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Housing Crisis in Haiti post 2010 Earthquake

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May 2017

A Master’s Paper

Submitted to the faculty of Clark University, Worcester, Massachusetts, in partial fulfillment of the requirements for the degree of Master of Arts in the department of IDCE

And accepted on the recommendation of

Dr. Jude Fernando, Chief Instructor
This paper is an analysis of the post-disaster housing crisis in Haiti following the 2010 earthquake that left hundreds of thousands dead and millions homeless. Lack of strategic planning, and overpopulated areas contributed to the widespread devastation that is present in Haiti. Reviewing secondary data, and collecting primary data from a short trip to Haiti, has helped to establish all the issues that contributed to the housing crisis in Haiti. Housing design, location, accessibility, land rights, and affordability are the biggest challenges that people are still facing. Aid poured into the nation to help rebuild the broken infrastructure, though was not met with overall success. The government was unable to mobilize the aid and resources to pick up the pieces and work towards finding a housing solution for all of the people who are displaced. NGOs work to mobilize the resources they have, but are met with challenges of land rights, housing design, and lack of reconstruction knowledge. As different types of housing were being implemented, the lack of consistency among the government and NGOs led to money being misused, causing people to not have a durable housing solution. Nearly seven years later, thousands of people are still living in camps, with little resources and no sight of finding a more permanent solution.

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Introduction:
In March of 2016, I had the opportunity to travel with my humanitarian assistance class to Haiti. During my time in Haiti, the class visited numerous housing camps and housing projects that were established after the earthquake. I saw people living in conditions that violate human rights, without basic sanitation and access to water. These people are living in temporary shelters, with no signs of moving to a more permanent home. The crisis began on January 12th, 2010, when Haiti was struck with a 7.0 magnitude earthquake which was estimated to have killed over 200,000 people. The destruction was devastating as people lost their homes and became trapped in the rubble. Around 2.3 million people became displaced and 1.5 million people were in encampments (IDMC 62). The capital Port-Au-Prince is an overpopulated city with very few building codes and regulations. These factors caused the earthquake to damage the buildings which collapsed leaving people trapped. Since the earthquake, the government and NGOs have been working to help those affected by the earthquake, but seven years later people are still living in conditions that do not follow building codes and regulations. The post-disaster housing crisis is still very real for the people of Haiti, as the government and NGOs have not been able to mobilize and work for the people to move through the stages of post-disaster housing. People are still living in temporary shelters with no signs of moving into a permanent home. Without building regulations and money being spent properly by the government and NGOs, Haiti is struggling to build resilient, affordable and accessible housing for the masses.

This paper is a critical analysis of post-disaster housing for people displaced by the Haiti earthquake. What are the reasons for failures of housing? Why did Haiti’s housing projects repeat the same mistakes of post-disaster housing? What is so unique about the situation in
relation to the Haitian context? What lessons can we learn about post-disaster housing from the example of Haiti? What could Haiti have done differently in terms of mobilizing the government and NGOs to help the displaced population of Haiti build resilient housing? This paper will explore the literature about post disaster housing from examples all over the world. The literature looks at housing successes and failures caused by disaster, government involvement, types of housing, local participation, NGO involvement, affordability, design, distance, land issues, and conflict. The case study focusing on Haiti will explore all the issues and challenges faced when trying to reconstruct homes and livelihoods. The analysis will look at the specific examples I witnessed while in Haiti and the problems people are facing who are in need of housing assistance. The study is critical because it looks at how Haiti was unable to mobilize the money by working with NGOs and the government to create a housing solution in which people can restore or create a livelihood. The major actors in the success or failures were the government and NGOs as they faced barriers with communication, how to spend the money, historical context, and more. The study can be used to look at the mistakes and mishaps made, to prevent and fix these housing problems in future disasters in Haiti and abroad.

**Methodology:**
The paper is based on secondary data, which was collected from various sources that look at challenges and successes of post-disaster housing. The data helped to form a case study which looks at how Haiti is dealing with challenges in post-disaster housing and the outcomes of decisions made by NGOs and the government. The secondary data was complemented by primary data which was collected on a school field trip to Haiti. The data was collected by
visiting various camps in Haiti and talking with local residents. Our class visited three camps, and three housing complexes. All were located in different areas of the country. We did not have any official meetings set up, we would show up and walk around to see who approached us to tell us their story. When collecting the data in the camps, we took photos, video recordings and audio recordings (which were in Kreyol). The photos and videos were used to show the conditions of the camps to see the types of shelters that are used. I conducted the analysis by combining the literature about post-disaster housing and my experience in Haiti. I was able to see the challenges that were faced in disaster housing situations and the successes that other countries faced. This shaped the analysis to see how Haiti did not follow through and successfully implement post-disaster housing across the country.

The limitations of the data collected can be seen through the short time frame that we visited Haiti. I feel that we were not able to capture the whole picture of the situation in camps due to the time constraint. We were only able to visit a few camps and only saw a portion of each camp. To make the data stronger, I believe that more camps would have to be visited. When visiting the camps, it would be necessary to spend at least a day there to get the full picture of what life is like. Another limitation to the data was that the people we spoke with were through translators. It could be possible that people’s stories became misconstrued during translations.

**Literature Review: Issues of Post Disaster Housing:**

When a natural disaster hits, one of the most devastating aspects that people face is having their homes destroyed or damaged. The severity of the disaster can be related to building code enforcement, quality of local construction, and the intensity of the disaster...
The leading cause of devastation for a community is the lack of preparedness in place for when a disaster strikes. Governments are stretched beyond their capacity to deal with the problems as they were not prepared in the first place, and many employees are not trained to handle a disaster. Prior to the disaster, the lack of strategic planning put in place by the government is exacerbated when the disaster strikes causing buildings and more widespread damage. This leads to devastation being worse in developing countries such as Haiti, due to laws and regulations that are not being followed when it comes to building codes (Johnson 367). Developing countries are already more vulnerable because access to water, housing, public services, and education have limited availability. Comerio wrote that “For any developing country, the losses incurred in natural disasters are in part products of their pre disaster conditions- poverty, and lack of jobs, education and training” (Comerio 62). For Haiti, the lack of government preparedness, overpopulation, and limited social services available all contributed to the high death rate, illness rate, and homeless rate. Once a disaster strikes, the people look to the government, but the government is not able to handle the capacity of the needs of the people, especially in Haiti who were already suffering from an unstable government. For example, governments can lose their tax base, leading to limited funds to provide for basic services needed after a disaster (Comerio 52). A stable government is one of the biggest factors when determining if rebuilding will be a success or not. In New Zealand, the government took a proactive role after their earthquake which was critical to show the importance of strong government leadership. This proactive role was successful because the government was able to invest in public infrastructure (Comerio 58). What can be shown is the need for a unified government to be able to fund and manage the reconstruction. The major issue for Haiti is that
when the earthquake struck the government was not unified and organized in a way that could take on a disaster of such high magnitude.

