relating to different groups and locations (Healy & Link, 2011). For example, the majority of existing studies cover international TiP where victims are taken across borders, but there has been little attention given to internal TiP where victims are not taken out of their country (Gurung & Clark, 2018). This is problematic because attention is given to TiP as an international crime that needs to be addressed, but it ignores the presence of TiP within

state borders. As displayed in Gurung and Clark's work, internal TiP is a massive problem, and it would be unjust to only focus on international TiP.

While the acknowledgment of TiP has been accompanied with an attempt to increase criminalization, countries that successfully prosecute traffickers and view trafficked persons as victims rather than criminals are few and far between. In affluent developed nations, new anti-trafficking laws have yielded little success because of difficulties recognizing victims and providing proof that criminal activity is actually happening (Gurung & Clark, 2018). There is an issue with data collection on TiP statistics because of its underground nature. Additionally, there are misconceptions of who may be a TiP victim, allowing victims to go unnoticed as a hidden population (Akee, Basu, Bedi, & Chau, 2009; Hadjipanayis, Crawley, Stiris, Neubauer, & Michaud, 2018). Signs of TiP are not commonly known to the public, and even when they are identified, it is difficult for authorities to prosecute. For example, a common narrative I found in my experience with anti-sex trafficking NGOs in the United States is that simply calling the local law enforcement to identify a brothel employing trafficked women is not enough. There must be proof that commercial sex is being provided against the women's will, which is difficult to provide. Often times, the women working in these establishments are suspicious of outsiders and not willing to talk.

Additionally, the trafficker or pimp is rarely on site, so if there is a legal intervention of the brothel, the victims are often prosecuted as criminals while their trafficker remains untouched. Enforcement of anti-trafficking initiatives is even more difficult if law enforcement officials themselves are a part of the crime, allowing traffickers to get away with certain actions or exploiting victims themselves (Gurung & Clark, 2018). On the other hand, enforcement of anti-trafficking legislation is particularly difficult in developing countries due to a lack of capacity within law enforcement (Bowersox, 2018; Gurung & Clark, 2018).

In addition to law enforcement, there is an issue of proper funding when addressing anti-trafficking initiatives. For example, the anti-trafficking office of the United States State Department has a yearly budget of \$20 million. This number is less than they spend daily on anti-drug efforts (Gurung & Clark, 2018). As a global economic leader, this number is embarrassingly low. If affluent countries do not make an effort to combat human trafficking, it is understandable that economically disadvantaged countries would not prioritize human trafficking, especially in times of crisis (Gurung & Clark, 2018).

Lastly, and arguably the most important point, victims of human trafficking often slip through the cracks

of international law. In the case of international human trafficking, traffickers routinely take the documentation of victims, a common tactic of dehumanization. If a victim somehow manages to escape their trafficker, they have no identity to prove where they came from or request aid from the embassy of their own country (Shelley, 2010). Oftentimes, victims do not attempt to find assistance for a myriad of nuanced reasons. Victims may not believe that law enforcement can actually provide help, especially if the law enforcement in their own country is not trustworthy or if law enforcement officials have been a part of their trafficking. Some are facing manipulative threats from their traffickers that if they try to escape, the traffickers will inflict harm on their family or friends. Lastly, victims may know from stories of other fellow trafficking victims that asking for help from law enforcement is not helpful (Shelley, 2010).

### ***Why it's important to further understand how natural disasters affect TiP***

Areas of the world that are particularly prone to natural disasters and facing mass amounts of displacement are in need of development to reduce the vulnerabilities that would force them to move in the first place. However, current actions in place to handle natural disasters and displacement are mainly after-the-fact humanitarian aid programs and legal action taken towards migrants, rather than actions that tackle the root cause of their migration in the first place (Naser, 2015). If future efforts continue to only handle migrants after they have been displaced, this may normalize and perpetuate the risks they face as EDPs.

As climate change increases the amount of EDPs, the lack of legal coverage pertaining to them will become increasingly problematic. Additionally, there needs to be a recognition of the nuances associated with human trafficking. Coverage by international law is not enough, and the fight against human trafficking needs to go beyond the overarching patterns that prevent an EDP from being trafficked. Evidence and data of the complicated factors leading one to trafficking are urgently needed for the implementation of preventative human trafficking interventions (Zimmerman & Kiss, 2017). Bowersox (2018) found that countries who increase their measures taken for human security in times of crisis are more effective in handling human trafficking. However, this takes extensive research and data collection on specific cases in order for a government to properly intervene.

This section has covered the current body of knowledge connecting climate change to TiP. Next, the document review results will identify whether or not TiP is identified as a potential threat during natural disasters.

## 4.2 Document review

The criteria used to analyze the disaster response and preparedness plans were (1) does this document mention TiP as a risk to be avoided and (2) identify the gap in the document where TiP could be mentioned. The document review yielded a result of zero documents mentioning TiP. There were some instances of wording that could have connotations to TiP such as “exploitation” or “child labor,” but these words were not used in the explicit context of TiP. I found this odd because certain UN resources that are not made for disaster response emphasize TiP as a serious human rights violation that deserves serious attention. However, in the UN documents for disaster response TiP was not mentioned.

