

Dispossessed: Exploring the Factors That Enable Post-Disaster Land Grabs

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Abstract

The objective of this thesis is to better understand what factors produce an enabling environment for land grabs after a disaster. Looking at eight selected case studies, this research tests the role of land tenure security, private capital investment and global financial institutions, and gender. The factors are tested with a mixed methodology: proxy indicators are analyzed quantitatively, and case study literature is reviewed qualitatively. This research found that none of these factors were able to explain why post-disaster land grabs happen in some places, and not others. This finding suggests that either the current research does not yet understand what factors produce an enabling environment for post-disaster land grabs or there are insufficient means to test the veracity of the hypothesis. Future research is needed to better understand this phenomenon that analyses land grabbing as a complex, emerging result.

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It's an act of hope to conduct research during a pandemic -- I was honored to do it.

Summary:

Access to land is a means of physical and economic security, shelter, food production, and cultural and community belonging. When people are dispossessed of their land, particularly following a disaster, they are more vulnerable. Despite the seeming importance of land issues for disasters, property and land issues are on the periphery of research (Elie & Locher, 2018, p.226). However, a growing field of research examines the nexus of disasters and land issues. Disaster Risk Management, Critical Development Studies, and Critical Agrarian Studies researchers have explored technical solutions to build the capacity of land tenure institutions to address land grabbing (Mitchell, 2014), trends that lead to a global demand for land (Borras et al., 2013), and the role of gender in attaining land tenure security (N. & Kusakabe, 2015). While these fields have created understanding about this phenomenon, there is a need for a supply-side study of what factors produce an enabling environment for land grabs after a disaster. The objective of this thesis is to better understand what factors produce an enabling environment for land grabs after a disaster.

This thesis closely studied eight selected case studies with a mixed methodology: proxy indicators are analyzed quantitatively and case study literature is reviewed qualitatively. The research questions study the role of land tenure security, private capital investment and global financial institutions, and gender in creating an enabling environment for post-disaster land grabs.

The results suggested that land tenure security played a role in the land grabs that happened in Haiti, India, Thailand, and the USA. They suggest that private capital investment played a role in the land grabs that occurred in Thailand, India, and the Philippines. Lastly, the land grabs disproportionately affected women, specifically in Haiti, but all case study countries exhibited higher levels of gender inequity.

This research found that none of these factors were able to universally explain the occurrence of a post-disaster land grab. This finding suggests that either the current research does not yet understand what factors produce an enabling environment for post-disaster land grabs or there are insufficient means to test the veracity of the hypothesis. Future research is needed to better understand this phenomenon that analyses land grabbing as a complex, emerging result.

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1 Introduction

In the wake of Hurricane Irma, a category five storm that rocked the Leeward Islands of the Caribbean in the fall of 2017, another disaster brewed. Hurricane Irma acutely affected Barbuda -- the small island sustained a direct hit when the hurricane was at its most severe intensity. Property damage exceeded between \$150-300 Million USD, around 95% of structures were destroyed, and most residents were evacuated (Cangialosi et al., 2018, p. 13). In the aftermath, Barbudans tried to forge ahead and build back the island better than it had been, but others had something else in mind for the land of Barbuda. Barbudans had long been viewed by their Antiguan neighbors and national partners as “an unmotivated economic liability, and an obstacle to lucrative development” and the clean slate that Irma provided (few people and demolished buildings) gave more development minded islanders an opportunity to change things up (Gould & Lewis, 2018, p. 149).

The Barbudan land tenure structure prevented the types of large-scale developments found on other caribbean islands because it centered power around the democratic will of Barbudans and not to developers. Since their emancipation from slavery, all Barbudans commonly-held the land -- “the Barbuda Land Act (BLA) of 2007 codified this practice, stating that land was held ‘in common’ and could not be sold, which limited private development...[although] land could be leased for ‘major developments’ ...[after] majority consent through public referenda” (Gould & Lewis, 2018, p. 148). In the wake of Irma, Prime Minister Browne sought to privatize the land, justifying this move because individual ownership would allow Barbudans to take out loans, with property as collateral, to rebuild their homes. However, the land tenure regime change paved the way for a huge increase in development. Now, “most of the Caribbean Sea side of Barbuda has plans for development...[with] a focus on building a large airport intended to service high-end tourist resorts...[and] high-end tourism destinations, with names like *Paradise Found* and *Peace, Love and Happiness*” (Boger & Perdikaris, 2019, p.6). In the wake of Hurricane Irma, developers and politicians teamed up to push through huge development projects, dispossessing people of communal land, in something that has been called a “land grab” and “a wild episode of disaster capitalism.” (Klein & Brown, 2018, p. 9) The fight is not over yet -- citizen groups are pushing for their rights, filing injunctions, and the politicians and developers are fighting for their development too (Boger & Perdikaris, 2019). Unfortunately,

this type of story -- people being dispossessed of land following a disaster -- is not isolated or uncommon.

The phenomenon of post-disaster land grabbing is important for researchers and practitioners because it leaves people more vulnerable, an issue from both an axiological and management perspective. Firstly, from an axiological perspective, this situation is clearly unjust -- it seems inherently wrong for elites or governments to exploit a disaster to execute their development project or investment programs. All people should have the right to a certain amount of control over their economic future. However, values and morals differ, and a strictly axiological perspective may not be enough for every researcher or practitioner. From a purely practical standpoint, being usurped from one's land in the wake of a disaster makes people significantly more vulnerable. People that are dispossessed following a disaster not only suffer from the first and second order effects of the disaster, but also the effects of losing their home, equity, livelihoods and oftentimes communities, creating even greater vulnerability, an outcome antithetical to the recovery and rebuilding process (Mitchell & Herrera, 2011).

Despite the seeming importance of land issues for disasters, property and land issues are on the periphery of research (Elie & Locher, 2018, p.226). However, a growing field of research examines the nexus of disasters and land issues. Disaster Risk Management, Critical Development Studies, and Critical Agrarian Studies researchers have explored technical solutions to build the capacity of land tenure institutions to address land grabbing (Mitchell, 2014), trends that lead to a global demand for land (Borras et al., 2013), and the role of gender in attaining land tenure security (N. & Kusakabe, 2015). Despite this growing and diverse research, gaps still exist in the understanding of how disasters, vulnerability, land, and people intersect (Unger et al., 2017, p.438). Why do post-disaster land grabs happen in some places, but not others? What factors produce an enabling environment that makes post-disaster land grabs more, or less, likely to occur?

Research Objective:

The objective of this thesis is to better understand what factors produce an enabling environment for land grabs after a disaster. This research seeks to test whether three key factors identified in the literature produce an environment where post-disaster land grabs are more likely to occur in eight selected case studies.

This thesis first summarizes what previous research has discovered about post-disaster land grabs from the diverse academic perspectives. This literature review defines the key terms of 'land grabbing' and 'land tenure' and then dissects key questions, like: 'Is this a technical or political problem?' and 'How does one prevent land grabbing?', offering a variety of perspectives from relevant literature. After the literature review, this thesis then outlines the mixed methodology that guides this work and the materials chosen to execute the study. The methodology explains the case study selection guidelines, the cases, the three research questions, and the limitations of the study. Next, the results of the study are outlined, going through the three research questions one by one. Following the results is a discussion about the key takeaways from the study and the significance of the results. The thesis concludes with the key take-aways from the study and suggestions for future research.

2 Literature Review

There is little consensus within the study of land grabbing and land tenure rights, complicating this literature review. Different academic disciplines offer disparate perspectives on the nature of the problem and the solutions to fix it. Furthering the complexity of land grabbing, is that it sits at the intersection of many other problems, making it impossible to disentangle -- "it sits alongside a gamut of social, economic, political, and environmental aspects" (Chagutah & Chagutah, 2013, p.1). To best summarize the discourse, this literature review will first share the definitions of 'land tenure' and 'land grabbing' used for this thesis. Next, there is an overview of the contested questions about post-disaster land grabs. The perspectives offered from different fields allow this thesis to identify the factors that are later tested to see if they produce an enabling environment for land grabs after a disaster.

To begin this review, common definitions are needed to frame the parameters of the discussion. Much could be written about the differences between contrasting definitions of contested terms, but that is not what this research is focused on.

Land grabbing is not a new phenomenon, and throughout the years, researchers have used different terminology to describe what happens when a person's land has been forcibly taken from them. Dispossession, forcible relocation, and land grab are some of the words used with greatest frequency. For this paper, the term 'land grab' is used simply because, while it could be seen as politicised, it is the terminology used most frequently in the

discourse reviewed for this thesis. However, defining what exactly a 'land grab' is is politically contested, there are many disagreements on what exactly constitutes a land grab. Some organizations like the "Food and Agriculture Organization (FAO) initially defined land grabs as involving at least 10,000ha, a foreign government, and a negative impact on the food security of affected communities" (Franco & Borras, 2019, p.193). However, definitions like this are too narrow to accurately explain this widespread phenomenon -- when thinking back to the clear case of the Barbuda land grab, none of the FAO criteria are met. For the purpose of this paper, the 2011 Tirana Declaration from the International Land Coalition definition is used, which defines land grabs as:

acquisitions or concessions that are one or more of the following: (i) in violation of human rights, particularly the equal rights of women; (ii) not based on free, prior and informed consent of the affected land-users; (iii) not based on a thorough assessment, or are in disregard of social, economic and environmental impacts, including the way they are gendered; (iv) not based on transparent contracts that specify clear and binding commitments about activities, employment and benefits sharing, and; (v) not based on effective democratic planning, independent oversight and meaningful participation (International Land Coalition, 2011, p.2)

This definition of a land grab is used because it offers a comprehensive set of circumstances that can constitute a land grab.