When disaster strikes and homes are destroyed, many people become displaced from their community. Housing is key in establishing livelihood as natural disasters contribute to the displacement of people. When people lose their homes and buildings are destroyed, rent prices are likely to skyrocket making the population rely on the government and NGOs to assist in the rebuilding of homes. A sense of urgency, corruption, and lack of strategic planning leaves populations in situations that harm human livelihood. The initial and final goal of housing reconstruction should be to protect people’s dignity and to restore livelihood (Tafti 172). People who lost their homes from a natural disaster can be displaced from months to years as they have not been able to go home to reestablish their life.

**Impact of Disaster on Displacement:**

Displacement caused by natural disasters have been on the rise, as urban populations grow and weather related disasters continue. Displacement is a reality for people affected by disaster due to their exposure and vulnerability. People are more likely to be vulnerable due to living in hazard prone areas, such as over populated cities like Port-au-Prince. The Internal Displacement Monitoring Centre wrote that exposure and vulnerability can contribute to threats of human rights (IDMC 14). Having reliable housing and accessibility to resources can help to protect human rights of people who were displaced from a disaster. People who become displaced in their own country after a disaster are called internally displaced people or IDPs. Displacement becomes worse for people who are already in vulnerable situations as they do not have the resources to find a lasting housing solution. Without housing, people remain
unable to reintegrate into their past lives. This shows the importance of having well planned and executed housing options for people who become displaced. As of June 2015, there were still over 64,000 IDPs living in over 66 camps in Haiti (IOM 1). IOM wrote, “Conditions in camps are deteriorating rapidly as humanitarian actors exit due to a lack of funding” (IOM 1). This seems to be the biggest challenge that displaced persons in Haiti are facing, as money and resources have been dwindling, leaving people trapped in their post-disaster housing which can include temporary shelter or temporary housing.

**Types of Post disaster housing:**

After a disaster strikes there are many types of shelter and housing that emerges. Based on location, severity of the damage, and income of the affected population these factors can impact the type of post-disaster housing that one will receive. One of the very first phases in post-disaster housing is emergency shelter or immediate relief. Emergency shelters typically consist of a public shelter, such as a community space or school (Johnson 436). Immediate relief should happen within hours of the disaster in order to relieve suffering. Emergency shelter is needed to give security and social cohesion with people from their community (Audefroy 666). Emergency shelter is only intended for a few days after the disaster. During this time is when governments and NGOs will start to plan and move into the next phase of housing recovery, also known as temporary shelters.

While not intending to do so, temporary shelters are the most common form of shelters after a disaster, while also being one of the longest phases. Temporary shelters are designed to be inhabited for days to months after the initial disaster. Temporary shelters can take the form of tents, plastic sheeting, and emergency centers (Seneviratne 3). In the case of the Kobe
earthquake in Japan in 1995, temporary shelters were in schools, parks, or public buildings (Comerio 1998). Reconstruction is a lengthy process, causing people to live in temporary shelters for longer than anticipated. Areas where temporary shelters are set up need to include other resources such as food, water, and medical treatment. Providing resources can lead to spaces becoming overcrowded as people try to get assistance. This was the biggest issue facing Haiti, as aid organizations were able to assist camps at first, but over time as they became overpopulated, the money and organizations started to pull back leaving people stuck in temporary shelters. If little progress is being made towards temporary housing, resources and supplies will start to diminish. This can also lead to uncertainty that people face while staying in a temporary shelter. Many times governments and NGOs are successful in moving through the varying stages of housing, allowing people to move into temporary housing. Though, prolonged success comes down to proper planning and correct utilization of funds.

A specific type of shelter that is used is the transitional shelter or the t-shelter. Transitional shelters have the ability to make a reconstruction phase successful, if implemented correctly (Rohwerder 11). “Transitional shelter, usually a single story timber and/or steel frame building designed with a 3-5 year life span” (Sanderson 132). Transitional shelters are useful because they can be immediate, and aid in long term reconstruction. Some benefits of transitional shelters include: ability to reuse materials, allow for families to regain their livelihood, and they are cost effective. Successful t-shelter examples are shown to be community led, built with vulnerable populations in mind, constructed near original homes, and are able to implement disaster risk reduction tools. (Rohwerder 12). Rohwerder cited the Shelter Center that “An exit strategy needs to be developed, and sites need to be properly
managed and decommissioned, in order to prevent transitional settlement sites becoming slums” (Rohweder, Shelter Center 13). Without an exit strategy for transitional shelters can create slums and living conditions that are not adequate.

For many Haitians, the reconstruction phase became stuck at the t-shelter process. The money was focused on this phase of construction, leaving little money available for the construction of permanent houses. What became are housing communities that resemble slums, with very little resources available as people are just building homes with materials from t-shelters and temporary shelters. T-shelters became popular in Haiti because NGOs had success with this model in other parts of the world. This led to other NGOs following suit and soon the idea was adopted by the government (Sanderson 138). When Haiti couldn’t mobilize the money and the resources, this caused hundreds of thousands of people to be living in the transitional shelters with no sign of permanent housing.