The UNHCR Emergency Handbook (2019) is an online and app-based database containing many protocols for governments, NGOs and volunteers handling disasters. There were certain instances in several of these documents in which a recognition of the threat of TiP would fit. For example, the Preparedness Package for Refugee Emergencies (2018) includes “scenario-based contingency plans” for instances when serious human rights violations happen. However, the language among these documents is vague and often does not provide examples of specific crisis or risks. Next, the UNFCCC did not have explicit documents for the sake of disaster response, but had several plans for risk management (2011a, 2011b, 2017). These documents did not include the risk of TiP. One section, in particular, listed economic threats as the main emerging risks from climate change but did not list humanitarian risks. The UNISDR created a comprehensive list of all disaster risk reduction and management actions being done in the UN (2013). Once again, TiP was not mentioned once in this 178-page report. The document is divided to give an overview of how each UN agency handles disaster risks, and the International Labor Organization (ILO) and IOM were two sections in which TiP could have been mentioned. The ILO is notorious for its work on TiP awareness, but when assessing their disaster risk plans, TiP was not mentioned anywhere. Their statement of goals for disaster risk management only listed vague goals to ensure that vulnerable livelihoods were reduced and that sustainable development was encouraged. Nor was TiP mentioned in the IOM section. This is ironic considering my research was based on the IOM’s call for more research connecting climate change to TiP.

Next, OCHA’s most helpful document was one instructing countries on how to prepare for disasters by individually assessing each risk and creating subsequent plans to handle the risks in an appropriate manner, ultimately anticipating how to handle an emergency (2016). This method is called Emergency Response Planning (ERP) and is a practical tool to be used by UN country teams and humanitarian aid

organizations, placing a heavy emphasis on interdisciplinarity. I will use ERP in the discussion section to recommend actions taken to increase preparedness for TiP risk in the face of a natural disaster. The UNDP document on crisis prevention and recovery (2013) covered preparedness in airports, a crucial intervention point for TiP. However, there was no mention of TiP prevention in this section. The American Red Cross divided preparedness and response plans by disaster (2019c). Some had checklists of actions to ensure safety before, during, and after a disaster. Some had instructions for what to do after a disaster, and others did not, so the amount of resources for each disaster was uneven. Some disasters had a section discussing how to handle people who have experienced trauma and need emotional recovery (2019a, 2019b, 2019d, 2019e, 2019f). These sections emphasized the prioritization of the vulnerable to ensure that they do not fall through the cracks of protection. This would have been an excellent place to mention that their vulnerability could also increase their risk to specific harms such as TiP. But once again, it was not included.

Finally, FEMA's emergency response plans for businesses include a list of potential risks that accompany a disaster (n.d.). One category of risks is "Intentional Risks" such as robbery, kidnapping, and terrorism. TiP would fit well this category but was not included.

As Gurung and Clark (2018) predicted, the overlap between general government and NGO plans for disaster relief and protocols to protect from TiP was nonexistent. So, what does this mean for the future of disaster response and preparedness protocols? In section 6, I will introduce how OCHAs ERP framework can be applied to TiP and allow countries to prepare for the increased risk of trafficking after disasters.

## **5 Discussion**

For the sake of further understanding the connection between climate change and TiP, I will use the EJ and capabilities frameworks to analyze my findings from the SLR and document review. This discussion is split into two sections: (5.1) EJ will be applied to grasp the injustices involved in the process of climate change leading an EDP to the risk of TiP. Then the capabilities framework, a subset of EJ theory, will be used to argue for specific human rights injustices faced by EDPs in this scenario. (5.2) Finally, I will discuss what could have been expanded upon in my research findings and give an argument for the importance of future research. I argue that assessing my findings through the lens of EJ and capabilities will provide a more robust understanding of the problem than what already exists.

## **5.1 Justice in the case of climatically influenced TiP**

### ***5.1.1 Analyzing the EDT connection from an EJ perspective***

The case of climate change and TiP exists on a larger scale than many EJ cases. While a typical hypothetical EJ case might focus on a single polluting factory harming the adjacent neighborhood, this research exemplifies EJ on a global level. Affluent nations, which have emitted the majority of climate-altering greenhouse gases, are not currently as vulnerable to the effects and aftermath of climate change as impoverished nations. The countries that will face the worst effects of sea level rise are not responsible for the emissions that have caused the conditions leading to increasing sea levels (Warren, 2016). Since climate change is a global threat, it will worsen global inequalities between those whose actions lead to climate change and those who pay the unfair price for those actions (Mohai et al., 2009). This is a complicated EJ case because it is extremely complex to prove that one's pollution has led to another's suffering on a global scale. For the sake of EDPs in this case, there needs to be a recognition of the inequalities and risks faced when they are environmentally displaced. But what exactly is leading them to face the injustice of an increase in TiP risk and why? I will argue that EDPs who face an increased risk of TiP are facing environmental injustices and that the current state of global inequality is only perpetuating them.