The other definition that needs to be considered is that of *land tenure*. This term is important to define because the dominant academic narratives of many of the papers from Disaster Risk Management (DRM) perspective on land grabbing posit that land grabs occur after disasters because of the underlying vulnerability and the land tenure security of dwellers -- they view land grabs as essentially a function of land tenure. The Food and Agriculture Organization (FAO) (2002) defines land tenure as

the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land and associated natural resources (water, trees, minerals, wildlife, etc.). Rules of tenure define how property rights in land are to be allocated within societies. Land tenure systems

determine who can use what resources for how long, and under what conditions (FAO, 2002, p.46)

Land tenure is essentially the legally and socially accepted institutions that dictate how land, and the resources on that land, are owned, and used. Much of the land grabbing discourse from the DRM perspective focuses on how to increase the security of land tenure. By strengthening land tenure institutions one can decrease the likelihood of land grabbing.

Now that there is greater clarity to the terms being used, we can begin an overview of some of the main tensions within the research. The objective of this thesis is to better understand what factors produce an enabling environment for land grabs after a disaster, and by elucidating these tensions in the research, one can identify key questions to research further.

2.1 Are land grabs a technical, a political problem, or both?

Whether the phenomenon of land grabbing is a technical or political problem is a divisive question. Many researchers studying land grabbing from a Disaster Risk Management (DRM) perspective tend to emphasize the role of land tenure institutions and propose technical and structural changes to increase their capacity. Within the Critical Development Studies (CDS) and Critical Agrarian Studies (CAS) fields, most researchers emphasize larger political and economic trends that create the supply and demand for 'free' land and are often critical of efforts to formalize western-inspired land tenure. Still, many writing about this, however, don't take an 'either, or' approach and express a hybrid viewpoint.

Some DRM researchers have explicitly worked with post-disaster land grabs and the implicit understanding of their research is that land grabbing is a function of when a hazard meets land tenure insecurity. Here, land tenure is a key aspect of the "overarching context" of a disaster and acts as "both a product and generator [of vulnerability]" (Reale & Handmer, 2011, p.160). From this perspective, when a disaster occurs and "kills titleholders, destroys land records, and erases boundaries" (Dillow, 2008, p.1) strong institutions will be able to handle disputes and weaker institutions will not be able to respond to or have a means of detecting land grabs or validating claims of a land grab. From the research analyzed for this literature review, the perspective of these researchers is that they see post-disaster land grabs as more of a technical problem. This can mean that the weaker the land tenure institutions, the more likely land grabs are to occur.

Researchers coming from CDS and CAS, have studied land grabbing more generally, not specifically after disasters, and view this as a problem of external social, economic, and political pressures on land management which drives a focus on capital accumulation. From this perspective, recent crises around finance, food, energy, and the environment have caused dominant economic actors from private equity firms, corporations, and governments, to seek 'free' land to manage their risk exposure and ensure future supplies of fuel, food, and capital accumulation (Borras et al., 2011; Edelman et al., 2013; Uson, 2015). However, this desirable land is not usually 'free,' it is often taken from others, in a process, dubbed by David Harvey, called "accumulation by dispossession" (Harvey, 2003, p.137). As only 30% of the global population "has a legally registered title to their land," there is a steady 'supply' of land to satisfy the growing demand (The World Bank, 2017, p.1). When land grabs are viewed from a macro-level, one can see that social pressures such as existing resource and land-use conflicts and many emergent properties of globalized trends contribute to the systems that enable land grabs (Uson, 2015). According to this perspective, it does not really matter what kind of local governance is implemented, because large corporations and elite individuals have enough capital to get what they want.

Some researchers take a blended approach to this question. N. and Kusakabe (2015) explain how post-disaster land grabs occur, taking a blended approach:

Disasters such as typhoons, tsunamis, volcanic eruptions, and earthquakes can erase land records thus dispossessing landowners, and leave vulnerable and disadvantaged groups open to land grabbing by powerful people. McClean (2010) notes that outright violence and carefully orchestrated legislative measures are often used to grab the land of the urban poor following disasters, accentuating inequalities. Poor urban governance and lack of accountability have increased the post-disaster risk of displacement (Ginnetti et al. 2013; N. & Kusakabe, 2015, p.3)

In this explanation one can see both elements of the technical and political origins of post-disaster land grabs.

This question is important to this study because it brings into stark relief the difference in perspective on the origin of post-disaster land grabs, and which factors produce an enabling environment for post-disaster land grabs. If post-disaster land grabbing is strictly a technical

problem, then the most important factors to study are the ones that measure the relative strength of the land institutions that provide tenure security. If post-disaster land grabbing is an emergent trend from global political, economic, and social trends, then important factors to look at are how open a country's markets and political system are, how much and what kind of Foreign Direct Investment (FDI) there is, and other similar factors.

2.2 How do you reduce land grabs?

An interest for much of the reviewed research is how one can effectively reduce the likelihood of a land grabs from occurring. For those that have concluded that land tenure is an effective way to prevent land issues like land grabbing, some think that to increase the security of one's land tenure one must work to strengthen institutions capacities and increase the general perception of security.

Disaster Risk Management (DRM) academics and practitioners have proposed a variety of solutions that seek to address land tenure insecurity and build capacity to stop land grabbing. Many of the progressive interventions seek institutional and legal changes to mainstream land tenure security and DRM as currently, a very large percentage of land in the Global South are informally owned or occupied (Fitzpatrick, 2010). They often frame these change as pro-poor land reforms. The FAO (2010) recommends the “state recognition [and documentation of] land rights and a sound land policy framework supported by a comprehensive legal framework, developed in consultation with the community” (FAO, 2010, p.134). Further, Mitchell for the FAO (2010) recommends institutional enforcement and dispute resolution procedures and subsequent appeal processes, and “improving the capacity of local land administration agencies” (FAO, 2010, p.135). For humanitarian organizations responding to disaster, FAO (2010) argues for a policy that exhaustively explores a return to the previously occupied land, and if this cannot or won't happen, for a temporary resettlement with rigorous considerations for human rights. In many cases, academics in the DRM field argued against working exclusively for formal titles, stating, “the introduction of individualized formal titles does not equate with tenure security and has in some cases made land access less secure” (Chagutah & Chagutah, 2013, p.5).

Researchers in CDS and CAS have a different approach than those in the DRM field. In their view, “land grabbing is symptomatic (and amplifying) of deeper structural issues...flowing through the architecture of advanced neo-liberal globalization” (Margulis et al., 2013, p.18).

Zoomers (2010) gets more specific, stating, “globalization, market liberalisation and the rapid increase in foreign direct investment (FDI) are increasingly accompanied by land grabbing” (Zoomers, 2010, p.430). As such, their solutions focus on both land administration changes and structural changes on the global scale, but will give particular focus to the latter. Because this is a big, structural issue, “rather than focusing on large-scale land deals in isolation, and analysing them case by case, it is necessary to incorporate issues into a broader land governance agenda” (Zoomers, 2010, p.444). In addition, some of these researchers explicitly call for a “social justice framework in terms of framing political intervention in resource governance” (Franco & Borrás, 2019, p. 197) Coming from this perspective, some see that the way to reduce land grabs is social-justice oriented global reforms on land governance.

Different perspectives on how post-disaster land grabs can be reduced reveals factors that one can test. If strong land registries and dispute resolution systems are best for reducing land grabs, then this reinforces the necessity of testing how strong the institutions are that secure tenure rights. Further, if how globalization a country is and how open the markets are to FDI is an important factor for land grabs, then this bolsters the case for testing levels globalization, market liberalization, and FDI.

2.3 What are the factors that enable actors to execute post-disaster land-grabs?

In some of the literature, academics do pursue the question of which factors create an enabling environment for post disaster land grabs. DRM academics view land tenure security as a product of vulnerability in that “poor and more vulnerable people move to informal settlements which are often in disaster-prone areas” (Mitchell, 2014, p.108) and that “informal settlements or illegal settlers who lack tenure security are more likely to suffer from deficient infrastructure...[and] are more likely to be too poor to gain access to necessary insurance mechanisms” (Erdem, 2011, p.4). Land tenure insecurity generates post-disaster vulnerability in that “groups whose rights to land are informal yet socially legitimate, or people occupying land illegally, are vulnerable to land grabbing or resettlement without compensation” (Mitchell, 2014, p.111). Once displaced, “easily validated claims to land underpins the return of displaced people to their livelihoods, to food production, and to activities aimed at rebuilding their lives” (FAO, 2010, p.124-125). For these scholars, people that are already in some way marginalized are more vulnerable to land grabbing because they will likely have less secure land tenure.