Temporary housing is a necessary step in the reconstruction process (Johnson 436). Temporary housing should begin within weeks or months following a disaster. The goal of temporary housing is to provide families with a space to live while they wait to construct a permanent home. This is seen as a low cost option in order to let families save for the construction phase while also allowing families to re integrate into their former lives (Seneviratne 4). Temporary housing aims for people to return to their lives through work, school and regaining their way of life. An issue that faces temporary housing is the need to invest in this phase, which can take away funds from other areas. For example, when the funds are initially put into temporary housing this leads to funds not being implemented into permanent housing. With a lack of funds for permanent housing, this causes temporary housing
to be inhabited longer than anticipated and sometimes causes the temporary housing to be a permanent situation (Johnson 454).

This is still an issue in Haiti, as funds were not saved for the permanent housing phase, causing people to never secure a home. “Any reconstruction program has a limited amount of financial, human and machinery resources and if temporary housing consumes disproportionate amounts of resources, it may negatively affect the ability to carry out other parts of the reconstruction program” (Johnson 451). Funds need to be distributed throughout the lifecycle of building post-disaster housing. The importance of strategic planning is crucial for success in the all phases of housing. When funds are not utilized properly there will be an uneven distribution of how the housing reconstruction phase will go.

The importance of reconstruction is to allow families to rehabilitate back into the life they once knew. Thus, the final phase of housing reconstruction is to have permanent housing. Once this phase is reached, people should be able to be in a situation similar to their livelihood before the disaster. This final phase allows for all ways of life to be restored. Typically, this phase will take years after the initial disaster to have permanent houses built. Housing reconstruction will either mean having a new house in the original location, or to be resettled in a new location (Seneviratne 4). The reconstruction phase is key to allow people who have lost their homes the ability to reintegrate into their old lives. An important step is to make sure that the housing designs are built to be sustainable and resilient to withstand future disasters. With importance in providing these building techniques in temporary shelters, as they are inhabited longer than anticipated.

**Housing Design and Sustainability:**
In minimizing damage after a disaster, a necessary step is to have preventative measures when designing homes. Many developing countries do not have the means and resources to pay for the extra step to build disaster resilient housing. After a disaster is when countries need to reevaluate the design of homes that were affected and to look at what went wrong in order to build back houses to be more resilient. A major problem during the economic hardship of a disaster is that disaster resilient homes are not a priority (Tafti 172). Extra resources would be needed to build secure housing for the future, but that does not work when people are suffering and need housing immediately. Agencies who run the rebuilding need to take into account that design is critical to build resilient houses. “Lack of technical oversight during construction led to poor quality housing and housing assistance was frequently described as being late” (Seneviratne 6). When designing homes, it is important to follow universal standard guidelines which should incorporate, protection from climate, disease, proper sanitation, and ability for privacy. Adequate housing measures are not always followed for people living in temporary shelters and homes. The camps in Haiti did not follow adequate housing measures as stated by Seneviratne, which led to the problems that people are facing today. Many of the camps were set up by the NGOs who did not follow through in setting up housing conditions that were livable. Many people are living in spaces that are not designed for long term living, as the design process of temporary shelters and homes can’t meet the needs of everyone affected long term.

Many agencies who are designing homes post disaster use frameworks and designs that are familiar to the host agency, as opposed to the host country. For example, the Sphere Project is designed to bring together humanitarian agencies in order to set standards for
humanitarian assistance. Sphere uses five standards that could be implemented when thinking about post-disaster housing. These standards include: strategic planning, settlement planning, covered living space, construction, and environmental impact (Sphere Project). The standards can be adopted by NGOs such as Catholic Relief Services who can implement standards that are set out by Sphere as well as implementing their own techniques. Catholic Relief Services has a policy about building codes, which they follow to help secure housing. The manual states, “Where local building codes and construction laws exist, it is important to assess the necessary permits and approvals, and the anticipated time this could take, as this impacts the overall project timeframe” (Catholic Relief Services 10). What happens is that NGOs will use their own policies in hopes that they match up with their goals. NGOs compete to design and build homes the fastest (Daly 524). Organizations working to design the homes sometimes have issues in determining who is to work on the technical aspect of the reconstruction. A major issue is that the designs end up being unsuitable or poorly built. The homes need to be designed to coordinate with local customs and materials. In the case of Colombia, a design issue in temporary housing contributed to problems for the inhabitants. The designs had people sharing kitchens and bathrooms. This design is not sustainable and will lead to conflicts, as people have to fight over resources. Thus the importance of having private spaces for families when designing homes for people to live in post-disaster.

The design of temporary housing can be dependent on location and resources. “Temporary housing can take the form of a rented apartment, a prefabricated home or a small shack, depending on the context” (Johnson 437). Temporary houses do not need to be the same, but they do need to meet the needs of the people while following the adequate housing
measures. Lastly, many temporary houses are designed to be easy fixes and not as permanent solutions. The goal of NGOs and governments when designing the homes should allow for people to feel comfortable, but not comfortable enough that they will continue to live in the temporary homes. Many times when designing temporary houses, materials are used that can continue to be recycled and used again during the post temporary housing phase (Johnson 454).

Environmental sustainability needs to be taken into account when designing houses. This can help to combat logistical, organizational, and structural obstacles in the future (Abrahams 526). The reasons to use sustainable housing can also be contributed to sustainable development and disaster resilience (Abrahams 527). After a disaster, when people are homeless there is a sense of urgency, sustainable housing is not seen as a priority from the actors who are trying to work fast. Speed takes precedence when it comes to building back, but this leads to many problems in the design phase, as homes are not built to last. NGOs and governments are looking to fix the problem fast, as the disaster creates a sense of chaos but this will only contribute to further problems down the road. Abrahams wrote “incorporating ES [environmental suitability] into post-disaster activities is critical for risk mitigation and disaster resilience; not considering ES [environmental suitability] risks exacerbating or prolonging the damage of the disaster and hindering long-term socioeconomic goals” (Abrahams 542). Another issue that contributes to not building back sustainably, is the lack of workers with this expertise. Many outside workers or current workers are not trained in environmental sustainability, which causes homes to be built with limited sustainability knowledge. Once the design of the homes has been finalized, it is key to make sure that the homes are being built on land in which people
can sustain a life and have ownership for their homes. Not being able to own land, or own homes proves to be a major challenge in creating post-disaster housing.