Based on Bullard's (1994) work, there are five actions that ensure true environmental justice and prevent unequal environmental burdens from growing: ensuring the legal right to protection from environmental harm, prevention of environmental harm before the fact, transferring the burden of providing proof away from the victim to the polluters, prioritizing fact of environmental harm over perpetrators claims of intent, and targeting existing inequalities to prevent them from further growing. In the case of climate change leading to TiP, I argue that none of the above have been applied to EDPs to ensure environmental justice. However, three of Bullard's actions are being clearly violated based on my research: EDPs are not fully protected by international law, there are no proper mechanisms in place to prevent them from facing the risk of exploitation and TiP, and global economic inequalities are trapping certain groups in an unjust position of vulnerability.

#### ***Do EDPs have the legal right to protection?***

The first of Bullard's actions to ensure environmental justice, the right to legal protection, was a repeated point of conflict in my systematic literature review. The UN High Commissioner for Refugees (UNHCR) understands that displacement, particularly due to natural disasters, leads to increased opportunities for

abuse and exploitation of EDPs and that action needs to be taken to prevent the threat of TiP (Jayawardhan, 2017). The present issue is that the UNHCR cannot provide action because of EDPs exclusion from the 1951 Convention (Jayawardhan, 2017). As previously mentioned, for EDPs to claim refugee status, they must prove discrimination or persecution in the country they are fleeing based on ‘race, religion, nationality, or membership of a particular social group or political opinion’ to be considered a refugee (UNHCR, 2010). This is difficult seeing as climate change does not discriminate (Warren, 2016). I want to add that it is extremely unjust to refuse to accept someone as a refugee due to the fact that they are not covered by a document created nearly 70 years ago.

There has been no solid consensus that EDPs should be covered by international law due to the complicated nature of their circumstances (Jayawardhan, 2017). I give the rebuke that although the issue of TiP is complicated and nuanced, it is still a crime against humanity. Therefore, using “complicated” as justification for not creating protective laws for EDPs is a cop-out, particularly when those who have the power to change laws are often not those who are facing the injustice of vulnerability. The complicated nature should instead yield an increase of research so that measures can be put into place to reduce the environmentally displaced population that goes legally unprotected. However, for now, EDPs are not legally recognized, there are often no reliable structures in place to prevent their displacement, and there is usually not even a consideration that EDPs are victims of an environmental injustice that could lead to polluters paying the price for their actions. Based on my SLR, there were many references to the 1951 Convention, but the discussion often did not extend further. Most discussions would loop back to the idea that creating legislature to protect EDPs, especially from such a complex issue like TiP, is nuanced and difficult to do.

According to Warren (2016), EDPs are doubly victimized twice when they lose their livelihood and are then forced to relocate. I argue that EDPs are thrice as victimized if they additionally fall into a TiP scenario due to a lack of legal protection. And yet, they are given no recourse based on their unjust circumstances. The lack of legal coverage for EDPs is a direct violation of Bullard’s first action to ensure environmental justice.

### ***What is the current state of prevention of harm?***

Bullard’s second action to ensure environmental justice is safeguarding actions in place to prevent injustices from occurring. I will argue that the findings of my document review prove that this action has

been severely underperformed. As discovered in my results, TiP was not mentioned once in the document review. I assessed documents that are pertinent in times of crisis, including those that are made out of precaution, and I was shocked at their vague nature. While every disaster is different, and I understand that these agencies may enact more helpful protocols in the time of real disasters, the available documentation was underwhelming. It left me wondering how there could be such a blatant lack of harm prevention in the face of a natural disaster. After performing my SLR and identifying strong ED and DT connections in academic literature, I was disappointed that these research findings did not manifest themselves in practical responses for actual natural disasters.

I argue that the ambiguity of these documents and complete lack of inclusion of the risk of TiP is a direct injustice towards EDPs. These documents should exist to protect humans from life-threatening crises and implement protocols that intercept risks humans face during disasters, but according to my research, this is done poorly. When humans face a devastating, displacement-causing natural disaster, they are at their most vulnerable. Therefore, the resources in place for disaster response should act with this vulnerability in mind.

I would also like to make the case that based on my research, the general attitude of disaster response was focused on intervention after-the-fact, not preventative action. In the SLR, there was not much discussion of the importance of practical prevention. This goes for prevention of both environmental harm and prevention of TiP. I argue that the very risk of TiP should be used as an additional argument for preventative climate action. On the other hand, the inevitability of climate change affecting humans should be used as motivation for actions such as awareness campaigns on the signs of TiP and stronger legislation that punishes traffickers, not victims.