If vulnerability begets greater vulnerability to post-disaster land grabs, then it is worthwhile looking at the effects of cross cutting issues like gender, race, ethnicity, and indigeneity.

2.4 Literature Review Summary

From the overview of literature about this field, it is clear that there is little consensus regarding many aspects of land grabbing. However, through a careful review, this thesis has identified the definitions of 'land grabbing' and 'land tenure' that guide the rest of this research on. Further, from fleshing out dominant tensions between different perspectives on land grabbing, important factors that could create an enabling environment for post-disaster land grabs were identified. The objective of this thesis is to better understand what factors produce an enabling environment for land grabs after a disaster. From reviewing the literature, frequent factors from different perspectives that recurred were the role of land tenure and the institutions that provided tenure security, private capital investment and a globalized financial system, and barers of vulnerabilty, like gender.

Based on the literature, this research hypothesizes that the case study countries will display insecure land tenure. Further, this research hypothesizes that the case study countries will display high levels of globalization, will have an increase in FDI after a disaster, and that post-disaster land grab efforts will have clearly identifiable ties with global financial instituions, the private sector, or financial elites. Finally, this research hypothesizes that the case study countries will display high levels of gender inequality and that women will be disproportionately affected by the land grabs.

3. Methodology & Materials:

This section outlines the methods and the materials for the study. The objective of this thesis is to better understand what factors produce an enabling environment for land grabs after a disaster. From the literature review, three key factors were identified to examine: the role of land tenure security, the private sector and a globalized financial system, and cross-cutting issues. To determine the role of these three factors, a mixed methodology was used by conducting a cross-case analysis of eight cases of post-disaster land grabs. In the first section of the methodology, the case study selection criteria is listed. Next, the three research questions are presented with an explanation of the procedures used to investigate

each question and why this is an important question to ask. Lastly, the limitations of the project that shaped the methodology are listed.

3.1 Case Study Selection

Cases were sourced through disaster risk management literature and land-grabbing literature with additional information from gray literature such as books, periodicals and papers, institutional reports and civil society organizations active in peasant rights. In order to have a significant overview, nineteen cases were initially identified. The selection process privileged more recent, widely researched, cases that came from a variety of different backgrounds. Land grabs that occurred in different countries from the same event were treated as different cases and land grabs that occurred in the same place through multiple disasters were treated as one case. An introduction to each of the cases is found at the beginning of the results, in Table 1. After carefully reviewing the cases in the initial scoping exercise, eight cases were selected using the following criteria:

- A wide representation of this phenomenon. Divergent cases were selected, which spanned different government types, rural and urban environments and national economic development levels as well as varied repurposing of the land.
- Recent cases presenting similar development and governance trends between now and the time of the land grab. For example, a case from 100 years ago would be interesting, but it's relevance is questionable. In addition, this research did not choose to study very recent cases that happened in the last year or two due to the lack of information about the final outcome -- distance in time gives hindsight. It was important to have a complete picture of what happened with a more retrospective lens. For example, the case in Barbuda is a prime example of a land grab, but the outcome is unclear at this moment.
- Sufficient academic, peer-reviewed literature describing the case was needed. This research prioritized cases that had enough literature to conduct a proper study.

There were many well-documented cases clustered together around major events or across time in one city. This presented an obstacle as to how cases should be delineated. As this research methodologically looked predominately at country-wide political, economic, and social trends, cases that occurred because of a shared disaster, but occurred in different countries were treated as separate cases. Multiple cases that occurred in the same country but from different events across time were treated as the same case. For example, the

Indian Ocean Tsunami led to land grabbing in India, Sri Lanka, Thailand, etc. These were treated as all separate cases because the political, economic, and social conditions that created an enabling environment for post-disaster land grabs were different. Throughout the course of the case study scoping process, many cases of post-disaster land grabbing were found in India, however since all of these events shared the same political, economic, and social conditions that created an enabling environment for post-disaster land grabs, these events were treated as one case.

3.2 Analytical Framework

Below, each research question is presented and the data used to operationalise the research question.

1. Does the insecurity of one's land tenure create an enabling environment for land grabs?

As previously highlighted in the literature review, many researchers within the DRM field have placed much emphasis on land-tenure security, yet researchers in other fields have placed greater emphasis on global political and economic trends. The Barbuda case from the introduction demonstrates how people with secure land tenure that is both legally and socially recognized can have their land dispossessed.

There is not a universally agreed upon definition of land tenure, let alone land tenure security. Further, most recent methods of quantifying tenure security rely upon indicators (Simbizi et al., 2016, p.30), which are criticized as being "fragmented and not holistic", because "the conceptual understanding [of what land tenure security is] is often narrowed for one reason or another, and the methodological approaches currently in use offer little ability to tackle the total complexity of land tenure security in an integrated way" (Simbizi et al., 2016, p.32). Further, many of these indicators are more recent and do not go far back enough in time to cover all of the selected case studies. While acknowledging this critique and the reality that most methods of analyzing land tenure rely upon indicators, this methodology used indicators in tandem with proxy data and a qualitative assessment of the case study literature.

The indicators that were used to quantify land tenure in this methodology were used because they were both transparent and more holistic. These indicators were transparent in that the methodology was clear about what it was measuring. These indicators were more

holistic in that they included all (or most) of the case study countries and the years of the disasters. The two land tenure security indicators used, were the Millennium Challenge Corporation's (MCC) *Land Rights and Access* Indicator and The Heritage Foundation's *Property Rights* Index.

The Millennium Challenge Corporation's (MCC) *Land Rights and Access* Indicator is a composite indicator of the International Fund for Agricultural Development's (IFAD) *Access to Land* Indicator, the International Financial Corporation's (IFC) *Days to Register Property* Indicator, and the IFC's *Cost of Registering Property* Indicator. The MCC *Land Rights and Access* Indicator "evaluates whether and to what extent governments are investing in secure land tenure" (*Land Rights and Access Indicator*, 2020) and gives countries a rating from zero to one. A higher number in this indicator is indicative of greater investment in land tenure security. In addition to the score they give, they compare countries of similar income levels, giving each country a percentile ranking comparing it to its peer countries. This indicator was available for all the case study countries except the USA. The data used here, was the dataset from the year closest to when the disaster occurred. As a composite of three indicators analyzing several different measurements of how easy or hard it is to legally accepted tenure, this indicator seemed like an appropriate index to include – it was both transparent and more holistic.

The second indicator used to assess the security of land tenure was The Heritage Foundation's *Property Rights* Index, which measures "the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state" (*Property Rights*, 2020, p.1). This index is scored from 0-100, where a higher number means more robust land rights and enforcement. Data for this index was available for all case study countries and was collected from the years 2000-2020. This indicator had a clear methodology, where the scores corresponded to particular conditions of land tenure security. Further, all data on all case study countries was available.

In addition to the indicators that specifically measured different aspects of land tenure security, an additional proxy variable was used that addressed a critical component of land tenure security, without necessarily measuring land tenure security specifically. In selecting proxy indicators, transparency and holism were looked for. The proxy variable used was the World Bank's *Regulatory Quality* Index, which looks at a country's ability to write and enforce policy -- the variable can help approximate how adequate the regulatory

environment is, which is important for writing and enforcing land tenure policy. This scale is measured from -2.5 to 2.5 where a higher number means a better regulatory environment. Data for this index was available for all case study countries and was collected from the years 2000-2020. It seemed important to have a variable that just looked at how effective a government was at enforcing it's own policy – thorough and inclusive land tenure policies are meaningless if they are unable to be enacted. This proxy variable was able to transparently look at this aspect for each case study country.

Together, the collection of these indicators give perspectives on the administrative and legal perspectives of land tenure security. To enable the bulk download of data from *TheGlobalEconomy.com*, a subscription was purchased. Cases were individually analysed using a simple average of their own scores over time: for each country, the indicator data over the course of 2000-2020 was averaged together to produce one score. Due to the limitations later explicated in this section, case study countries were not compared with each other. Working within this limitation, the indicators were examined in different ways. For The MCC's *Land Rights and Access* Indicator the percentile ranking compared with like countries was looked at. For The Heritage Foundation's *Property Rights* Index and the World Bank's *Regulatory Quality* Index, the average result for the case study country was compared with the average result for all countries analyzed from 2000-2020.

In addition to reviewing indexes, case study literature from academic journals and gray literature was examined. To collect the data, case study literature was sourced through searches on *LUBSearch* and *Google Scholar*. After the data was collected, a thorough reading of all relevant materials for each case was undertaken. One case at a time, each article was read and reread between one and three times. Next, the data was grouped from interesting data points into categories, and then into a few larger themes that shaped the outcome of individual cases. Data here was considered significant if it was well-documented in peer-reviewed literature or was listed in many places. The observations were summarized.

2. Does the introduction of private capital investment and the global financial system in the recovery effort play a role in creating an enabling environment for post-disaster land grabs?

One of the emerging areas of inquiry around land grabbing is the role of capital: do large injections of private capital, whether it comes from foreign or domestic elites and corporations, play a role in creating an enabling environment for post-disaster land grabs?