**Land Issue:**

A major concern for people who lost their homes following a disaster is land tenure. Many vulnerable communities, who are hit hardest during a disaster, do not have established land tenure which causes families to lose their homes and land as they cannot prove their ownership. Having land rights in place prior to a disaster can show the importance of following adequate housing measures, which is to have legal security of tenures. This includes having leases and proper documentation for families to have a degree of security (Seneviratne 9). In order to assist people without legal property titles to land, there needs to be the option for land rental, though many people following a disaster do not have the funds to pay. As a solution, this can only help families who have money, leaving vulnerable populations without the opportunity to own their land. Following a disaster, many governments will need to find land in which displaced families can stay. Governments and organizations will need to find suitable places and negotiate for the rights of the land which can lead to delays in reconstruction (Johnson 442). The delays in Haiti are still an ongoing battle, as people have no way to prove the land they once lived on was their own. When looking for suitable land, it is also important to keep social ties in the communities for the people who were affected. This can mean having resources and other people from the neighborhood relocate to a similar area. A concern for people who do not have land tenure is that they rebuild in an overpopulated area, leading to the creation of settlements that turn into slums. For example, in Colombia in 1999, many settlements turned into slums because people had lost their right to land and were
unable to afford rent or property (Johnson 375). This shows the importance of governments and communities needing to establish land tenure and property rights before disaster strikes in order to have a smoother transition for people who have lost their homes. In Haiti, following the disaster, many families had to move into land that the government had set out, also known as unclaimed land. When people were unable to prove their ownership of the land they once lived on, this created a problem where people had to move far outside of the city. People are now living far from opportunities for employment, education, and public infrastructure. Thus, this shows the importance of homes being reconstructed on land that is close to necessary services as well as having land tenure. In rebuilding one’s life, they need to have accessibility to opportunities to better livelihoods.

**Distance of Housing from Opportunities:**

After a disaster, a major concern is where to move and house all the people who have become displaced. When creating housing and shelters for people, one of the adequate housing measures that needs to be implemented is accessibility (Seneviratne 8). The idea of accessibility can relate to proximity to jobs, schools, healthcare, and other institutions related to people’s livelihoods. If temporary shelter and housing are built outside of cities or communities in which people know, this causes problems as people try to reintegrate into their old lives. Many communities face employment issues if they are relocated to a new area, the proximity to one’s workplace may be too far or there may be lack of infrastructure. This contributes to a family’s decision on whether to stay or go, in relation to the jobs and services in the area (Comerio 54). Infrastructure plays a major role in the success of new communities. The need for roads and modes of transportation are vital in connecting people to employment,
if a community is placed in a location without roads and public transportation, this can result in people losing jobs and also not being able to afford rent. Thus, the importance of following adequate housing measures is critical in order to give people a location that can translate into accessibility of services to help people’s livelihoods.

A successful example to help reintegrate people into communities comes from Turkey, following an earthquake in 1999. This was done by building a temporary settlement outside the city, “on the outskirts resembled suburban-style developments complete with access roads, bus routes, refuse disposal and postal-services, markets, schools, clinics and daycare centers- in other words, all the services necessary for a functioning community” (Johnson 442). This shows that if a community is going to be moved outside the city, there needs to be measures that allow people to reach and establish a livelihood in their new environment. New areas and settlements if equipped with the right infrastructure and opportunities, can lead to economic growth by establishing a new way of life for people. In order for families to be successful post-disaster, the option for the homes to be affordable will help to create more opportunities. The price of temporary housing and permanent housing need to be affordable for the most vulnerable populations.

**Affordability:**

During each phase of housing reconstructing, there are numerous problems which people face, including affordability. As people try to move through the phases of reconstruction, affordability tends to be a problem that will halt a family in their ability to move. People who are most affected by disasters tend to already be in vulnerable situations before disaster strikes. Without the means of an income and resources, a family will not have
the ability to pay or save for reconstruction and renting. As people become displaced, they lose their way of life and livelihood. Without people working, the ability to afford rent or rebuilding is not feasible. In the case of Turkey in 1999, following the earthquake, rent prices skyrocketed, doubling the price of rent (Johnson 372). In Haiti, the most affected people are not able to afford any type of rent as the prices became unaffordable. This especially affected people who were already living in slums or people who did not own their land. This led to many citizens remaining in temporary shelters, as they don’t have the livelihood and money to pay for temporary housing, let alone permanent housing. Many people who cannot afford housing following the Haiti earthquake are likely to stay in the camps because that is where the aid is located, but over time the aid left and people had no choice but to stay. People move to where the money is when they have nothing, even many people who did not lose homes were likely to go to where aid and resources were located, due to their vulnerability. This shows the importance of why housing needs to be affordable for people before and after a disaster. When given the chance, having a say in one’s own housing situation can help contribute to finding a durable solution. When people are given the chance to say what they need from housing, this tends to give communities the chance to successfully reestablish.

**Local Participation in Reconstruction:**

Following a disaster, the participation of governments, NGOs, and local citizens begin to form a collective body of aiding those affected by the event. There are many different routes that can be taken depending on who is in charge of reconstruction after the disaster. Examples include owner driven reconstruction and the participatory process. The owner driven reconstruction option is known to produce results through empowerment, sustainability, and
being cost effective. “Housing people through the ODR [owner driven reconstruction] approach is found to result in a higher level of perceived satisfaction and higher occupancy rates” (Tafti 170). Having a user drive approach is successful because it gives people the opportunity to participate in the reconstruction process. Owner driven construction has shown to have higher levels of satisfaction and project efficiency (Daly 513). A critique of the owner driven construction process is in regards to families who were not homeowners in the first place. This model is not effective, if a high amount of the population were not homeowners before the disaster. In Haiti, the population that was affected the most came from poverty, so they usually never owned a home, making this solution typically only viable for families that possess money.