### ***How are economic inequalities leading EDPs to TiP?***

The last of Bullard's actions to ensure environmental justice reflected in my research is targeting current inequalities to ensure that the injustices will not continue occurring. Several inequalities were uncovered in the SLR. As mentioned in the introduction, the consequences of climate change present the opportunity to study social structures, particularly injustice in this case. Climate change uncovers different social issues depending on who is affected. The poor and the wealthy, women and men, children and adults may all face the same disaster and display a wide spectrum outcomes (Ribot, 2010). The economically disadvantaged are more likely to permanently leave their habitual land after a devastating event such as



a natural disaster (Jayawardhan, 2017). Furthermore, as uncovered by all 3 pieces of literature making the full EDT connection, women and children often have fewer options for migration when being forced to leave their homeland, and these groups are also the most vulnerable to traffickers (Islam & Shamsuddoha, 2017). In the SLR, I found that the most frequently discussed inequality was economic inequality.

Climate change will continue to have unpredictable effects, and the economically disadvantaged are the least prepared to overcome the challenges that come with facing environmental disasters (Shinn, King, Young, & Crews, 2014). Vulnerability to environmental disasters is only worsened by economic inequalities, and one extreme event may turn into a catastrophe when affecting those who are more vulnerable (Jayawardhan, 2017). The global poor commonly live in areas more prone to environmental disasters, do not have insurance for the losses they are at high risk of facing and do not have strong governmental power to fight the system in place for their protection or lack thereof (Ribot, 2010). They may be one flood or landslide away from losing their entire livelihood.

Those who are from poverty-stricken regions may even be more willing to consent to working conditions in line with TiP (Nieuwenhuys & Pécoud, 2007). If one's livelihood is lost, they are at a great risk of falling prey to a trafficker because they are desperately seeking economic opportunities, and are therefore more willing to accept an illegitimate job offer (Bales, 2007). A hypothetical example would be a woman being offered a job overseas as a maid with the promise of a high salary and an improved quality of life. She is lured in with the luxury of the 'recruiter' (trafficker) offering to pay for her flight overseas. However, upon arrival, her documents are confiscated, and she is taken to a brothel guised as an illicit massage parlor. She provides commercial sex to several customers per day. However, she is not able to keep any money from customers because her trafficker claims that she is indebted from the journey overseas and he threatens her with violence when she does not do as he says. Based on my work with anti-trafficking NGO's in the U.S., this is a common narrative leading a woman to sex trafficking, and it theoretically began with a loss of livelihood and desperate need for employment.

It is therefore not surprising that the majority TiP victims are from developing countries (Akee et al., 2009). This is not to say that people in developed countries are not trafficked, but not to the degree that developing countries are. A persistent pattern in global TiP is high outsourcing from developing countries and high demand in developed countries. Again, this is not the only pattern. There is still a large amount of developing countries supplying trafficking victims to developing countries. But the former pattern poses

an important question: why are the those from developing countries more likely to be a pool from which developed countries pull from when it comes to the global TiP trade? Why has this pattern fostered global criminal networks successfully supplying humans for exploitation? Why are those who are not emitting the majority of climate-altering greenhouse gases facing not only the environmental consequences of climate change but increased vulnerability to inhumane situations such as TiP as well? All of these questions point to the lack of action addressing global economic inequalities. I argue that this disproportionate burden on the economically marginalized is a clear example of environmental injustice, and this injustice explains how an EDP can go from being displaced to being trafficked.

All three of the aforementioned injustices can be used to expand our understanding of how climate change can lead an EDP to being trafficked, and furthermore to suggest what actions and research ought to be conducted to prevent it. Next, I would like to discuss injustices EDPs face from a capabilities lens. I will first explain capabilities as a basic concept, then introduce Nussbaum's basic human capabilities to discuss which ones EDPs lack in this phenomenon.

### ***5.1.2 The Capabilities Approach and Nussbaum***

The capabilities approach views justice as contingent on one's capability to secure certain basic human rights. For example, one's capabilities are considered compromised if they cannot secure the rights guaranteed to them in the UNDHR. The topic of capabilities has been used to debate living standard for humans, assign appropriate metrics to measure quality of life, and aid political planning strategies (M. C. Nussbaum, 1997). The capabilities approach is useful in differentiating between means that individuals 'should' have and their actual opportunities to obtain those means (Sen, 2005). One person's capability is reliant on many factors such as social ties and economic status, but the capabilities approach argues that they should have the opportunity to fairly obtain basic rights regardless of these factors (M. Nussbaum & Sen, 1993).

While environmental harm to one specific group of people is considered an environmental injustice, on a deeper level, the environmental harm leading to decreased agency of people to secure their basic rights is considered an injustice of capabilities. People may have certain rights to protection on paper through laws or protocols, but are they capable of attaining these rights for themselves? This concept is helpful when assessing justice and whether or not a person should be classified as 'free' since a main objective of justice is freedom for one to live in a desirable state (M. Nussbaum & Sen, 1993; Sen, 2005).