Researchers in the CDS and CAS fields have found that recent crises around finance, food, energy, and the environment have caused dominant economic actors from private equity firms, corporations, and governments, to seek 'free' land to manage their risk exposure and ensure future supplies of fuel, food, and capital accumulation (Borras et al., 2011; Edelman et al., 2013; Uson, 2015). In essence, they view land grabs as the product of big, structural problems. Zoomer (2010) summarizes this point of view, stating, "globalisation, market liberalisation, and the rapid increase in FDI are increasingly accompanied by land grabbing" (Zoomers, 2010, p.430). While researchers propose that the processes that produce post-disaster land grabs are more complex and non-linear than simply introducing private capital into the equation, this question still approaches the premise of their hypothesis. This research question is important to ask because it's an essential component of the global economic and political trends that CDS and CAS researchers view as one of the driving forces behind land grabs in general.

To study the role of private capital investment and the global financial system, this research analyzed both FDI and globalization, which are some of the factors listed by Zoomers (2010) as key indicators. Indicators to assess these metrics were chosen based on how transparent their methodology was and whether or not the data was available for all of the case study countries over many years.

The indicator chosen to assess Net Foreign Direct Investment (FDI) was measured as a percentage of the particular country's GDP. This thesis analysed the change in net FDI over time by taking five years of data, starting two years before the disaster and extending until two years after the disaster. This data was plotted on a line graph. Because the India case study represented a cluster of cases, the data from all of the disaster events was averaged, so as to not overrepresent the India case study. This method gives a robust look at how net FDI changes amidst a disaster.

To accommodate the diverse facets of globalization, this research looked at three distinct measures of globalization: The Swiss Institute of Technology in Zurich's *Globalization, Political Globalization, and Economic Globalization Indexes*. The *Globalization Index* measures how economically, politically, and socially integrated a country is with the world and is scored from 0-100, where a higher number indicates a more globalized country. The *Political Globalization Index* measures how globally enmeshed a country's political system is measured on a scale from 0-100, where a higher number means more globalization. Lastly,

the *Economic Globalization Index* measures how open a country's economic system is to foreign investment, multinational corporations, etc.. This index is also measured on a scale from 0-100, where a higher number means more globalization. Data for the globalization indexes was available for all case study countries and was collected from the years 2000-2020 and averaged together for one score for each country per indicator. The average result for the case study country was compared with the average result for all countries analyzed from 2000-2020. By analyzing these three different measures of globalization, this thesis hopes to gain a holistic view in the analysis.

When taken together, these four indicators offer a robust measure of FDI, globalization, and market openness -- key indicators listed by Zoomers (2010). By looking at these indicators together one can then gauge the relative ability for private capital investment, the global financial system, and elites to influence the recovery effort.

In addition to analyzing this data, case study literature was analyzed to see if the reported land grabs described were influenced by private capital. For example, if a fishing village was seized by an equity firm that sought to develop that land for ecotourism, then this was considered to be an influence by private capital. However, if the government cleared a village to resettle the villagers in a lower risk area and the role of private capital was unclear or not mentioned in the literature, then this was considered to not be a result either way.

3. What is the role of gender inequality in creating an enabling environment for post-disaster land grabs -- are women disproportionately affected by this phenomenon?

The role of vulnerability in creating an enabling environment for post-disaster land grabs is important to consider and brings up essential notions of who has power, and how they exercise that power. Researchers in the DRM field have observed that cross-cutting issues like gender, race, ethnicity, or indigeneity are factors that influence one's access to secure land. Things like gendered land policies decrease the security of their rights to land. DRM researchers have found that the more vulnerable a person is, the less likely they are to have tenure security. Pinpointing the role of cross cutting issues in creating an enabling environment for post-disaster land grabs is an important aspect to study. Due to limitations outlined in the upcoming subsection, this question only looked into gender.

To effectively study the impact of gender, this thesis looked at the United Nation Development Programme's *Gender Inequality Index*, which specifically measures the level of

inequality by looking at reproductive health, empowerment, and economic standing (*UNDP*, 2020, p.2). This index is measured from 0-1, where a higher number indicates greater inequality. Data for this index was available for all case study countries and was collected from the years 2000-2020. Cases were individually analysed using simple averages -- the yearly scores of the indicators from years 2000-2020 were averaged together and compared with the average results of all countries analysed in the index from the years 2000-2020. Similar to other indicator selection decisions, this particular indicator was chosen it was transparent about its methodology and holistic, both in it's approach and it's inclusion of each case study country over time.

In addition to reviewing the index, case study literature from academic journals and gray literature was examined. To collect the data, case study literature was sourced through searches on *LUBSearch* and *Google Scholar*. After the data was collected, a thorough reading of all relevant materials for each case was undertaken. One case at a time, each article was read and reread between one and three times. Next, the data was grouped from interesting data points into categories, and then into a few larger themes that shaped the outcome of individual cases. Data here was considered significant if it was well-documented in peer-reviewed literature or was listed in many places. The observations were summarized.

3.3 Limitations

The limitations that shaped the methodology were primarily brought about by the availability of data and time limitations.

Relying on secondary sources allowed this research to study many cases in a relatively short period of time, but it limited the research to cases that had already been researched by others. While one can assume that there are many instances of post-disaster land grabbing, this research necessitated that each case had sufficient, peer-reviewed documentation. Further, due to the language constraints of the researcher, this research was limited to only sources that were written in English. To mitigate against this limitation, a diverse set of cases were chosen. The cases identified in the initial scoping exercise spanned different government types, rural and urban environments and national economic development levels, as well as varied repurposing of the land.

An additional data issue when studying this phenomenon that affected the way it could be studied is the absence of a known control. As stated earlier, one can assume that there are

many instances of undocumented post-disaster land grabbing. This affects the methodology one can conduct, because it makes it difficult to make a comparative analysis between a case of a post-disaster land grab and a case without a post-disaster land grab. For example, if one wanted to study whether places with greater land tenure security suffered less post-disaster land grabs, one could take a few case studies and compare their level of tenure security to a control case where there was not a land grab. However, this could not be done honestly at the moment, because it is hard to find a disaster where one can definitively say that no land grabs occurred. Because no land grabs were reported by researchers, journalists, or activists, does not mean that no land grab occurred.

Further, Simbizi et al. (2016) critiques the ability of indicators to analyze land tenure security while also stating that land tenure security is predominantly measured by indicators. Many of the indicators to measure land tenure security also did not have data for every case study country, presenting an additional limitation. To work around this limitation, many indicators were used, as well as proxy indicators and qualitative data. Hopefully, through analyzing a wide variety of data limits this.

There was a data limitation in seeking to measure the effects of different types of vulnerability like race, ethnicity, and indigeneity. This was simply a hard thing to quantify. The United Nations Commission on Human Rights called for the creation of a global racial equity index as long ago as 2004 (UNHCR, 2004), none has yet been created. A report from 2006 cited significant difficulties in creating one, from defining race, to finding racially disaggregated data (UNHCR, 2006). Further, no global reports or indexes could be found on the rights of indigenous peoples. This limited the study of vulnerability to just look at gender.

Lastly, this research was limited by the 20-week time length of this study and the prescribed length of the thesis. There were many different avenues to pursue in this evolving field of study, but time and length limitations prohibited pursuing every opportunity.

4 Results

The coming section delves into the results of the research described in the methodology. The results of each of the three research questions will be addressed separately, one at a time. The results go through the results from both the qualitative and quantitative analysis for each case study country individually. Lastly, there is a general summary of the observations from the data. A summary of all of the cases is available below in Table 1.

Table 1. Case Study Description:

Case	Description
2004, 2005, 2015 Flooding Cluster -- India	This research focused on three flooding events in the last two decades which caused land grabbing (Diwakar, 2019); (Jain, Singh, Coelho, et al., 2017); (Jain, Singh, & Malladi, 2017); (Saharan et al., 2018). After the 2004 flooding which occurred because of the Indian Ocean Tsunami, the national government attempted to restrict building within a certain amount of distance from the ocean -- rampant land grabbing ensued (Cohen, 2011). Documented cases of land-grabbing primarily happened to low-caste peoples in coastal fishing villages (Raju, 2013). Private developers sought to remove these people from their land for development of local tourism (Cohen, 2011). In both the 2005 floods and the 2015 floods, the city government of Chennai exploited the floods to undertake relocation projects mostly of slums (Narayan, 2018).
2010 Haiti Earthquake	In the aftermath of the earthquake there was a great deal of relocation projects undertaken as new development projects seized land for construction (Danto, 2015); (ActionAid, 2015). People were dispossessed of their land both in urban Port-au-Prince, but also in rural settings as well as development (Steckley & Steckley, 2019).
1998 Hurricane Mitch --	In the wake of Hurricane Mitch, the government instituted land reforms and policy liberalizations led to rapid development, displacing Hondurans and the