The participatory process, allows for vulnerable groups to take ownership of what is going to happen in their community. The participatory approach leads to mutual accountability, “donors and partners are accountable for development results” (Daly 511), allowing the beneficiaries to work on their own community, which leads to ownership and specific needs being met. There is more accountability for the progress of housing needs because of the participation of the beneficiaries. “Disaster can be a great empowerment opportunity for people to reinforce gender equality, environmental protection, and social justice. The participatory process is the key element in reconstruction; without it new ghost towns are created” (Audefroy 673). The participatory approach truly is a way in which affected people can take accountability and initiative in what will be happening in their own communities. The sense of ownership and pride will go a long way in producing new communities that can survive. For example, in Colombia after the earthquake in 1999, many beneficiaries chose to assist with building shelter and infrastructure using their own free labor
Having the ability to make your own choices in housing is key during the reconstruction phase for success. Participation helps to get the people involved, helping to make the quality of work higher. The participatory approach is preferred by most affected people, while the government and other agencies have their ideas and methods about reconstruction. When it comes to rebuilding, the governments and agencies tend to have the money over the beneficiaries, allowing governments and agencies to spearhead the reconstruction process.

**Reconstruction Phase and the Roles of Agencies:**

Following a disaster, a major way to have economic recovery is through housing reconstruction. Governments and NGOs are the major decision makers for reconstruction in terms of where the money and resources will go. After the disaster, aid starts to come in through the work of NGOs and missionaries (Garland 86). This leads to an influx of foreigners and workers who are not familiar with local customs or language. For example, in Haiti, most NGO workers and missionaries who come to help following the earthquake do not speak either Kreyol or French (Garland 87). Garland quotes Schuller who said “the army of NGO workers is dominated by young, inexperienced people who just want to do something in order to get the best photo op for fundraising purposes- essentially, they are making photos in order to continue soliciting funding for their endeavors in Haiti” (Schuller 2016). While many workers come down with good intentions, the lack of understanding of the context and culture can lead to projects being counterproductive. The NGO sectors are not always organized, as they tend to spend money working with volunteers who have no experience, as opposed to spending the money on local workers with local knowledge.
During reconstruction, agencies follow the principle of build back better, but it turns into build back faster, which does not always mean better (Daly 529). When rushing the reconstruction phase, many homes and shelters are built at a quality which only exacerbates problems in the future. After the 2001 earthquake in India, “the decision to undertake massive and rapid reconstruction had proved very costly, and the result has been inappropriate constructions (producing uninhabited villages)” (Audefroy 670). Governments and agencies are not always the best when trying to develop local people’s needs, as they dominate the reconstruction sector. For example, after the Indian Ocean tsunami of 2004, large amounts of money flowed in to help with the reconstruction and many organizations and NGOs had limited experience with disasters. This lack of experience led to money being used incorrectly during the reconstruction phase (Daly 518). A lack of coherence among agencies unfortunately contributes to furthering discrepancies in the reconstruction phase. In Haiti, when constructing the t-shelters, designs were supposed to be similar, but different agencies had different variations (Abrahams 533). These variations contributed to shelters taking different forms, with some people having shelters that were not built properly. When agencies and governments were heading reconstruction without local participation, more problems continued to arise. Many governments bring in non-local contractors to work on housing and infrastructure. A result of this decision is that beneficiaries complain of poor construction (Daly 527). Some agencies would build houses in a way that don’t reflect cultural norms, while other use materials that would not have been chosen had there been a participatory approach.

Following an earthquake in Mexico City in 1985, a National Reconstruction Commission was set up in order to mandate construction with a large portion of the funds received from the
World Bank. The National Reconstruction Commission had to manage funds for both temporary and permanent housing, leading to problems in temporary housing when there wasn’t enough money for both (Johnson 448). Reconstruction is a very expensive cost, and developing countries feel this burden much higher as they try to fund all necessary projects. Developing countries will need to take out loans from organizations such as World Bank. World Bank sees themselves influencing reconstruction policies post-disaster through their monetary assistance and loans (Tafti 175). An example can be seen in the case of Colombia, where the president had created a reconstruction program which was funded by loans (Johnson 373). Issues in the process eventually ended in asking for assistance from the University of Bogota. What can be seen is that the governments and agencies do not always have the answers and means to produce successful housing projects. Many parties need to be part of the initial steps following a disaster, including the government, NGOs, military, and the community affected to work together during the reconstruction phase. When working together is not an option, this usually leads to conflicts in the rebuilding process. Conflicts over money, land, and community ties are just some of the problems that people face.

**Conflicts:**

For people who have lost their homes, conflict is an issue faced by families, communities, and governments. Conflict amongst the organizations and beneficiaries heading reconstruction can lead to a halt in investment and construction (Seneviratne 6). Problems that arise slow down progress in rebuilding, which ultimately affect people who are living in temporary shelters suffering from a host of problems. People lose their homes and are forced to relocate to temporary shelters, leading to a large amount of vulnerable people living in small
spaces with limited resources. “According to the officers of the NUB [National University of Bogota] other secondary effects of the project include intra and inter family conflicts and sex related crimes which can be attributed to overcrowding conditions in the units and the corresponding loss of privacy” (Johnson 376). People are very vulnerable after a disaster, and already vulnerable groups, such as women tend to be the victims of conflict. Sexual violence and births rates skyrocket for people living in temporary shelters due to the environment and limited resources that are available. It is said that following a disaster, the greatest risk that people face are human rights violations (Audefroy 675). People will face a number of challenges post-disaster, but the housing problem can worsen human rights issue and conflicts during the path to rebuilding lives.

After a disaster is when communities are most vulnerable as their way of life changes, as homes are destroyed, lands are lost, and resources are scarce. The Haitian earthquake of 2010 is one of the worst natural disasters in modern history, as the people of Haiti are still in a very real crisis when it comes to housing. Even with the large amount of aid that was sent to Haiti, the country, government, and NGOs were not able to mobilize to create a durable housing solution for the people who were affected. Looking in depth at the situation in Haiti will show how the housing crisis is a major problem for the people living in camps, temporary shelter, and temporary housing.