According to Jayawardhan (2017), academics and government organizations widely acknowledge that climate change, in many ways, will threaten basic human rights, harming their ability to live in a desirable state. When looking at EDPs, how can we assess when their capabilities to live in a desirable state have been unjustly taken away? The central question to ask when assessing capabilities according to M. C. Nussbaum (1997) is “what are people actually able to do and be?” To assign a baseline matrix of human capabilities that secure basic human rights, Nussbaum created a list of central human capabilities that are used as a starting point in assessing a minimum standard of living, displayed in figure 3. When considering Nussbaum’s list of human capabilities, it is important to note that it is not a permanently fixed list. As understanding of social systems increases, the list is subject to change, but this does not excuse us from delaying actions that secure basic human capabilities (Sen, 2005). Sen (1990) argues that humans, at a basic level, should always be capable of attaining an essential quality of life and that ‘capability’ itself means having the agency to make certain choices uninhibited.

<p><b>1. Life</b> Being able to live a life of normal length.</p> <p><b>2. Bodily Health</b> Being able to have good health, including nourishment and shelter</p> <p><b>3. Bodily Integrity</b> Freedom to move from place to place, freedom from assault, sexual and reproductive freedom</p> <p><b>4. Senses, imagination and thought</b> Freedom of speech and expression (including artistic), the opportunity to be involved in using the senses, imagination and critical reason, and to experience and produce works of one's choice (including artistic ones). This capability is supported by a rounded education.</p> <p><b>5. Emotions</b> The ability to have attachments to people and things and to love, grieve and feel a range of emotions, not having emotional development blighted by fear or anxiety. This capability must be supported by forms of human association crucial to its development.</p> <p><b>6. Practical reason</b> The ability to critically engage in planning one's own life and to form a conception of the good. Freedom to observe one's own conscience and faith.</p> <p><b>7. Affiliation</b> This capability has two aspects: a) to be able to live with others, show concern and to be able to imagine their situation. This capability is supported by protecting institutions that nourish such forms of affiliation and protecting rights of assembly b) having the social bases of self-respect and non-humiliation and not being discriminated against on the basis of race, sex etc).</p> <p><b>8. Other Species</b> This capability refers to the ability to have relationships with the natural world and to care for other species.</p> <p><b>9. Play</b> Being able to laugh, to play, to enjoy recreational activities.</p> <p><b>10. Control over one's environment</b> This capability has two aspects: a) political: freedom, participation in decisions affecting one's life and free speech b) material: the right to hold property on an equal basis with others and access to employment, worthy of human dignity.</p>
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**Figure 3:** Nussbaum's (1993) basic human capabilities (paraphrased) (Scott, 2016)

In the case of an EDPs vulnerability to TiP, I make the case that EDPs lack the basic capability to maintain their livelihood in a just and desired manner based on four violations of Nussbaum's capabilities: (3) bodily integrity, (7.2) being treated as someone who is equal to others, (10.a) control of political choices and the right to participate in political decisions that affect livelihood, and (10.b) having the ability to seek equitable employment where there is recognition of equality among workers. The robbery of these capabilities due to the risk of TiP is expanded upon below, highlighting the injustices faced by EDPs.

### ***Bodily integrity***

The TiP industry thrives on the exploitation of humans. This includes and is often centered around the direct exploitation of their bodies. For example, a woman who is sold for sex without her consent automatically loses her capability of bodily integrity. Additionally, exploitative conditions may lead to health issues that go unaddressed, once again stripping a TiP victim of their capability to care for their own body.

### ***Treated as an equal***

Nussbaum's basic capability 7.b is centered around non-discriminatory action. I argue that when a trafficker takes advantage of the vulnerability of a displaced person, they are directly discriminating against them. To exploit a human being for the sake of profit is inherently rooted in inequality because it automatically turns a human into a commodity. 7.b also includes non-humiliation as a capability. When victims are afraid to come out and ask for help from law enforcement or are being manipulated to the point where they are not able to speak out against their exploitation, I argue that their capability of non-humiliation and being treated as an equal is directly violated.

### ***Control of political choices***

Based on my previous discussion of the lack of legal protection for EDPs, it is clear that those who are displaced by natural disasters lack political power as they cannot identify as refugees. Additionally, if a trafficking victim has their legal documents stripped by their trafficker, they will have trouble seeking help from the embassy of their home country. Often, when EDPs are forced to cross international borders, they are treated as pollutants in the new country, facing hostile bias from host countries (Ranjan, 2016). Although there is no way to stop natural disasters from occurring, there are ways to improve legal systems protecting EDPs and preventing them from slipping through the cracks of legal protection. For now, the capability of control over political choices is lacking for EDPs.

### ***Equitable employment***

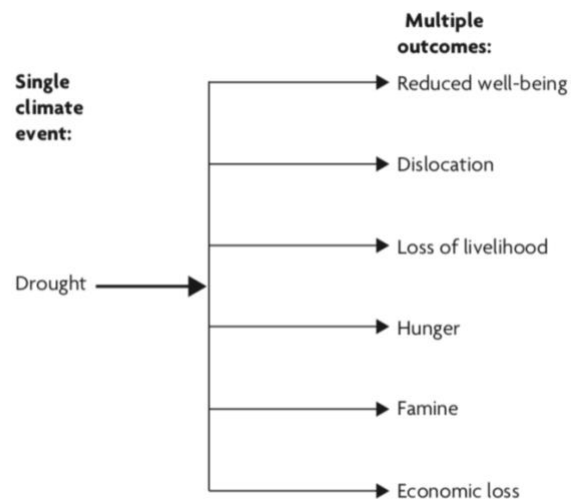
Lastly, and what I argue is the most direct violation of human capabilities in the case of TiP, is having the ability to seek equitable employment where there is a recognition of equality among workers. The relationship between trafficker and victim is based solely on exploitation, and if the victim is treated as nothing other than a means for profit, this is the opposite of an equitable workplace. EDPs who are

manipulated due to their vulnerability and brought into exploitative working conditions lack the capability of working in an equitable space where their value as a human is recognized.

The previous discussion has analyzed the injustices faced by EDPs when they are at risk of TiP. The following section will highlight aspects of the climate change and TiP connection that need further expansion.

## 5.2 What needs to be expanded upon in further research and action?

The majority of the evidence backing up the lack of EJ, in this case, was presented in the form of economic inequality. While this is an important factor to consider, I argue that economic inequality is a compounding factor in addition to many others leading one to the risk of TiP. Figure 4 from Ribot (2010) below exemplifies how one catastrophe can lead to many unfortunate outcomes. Notice that economic loss is just one of six factors listed. I would argue that all of the outcomes on this diagram could further lead to an individual being trafficked because they are factors that increase one's vulnerability and need for a source of income. This is the perfect scenario for a trafficker to offer a job with false promises of a nice salary and overall improved quality of life.



**Figure 4:** a display of the many outcomes resulting from a single disaster (Ribot, 2010)

As shown above, climate change or a natural disaster alone does not lead directly lead to vulnerability and TiP. Rather, it exacerbates the characteristics that make persons vulnerable to trafficking in the first place (Islam & Hasan, 2016). Therefore, I argue that all of these characteristics of vulnerability, not solely

economic inequality, need further research in order to understand how to reduce the number of people suffering from them.

Additionally, my research results seemed to lack the acknowledgment of the inseparable human-environment connection. In this case, the well-being of humans and their capabilities are dependent on the well-being of the environment (Lewis, 2018). We are ultimately doing humans an injustice when we allow them to undergo circumstances in which basic capabilities on Nussbaum's list are jeopardized. I argue that this act of injustice starts at climate change inaction since the environmental harm directly leads to human harm in this case. So, how do we go about incorporating these complexities into furthering our understanding of how climate change is leading to TiP?

### ***5.2.1 Recommendations for future action***

Molinari (2017) claims that many anti-trafficking efforts are acting on an incomplete understanding of TiP, spending massive amounts of money to do a lackluster job. It is essential to achieve a more in-depth understanding of the complexities of TiP causes and effects because victims rarely come out about their exploitation or ask for help from authorities, especially when they are illegal immigrants or do not trust government officials (Tyldum & Brunovskis, 2005). Based on my research, I argue that further understanding of this phenomenon will come from a combination of utilizing the EJ and capabilities framework to identify injustices in need of improvement such as legal protection and protocols including TiP as a risk, alongside interdisciplinary engagement, utilizing actions from multiple sectors to enact anti-trafficking actions. Furthermore, deeper understanding should lead to an update of the 1951 Convention to include EDPs in the definition of "refugee" and inclusion of TiP as a present threat when creating response protocols for future natural disasters.

Nussbaum (2006) argues that if we acknowledge basic human capabilities, we can work backward to collaborate among governments, NGOs, private companies, and individual persons to ensure that actions are being taken at every level to ensure minimum human capabilities are being met. Additionally, Molinari (2017), with pressing urgency, mentions that fighting climate change and TiP calls for a wide variety of intervention approaches. Some of these approaches include strengthening local economies and social support systems diversifying economies, increasing the commitment to climate action, and ensuring protective migration rights to EDPs. These steps are possible but need urgent action from stakeholders in

every realm: policy makers, NGOs, private corporations, schools, donors, and individuals. So, what does this mean for the intervention of TiP for EDPs?

I want to make the case that interdisciplinary action to prevent TiP after a natural disaster starts with a deeper understanding of the EDT connection. There has been an increasing amount of academic attention paid to environmental displacement recently, but I argue that it is incomplete and needs to focus on the causes and implications of displacement, understanding exactly how EDPs are socially vulnerable during and after natural disasters. Academic research, although important, cannot act alone and needs to collaborate with actors on the ground fighting TiP in person. There are many more occupations and trades that come face to face with TiP and have the ability to fight it. For example, healthcare professionals often have a front row seat to witnessing TiP, but they do not know how to identify the signs. They are placed in an excellent role to identify TiP and report the cases to authorities if they properly understand how to spot trafficking signs in their patients (Hadjipanayis et al., 2018). In the same way, climate and social scientists can play a critical role in increasing research on how climate change will continue to affect social systems and deepen global inequalities.

This is where I would like to highlight the importance of the Sustainability Science (SS). SS combines social and natural sciences, and encourages multi and interdisciplinarity action among different stakeholders to solve sustainability issues with the recognition of the inseparable human-environment connection (Clark & Dickson, 2003; Spangenberg, 2011). In this case, stakeholders include but are not limited to social and natural science researchers, governing bodies with the power to change laws, law enforcement officials, local and national governments, those in charge of preparedness plans for natural disasters, anti-trafficking and humanitarian aid NGOs, and health professionals. As a student coming from within the SS field, I argue that SS could contribute greatly to the fight against TiP that results from climate change.

As for now, my research has provided a comprehensive overview of the phenomenon as it currently exists in academic literature. It is a starting point, but the point of this research was to understand the connection between climate change and TiP to open up for the floor for further actions. TiP is a grave crime against humanity, and my aim is that this deepening in understanding of its connection to climate change will yield further action. For the sake of practical, tangible actions to prevent TiP in the future, my last section will provide a recommendation for Emergency Response Planning (ERP).



## **6 A practical recommendation for disaster scenarios: ERP to fight TiP**

Based on my research findings, I would like to give a recommendation to address TiP in the face of natural disasters, answering research question 4. According to Gyawali et al. (2017), proper responses to the threat of TiP require three following criteria: (1) early response plans, (2) practical steps to be taken, and (3) anticipatory actions already in place in the face of a natural disaster. Emergency Response Preparedness (ERP) falls into all of these categories, and I argue that it is the most useful resource in the UN database that could be used to intercept TiP before, during, and after a natural disaster. This method is intended to allow UN country teams or humanitarian aid organizations to understand the risks that their regions face in a disaster, create a baseline list of preparedness tools and measures for said risks, and prepare to take further actions through creating case-based plans to respond in case the risk exacerbates. The main goal is to create proactive solutions before potential risks present themselves since past disasters have proven that external aid can take days to weeks to show up depending on where the disaster occurs (IASC, 2016). ERPs encourage the collaboration of governments, NGOs, individuals and aid organizations, fulfilling my argument for interdisciplinary action needed in this case.

The ERP Draft for Field Testing (IASC, 2016) gives guidelines on how to analyze and rank risks and create preparedness plans depending on the level of the risk (low, medium, high). ERP's structure is displayed in Figure 5. If a risk is perceived as "low," then the only action that needs to be taken by the country or NGO is a minimum preparedness plan (MPP). This entails creating a basic checklist of actions taken to ensure that the risk at hand does not increase and performing preparedness activities in anticipation of the risk actually happening. If a risk falls into the "medium" or "high" category, advanced preparedness actions (APAs) and contingency plans are created. APAs are an add-on to MPAs but based on the assumption that action will definitely need to take place to intercept the risk. APAs exist to maximize preparedness and guide UN country teams and humanitarian aid organizations on the ground to ensure that they are identifying exactly what needs (economic and physical) are required in that specific situation. Additionally, Contingency Plans are made to express the exact potential needs in the face of a disaster. Contingency Plans are the most practical, hands-on method in ERP and should result in effective use of resources to equitably meet the needs of those facing the disaster (IASC, 2016). Should an emergency happen beyond the preparedness measures of the ERP, a flash appeal will be sent to OCHA calling for additional aid.



**Figure 5:** ERP cycle of preparedness used to determine appropriate actions based on perceived risk (IASC, 2016)

In the case of an ERP responding to the risk of TiP after a natural disaster, I have performed a risk analysis and provided recommendations for how action should be taken. First, I used the risk analysis & monitoring impact and likelihood scales provided by the ERP field testing draft (IASC, 2016) in Figure 6. Once the scales have been assessed, impact and likelihood are assigned, and the numerical value for risk is determined by multiplying Impact x Likelihood. Due to the under-researched nature of my topic, I decided to assign a range of impact and likelihood assessments. I decided that the range of impact was minor (2) to severe (4) and the range of likelihood was moderately likely (3) to severe (4). The resulting range of numerical risk is 6-20. Low risk is a valuation of 1-7, medium 8-14, and high 15-25. Since the range covers each range of risk, I have created suggestions for each step of the ERP cycle.

IMPACT	LIKELIHOOD
<p><b>Negligible (1)</b> Minor additional humanitarian impact. Government capacity is sufficient to deal with the situation.</p>	<p><b>Very unlikely (1)</b> A remote chance of an event occurring in the current year, from 0-5%. e.g. Seasonal hazards that have happened once or less in the last twenty years.</p>
<p><b>Minor (2)</b> Minor additional humanitarian impact. Current country level inter-agency resources sufficient to cover needs beyond government capability.</p>	<p><b>Unlikely (2)</b> The event has a low chance of arising in the current year, from 5 to 15% e.g. Seasonal hazards that have happened one to three times in the last twenty years.</p>
<p><b>Moderate (3)</b> Moderate additional humanitarian impact. New resources up to 30% of current operations needed to cover needs beyond government capacity. Regional support not required.</p>	<p><b>Moderately likely (3)</b> The event has a viable chance of arising in the current year, from 15-30%. e.g. Seasonal hazards that have happened two or three times in the last ten years, or once or twice in the last five years.</p>
<p><b>Severe (4)</b> Substantive additional humanitarian impact. New resources up to 50% of current operations needed to cover needs beyond government capacity. Regional support required.</p>	<p><b>Likely (4)</b> The event has a significant chance of arising in the current year, from 30-50%. e.g. Seasonal hazards that happen every second or third year, e.g. two times in the last five years.</p>
<p><b>Critical (5)</b> Massive additional humanitarian impact. New resources over 80% of current operations needed to cover needs beyond government capacity. L3-scale emergency.</p>	<p><b>Very Likely (5)</b> The event has a positive chance of arising, over 50% e.g. Seasonal hazards that have happened three or more times in the last five years, or five or more times in the last ten years.</p>

**Figure 6:** Impact and likelihood scales used to determine numerical values of perceived risks (IASC, 2016)

### 6.1 Suggestion for an MRP in a low-risk scenario

If the risk of TiP is identified as low, a MPP needs to be implemented to ensure that EDPs do not slip through the cracks of protection. First, I suggest a review of the countries' law enforcement towards TiP. If it is inadequate, the MPP exists to fill this gap. According to my research, existing structures to prevent TiP are greatly lacking, so the point of reviewing law enforcement would be done with the intent of identifying exactly which protection gaps exist. I also recommend a TiP educational program to be implemented in the place of disaster. This program is to be issued as soon as possible to teach people before they become EDPs, not after the fact of a natural disaster. If the program cannot be implemented before a natural disaster strikes, then the country team or organization should implement it in a camp or refuge for EDPs. The program should consist of basic TiP facts, tips for how to spot a trafficking recruiter compared to a legitimate recruiter, and an encouragement to contact local authorities if they suspect or

become trafficked. This MPP is to be implemented either by the UN country team or an aid organization, but the group in charge should be assigned indefinitely before the risk presents itself.

## **6.2 Suggestion for an ARP and Contingency Plan in a medium to high-risk scenario**

If the risk of TiP is identified as medium or high, I recommend the following APAs and Contingency Plan methods. These plans should be put into place with the assumption that the natural disaster has already occurred and that UN country teams and aid organizations will be working face to face with groups of EDPs. For the APAs, in addition to the education program from the MPA, I recommend actions such as identity tracking in humanitarian aid camps to ensure that people do not disappear. Furthermore, special attention needs to be paid to women and children, adding a gender awareness component to the MPA education program. In terms of a Contingency Plan, the country team or organization must make a plan of action in case a trafficker is identified and is providing tempting offers to EDPs. In the plan of action, there should be a list of law enforcement authorities to contact who have previously agreed to provide aid if needed. If the country does not have comprehensive legislation against TiP, there should be a list of anti-trafficking NGOs to contact. Once again, the NGO should have previously agreed to give additional help if needed. To ensure that the law enforcement and NGOs will be on standby, the contact information of those who will be called must be ensured every few months to ensure a change in authority roles does not complicate communication.

I argue that having plans in place in preparation for TiP in the face of a natural disaster will provide protection for EDPs and dissolve the vulnerable state of circumstances that traffickers find attractive. These actions are straightforward and practical, providing instructions for how to implement safety measures against TiP; something that the resources from my document review were severely lacking.

## **7 Conclusion**

My research has aimed to develop a deeper connection between climate change and TiP than what already exists. I used an EJ lens to further understand the existing connection in academic literature uncovering injustices faced by EDPs vulnerable to TiP, but there is still a great deal of helpful research missing. Then, I used my justice discussion findings to argue for further interdisciplinary research and action. Additionally, my document review proved that TiP is not a prioritized threat to prevent in the face of a natural disaster. I have argued that TiP is too serious of a threat to human security for this pattern to

continue. Lastly, my ERP recommendation aimed to provide a practical step in the right direction for TiP prevention in the future.

Research on the connection between climate change and TiP is still in a preliminary phase, but my goal is that this paper will spark further research due to the severe human rights violation that is human trafficking. This research should include but is not limited to a focus on potential legal inclusion of EDPs, deepening our understanding on the complexities of TiP and what makes someone vulnerable to it, how economic inequality is exacerbating the phenomenon, and how preventative measures can be taken in disaster response mechanisms. Intercepting TiP requires understanding of all underlying causes and complexities, and I have argued that climate change as a cause is an increasingly pressing issue that needs to be acknowledged and prioritized in future action.

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