Honduras	Garifuna ethnic minority from their ancestral lands (Edelman & León, 2013); (Loperena, 2017); (Edward Simpson, 2011).
2004 Indian Ocean Tsunami -- Indonesia	Similar to the government response in India, the Indonesian government's Rehabilitation and Reconstruction Process Agency (BRR) enacted a 500 meter buffer zone on the coast restricting all construction efforts as a risk management strategy (Abidin et al., 2011). They relocated coastal dwellers inland despite their wishes to remain on the coast for economic and social reasons (Banba & Shaw, 2017); (Ismail et al., 2018); (Syamsidik et al., 2018).
2004 Indian Ocean Tsunami -- Thailand	After the tsunami, private landlords seeking new coastal development, sought to force off Mookan squatters and villagers that lived on the coast (Materka, 2007); (Dillow, 2008). It has been well documented that, "right after the tsunami, severe land right conflicts broke out in about 25–40 coastal villages between the purported land owners and the surviving inhabitants" (Cohen, 2011, p.229).
2004 Indian Ocean Tsunami -- Sri Lanka	After the tsunami, the national government attempted to restrict building within a certain amount of distance from the ocean -- rampant land grabbing ensued (Cohen, 2011); (Connolly, 2007); (Fernando, 2018); (Hyndman, 2007). Some of the most prominent cases involve Muslim minorities that occupied coastal land that private developers usurped for tourist development (Cohen, 2011, p.232).
2005 Hurricane Katrina -- USA	The most documented cases of land-grabbing occurred in New Orleans to African-Americans renting government-owned or government subsidized apartments (Adams et al., 2009); (Banba & Shaw, 2017). Efforts to rebuild the city were rife with issues that limited the low-income housing stock (Fitzpatrick, 2008). In addition to this, many families were unable to access any funds to rehabilitate or claim their family houses that had been passed down for generations because they were not able to produce legal documentation of ownership (Peterson, 2009a).

2013 Typhoon Haiyan -- Philippines	Following the typhoon, the national government ordered a buffer zone for reconstruction along the coast, forcing the relocation of coastal dwellers (Uson, 2017, p.424). Similarly, corporations and elites capitalized on a ‘clean slate’ after the disaster to execute long awaited land-use changes, coercing coastal dwellers off of their property (Uson, 2017, p.422).
---	--

Table 1

4.1 Question One: Does the insecurity of one's land tenure create an enabling environment for land grabs?

To answer this question, a qualitative overview of the case study literature was conducted. In addition, several indicators were used: the MCC *Land Rights and Access* Indicator (which itself is a composite indicator of IFAD's *Access to Land* Indicator, IFC's *Days to Register Property* Indicator, and the IFC's *Cost of Registering Property* Indicator), the World Bank's *Regulatory Quality* Index, and The Heritage Foundation's *Property Rights* Index. The data is presented for each country individually.

4.1.1 Case Study Literature

Haiti

Steckley and Steckley (2019) write, “only five percent of Haiti’s territory is formally registered in the national land cadastre and 75 percent of all transactions bypass formal procedures that small landholders view as burdensome and expensive” (Steckley & Steckley, 2019, p.50) Complicating this further, “where no legal documentation exists (as is common), the state possesses legal control over private domain land” (Steckley & Steckley, 2019, p.50). Essentially, only a select few had legal tenure over the land, even if they had technically purchased it and for much of the country, the land was *de jure* owned by the state. Unfortunately for those that had gone through the effort of obtaining the formal land tenure, in the wake of the Earthquake, the undigitized land records were in a basement buried among debris (Mitchell et al., 2017, p.241). Mitchell (2017) states that the states inability to deal with complex land issues was a “key limitation in the reconstruction effort” (Mitchell et al., 2017, p.241). The case study literature suggests that land tenure insecurity was rampant and created an enabling environment for land grabbing.

Indonesia

In the qualitative research, Dillow (2008) states that there was a lack of land tenure, stating that of the “300,000 land parcels that were affected in Aceh and North Sumatra...it is estimated that only 60,000 of these were titled” (Dillow, 2008, p.13). However, while the literature suggests there were issues with land tenure, it does not suggest that this lack of land tenure translated into land grabs. In fact, Dillow (2008) highlights a community-based solution to address the lack of formal titling, writing that “NGO’s frustrated by the slow pace of government-led reconstruction and resource reallocation organized community-mapping exercises to prepare inventories of resources and demarcate land boundaries” (Dillow, 2008, p.17).

India

The qualitative literature suggests that people in India have a socially accepted land tenure that prevented corporate land grabs, but did not prevent government land grabs. Cohen (2011) states that “predatory land grabs, initiated by private entrepreneurs...were less common in India or Sri Lanka, where tenure patterns have apparently been generally more settled, due to land-registration, started already in colonial times” but that “strategic land grabs initiated by government or local authorities were more comprehensive in India and Sri Lanka”(Cohen, 2011, p.234). While Cohen (2011) states that socially accepted land tenure patterns prevented private land grabs, other research indicates that the socially accepted land tenure did not translate to *de jure* land tenure, enabling the government to enact policy changes, grabbing their land -- “the lack of security to land tenure had resulted in the state branding people as ‘illegal occupants’ and ‘squatters’... security of tenure has been the root cause of forced evictions” (Peter, 2017, p.29).

Philippines

The qualitative research for the Philippines yielded little data on the role of land tenure security in creating an enabling environment for land grabbing. Walch (2018), however, did state that “many people occupy and use public and private land without any secure tenure” (Walch, 2018, p. 129). While this suggests weak land tenure security, the data does not suggest that this played a role in creating an enabling environment for land grabbing.

Sri Lanka

As previously stated in section 4.1.4, Cohen (2011) writes that “predatory land grabs, initiated by private entrepreneurs...were less common in India or Sri Lanka, where tenure patterns have apparently been generally more settled, due to land-registration, started already in colonial times” but that “strategic land grabs initiated by governmental or local authorities were more comprehensive in India and Sri Lanka (Cohen, 2011, p.234). While this may be, none of the other literature suggests that land tenure played a role in creating an enabling environment for land grabbing in Sri Lanka.

Thailand

In Thailand, Cohen (2011) states that where land rights were more socially accepted, there were fewer land grabs, and that places in Thailand where the “tenure pattern...was unsettled offered attractive opportunities for land grab” (Cohen, 2011, p.229). This indicates that where there was tenure insecurity, there was an enabling environment for land grabbing.

USA

During the qualitative analysis, evidence suggests that there were issues with land tenure that created an enabling environment for land grabbing. The land tenure insecurity came about due to issues involving inheritance. Peterson (2009) found that after a homeowner died, “in many cases a succession or transfer of the title is never carried out, which leaves the original owner’s name on the title...[and that having a] title with multiple interests created tenure insecurity” (Peterson, 2009, p.46-47). During the recovery process, “homeowner applicants needed to prove both ownership and occupancy to be eligible for the *Road Home* grants” (Peterson, 2009, p.62). In other words, many family homes that had been passed down between generations lacked the legal ownership of their property, prohibiting them from accessing resources after Katrina.

4.1.2 Data Results

Table 2 below shows the results disaggregated by country. The MCC *Land Rights* Indicator is a composite of three indicators analyzing several different measurements of how easy or hard it is to legally accepted tenure. It is measured from zero to one, with a higher score indicating greater investment in land tenure security. This score also provides a percentile

ranking that compares how that specific country did when compared to peer countries. The Heritage Foundation’s *Property Rights* Indicator measures how easy it is for people to obtain and secure enforceable property rights and is measured from 0-100 – a higher score indicates greater property rights. Lastly, the World Banks *Regulatory Quality* Index measures the ability of the government to enforce laws and is measured on a scale from -2.5 to 2.5 – a higher score indicates greater regulatory capacity.

Table 2: Quantitative Data On Land Tenure Security

Countries	MCC Land Rights [0 : 1]	MCC Percentile	Regulatory Quality [-2.5 : 2.5]	Property Rights [0 : 100]
Haiti	.411/1	11th	-0.76	10
Honduras	.641/1	61st	-0.36	35.76
India	.69/1	67th	-0.34	51.9
Indonesia	.557/1	38th	-0.349	35
Philippines	.838	97th	-0.08	38.4
Sri Lanka	.583/1	41%	-0.12	46.3
Thailand	.751/1	71st	0.24	52.33
USA	N/A	N/A	1.49	85.7
Average Country	--	--	-0.024	47.28

Table 2

Based on the quantitative data, Haiti, Indonesia, and Sri Lanka consistently scored at or below average scores on all of the indicators used to measure land tenure security. Honduras, India, Philippines, Thailand, and the USA all scored mixed results where some of

the indicators showed a better than average score, yet others showed a below average score. The Philippines displays an interesting result with a high score on the MCC indicator and a low score in the Heritage Foundation indicator.

4.1.3 Summary

The qualitative research revealed that in four of the cases (Haiti, India, Thailand, and the USA) land tenure insecurity played a role in creating an enabling environment for land grabs. The quantitative data suggests that just Haiti, Indonesia, and Sri Lanka have uniformly lower than average land tenure security.

4.2 Question Two: Does the introduction of private capital investment and the global financial system in the recovery effort play a role in creating an enabling environment for post-disaster land grabs?

To study the role of private capital investment, this research looks at the trends of Net Foreign Direct Investment (as a percentage of the countries GDP) and the Swiss Institute of Technology in Zurich's *Globalization, Economic Globalization, and Political Globalization Indexes* for each case study. For all of the indexes, the time period that was looked at was from 2000-2020. In addition to analyzing this data, case study literature was analyzed to see if the reported land grabs described were influenced by private capital.

4.2.1 Case Study Literature

Haiti

After the earthquake in Haiti, the government instituted a number of policies that promoted "private sector-led investment as the catalyst for economic development and poverty reduction" (Steckley & Steckley, 2019, p. 49). These policies "allowed the Haitian state to facilitate and legitimize land acquisitions through extra-economic means at the behest of private investors seeking to capitalize land assets and utilize a surplus of cheap labor" (Steckley & Steckley, 2019, p.47). The post-disaster policies enacted by the Haitian government allowed corporations to seek new development, dispossessing people of their land in the process, however, the influence of private capital in the governments decision is unclear from the literature. From the qualitative assessment of the case study literature, it seems that the government enacted policies that created an environment that enabled land grabs, however the involvement of private capital was unclear.

Honduras

The qualitative research on Honduras after Hurricane Mitch found that the national government enacted a series of pro-business policies that “generated opportunities for increased investment in energy, mining and tourism, corresponding economic development strategies with the potential for spectacular short-term growth” (Loperena, 2017 619). These investments included tax incentives for tourism development on the coast and for the sale of land to foreigners. In part, it was these reforms that led to investors developing land for tourism, “dispossessing Garifuna ancestral lands from their communities” (Loperena, 2017 619). The role that private capital played in this case is unclear from the literature. Similar to the case of Haiti, the literature suggests that the government played a role in creating an environment for land grabs with the private sector playing an unclear role.

India

The qualitative review of the case study literature suggests that the relocation of people residing in slums in Chennai, India after the floods in 2004, 2005, and 2015 was a policy decision by the Tamil Nadu Slum Clearance Board (TNSCB), which is a government agency that manages those slums (Diwakar, 2019, p.1331). Cohen (2011) echoes the view that the government was the primary motivator for dispossessions, stating “the principal attempts at land grab have in Sri Lanka and India been perpetrated by the governmental authorities” (Cohen, 2011, p.233). However, some view this situation differently, arguing that these relocation projects were “funded by the World Bank and private developers” (Diwakar, 2019, p.1331). Diwakar (2019) suggests that the policy agenda of relocation was set primarily by three actors: “private developers who began to approach the urban planning bodies with construction bids for slum relocation colonies...middle-class environmental activists who began to articulate a vision for a ‘slum-free’ city as part of their environmental conservation efforts...,[and] The World Bank’s disaster management agenda, which was articulated by way of reducing and mitigating risks” (Diwakar, 2019, p.1328). By focusing on mitigating long-term risk, these projects prioritized relocation efforts, removing people from vulnerable slums instead of providing funds for short-term emergency relief. Many view post-disaster land grabbing in India as a policy outcome -- some view these policies as coming directly from the government, while others see it coming from private entities. The case study literature suggests that the government acted in tandem with private capital investment and global financial systems to create an enabling environment for land grabs.

Indonesia

In Indonesia, the qualitative case study research suggests that its post-disaster land grabs were caused primarily by the national government's policies that led to resettlement and subsequent land grabbing. Legislatively, "three national laws have been enacted in 2007 by incorporating a significant portion of the new disaster management paradigm into them" (Banba & Shaw, 2017, p.309). The plan of instituting buffer zones around the coast and resettling those that lived on the coast was produced by the Aceh- Nias Tsunami Rehabilitation and Reconstruction Process Agency (BRR), as "stipulated in the Rehabilitation and Reconstruction Master Plan as an annex of Indonesia Presidential Decree No. 30/2005" (Banba & Shaw, 2017, p.298). While the private sector could have been involved in other, discreet ways, the research here suggests that the land grabbing that took place in the wake of the 2004 Tsunami in Indonesia was largely carried out by the nation's governmental policies.

Philippines

In the Philippines, Uson (2017) suggests that the land grabs that occurred after the 2013 typhoon were enacted by "an alliance of powerful elites and the state" (Uson, 2017, p.417). Following the typhoon, the national government ordered a buffer zone for reconstruction along the coast, forcing the relocation of coastal dwellers (Uson, 2017, p.424). Similarly, corporations and elites capitalized on a 'clean slate' after the disaster to execute long awaited land-use changes, coercing coastal dwellers off of their property (Uson, 2017, p.422). Here, according to the qualitative research of the case study, both the government and private capital investment played a role in creating an enabling environment for land grabs.

Sri Lanka

In Sri Lanka, the data suggests that the national government was largely the motivating force behind the policies that produced their land grabs. After the 2004 tsunami, the national government planned to establish a buffer zone "between 100-300 m off the coastline, depending on local risk exposures...moving over 118,000 houses (Dillow, 2008, p.14). Cohen (2011) confirms this perspective, noting that, "the principal attempts at land grab have in Sri Lanka... been perpetrated by the governmental authorities" (Cohen, 2011, p. 232). From the qualitative research, the data suggests that the land grabbing that took place in the wake of

the 2004 Tsunami in Sri Lanka was largely carried out by the nation's governmental policies, however there is no mention of the ways in which the private sector could have influenced this decision-making process.

Thailand

The case study literature suggests that the land grabbing in the wake of the 2004 tsunami in Thailand appears to have largely been carried out by private landlords seeking new coastal development. It was well documented in the literature that, “right after the tsunami, severe land right conflicts broke out in about 25–40 coastal villages between the purported land owners and the surviving inhabitants” (Cohen, 2011, p.229). Throughout these land grab attempts, “the landlords began to fence off the claimed areas, to put up signs warning against trespassing, or to assign guards to the fenced off plots; in some instances they even prevented the inhabitants from retrieving their dead” (Cohen, 2011 229). The national Thai government got involved as these conflicts progressed, only to side with the landlords (Cohen, 2011 330). For the case in Thailand, it is clear that the private capital of developers and investors were largely responsible for the post-disaster land grabbing that occurred.

USA

In Louisiana following Hurricane Katrina, the case study literature suggests that the policy decisions that resulted in dispossession and land grabbing were established primarily by the federal and state governments. In particular, the Louisiana Recovery Authority (LRA) and the United States Department of Housing and Urban Development (HUD) were the governing bodies that administered recovery programs (Peterson, 2009, p. 56). The data does not indicate the involvement of the private sector.

4.2.2 Data Results

The *Globalization Index* measures how economically, politically, and socially integrated a country is with the world and is scored from 0-100, where a higher number indicates a more globalized country. The *Political Globalization Index* measures how globally enmeshed a country's political system is measured on a scale from 0-100, where a higher number means more globalization. Lastly, the *Economic Globalization Index* measures how open a country's economic system is to foreign investment, multinational corporations, etc.. This index is also measured on a scale from 0-100, where a higher number means more globalization. Data for

the globalization indexes was available for all case study countries and was collected from the years 2000-2020 and averaged together for one score for each country per indicator.

Table 3: Quantitative Data On Private Capital Investment

Countries	Globalization [0 : 100]	Political Globalization [0 : 100]	Economic Globalization [0 : 100]
Haiti	42.4	45	42.8
Honduras	61.1	65.7	61.6
India	57.5	90.3	40.5
Indonesia	61.5	83.1	55.2
Philippines	65.0	82.1	58.6
Sri Lanka	58.4	74.7	49.5
Thailand	68.4	79.6	65.2
USA	80	93	65.5
Average Country	58.7	60.3	57.5

Table 3

On average, Haiti had lower levels of globalization. Honduras, Philippines, Thailand, and the USA all had higher than average levels of globalization. India, Indonesia, and Sri Lanka have mixed levels of globalization, some had higher levels of a particular types of globalization and lower in others. In general, it seems that many of the countries experience a higher level of political globalization, but overall, there is not a clear pattern.

Figure 1: FDI Investment Over The Course Of A Disaster

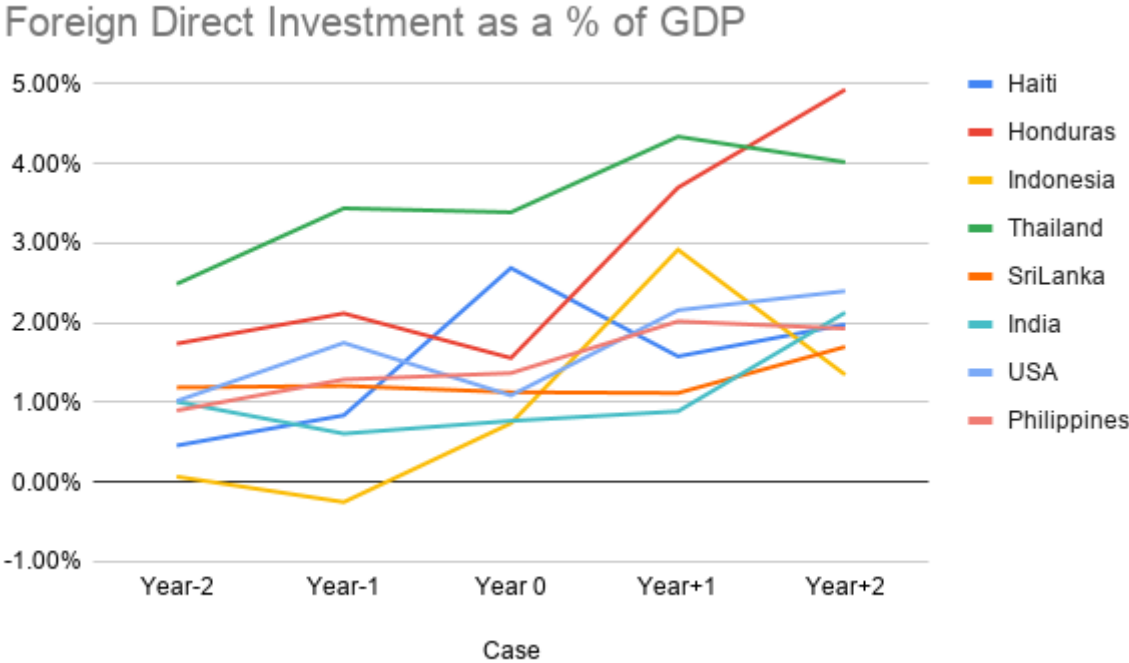


Figure 1

In addition to looking at globalization, the relative level of FDI was examined over the course of a disaster -- starting from two years before a disaster to two years after. On average, the FDI two years prior to a disaster was 1.1% in the case study countries. Two years after, it averaged to 2.48%. The trend over time here is that after a disaster, the case study countries did have a perceptible increase in FDI as a percentage of their GDP – this trend is true for each case study.

4.2.3 Summary

The case study literature is unclear about the role of private capital in the land grabs that occurred in Haiti, Honduras, Indonesia, Sri Lanka, and the United States. For these cases the literature largely suggests tat the national or federal government were responsible for undertaking the policy initiatives that resulted in land grabs. In India and the Philippines, there is more contention regarding which parties were responsible for the land grabs, although the consensus is that in these two countries, both the governments and the elites and corporations played a role. In Thailand, it is clear that largely the private sector is responsible for the land grabs that occurred there.

4.3 Question Three: What is the role of gender in creating an enabling environment for post-disaster land grabs -- are women disproportionately affected by this phenomenon?

To study the impact of gender inequality, this thesis compiled gender equality information from the United Nation Development Programme's *Gender Inequality Index*. The thesis also looked at case study literature to do a qualitative analysis.

4.3.1 Case Study Literature

Case study literature only explicitly discussed the role of gender in two of the case study countries, Thailand and Haiti. Other resources on gendered access to land were available on other case study countries, but they were not context specific about the particular land grabs in question.

Thailand

Materka (2007) found that in studying the land laws in Thailand, "both widowed and husbanded female survivors were disadvantaged under the Land Code...[because it] prohibited women from operating businesses and acquiring real estate independently of their husbands...[and] barred the means for women to acquire land from their husbands" (Materka, 2007, p.34). In the aftermath of the 2004 Indian Ocean Tsunami, there was a pattern, where women had less access to economic resources, including land inheritance. N. and Kusakabe (2015) state clearly that "weaker claims to resources, especially land resources increases vulnerabilities and reduces resilience against risk" (N. & Kusakabe, 2015, p.2).

Haiti

In the aftermath of the Haitian earthquake, Steckley and Steckley (2019) discuss the disproportionate challenges of rural women in the face of dispossession. They describe that while, women's access to land was already more tenuous and legally not accepted before the earthquake, afterward, these women were "dually deprive rural populations from their land-based resources and simultaneously necessitate increased commodification of their household reproduction" (Steckley & Steckley, 2019, p.62). Steckley and Steckley (2019) describe a reality where women have disproportionately less formal access to land, then bear a great deal of the economic hardships that followed the land grab.

4.3.2 Data Results

This data is from the United Nation Development Programme’s *Gender Inequality Index*, which specifically measures the level of inequality by looking at reproductive health, empowerment, and economic standing (UNDP, 2020, p.2). This index is measured from 0-1, where a higher number indicates greater inequality. Data for this index was available for all case study countries and was collected from the years 2000-2020 and averaged together.

Table 4: Quantitative Data on Gender Inequality

Country	Gender Inequality
Haiti	.63
Honduras	.502
India	.578
Indonesia	.491
Philippines	.444
Sri Lanka	.403
Thailand	.357
USA	.235
Average Country	.384

Table 4

Individually, Thailand and the USA had lower than average levels of gender inequality. Haiti, Honduras, India, Indonesia, the Philippines, and Sri Lanka had higher than average levels of gender inequality.

4.3.3 Summary

The case study literature used to collect the qualitative data was largely gender-blind, however, the data suggests that in both Thailand and Haiti, women faced a disproportionate burden of the land grab. The quantitative data suggests that countries that experienced post-disaster land grabbing, on average, had greater levels of gender inequality. However, there were outliers, like the United States and Thailand, that prevent this from universally being the case.

5 Discussion

The phenomenon of post-disaster land grabbing is unjust and adversely affects the success of the disaster response and recovery. From the different academic perspectives that study this phenomenon, there is not agreement on what the problem is, why it happens, or how to fix it. This research sought to bridge disparate understandings of the phenomenon to foster better understanding about why it varies, happening in some places but not others. DRM literature seems to suggest that land grabs are a function of hazards, land tenure security, and vulnerability. CDS and CAS literature by and large placed emphasis on the role of large, structural issues with global financial and political trends.

From the literature review, this research identified three individual factors to examine: the role of land tenure security, private capital and the global financial system, and gender inequality. These factors were tested on eight cases, using a mixed methodology that employed both qualitative assessment of case study literature and quantitative analysis of proxy indicators. Based on the literature, this research hypothesized that the case study countries would display insecure land tenure, high levels of globalization, increased FDI after a disaster, and clearly identifiable ties with global financial institutions, the private sector, or financial elites. This research also hypothesized that the case study countries will display high levels of gender inequality and that women will be disproportionately affected by the land grabs.

Overall, the data showed that while all of the factors individually explained some of the cases, none of the factors were able to explain every case. Despite bridging these two strands of thought on the issues and testing their respective hypotheses, this was still insufficient to explain the phenomenon.

Table 5, below, interprets the observations from the results, case by case. This research found that all of the factors played a role, but that not every factor played a role everytime. In this table, the factors are ranked ‘strong,’ ‘mixed,’ and ‘partial.’ ‘Strong’ indicates that both the quantitative and qualitative suggest a role. ‘Mixed’ means that either the quantitative or the qualitative research suggested a role, but not both. ‘Partial’ means that neither the qualitative or quantitative research suggested a role

Table 5: Combined Qualitative and Quantitative Results For All Research Questions

Country	Land Tenure Security	Private Investment	Gender Inequality
Haiti	Strong	Partial	Strong
Honduras	Partial	Mixed	Mixed
India	Mixed	Mixed	Mixed
Indonesia	Mixed	Partial	Mixed
Philippines	Partial	Strong	Mixed
Sri Lanka	Mixed	Partial	Mixed
Thailand	Mixed	Strong	Mixed
USA	Mixed	Mixed	Partial

Table 5

When the observed data is interpreted, it is clear that all of the study factors played somewhat of a role, but ultimately, none of the factors were completely able to explain why land grabbing happens in a place. There were only four instances of a ‘strong’ result, where both the qualitative and the quantitative data suggested the same result. However, the data still reveals interesting results worth discussing. Perhaps the most interesting results for the researcher were the inability to verify the hypothesis that land tenure insecurity leads to greater risk of land grabbing and the results around the effects of political globalization, and

the gap in research on gender. In addition of discussing interesting results, the discussion also delves into why the results failed to validate the hypothesis. This discussion explores the possibility that this result could have arisen because the wrong question was asked at the outset. Perhaps this thesis used the wrong methodology to answer the research questions, or the data was wrong or insufficient.

5.1 Noteworthy Observations

The implicit understanding of many of the DRM researchers who have explicitly worked with post-disaster land grabs is that land grabbing is a function of when a hazard meets land tenure insecurity. By bolstering the capacity of the institutions that work with land tenure, one works to ameliorate the problem. Investigating the veracity of this hypothesis, initially seemed quite uncomplicated -- observe the numerous indicators for land tenure and cross-check this result with the qualitative research for individual case studies. While there were subsequent problems later explored in the discussion -- this should have been a straightforward analysis. Only in one case (Haiti) was there strong evidence for this hypothesis, with five additional cases of mixed results. Due to the ubiquity of the hypothesis that land tenure security played a decisive role in predicting land grabbing, the research's inability to validate this claim was an interesting result.

The case of the USA during Hurricane Katrina gives unique insight into the reality of land tenure security and the issue with land tenure security indicators. The USA scored high on the indicators for land tenure security, but this security was not available to all its citizens -- more vulnerable members of its society could not obtain the tenure security available to most other land owners. Despite the vast legal protections available, in a crisis, vulnerable people were not able to access it. This case further problematizes the efficacy of land tenure security indicators outlined by (Simbizi et al. 2016).