**Case Study, Haiti:**

When the 7.0 magnitude earthquake struck Haiti on January 12th, 2010, the earthquake is estimated to have killed over 200,000 people, with over 300,000 people being injured. Haiti’s population at the time was around 10 million people, and the earthquake is estimated to have
affected around 3.5 million people, or around 1/3 of the population. The earthquake caused over 2.3 million people to become displaced, “over 188,383 houses were badly damaged and 105,000 were destroyed by the earthquake” (DEC). Post-earthquake, around 1.5 million people were living in camps. The international community raised over 13 billion dollars to help Haiti, but seven years after the quake, the local population is still feeling the burden of displacement, poverty, and lack of support from NGOs and the government. The housing crisis seems to have little hope for improvement as broken promises and little money have been invested into sustainable housing solutions.

This case study looks at an in-depth analysis of what the literature said and how it is relevant within the Haitian context. I will use my personal experience with the literature to see the challenges faced in designs, land issues, over-population, strategic planning, and roles of the NGOs and government. The shelter designs created were not sustainable for all the Haitians who are still living in temporary shelters.

**Haiti Shelter Designs:**

Since the 2010 earthquake, the temporary shelters and camps still remain a part of everyday life for displaced people. Immediately after the earthquake, 1.5 million people were moved to displacement camps (Institute of Technology and Animation). Seven years later, people are still living in temporary shelters, with the main problem being that these shelters were not built to last. Temporary shelters usually consist of a tarp, tent, or plastic sheeting. Typically, tarps are designed to last for six months (Donahue 2). Temporary housing will be a long-term arrangement until people can be moved to a permanent housing typically taking six to eleven months to build (Donahue 3). Temporary housing should allow for people to start up
their daily lives by going to work and allowing children to go to school. The problem in Haiti is that people have never been given the opportunity to relocate to permanent houses, turning their temporary shelters into their homes. Seven years after the earthquake, people are still living in the temporary tarps, draped with development agency names such as USAID on the side. The shelters show that at one point in time, Haitians received housing aid from organizations, but the aid seemed to stop at the temporary shelters. The International Housing Coalition said that conditions for shelters did not improve past the emergency phases. I was able to see first-hand that Haitians are still living in emergency and temporary shelters. People have not been able to go back to routine daily activities as children are running around during school days, and adults wait around due to lack of work. Many issues contribute to the number of Haitians still living in temporary shelters such as cost, location and resources. Directly after the earthquake resources and money were spent on short term solutions, such as distributing tents and tarps. This allowed for the money to be spent in a way that does not lead to suitable housing. (Sontag 1). The problems of how the money was spent can be attributed to Haiti’s history of debt and corruption.

**Historical Context in Haiti:**

Haiti became an independent nation from France in 1804. Following their independence, Haiti faced economic and political issues which led to social difficulties in the future. Land tenure and land grabbing has proven to be an issue in everyday society and especially following natural disasters. During the 1950-1970s around 56-100% of farmers claimed to own their land (Zuvekas 4). To farmers, owning land was from a traditional inheritance system which did not always provide documents to prove land ownership. This
form of ownership does not prove tenure security, especially in times of disasters. The traditional way of land ownership leads to one of the biggest issues faced by Haitians, which is land grabbing. Land grabbing becomes an issue as farmers and families give up land or have it taken by the government, lawyers, or judges (Zuvekas 7). Without having titles to the land this has created many problems following the earthquake, as people can’t prove the land is theirs and government and private businesses continue to land grab. Land grabbing has become political, as families with money and power are the ones who are able to buy and control land. Families who depend on their land are being taken advantage of by the wealthy as they lose their land and have nowhere to go.

Issues of Land Documentation:

Without proper land documentation few Haitians have documents to prove their land, and during the earthquake many documents were lost in the rubble (Giampaoli 1). From the people who had documents, the lost papers have led to chaos as new and old property are being claimed. USAID has hoped to implement international standards to bring attention to land tenure and property rights to Haitians (Giampaoli 2). Many Haitians are stuck in the limbo phase of residing in camps because of the vague or nonexistent records proving ownership or rights to land (International Housing Coalition 9). Many people had land in the past along with claims to land based on the honor and community system. This has historical importance by showing the physical presence of owning the land (Giampaoli 3). People within the community were able to know and respect the land in which families had resided on for years. Unfortunately, the earthquake shook up this system as people started claiming land, causing
problems for families who could not prove their ownership. Property disputes have become a major issue for families, especially when they are stuck in camps with no place to go.

**Lack of Strategic Planning, Overpopulation and Hazardous Areas:**

A major concern for the nation of Haiti in times of natural disaster is the lack of building codes that are in place. The high death toll in Haiti can be attributed to the high population and the lack of building standards. Overpopulation and crowding leads to buildings and neighborhoods not following codes when working to accommodate the immense population. When the earthquake struck areas such as Port-au-Prince, the people felt the burden and destruction at a high rate because of the overcrowding. The overpopulation also attributed to people living in hazard prone areas such as cliffs or mountains. The lack of building codes and standards allowed for this type of construction to take place. Poor urban planning has allowed for the devastation of the earthquake to affect even more people. After the earthquake, people who were displaced were being settled on undeveloped land, thus furthering the issue of poor strategic planning. Moving people to disaster prone areas is only setting up Haitians to be the victims of another disaster. The problems that occurred from the earthquake are being perpetuated as the government is not looking into how to rebuild using the proper codes and strategic planning. There was a fast approach that took place in order to get the people out of the areas where the earthquake hit, but, the areas where they relocated are still prone to other types of disasters. People are continuing to move to areas that are prone to disaster, or areas without any resources. The resettlement is taking place on undeveloped land, which leads to further problems because people are far from resources, infrastructure, and employment (Giampaoli 3). The government is lacking in implementing the right accountability for having the
strategic planning to build proper housing. The government’s corruption and lack of structure only furthers the problems in post-disaster housing.

**Politics in Haiti:**

Haiti has had political issues since the time it was established as a nation. Following independence from France, Haiti started to pay the independence debt, “Haiti’s government was also forced to finance the debt through loans from a single French bank, which capitalized on its monopoly by gauging Haiti with exorbitant interest rates and fees” (Macdonald 1). This set Haiti up for political and economic problems for years to come as they did not have enough money to establish a strong government and economy while paying back the debt. Prior to the earthquake the politics in Haiti have always been tumultuous from assassinations to coup d’états. Dictatorships and lack of political freedom set Haiti up to be unprepared for the natural disasters that hit the island. Following the earthquake, in 2011 Haiti elected a new president, Michel Martelly, who has since stepped down (Cook 1). Martelly had little political experience and this caused instability and problems for the country following the earthquake during reconstruction.

Many Haitians have left Haiti due to political instability and a poor economy. Mendelson Forman wrote, “Given the country’s extraordinarily high levels of corruption, not to mention political instability, the diaspora has largely refrained from employing its much needed skills in Haiti” (Mendelson Forman 1). After the earthquake, the Haitian diaspora has shown to be important actors in building back Haiti. The earthquake has given the opportunity for the diaspora to invest their money in rebuilding Haiti. Remittances have always played a big role, but after the earthquake they are a major influence in rebuilding back Haiti. With remittances
being so vital, this dictates where the money will be spent and for whom it will go to. This does not always lead to fair rebuilding as many vulnerable families do not have family abroad who are able to send money. This leads to the strong role that NGOs need to play to help Haitians with little resources.

**Role of Development and NGOs:**

After the earthquake, Haiti received the most money ever raised from the international community for a disaster at $13 billion. Many organizations agreed to donate money to help rebuild homes, but the reality seven years later is that people were promised homes but are still living in camps. “Seventy-five percent of all foreign aid has gone directly to NGOs that spent the money inefficiently and with few results.” (Hillestad 1). The role of NGO’s in the people’s eyes can be seen mainly as many broken promises. One example is through Build Change which agreed to “improve” homes during reconstruction, not to rebuild (Build Change 1). This misunderstanding can also be connected to missed interpretations. Many NGOs are run in English, along with the documents being written in English. This practice leads to a problem of miscommunicated information, leaving people feeling frustrated and lied to. The influx of NGO workers come from abroad as volunteers, and have little to no knowledge or resources on how to aid reconstruction, let alone speak the language. Haiti received a large amount of funds which were used as relief aid (Sontag 1). This money was used by the NGOs to make direct fast impacts after the earthquake, but the money has not shown to have any permanent footprints. The result has been that people are still living in displacement camps throughout Haiti.
Analysis:
In March of 2016, my humanitarian assistance class went to Haiti to look at the current situation of the housing crisis after the 2010 earthquake. What we saw when walking through camps were people who had to accept that the camp life was now their way of life. Camps had very little resources in terms of sanitation, latrines, water, education, and employment. People make the camp their home, as they realized that there were limited options to have a more permanent solution. What we saw was the reminiscent time of when agencies were working and supplying the camps with aid, and now all we see is the ghost of the assistance that once was there. Especially in the forms of shelters as they are way past their time to be inhabited.

Temporary Shelter:

The camps that we visited, were stuck in the temporary shelter or t-shelter phase. This was 6 years after the earthquake, which is much longer than the estimated time for these types of shelters. The housing that we saw was predominately made from tarps given by aid agencies (see photo below).

Figure 1 Temporary Shelters made of Tarps, 2016
These types of housing can be considered temporary shelter, due to their structure of being built with tarps. Six years later this type of design is not sustainable and not durable in the future. If another natural disaster were to strike these homes would be knocked down right away. We had one account with a local woman who described her experience of living in this type of shelter. She told us that anytime there was rain, the tarp design was not able to keep their personal belongings dry. This also caused families to be rained upon during a storm because the shelter is not able to protect them from the elements. Visiting the camps, this was a common census amongst people living there, the materials that they were given for the homes over six years ago was not sustainable and able to protect them. Theft and violence are also common issues in the camps, as there is no security to keep what they have safe. What I saw was the ghost of aid organization names like USAID, Red Cross, Canadian Aid, and UN plastered on the sides of shelters, but very little help from these organizations still in the camps. Too many big actors were working in these camps immediately after the earthquake, giving people aid and assistance, but over time the money and help slowly diminished. People are living without water, bathrooms, and functional living spaces, which shows the failure of the international community.

**T-shelter:**

T-shelters in the camps were also built, but had not been given any new resources to sustain the structure or to use the materials for a more permanent solution.
This image of a t-shelter was built with wood, and corrugated metal for the roofs. These types of transitional or t-shelters, have materials that could be reused if needed, or converted into a more permanent solution (Sanderson 131). When we came to look at the camps, we were flooded with questions and concerns from local residents. They thought that we were there from a NGO, to look at the needs and offer solutions for the camps. We were approached as being able to have solutions and hear what the people needed from the NGOs. We described to the people that we were students visiting to learn from them and their experience in the camps. Some were told that they would receive a permanent home, but as the years passed no signs of rebuilding homes became visible. What our class concluded was that money was not utilized in a way that can help to move through the phases of disaster housing, keeping people in the phase of temporary housing with no signs of receiving permanent housing.
Permanent Housing:

From all the issues that were faced from the temporary shelters, the most devastating was the broken promises of receiving permanent housing. The biggest issue that we observed with permanent housing, was that many permanent homes were built, but people were not living in them. Some reasons people are not inhabiting these vacant homes were: affordability, distance, and land ownership. One complex of houses in particular (see photo) shows a mostly vacant complex built with little infrastructure around.

![Permanent Housing Image](image)

Figure 3 Permanent housing built by the government with few inhabitants and little infrastructure, 2016

This image shows a complex of houses with very few inhabitants, almost known as a ghost town. One of the major issues with this complex is its location. As you can see in the photo, there does not appear to be infrastructure around it. Being far out from the city, there are little employment and education opportunities. The few families that live in this complex told stories of how being so far away from town has made their life very challenging. There is little
accessibility for people to reestablish their livelihoods. Without proper infrastructure and opportunities, families are not able to reestablish themselves. One example from this complex was that there are no buses or transportation to take people in and out of the city for work. The largest problem about living in this complex comes down to affordability. These homes were built by the government, but they are not built for families to own permanently. Families have to rent out these homes at rates that are unaffordable, especially when people do not have the resources to find work in this area. The homes are for rent only and are not able to be purchased according to local residents. This is a big reason for the complex being vacant. People do not want to pay money into homes that they will never be able to own. This leads to many people choosing to stay in temporary shelters, due to affordability. The infrastructure was not properly set up in this complex, as people do not have running water, furthering the issue of people not choosing to spend money to live there. While residents were generally unhappy with their living situation, from an outsider’s perspective it seemed a lot better than people living in a camp just a few miles away with very little resources. Our class discussed, how can the government justify having so many people living in camps with little to no resources, when there is a vacant housing complex just miles away that would be able to protect people from the elements. The government appears to be losing money on this complex, because people are not able to afford a house that they will never own. My personal suggestion is to lower rent and to set up a rent to own program. This will allow for the complex to make money, if more people live in it at a lower rate, opposed to few people living in it at a higher rate. Community participation is key to having a successful housing project because people are able to take ownership of the changes they want to happen. Being able to own your home will help
create local participation. One of the housing complexes we visited was able to demonstrate how this can be successful.