A second point of interest in the results is how politically globalized the case study countries were compared to the average of all other nations measured. The index for political globalization measured how globally enmeshed a country's political system is -- a politically globalized state is indicative of a relatively weak national government and relative political strength of other actors. All of the case study country's were more politically globalized than the average country -- and not by a small amount. Six of the eight cases were more than 10 percentage points above the average. This data point speaks to the perspective of the

Critical Development Studies (CDS) and Critical Agrarian Studies (CAS) fields, most researchers emphasize larger political and economic trends that create the supply and demand for 'free' land.

A final point of interest in the data set goes towards the gap between the qualitative and quantitative examinations of the role of gender. The qualitative assessment of the case study literature revealed little about the gendered effects of the land grab, and offered largely gender-blind analysis. Both in Haiti and Thailand there were articles written about the role of gender. The quantitative data showed a different story with six of the eight case study countries displaying higher than average levels of gender inequality. The implications of this being that gender seems clearly relevant, but under examined.

5.2 What Went Wrong?

Surely, post-disaster land grabbing is not a random phenomenon that happens occasionally in some places, just by coincidence -- there is likely an explanation. The inability of this study to determine universal factor(s) can mean a variety of things. This result could have arisen because the wrong question was asked at the outset. This thesis used the wrong methodology to answer the research questions, or the data was wrong or insufficient.

The objective of the thesis was to understand the factors that caused post-disaster land grabbing and looked specifically at three factors. Each single factor was not able to predict a post-disaster land grab, but when looked at together, could help produce an enabling environment. Maybe this thesis asked the wrong question -- perhaps post-disaster land grabbing is an emergent property brought on by many factors and the better question is how these factors, and more, interact with each other to produce an enabling environment for post-disaster land grabs. A systems approach that acknowledges the deep complexity of the issue could be a better approach at study this phenomenon.

The inability of the study factors to explain the variation in land grabs could have been the result of insufficient or wrong data. When investigating the effects of land tenure, there was a lack of a uniform indicator that gave reliable results. The differences in qualitative and quantitative results suggest that the data collected from case study literature was insufficient. The sheer lack of qualitative and quantitative data about gendered access to land and the effects of land grabs on women points to insufficient data.

At the outset of studying the effect of land tenure security, this research quotes Simbizi et al. (2016) stating that despite the reality that quantifying tenure security usually relies upon indicators (Simbizi et al., 2016, p.30), the indicators are “fragmented and not holistic” because “the conceptual understanding [of what land tenure security is] is often narrowed for one reason or another, and the methodological approaches currently in use offer little ability to tackle the total complexity of land tenure security in an integrated way” (Simbizi et al., 2016, p.32). This critique was accurate -- the indicators on land tenure were fragmented in that they all had severe limitations on how much data was available, the data was usually only available for a few, sporadic years. The indicators were not holistic because there was not a single land tenure security indicator available for every case study country. An excellent indicator that would have been valuable to the evaluation of land tenure security came from Prindex. In 2019, Prindex interviewed people from thirty-three countries on their perceptions of their own land tenure security. The results of this survey constitute the *Prindex Land Tenure Insecurity Index*. People’s own perceptions of their tenure security is valuable. Unfortunately, this survey was only available for three case study countries: Honduras, Thailand, and Indonesia. While this data was interesting to look at, with five missing cases, there was not enough data to draw any credible pattern. In addition, the *Global Open Data Index’s Land Ownership Score* offered an assessment of how open a country’s land registry was, but missed data from several of the case studies. The indicators used to measure land tenure security were insufficient and disappointing.

While investigating the second research question on the role of the global financial system and private capital investment, there were differences between the results in the qualitative and quantitative data. The qualitative review of the case study literature did not suggest an outsized role in private capital or the global financial system, but that largely national governments enacted the policies that would have problematic ramifications. The quantitative data suggested that there was a larger than average levels of globalization, specifically political globalization, and an increase in FDI following the disaster. This can suggest that the current case study research is not fully describing the situation. In reality, the processes of corporate infiltration into the public sector, if this is occurring, are likely to be highly complicated and diffuse. Uson (2017) writes that the “privatisation of disasters and the state’s abdication of its responsibility to protect people from disasters...produces a new set of political processes containing new actors and alliances, legitimizations and mechanisms

of dispossession” (Uson, 2017, p.415), which in some way validates that if indeed private capital investment and the global financial system play a dominant role, the pathways in which they operate are new or obscured. The case study research seems to inadequately explore the connections between the private sector and the global financial system and government policy. More sophisticated analysis is needed to properly test this.

A major gap in the data arose when studying the role of gender. While in the data that was able to be collected, there seemed to be a connection between gender inequality and post-disaster land grabs. However, there was very little in the qualitative case study literature on the gendered impacts of the land grabs -- usually the qualitative data that existed came from academic pieces specifically about gender. Rarely was gender just another thing considered. The quantitative data was also lacking. While the UNDP’s *Gender Inequality Index* seems both accurate and comprehensive, it was surprising that there were no other relevant indicators exploring the gendered access to land. Indicators of women’s legal access to land, data that looked at female property ownership, etc. would have helped better inform the discussion of gender in this thesis, however this data did not exist.

5.3 Concluding The Discussion

What this research attempted to do was bridge different perspectives and test the different ideas together. This thesis looked at the roles of land tenure security, the private sector and the global financial systems, and gender inequality together to see if they created an enabling environment for post-disaster land grabbing -- this was new, or at least, relatively new. However, as demonstrated in Table 5, most of the factors were only mildly helpful, with few strong relationships. Despite this result, interesting results happened, mainly the lack of the result for land tenure and the outsized level of political globalization.

Ultimately though, no single factor was able to uniformly explain why post-disaster land grabs happen. Perhaps this was due to simply asking the wrong question -- maybe post-disaster land grabbing is an emergent result of many factors over time? It is also possible that limitations of the data rendered the result. The major data limitations occurred when studying land tenure security, gender, and other cross cutting issues.

7. Conclusion

This inquiry started with a current events piece in *The Intercept* about an unjust land grab following a hurricane on Barbuda. This piece sparked interest because of its visceral depiction of how an unjust disaster recovery effort can be as devastating as the disaster itself. This story prompted questions about why these post disaster land grabs happen -- what sort of factors create an enabling environment for this? However, clear answers were not abundantly found to answer this question.

Through careful review of the academic literature that examines land grabs and post-disaster land issues more broadly, this research found a few different perspectives explaining the phenomenon. The implicit understanding of a lot of the DRM research was that land grabbing is a function of when a hazard meets land tenure insecurity -- this is a technical problem that can be ameliorated by developing the capacity of land institutions, establishing legal frameworks, and pro-poor land registry's with particular attention to different groups of vulnerable people. Many in the CDS and CAS fields view this as a big structural problem stemming from recent crises around finance, food, energy, and the environment that have caused dominant economic actors from private equity firms, corporations, and governments, to seek 'free' land to manage their risk exposure and ensure future supplies of fuel, food, and capital accumulation (Borras et al., 2011; Edelman et al., 2013; Uson, 2015). Many of these researchers see this as more of a global political and economic problem, with global land and resource governance needed to ameliorate the problem. These different perspectives view the problem differently, but not necessarily in contradictory ways. To better understand why post-disaster land grabs were happening, this research tested the role of land tenure security, private capital, and gender on eight different case studies.

Despite bringing these two seemingly disparate perspectives together to seek to understand the phenomenon of post-disaster land grabs, this research was not able to explain what factors produce an enabling environment for post disaster land grabs. From the mixed methodology used to examine the factors, neither the security of land tenure, the inclusion of the private sector in the recovery process, or systemic gender inequality were able to uniformly explain why this happens.

This result suggests that perhaps the wrong questions are being asked -- perhaps post-disaster land grabs should be conceived of as an emerging result of many factors over time -- not a single factor produces this enabling environment, but many factors. Differences between the qualitative and quantitative results suggest that processes that lead to a post-disaster land grab are more complex and diffuse than the contemporary research suggests. Perhaps, the results point to a lack of reliable data to effectively test the hypotheses of these disparate fields -- maybe there isn't enough data to form a conclusion, perhaps it's not measuring the correct thing, or it's just not right.

The inability of this study to explain why post disaster land grabs happen in some places and not in others, testing the ideas of the two strands of thought about why this phenomenon, suggests future research is needed in this field.

- This research sought to do something a little new by bringing together two perspectives -- future research is needed that studies post-disaster land grabbing as a complex issue. By complexifying the research and synthesizing knowledge from different perspectives, this phenomenon can be understood better.
- This research ran into limitations because of the ability to measure land tenure security -- there is a lack of an indicator that both has data for many countries, and retroactively models countries. Research is needed to create a more universal indicator that practitioners and planners can measure progress on land reforms yearly, instead of after each new disaster.
- In addition to the data limitations surrounding land tenure security, there were data limitations in studying gender. Case study literature about disasters must be more holistic and less gender-blind.

Ultimately, more research is needed to understand this phenomenon. Moving into the future which is increasingly more uncertain will see more chances for disaster, and with it, post-disaster land grabbing. However, this outcome is not an eventuality. Well-meaning researchers must understand the root causes that produce this better and study tentative solutions to ameliorate it. Practitioners must understand that land issues are both complex and important and must be explicitly addressed in post-disaster recovery with tested solutions.

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