**Permanent housing: Rent to Own:**

A housing project funded by USAID, was established to give families permanent homes while paying for it through a rent to own program. Initially people will receive a home in which they have to pay rent on for a certain amount of years, until they pay enough to successfully own the homes. Visiting this community, you could see a drastic difference, as the homes and roads were well maintained. You could see the community participation and ownership that people had.

*Figure 4 Permanent Home, rent-to-own, 2016*
The photo above, shows one of the homes that was built by USAID and the home is surrounded by infrastructure, including roads and electricity. When we spoke with people of this community, generally they have a much better quality of life and outlook on their situation. People were excited about the idea of owning their own home, and they have a sense of pride in their neighborhood. This neighborhood was clean and well maintained from community members, you could see kids playing in the streets and a sense of safety that was not in the other areas we visited. Another reason for the success of this neighborhood is the accessibility for people to reach employment, thus being able to pay for the homes.

Figure 5 Permanent housing showing infrastructure, 2016

Through proper use of funds, community participation, and a rent to own program, these factors allow families to establish their new lives.
**Land Tenure and Distance:**

Many of the camps formed in Haiti, were set up in an emergency situation setting, creating problems for land grabbing due to the position of the camps. For example, one of the camps we visited was right next to a car dealership, whose owner allowed the camp to be set up post-earthquake. The major issue in 2016, was that the dealership wanted their land back, but the people would have nowhere to go. The people felt that they were being slowly forced out as businesses begin to be built around it. In Haiti, the major problem was the lack of land ownership proof, leading to a high amount of people having to live in camps. This would lead to future conflict as businesses tried to force people out, but there was nowhere for people to go.

**Failures:**

The major reasons in which Haiti failed in implementing successful post-disaster housing for the majority of the population is the lack of coordination of the money from the NGOs and government. Some of the more successful cases of post-disaster housing are due to the governments being able to step up and put regulations into practice such as cases like New Zealand and Japan, whose governments set up successful reconstruction committees. Without proper leadership, Haiti was doomed to fail, just as many other developing countries had done before. Haiti, has a fragile government and is not able to break away from the corruption to best serve the needs of the people. Haiti’s history has caused for the failures to be dragged out over time. The NGOs that flood the country, and the volunteers who come to help are not properly trained in disaster management, which is another major issue on how money and resources are being wasted. Moving forward, it is vital that countries and governments are able
to set up disaster committees, especially in disaster prone countries like Haiti. Following codes and having plans in place are key in helping to make countries less vulnerable for when a disaster strikes.

**Conclusion:**

Successful implementation of post-disaster housing is key in helping people to reestablish their livelihoods after a disaster. Some success stories can be attributed to government preparedness, organization, and proper spending by actors such as NGOs. The biggest failures for Haiti is that there were no plans in place for a disaster. Prior political instability and diaspora led to a brain drain in the country causing the economic climate to be weak and unable to support a disaster. This caused chaos after the earthquake as there was little preparation, resources, and knowledge to deal with this kind of destruction. Having a weak government prior to the earthquake made the problems worse, as they are not able to mobilize the money and the resources. Other major failures are contributed to the lack of land tenure that was established as people were not able to prove their land and have been forced out by the government and businesses. The NGOs also had a role in the failure alongside the government, as they don’t have workers with knowledge of post-disaster housing. Without properly trained volunteers and workers, money is wasted on reconstruction as there is a lot of trial and error from volunteers in rebuilding. The money could have better been spent to train local workers in assisting in reconstruction. The lack of local participation hurts the communities, as families are not able to give their input on where the money should be spent, and how the homes should be built. Failures are also seen in the distance and accessibility of
the housing complexes and camps. People are not able to reestablish their livelihoods without accessibility to resources for employment and education.

Haiti had repeated many mistakes that were made in disaster housing in other countries. The biggest mistake was that the money was spent on all the emergency phases of housing reconstruction and building back fast. The money was spent on the early phases of housing reconstruction leaving very limited funds leftover to build permanent housing. People are now trapped in these phases as the money was not properly utilized to give people lasting housing solutions. These mistakes of speed versus sustainability have also contributed to problems as Haitians continue to live in their shelters that were created seven years ago. Haiti did not see the importance of sustainable and disaster resilient housing that was described in successful post-disaster housing. If they had implemented these factors into their reconstruction, over the long run many people would have safe resilient homes. The homes were not built to have adequate space, which was outlined in helping families to reestablish their livelihoods.

Lessons learned from Haiti are to establish land tenure, create building codes, and have disaster preparedness plans in place. If these lessons are followed, this would allow for people to not be in a vulnerable state when a disaster strikes if there are measures in place to protect them. Overall, Haiti had many failures from the beginning through their fragile government, lack of building codes, overpopulation, and land ownership not being secure. As for Haiti, the NGOs and government need to learn from their mistakes and start working more with the local communities to help improve their housing situation.
My unique findings are that the historical context of Haiti is what made their post-disaster housing situation fail. Being the only country to ever owe debt on their independence caused Haiti to not have a stable economy and government. These are the factors caused Haiti to have problems in establishing land tenure, building codes, and pre-disaster plans prior to the earthquake. Without recommended disaster planning, the earthquake caused Haiti to experience widespread devastation throughout the country. Without a booming economy and strong government, Haiti continues to struggle in rebuilding their country.
Bibliography:


