Post-Disaster Gender Based Violence
-An Abductive Case Study of Hurricane Katrina and the Haiti Earthquake-
Abstract
Previous research has shown a post-disaster increase of Gender Based Violence [GBV], suggesting a need for further investigation of the phenomena and its causes. This research draws together a wide-ranging collection of secondary data sets concerning disasters and gender based violence. It analyses the social environment in post-disaster settings that breeds an increase in GBV with focus on Sexual Gender Based Violence[SGBV] and Intra Personal Violence [IPV]. Through a comparison of two case studies: (a) post-earthquake Haiti and (b) post-hurricane Katrina. The cases are analysed through an analytical framework constructed out of three theories, Eco-feminism, Hyper-masculinity and Situational Theory, which together could give a trustworthy explanation of the phenomena. The findings show that similar factors were prevalent in both cases, and in turn provides insights for the abductively derived framework that relates the causal mechanisms behind the phenomena of post-disaster gender-based violence, building on the commonalities between social environments and structures in the cases. In particular, it was found that a patriarchal root structure and high rates of frustration both provided explanatory causal mechanisms for increased GBV. Though changes in environments can affect the prevalence of GBV as it can provide easier access of victims and lower the risk of penalties in relation to the crimes. In order to address GBV associated with future disasters, post-disaster plans need to adapt a gender mainstreamed approach with focus on safe housing and rapid rebuilding processes for the grass root level.

Key Words: Gender based violence, Natural Disaster, Hurricane Katrina, Haiti Earthquake, Eco-Feminism, Hyper-masculinity Theory, Situational Theory
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List of Abbreviations
CR – Critical Realism
FEMA - Federal Emergency Management Agency
GBV – Gender Based Violence
IDP -Internally Displaced People
IPV – Intimate Partner Violence
KOFAVIV – Commission of Women Victims for Victims
NGO – Non-Governmental Organisation
PTSD – Post Traumatic Stress Syndrome
SGBV – Sexual Gender Based Violence
UN – United Nations
UNDP – United Nations Development Programme
UNHCR – United Nations High Commissioner for Refugees
1.0 Introduction
1.1 Research Problem

Natural disasters disrupts the life of numerous people every year as well as destroys economies and social structures. Statistics shows that approximately 22,700 people were killed and 110.3 million became victims of natural disasters during 2015. Disasters are further estimated to have led to an economic damage of 70.3 billion USD (Guiha-Sapir et al., 2016). Disasters do disrupt the lives of a great number of people as it affects their physical and psychological wellbeing as well as the capacity of the affected state to help their citizens. Post-disaster plans to reduce the impact are therefore a subject of constant improvement (Guiha-Sapir et al., 2016). Furthermore, effects of natural disasters do differ between gender, earlier research has shown that women incline to run higher risks than men during and after a natural disaster because of their social vulnerability. This is a product of social inequalities which tends to bring disproportionate suffering for women (Fisher, 2010). Factors related to social vulnerability is women’s domestic responsibility and their economic dependency on men (Lauve-Moon & Ferreira, 2016). Hence, it is of importance to realise the intersectionality among women, social vulnerability differs depending on the individuals’ social pre-conditions. However, these forms of intersectionality will not be deeply studied in this research because of the limitations discussed below.

Moreover, Gender Based Violence [GBV] have been widely discussed during the last decade but research is somewhat limited in regard to post-disaster settings (True, 2016). Studies that has conducted research on the topic has often focused on developed countries such as the U.S, Australia or New Zealand (Enarson, 1999; WHO, 2005; Parkinson & Zara, 2013; IFRC, 2015). There are however studies that has focused on developing countries such as Indonesia, Honduras, Nicaragua, and Sri Lanka though they are not as thoroughly investigated (Delaney & Shrader, 2000; Fisher, 2010; IRFC, 2015). Earlier research has however found that GBV significantly increases in the aftermath of a disaster and therefore urge for more research to be done as there still is a gap regarding the issue. This includes research on the frequency of GBV, the reason to it, what form it takes and how to prevent it (Enarson, 1999; WHO, 2005; IFRC,2015; First et al., 2017).

Schumancher et al., (2010) found for example an increase of 98 percent of the prevalence in physical violence among women victims after hurricane Katrina compared to before the disaster. True (2016) further shows an increase of 20 percent in New Zealand after the Canterbury earthquake that occurred in 2010. Continuously, even though most research regarding violence against women in post-disaster settings has focused on exploring domestic violence (Enarson, 1999; Kishor, 2004; Lauve-Moon & Ferreira, 2016) some has also considered and found an increase in sexual violence as
well. This is the case after the hurricane in Honduras and Nicaragua and the tsunami in Sri Lanka in 2004 (Delaney & Shrader, 2000; Fisher, 2010; Amnesty International, 2011).

Earlier studies have furthermore found that GBV does have a negative impact on individual development, especially concerning health and possible economic progress. GBV correlates with higher levels of Post-Traumatic Stress Disorder [PTSD], a disabling disorder often connected to other diseases, symptoms of depression or suicidal behaviours whereas it lowers the individual wellbeing (Arnberg et al., 2013; Blay-Tofey & Lee, 2015). Furthermore, evidence shows that GBV can have a negative impact on children living in household where intra-marriage violence occurs. For example through higher mortality rate or lower rates of performance in school (Kishor & Johnson, 2004). It is therefore relevant to get a deeper understanding of post-disaster GBV settings by investigating if there are any factors related to disasters that can explain the increase of violence.

1.2 Research Objective and Questions
The overarching aim of this study is to explore the relationship between natural disasters and GBV and how this relation can be explained. Furthermore, as little research has been done on this before, this study will investigate the issue and how it can be of importance for continuous development of post-disaster action plans. This will be done by answering three research questions.

The research questions are:

➔ What factors can explain an increase in GBV after disasters?
➔ Are some factors stronger than others in explaining the increase?
➔ What causal mechanisms suits to explain the phenomena?

1.3 Research Relevance
Due to climate change, there is an increased risk for future natural disasters whereas more people may come to live in high risk areas (WWF, 2016). Research about post-disaster settings may therefore be a priority issue and could simultaneously contribute to improved responses concerning problems arising from disasters. Regarding GBV in post-disaster settings, some research has been done to understand the severity of the problem and how patterns regarding it looks like. These have come to the understanding that GBV, both IPV and sexual violence, do show a post-disaster increase (Fisher, 2010; Parkinson & Zara, 2013; IFRC, 2015; True, 2016; First, 2017; Lauve-Moon & Pereira, 2017). Recommendations has been made regarding the inclusion of physical and psychological assistance to victims of GBV in disaster action plans (IFRC, 2015; First, 2017). However, even though existing work regarding GBV in post-disaster setting are of great value and an important step towards more visibility of the subject, there is still gaps that can be filled (WHO, 2005; IFRC, 2015;
By widening research regarding the reasons to increased GBV after disasters, plans can be established to improve preventive methods (IFRC, 2015). This research will therefore contribute to existing studies by widen the understanding of causes to increased post-disaster GBV. It can be helpful for organisations and governments to improve their post-disaster action plans and include preventive methods against GBV. This can consequently work preventively against higher levels of PTSD correlating with a more rapid progress to an everyday life after disaster (Arnberg et al., 2013).

1.4 Definition of Concepts
This research will be based on two main concepts which together builds the spine of the study and the investigated phenomenon. It is therefore of importance to outline how they are defined and used in this research to decrease the risk of misunderstanding. The following definitions were chosen as they are commonly used in research (Enarson, 2012; IFRC, 2015; Guiha-Sapir et al., 2016; First, 2017) and have been promoted by high-level international organisations, which means they have currency in both research and policy.

1.4.1 Gender Based Violence
Gender based violence is usually defined as violence or threat of violence against a person or group because of their gender or how they define themselves. However, this study will only focus on GBV against women and therefore follow the definition given in The United Nations Declaration on the Elimination of Violence against Women (1993). The first article states that it should include “any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life.” (UN, 1993, art.1)

It further explains in article two that violence against women should include but not be limited to physical, sexual and psychological violence occurring in the family, community or state level and includes beating, marital rape as well as other types of rape, female genital mutilation, sexual harassment intimidation at work places or educational institutions and prostitution (UN, 1993, art. 2a-c). However, this study will narrow the focus to battery, sexual assault and rape performed both by strangers or for the victim known persons. It will therefore take domestic violence into account which include Intimate partner violence [IPV], marital rape and rape performed by relatives. See Annex for explaining diagram.

1.4.2 Natural Disaster
To distinguish how Natural Disaster will be defined in this research, there is a necessity to firstly define disaster. The Centre for Research on the Epidemiology of Disaster [CRED] have defined it as “a situation or event that overwhelms local capacity, necessitating a request at the national or
international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering.” (Guiha-Sapir et al., 2016, p.7). Furthermore, EM-DAT distinguish between Natural and Technological disasters. Natural Disaster includes earthquakes, volcanos, mass movement, storm, extreme temperature, fog, flooding, landslide, wave actions, drought, wildfire, biological disasters and external disasters (EM-DAT, n.d; IRDR; 2014). See Annex for a more comprehensive explanation of Natural Disasters, though only the geophysical and meteorological category has been used in this research. Technological disasters include industrial-diverse- and transport accidents which for example can be an oil spill. Thus, technological disasters will not be considered in this study. Continuously, for a disaster to be registered in the database, at least one of following criteria must be fulfilled,

- 10 or more people reported killed;
- 100 or more people reported affected;
- declaration of a state of emergency;
- call for international assistance.

Chosen case studies have both fulfilled these criteria and are defined as natural disaster by the EM-DAT data base.

1.5 Methodology

This study is based on critical realism meaning that the social world is constructed on a relative reality that changes depending on social context whereas the perception of reality differs between persons (Danermark et al., 2002). Human knowledge of reality can furthermore only capture a small part of the actual reality which moreover is divided into different levels depending on empiricism and human influences (Fletcher, 2014). With this said, it can be of difficulty to make a qualitative study like this one generalizable, but it may be a point of departure for future studies within the same field of research.

This research will be an abductive study as is aims to describe the underlying causes to increased GBV in the aftermath of natural disaster. Abduction is a good choice as it can draw on several complementary theories and factors which can facilitate an explanation of the phenomena (Danermark et al., 2002). An analytical frame has been constructed of seemingly important theories and related observable factors. This will be used throughout the research to facilitate an understanding of how the phenomena can be explained. Furthermore, the research will apply the analytical frame on two case studies, the earthquake in Haiti 2010 and Hurricane Katrina in the U.S 2005. The cases will be used through a comparative analysis as they, despite the same phenomena,
are diverse in many other aspects which will facilitate an understanding of how different factors and underlying causes are of importance.

Earlier research on the topic will be used to collect data and to find information about the case studies. This study will therefore be constructed on secondary sources and that makes it important to check their reliability. These sources are, among others, reports made by United Nations, Human Rights Watch and Amnesty as well as peer-reviewed articles on the topic. It is however important to have in mind the biases of the author when collecting this type of data as it can affect the given information whereas information have been triangulated to the extent it has been possible.

1.6 Analytical Framework
An analytical framework has been constructed to explore suitable explanations to post-disaster GBV. Based on earlier research, seemingly good factors have been identified to explain social settings in which GBV may increase. These considers social environments, psychological characteristics and cultural structures. The observable factors have later been pared with three theories that may explain the causal mechanisms and can improve the generalizability of chosen factors. The theories, Eco-Feminism, Hyper-Masculinity and Situational theory, have been connected to each other to explain different aspects and the interaction between the explanations. A discussion for the suitability of each theory can be found below. By constructing an analytical frame comprised of several theories, a deeper and more comprehensive analysis is possible to conduct as it takes different aspects of the same phenomena into account (Fletcher, 2014). The analytical frame will furthermore be applied as a lens when investigating the case of Haiti and the U.S. This will enable the research to test observable factors in a disaster context to find out if there are different explanatory levels regarding factors and theories.

1.7 Limitations, Delimitations and Ethical Consideration
This research will be delimited to gender based violence against women and will only consider domestic- and sexual violence as there is not enough information regarding other types of abuses, for example transactional or survival sex. This study will not consider biological theories to explain the phenomena as it follows the idea of Durkheim (2004) that individual acts can be explained by social structures and changes in social settings. Furthermore, as this study only draws on a few theories to create an analytical framework, other aspects that may work to explain the phenomenon will not be taken into consideration. The definitions used for GBV as well as natural disaster will also exclude factors that may be included in other definitions. Limitations of the research is first of all the resource of time which is 10 weeks, this have led to the decision of conducting a desk study instead
of a field study. Continuously, the language barrier will decrease the amount of text that can be used for a greater knowledge. These are furthermore the reasons to why intersectionality will not be a subject for this study.

Since this will be a desk study there is no major need to take ethical consideration into account. However, as this research does touch sensitive subjects regarding sexual and physical violence, it should be taken into consideration that information can have a negative impact for someone and, if that is the case, excluded from the study.

1.8 Structure of thesis
The first chapter is the introduction and the second chapter of this research will outline the methodology that has been used when constructing the study and how it is suitable for the research. The third chapter describes the constructed analytical framework and how it will be used. It further explains the three theories that is part of the analytical frame. The fourth chapter consists of findings regarding the two cases while the fifth chapter will analyse the findings through the analytical frame. Lastly, chapter six consists of a conclusion, pin pointing the most relevant parts of the research and what understanding it have led to.

Note that the literature review has been divided and is to be found in sub section 1.1 Research problem and in sub section 3.1 Previous research to minimize repetition.

2.0 Methodology
Earlier studies regarding the subject has tried to give some explanations to why gender based violence increases in the aftermath of a disaster (Enarson, 1999; Delaney & Shrader, 2000; Kishor, 2004; Fisher, 2010; Parkinson & Zara, 2013; Lauve-Moon & Ferreira, 2016). However, most of them focus on secondary factors when trying to explain the phenomenon without linking it to causal mechanisms. In order to get a better understanding and clarify the phenomenon together with the basic structures relating to increased GBV in post-disaster settings there is a need to go beyond what is visible. This research will therefore be constructed through an abductive approach as it draws on abstraction based on existing data (Danermark et, al. 2002). However, this will be combined with a retroductive influence when analysing the relationship between factors and how well they can explain the phenomenon. This is a good choice when the aim is to explain underlying conditions that makes GBV increase. Moreover, the study has its grounds in a critical realist perspective as its point of departure is that there is a reality beyond the empirical level, this will be further explained below (Fletcher, 2014).
The study will be of a qualitative desk study character as it aims to understand the causal mechanisms that explains the phenomena of post-disaster GBV by answering open-ended questions (Bryman, 2004). Earlier research and secondary sources will lay ground for the analytical framework as well as the collection of data. Given the high level of abstraction regarding this study as well as the time passed since the occurrence of chosen natural disasters, a desk study is more suitable than a field study. Explanation to chosen methodology and selection of cases will be further discussed in this chapter as well as validity and reliability.

2.1 Critical Realism
Critical Realism [CR] has emerged through a combination of positivism and constructivism where it draws on features from both approaches. The most important feature regarding Critical Realism [CR] is that ontology, meaning the nature of reality, is not only reduced to our knowledge about reality. It argues that human knowledge only can capture a small fraction of the actual reality which is not possible for us to observe in totality (Danermark et, al. 2002; Fletcher, 2014; Bygstad et al., 2016). Furthermore, knowledge can be extracted through theories that tries to explain the reality. It is however of importance to not constrain research to a specific theoretical frame but to be able to use the most truthful factors applicable to the research as it facilitates the research process. Theories can improve the research as it helps to find the causal mechanism that correlates with the social phenomena that is studied. Furthermore, CR is useful when doing abstract analyses as it can help to construct descriptions of reality which go beyond empirical data. It is therefore a good choice in policy research as CR tries to uncover the social environment that has led to the studied phenomena and can therefore have the same future impact (Danermark et, al. 2002; Fletcher, 2014; Bygstad et, al. 2016).

Furthermore, the explanation of reality in CR is divided into three levels where only a small part can be empirically observed. This level is called the Empirical level and is the reality as we see it. Events and action on this level can be measured though they are always influenced by human interpretation. The middle level is called the Actual level and consists of event that can occur without human interpretation and despite our observance of it. The last level explains the causal mechanism which are present in all events or objects. This level is called the real level and is the underlying explanation to why events takes place on the empirical level. This is important to understand as the main goal in CR is to explain social event, in this case the increase of GBV after disaster, through causal mechanism (Danermark et, al. 2002; Fletcher, 2014). Continuously, different conditions can affect causal mechanism to be visible or not on the empirical level whereas understanding of social conditions in which structural causes are activated can be helpful when trying to implement social
changes and prevent negative phenomena (Fletcher, 2014). This can be done through an abductive method as it investigates social environments, post-disaster Haiti and post-hurricane Katrina in this research, in which the causal mechanisms may be visible on the empirical level. This will be the case if empirical factors from the analytical frame are present and seem to explain the increase in GBV. A comprehensive explanation of abduction will be outlined below.

2.2 Abductive Method
Abduction is a helpful method to use when trying to explain a phenomenon in relation to structures and relations which are not directly observable (Danermark, et al., 2002). Abduction can be explained as interpreting actions by regarding them through different theories. By drawing on abstraction, hypothesis about causal mechanisms can be constructed through the empirical phenomena (Danermark, et al., 2002; Bertilsson, 2004). This method does therefore fit well for this study since it tries to explain and clarify basic conditions and mechanisms for peoples’ actions and to find the explanatory factors necessary for GBV to increase after disaster. It will further use theories initially to facilitate an explanation of the studied phenomena, these theories will also be connected to the empirical factors found in the study (Fletcher, 2014). By using abduction when investigating two seemingly different cases, it can be easier to discover factors or theoretical explanation used in the analytical frame that are pre-requisite for increased GBV and how they are related. This is facilitated through the comparison between the two case studies as both have experienced an increase in GBV in the aftermath of disaster. However, despite having that in common, the cases are rather different in regard to social structures, governmental stability and economics which will give validity to the argumentation (Danermark et al., 2002). Abduction, furthermore makes it is easier to get a good understanding of the real world as it provides knowledge about causal mechanisms. This gives depth to the research instead of only report empirical data and how it can be connected to specific theories (Danermark et al., 2002; Bertilsson, 2004).

However, causal mechanisms do not work independent of other mechanisms or social environments whereas they may affect each other. Therefore, findings cannot be used to predict future outcomes but only to explain the existing. Though it is likely that it can happen again whereas gained knowledge can be useful when facing similar social environments in the future and thus increase the likelihood of preventing these events (Bygstad et al., 2016).

2.3 Qualitative Desk Study
Data has been collected through a desk study where earlier research on the subject has been studied. This has made it possible to construct an analytical frame which will be tested on two cases, post-earthquake Haiti and post-hurricane Katrina. The analytical frame can furthermore be helpful when
trying to analyse the root causes of the problem. This is a good strategy for this topic as it may be easier to have an overview of the phenomena and approach it from different angles than it would have been if doing a field study (Creswell, 2014). Due to the level of abstraction in this study, a desk study is most suitable since a field study would have changed the focus to more empirical data and would not have given enough focus to causal mechanisms or theoretical applicability.

2.4 Material and Selection
The analytical framework will be tested on two cases to see how well it can explain underlying causes to increased GBV after natural disasters. The two cases that has been selected is Haiti after the earthquake in 2010 and the Gulf Coast of United States after Hurricane Katrina in 2005. The reason to the selection is to investigate differences and similarities between two cases with different societal structures and levels of development.

Haiti has for long struggled with high poverty, it has a weak government structure which has led to several coup d’états during the last decades leading to an even more fragile state. The state is also a highly patriarchal society built on the perception that women should take care of the family and not participate in male dominated work areas. This is notable as GBV has, even before the earthquake, been an issue with a high number of victims though its incidence increased after the earthquake (Amnesty International, 2011). Hurricane Katrina is however of interest as it can help to see if there are any differences regarding explanatory factors when looking at a case with a stronger state and less poverty which at the same time is more gender equal. It is more accepted that women participate in male dominated work and decision making in comparison to Haiti (UN, 2000; IACHR, 2009; Luft, 2016). If looking at the Human Development Index [HDI], Haiti had a low human development in 2010 with 0.470 on the scale while the U.S had a high human development, above 0.880, the year before hurricane Katrina. Life expectancy does also differ with 16 years between the countries and GNI in Haiti was 1614 USD in 2009 compared to 50240 in the U.S 2005 (UNDP, 2016a; UNDP, 2016b). This shows that the cases had different pre-conditions before their respective disaster struck which makes it interesting to investigate if there are similar patterns regarding post-disaster GBV. Similar observable factors do further validate the result of this research.

Furthermore, when deciding case studies there was some factors that had to be taken into consideration. First, the scope of the natural disaster had to be considered as a small natural disaster will not have the same effect on the eruption of everyday life as would a major disaster. The chosen cases did both affect the everyday life of numerous people though the earthquake in Haiti had a more negative impact on the society than had the hurricane. As for example, it is estimated that approximately 225,000 people lost their lives because of the earthquake in Haiti compared to the
1833 who lost their life in the hurricane. The total cost of the destruction was counted to be 7.8 billion USD in Haiti in comparison with 81.2 billion USD in the affected states of United States (Thornton & Voigt, 2007; Selinger & Wagner, 2013). These numbers clearly show the differences in poverty and society’s structures as the high cost in the U.S depends on the high amount of insurances which is not as common in Haiti. While there was a higher level of destruction after the earthquake due to inferior construction planning (True, 2016). It was also of interest when choosing case studies if it was possible to access data about the case as it is fundamental for the understanding of it and its connections to GBV. Both Haiti and New Orleans, with surrounding areas, has been subject of earlier studies following the natural disasters which has made it possible to find relevant information necessary for the analysis.

2.5 Validity and Reliability
2.5.1 Validity
There are no fixed criteria to define or show the validity when doing an abductive study whereas it is of importance to find ways to strengthen the validity despite the chosen inference (Creswell, 2014). Since this research has been done by a single author, there is no possibility to check the understanding with other co-authors to ensure that the social meaning is interpreted in the same way and that biases are excluded to the extent that it is possible. This put extra importance on the author to be aware of their own biases and try to put them aside as much as possible, even though the result and analysis may be influenced by the authors’ worldview and biases.

In order to strengthen the validity, sources used to collect data has been triangulated to ensure that the data is accurate and as objective as possible. This method makes the sources more justifiable and improves the trustworthiness of the study as it shows a common understanding of data, a good understanding of the social reality and lowers the risk of other authors biases. This is relevant in this study as much data is collected from secondary sources, mostly other researches qualitative or quantitative studies (Bryman, 2004; Creswell, 2014). Moreover, counterarguments will be presented in the research to show different perspectives on the subject and how data can vary depending on chosen measures and methodologies. This will, together with a deep description of data and case study, give the reader the possibility to shape their understanding of the result and the analysis drawn from collected data which will validate the research (Creswell, 2014).

2.5.2 Reliability
Reliability which aims to show the trustworthiness and cautiousness of the study is affected when studying a social environment as it is constantly changing and therefore affect the replicability of the study (Bryman, 2004). However, a thoroughly explanation of the reason behind chosen cases has
been written in the *Material and selection* chapter in order to facilitate replication. Furthermore, background to the analytical frame as well as the construction of it has been carefully explained in the framework chapter to make it possible to construct a similar frame if trying to replicate the study which improves the transferability (Bryman, 2004). Continuously, since the analytical frame has been constructed on earlier research and the result is based on two cases of different social structures it may be possible to get the same result if investigating other cases, though this is not certain. However, disaster, time and country has been described to improve the chances to replicate the research as much as possible.

**2.6 Representation**
Qualitative studies do in general not try to find a statistically sound generalizable result (Bryman, 2004) and this study will not do it either. Since this research is based mostly on two specific case studies, the result of this study cannot be straight-forwardly generalized to other disaster events. However, earlier research on the subject has been considered and analysed to make the result as generalizable as possible (Bryman, 2004), along with contextual knowledge about the case studies. The aim with this study is to widen the insight regarding factors in the societal structure that may foster an increase of GBV to facilitate future research and understanding of the subject. It aims to shed light on the importance of a gender mainstreaming approach to disaster aid and to recognize the social disaster that is part of natural disasters.

**3.0 Analytical Frame**
Previous research has found several observable factors related to the subject. However, these cannot by themselves explain the underlying cause to the phenomenon. Different theories, relating to the observable factors will therefore be used with the aim to deepen the understanding and investigate if some theories are more applicable than others. The *Eco-Feminist Theory* was chosen to be able to explain the root structure of the society which legitimize GBV even though the theory cannot solely explain the increase in post-disaster settings. Therefore, *Rational choice* and *Hyper-Masculinity Theory* will be used to analyse the actual increase in GBV after disaster as these two theories discuss societal changes as drivers for different levels of violence. The data will continuously be analysed through these three theories which will contribute to an understanding regarding the structure behind increased GBV after disaster.

**3.1 Previous Research**
Numerous research has developed recommendation regarding future work in the area and how policy documents could be improved with a gender mainstreaming approach. However, most of them have outlined strategies aiming at the work that should be done when violence has already occurred
(Enarson, 1999; Amnesty International, 2011; IRFC, 2015; First et al., 2017) whereas recommendation to preventive strategies is found to a lesser extent. Continuously, there is a need to understand why GBV increases in the aftermath of a disaster to construct preventive strategies. The contemporary debate does therefore consider some explainable reasons. Disaster-affected communities does face higher levels of stress and trauma which also can have a negative impact on the family life with increased risk of internal-conflicts. Economic difficulties as a consequence of disaster may also lead to more tension and therefore increase the risk of domestic violence (Enarson, 1999). Women’s vulnerability can furthermore increase with the degradation of social institution and security together with high pressure on the police force (First et al., 2017). Fisher (2010) describes that Wiest et al., (1994) have found a tendency for women and men to react differently to disasters leading to women being more open about their distress and talk with others while men more often does not express it but build up a frustration that later may culminate into an aggressive behaviour.

Furthermore, another explanation to increased violence has been outlined in the theory of hyper-masculinity which tries to explain it through men’s frustration when the patriarchal hegemony is questioned, and they have difficulties to live up to their perceived gender role. As a way of reshaping and protect their hegemony, men use violence to suppress women. This is an act made to reassert their feeling of control which is in line with the perception of masculinity (Austin, 2016). Patriarchal societies are continuously a structure that the Eco-feminism theory draw on when trying to explain violence. It suggests that violent structures in society legitimize the use of GBV against subordinate groups and force women into being secondary citizens (Littig, 2001; Banford & Froude, 2015). Others have explained it as taking the chance while the risk of getting caught for the crime is lowered. This is part of a Situational theory which draws on the rational man who sees the opportunity and consider the gains higher than the risks related to the crime (Felson & Clarke, 1998). This study will continue the research from the basis of existing studies and construct an analytical frame from it.

3.2 Eco-feminist Theory
Earlier research has argued that the underlying structural violence against women which is present in “normal” times allows an increase of GBV in disaster settings. This is because the society is built upon a patriarchal structure where women are subordinated men and consequently excluded from some parts of the society. (Enarson, 1999; Fisher, 2010; Enarson, 2012). This is in line with the Eco-feminist perspective, especially the branch that steams from socialist feminism and focus more on materialism/constructivism (Littig, 2001; Banford & Froude, 2015). The patriarchal society is constructed to favour men both in social as well as natural settings and does therefore exclude
women from decisions and other social contexts. This can for example explain the exclusion of women in action groups and decision-making groups regarding disaster plans both on national, regional and local level. When women cannot make their voice heard, or cannot demand changes regarding violent structures, the risk for continuous violence increases. To demonstrate this, parallels can be drawn to camps in post-Tsunami affected Sri Lanka where women were underrepresented in decision making which led to a low understanding of their needs. It was difficult to communicate the problem with open sanitation spaces and the cultural restriction of being undressed among others whereas this was not changed. This environment was further a risk area for sexual assaults (Fisher, 2010).

In correlation with the eco-feminist theory, decision making and aid, especially if given from an outside party, must have a culture sensitive approach in order to not have a negative effect on the population (Banford & Froude, 2015). This is continuously a problem concerning staff in international and national aid organizations (Fisher, 2010), since stigma can make it difficult for women to seek help and that aid workers can abuse their hierarchical position through sexual violence against women. Eco-Feminist theory further argues that knowledge is not neutral whereas education often is constructed through a patriarchal viewpoint and does therefore not include important education concerning GBV. It is an issue since a patriarchal world view is taught from early age. The patriarchal structure can further validate use of violence against women as they are seen subordinated, if men feel distress or are not satisfied, GBV can be used as a mechanism to satisfy needs (Enarson, 1999).

3.3 Hyper-Masculinity Theory
Justifying GBV through distress is also explained in the Hyper-Masculinity theory as it also stresses the structural causes to GBV (Austin, 2016). However, this theory does also take other factors into account in order to explain the documented increase in GBV after disaster. Hyper-masculinity theory does acknowledge the underlying hierarchal structures in society where men have more power than women, it explains that this order is controlled through the constant threat of violence which is influenced in all levels of society and is not only limited to physical violence between individuals. Continuously, the hierarchal structure can in “normal” times, explain why some men is more prone to use violence than others. This is through the divergence of marginalized men and hierarchal masculinities. Marginalization can for example be a consequence of low economic status, physical appearance or race. Women are however always subordinated men because of the patriarchal structure and can therefore be subject for violence as a mean for marginalized men to mimic the power of hegemonic masculinities in the society (Austin, 2016). As in the aftermath of a natural
disaster the societal order is disrupted. The theory argues that loss of control among men leads to increased violence as they try to restore the hierarchal order and hold women down with violence when they cannot live up to the perceived role of masculinity.

The loss of control can be manifested in different levels of society, but all be expressed as GBV. On an institutional level, many institutions and government led activities are disrupted and destroyed after a disaster whereas feeling of insecurity increases. Continuously, if the state sends military forces that use a belligerent method against the citizens, some may feel that it threatens their masculinities. The feeling of not having control and not living up to gender norms can be restored by dominance against subordinated groups, often women. This was a suggested reason to GBV after the bushfires in Australia where men no longer could protect their family or reduce the threat of the fire (Parkinson & Zara, 2013; Austin, 2016). Moreover, economic constraints can also increase this risk of violence as the role of men in many societies is to support the family economically. If unemployment and financial problems increases after a disaster there will be a gap between reality and perceptions. Continuously, some aid relief programs have aimed at giving money to women in disaster settings as it has been documented that if women control the household economy, risk of unnecessary consumption decreases. However, this does not take the cultural context into account and can in many countries threaten the hierarchal masculinity which might be one reason to increased GBV in Sri Lanka (Fisher, 2010). Continuously, overcrowded housings or camps can also have this impact since men no longer is the main protector of family or distributor of housing (Austin, 2016).

3.4 Situational Theory
Overcrowded housing can also be explained through an opportunistic point of view. This is since it is easier in overcrowded shelters to find a suitable target as well as it is easier for a person to use violence without notice behind closed doors which can be the reason for domestic GBV when many people, whom usually not live together, are forced to reside in the same house. The Situational Theory argues that there are three basic factors that relates to the amount of crime rates whereas the numbers of crimes are dependent on the prevalence of these factors. These are motivated perpetrator, suitable object and loss of capable guardians. Continuously, there is four elements that sets the value of the target and how suitable it is for crime, these are: Value: The perpetrators subjective value of the target. Inertia: Physical characteristics that can lower its suitability. Visibility: To what extent the target is easy to distinguish. Accessibility: How easily targeted the victim decides the risk for an attack (Sarnecki, 2009). Post-disaster settings, where people are more exposed and have lower security therefore increases the accessibility of suitable targets. Especially for those living in shelters
where privacy can be hard to achieve, where it is easy to cut through tents and insufficient lightning often is prevalent. A disaster can also split up families whereas women might lose their protectors, commonly male relatives or partners. This makes it easier for a perpetrator to attack as the risk of getting disrupted or caught is lowered. Regarding domestic violence, many women are forced to move back to abusive partners or to share residence with relatives because of losses suffered from the disaster. This can lower the risk for the perpetrator to get caught since the abuse happens behind closed doors (Enarson, 2012).

3.5 Theoretical Interaction and Applicability
To be able to use the theories simultaneously, a figure has been constructed to show their interaction with each other as well as the observable factors which is part of the empirical level of reality. These factors are furthermore connected to different theoretical explanations.

Figure 3.1: potential explanatory theories connected to observable factors, explaining increased levels of GBV

Moreover, the frame is constructed based on Eco-Feminism as it can be argued that it is the patriarchal structure in society that legitimize GBV in the first place whereas this crime is prevalent even in normal times. This would mean that GBV would not be an issue if there was not a hierarchical order between gender whereas the other two theories can be seen as dependent on the Eco-Feminism theory. Furthermore, the rational choice and Hyper-masculinity can influence each other whereas it is difficult to say if one of the two should be seen as a pre-requisite for the other one. It can however be argued that even if there would be a sense of loss of control, violence would not be used as restauration if there was a high risk for penalties. However, at the same time there would not
be an increase in crimes if there was no desire for committing them. This means that both theories may influence each other though this study can contribute with an explanation to how they correlate and interact.

This analytical frame will be applied on the two case studies that has been chosen to test the connection between theories and phenomena. This can contribute to an understanding of violent root structures that should be subjects for change to improve preventive measure regarding GBV in relation to future disaster. However, this is only one way to analyse social relationships in a very complex issue whereas no generalizable claims will be given (Danemark et, al., 2002).

4. Findings
4.1 Case Study – Haiti
Haiti was hit by a major earthquake on the 12th of January 2010 that was measured up to seven magnitudes on the richer scale. The epicentre of the earthquake was 27 km from the capital of Haiti, Port-au-Prince, which at the time was home to almost 3 million people. As a consequence of this disastrous event, the earthquake destroyed the homes of more than 1 million people in the capital and severely affected surrounding villages. It is estimated that around 230,000 people died, and even more people were injured. The earthquake led to a loss of 7,8 billion USD, destroyed institutions, schools, hospitals and split numerous families. The major destruction led to the creation of tent cities that was built wherever there was enough space (Selinger & Wagner, 2013). In the aftermath of the disaster, stories also started to reach out to the world about an unimaginable increase regarding GBV (D’Adesky, 2012; IRBC, 2012). However, post-disaster setting does not present a clean sheet, inequalities and structural violence from before the disaster will be present and sometimes even exaggerated because of the crisis (Horton, 2012). This chapter will start by outlining the social structure before the earthquake and later discuss the post-disaster setting as well as statistics about GBV.

4.1.1 Pre-Disaster Haiti
The prevalence of violence in Haiti has, even before the earthquake, been high. Both regarding GBV but also violence related to the political insecurity that has marked Haiti’s history (HRW, 2011; Selinger & Wagner, 2013). Haiti has for long struggled with their economy and has had major income gaps where more than half of the population lived under the poverty line of US$ 2.41 a day before the earthquake (UN, 2000; Selinger & Wagner, 2013). This is a consequence of low global economic power and high levels of corruption. Continuously, it is argued that the last decades change into a neoliberal market has deepened inequalities in Haiti as small scale domestic farming has been negatively affected at the same time as cheap cloth production for export has increased.
This has put women in low wage job where they cannot develop or gain economic independence (Horton, 2012). This has further led to an increase in urbanisation which has not been sustainable planned leading consequently to the construction of so called Shanty towns which is severely poor areas in the cities without facilities such as electricity and water pipes (Selinger & Wagner, 2013).

Gender inequalities are profound in the Haitian society where women are excluded from decision making, have lower level of education as well as being subjects for sexual and gender-based violence (HRW, 2011; Horton, 2012; Selinger & Wagner, 2013). Reports has shown that 33 percent of girls in contrast to 67 percent of boy’s complete high school and less than five percent in the parliament were women in 2010 (Selinger & Wagner, 2013). According to UNDPs Gender Inequality Index, Haiti had a GII of 0.579 in 2005 which together with other factors puts them on place 163 out of 188 on the HDI scale (UNDP, n.d). Women’s low value is deeply rooted in the culture of Haiti where the male sex is seen as inferior. This is mirrored in the social structures where the two sexes have different roles, women should mostly care for the family and are therefore not included in the male dominated workforce. Women does therefore earn significantly less than men which makes them economically dependent on their husbands or male relatives (UN, 2000; IACHR, 2009).

Regarding GBV, rape was not considered a crime in Haiti until 2005 after a policy action plan had been comprised regarding improved gender equality in 2004. There was furthermore a significant increase of sexual violence during the coup that took place in 2004 as rape was used as a weapon to defeat the opposition. Continuously, sexual violence has been used against women participating in politics as punishment from state authorities (Horton, 2012). Sexual violence has taken severe aggressive forms where more than 60 percent of survivors has reported being threatened with firearms and also reported multiply perpetrators. Regarding IPV, it has not been legally recognized as a crime in the Haitian law. Instead, if the violence is severe enough, the batterer can be charged for violent assault (UN,2000; HRW, 2011). IPV does therefore have a high prevalence in the country and it is considered justified for husbands to beat their wives if they do not obey the husbands order (Selinger & Wagner, 2013).

4.1.2 Post-Disaster Haiti
Seven months after the earthquake, there was approximately 890 IDP camps set up in the area of Port-au-Prince. Of these camps, only three was built in an area where international standard could be met. A majority of IDPs therefore lived in camps below international standard, in areas which was not good enough for camp-cities to be built. Many camps were for example built in areas that was flooded during rainy season or on dumpsters which significantly increased the risk for diseases (Amnesty, 2011). This can further lead to a higher feeling of frustration and despair as it severely
affects the everyday life and can increase the risk of violence, especially IPV as family relations changes.

The earthquake has continuously led to loss of income for numerous people, many street vendors have witnessed about a loss of everything they sold and their source of income because of the disaster. The economic loss has in combination with other factors led to a loss of livelihood. One example of this is the overcrowding in camps as well as in houses since economic constrains make it impossible to find new settlements. A majority of police stations and court houses was also destroyed in the disaster which led to higher impunity, especially in the immediate weeks after the earthquake as focus was relocated to survival and there was a breakdown in institutional structures. However, this in combination with a low trust in the police and little willingness by the police to solve these crimes has led to a decreased tendency to report GBV (Amnesty, 2011; Selinger & Wagner, 2013). Increased impunity in the aftermath of the disaster therefore made it possible to carry out crimes of GBV without fear of reprisals.

Monetary aid donations peaked after the earthquake as numerous states joined to help. Many aid organisations also went to Port-au-Prince to help with the acute post-disaster work. However, concerns have been raised about the focus of donor money as it did not effectively reach the grass root level (Horton, 2012). Furthermore, there has been discussions whether international organisations have been enough culture sensitive or not in their reconstruction work. Staff from these organisations has also been accused to use their power by sexually assault women in IPD camps (Horton, 2012).

Help to IDPs has seen a slow progress where numerous families have not been given adequate aid. It is shown that less than 50 percent of IDP families had received a permanent housing two year after the disaster while the rest still lived in different kinds of unofficial housings (Harvey, 2012). Many residents have furthermore expressed their frustration of not getting adequate information about future plans, how long they will have to stay in tent camps and how the reconstruction plans are going (Amnesty International, 2011). Many women have witnessed about attacks in different areas of the camps, mostly dark places or places where sight is lowered. This is for example toilets or inside tents where the rapist cut through the walls to get in (Amnesty International, 2011). It is however not only an issue for those living in camps but also for people still living in houses. The loss of male protectors and neighbours has made more criminals breaking in to houses to attack. Armed gangs have also been formed after the disaster that perform gang-rapes under threat both in camps and houses (HRW, 2011). According to Kolbe et al., (2010) and others, lack of secure shelters,
insufficient lighting, isolated bathrooms and showers, long distance to collect water, overcrowded housings and inability of the police force to secure camps has led to the increase of GBV (Amnesty International, 2011; HRW, 2011; Horton, 2012; Selinger & Wagner, 2013). Selinger & Wagner (2013) furthermore stresses the economic factor, loss of income and properties, as reasons to higher risk of sexual violence after the earthquake. It is continuously discussed that displaced women experience an even higher increase of the risk to be exposed to GBV as family ties and community settings has vanished (Selinger & Wagner, 2013).

Continuously, even though there are organisations that work with women victims of GBV and can help them to relocate from abusive relations or areas where they have a high risk for continuous attacks, most women do lack the information about these places. Another problem that has been raised is that women, even if they know where to go, do not have enough money to travel there and do not want to walk with risk of getting sexually victimized on the way which forces many to stay in abusive environments (HRW, 2011). This can further be correlating with the exclusion of women from the reconstruction processes, as demands of women are ignored and their needs are not considered (HRW, 2011). Despite this, a post-disaster action plan was published by the state which took into account work to improve maternal health and prevent GBV. However, without sufficient money the government was dependent on donations from outside actors to be able to implement the plan. This was however difficult to achieve as a vast amount of funding went to the international organisation coalition (HRW, 2011; Horton, 2012).

4.1.3 Increase of Gender Based Violence
There are not any criminal statistics regarding reports on GBV documented by the police before or after the earthquake struck. Facts regarding the subject has instead been collected by women organizations who has been working in the area both before and after the disaster. Research has also been done by national and international NGOs as well as other types of aid organizations and UN organs. Because of this, different numbers have been presented revealing different levels of increased violence hence a critical review on how to analyse it will follow.

KOFAVIV, a women organisation made by women victims of rape received 230 reports of rapes in 15 different camps after two months following the earthquake and the reports started only days after the disaster had happened (Amnesty International, 2011; Selinger & Wagner, 2013). Amnesty International also found an increase regarding GBV in their pre- and post-disaster reports when comparing two qualitative studies conducted in 2008 and 2011 (Amnesty International, 2011; Amnesty International, 2014). These findings are supported by a quantitative research done though
surveys before and after the earthquake. It shows that an estimated 10,813 individuals in Port-au-Prince were victims of sexual assault during six weeks after the disasters compared to 30,000-50,000 every year during the past three years before the earthquake (Kolbe et al., 2011). Another quantitative research done by Weitzman and Behrman (2016) found that the risk of IPV against women increased with 1.4 percent during one to two years after the earthquake in the most destroyed areas in contrast with a decreased risk in more remote, non-affected areas of Haiti during the same period. The same was found for sexual violence where the risk to be exposed increased with 4 percent in the most severely affected areas of Haiti.

However, it is of importance to have in mind that numbers regarding GBV, both IPV and other forms can be affected by other external factors. One example can be the increased presence of international NGOs and other aid organizations that facilitates the reporting of abuses. This could lead to a peak in reports about violence which in reality only is a decrease in unrecorded violations (Sarnecki, 2009). Furthermore, there has been argued that some organisations may exacerbate the numbers to increase the likelihood to receive donations (d’Adesky, 2012). However, the quantitative studies presented above was not from organisations applying for economic assistance and both had made similar research before the earthquake (Weitzman & Behrman, 2016; Kolbe et al., 2011). It is therefore very reasonable to say that GBV increased in the aftermath of the earthquake.

4.2 Case Study – Hurricane Katrina
The Gulf region in USA was during the last week of August 2005 hit by one of the deadliest and most costly hurricanes in the history of the U.S, measuring the highest level of the scale. The hurricane disrupted the lives of thousands of people and many was left homeless as it led to huge flooding’s when the levees in New Orleans broke, leaving 80 percent of New Orleans under water for weeks to come (Whitaker & Levitt, 2009). It is estimated that at least 1833 people died because of the hurricane and more than 200,000 people were displaced (Thornton & Voigt, 2007). Furthermore, the storm led to an economic damage of 81.2 billion USD and the destruction transformed past cities into building sites. Because of this, numerous people were relocated into acute shelters such as the Super Dome Arena as well as trailer camps (Thornton & Voigt, 2007; Whitaker & Levitt, 2009). As with Haiti, this chapter will start by outlining pre-disaster settings and then discuss post-disaster settings as well as statistics regarding GBV.

4.2.1 Pre-Disaster Settings
Even before Katrina hit the Gulf Coast, New Orleans was one of the poorest cities in the United States with a deeply rooted segregation going all the way back to the civil war. Poverty rate in New Orleans was on 28 percent prior the hurricane which is much higher compared to the national
poverty rate on 12 percent. Continuously, crime rates in the area was also high in comparison to other regions in the U.S though both poverty and crime is intersectional (Whitaker & Levitt, 2009). Therefore, the vulnerability of women differs, as discussed above, depending on their social status. In New Orleans, one particularly vulnerable group regarding poverty has been female headed household. Approximately 40 percent of single mothers lived under the poverty line before the hurricane hit, many did therefore not own cars and had troubles to evacuate whereas they were left in the abandoned city. However, all women do face a higher risk of sexual or violent crimes in disasters than in normal times as well as compared to the risk men are facing. (Thornton & Voigt, 2007). Corruption has continuously had strong influences in the politics and courts in New Orleans where bribes has been commonly used to change politics or judgements (Whitaker & Levitt, 2009).

Furthermore, the society in the disaster affected area, as well as the rest of the U.S, is based on a patriarchal structure. Despite the contemporary picture of U.S as leading in regard to gender equality, it was not on top 20 of 134 most gender equal countries until 2010 and had fallen to rank 45 out of 144 countries in the last report made in 2016 (Enarson, 2012; World Economic Forum, 2016). It further had a score of 0.264 on the GII scale in 2005 (UNDP, n.d). This influences the structures on all levels of society which can be seen when for example looking at family management. Women are thought to take care of the children and elderly as well as the household chores. This continuously made it more difficult for women to flee when the hurricane came, as many tried to put elderly, children and disabled in safety. Moreover, women tend to earn less than men and many women dominated workplaces are seen as low wage jobs which increase the risk for them to be economically dependent on their partners (Luft, 2016). The institutional level has also been marked of a masculine hierarchy were women has been discriminated from decision making and have not been able to make their voices heard to the same degree as men regarding hazard planning, though it could have improved the pre- and post-Katrina responses, making them more gender mainstreamed (Enarson, 2012).

4.2.2 Post-Disaster Settings
Many women tried to report the crimes they had been facing after the disaster when they were put in safety but without success. The problem was that they, according to U.S law, had to report the crime in the city state where the crime had been committed. Though this was impossible for many victims as cities like New Orleans were deserted and did not have a functioning police force for weeks after the hurricane (Thornton & Voigt, 2007). This consequently led to that numerous crimes were not correctly reported, and criminals could not be convicted for crimes done in the post-disaster period because of displacement to other states. The criminal courts were further shut down following nine
months after the disaster in the areas most affected by the hurricane which made it impossible to prosecute anyone even when the police offices began to operate again. Some victims further expressed their feeling of not being taken seriously and that reporting the crimes would not lead to anything whereas they did not bother to go to the police (Thornton & Voigt, 2007).

As thousands of houses got destroyed a vast amount of IDPs had to find shelters or camps to reside in. One of the first actions made by the state government was to open a shelter in the dome, the city stadium, where thousands of people were squeezed in on a small area leading to overcrowding and no personal space. People desperately tried to find relatives and other places to evacuate though many were stuck in the dome because of lack of network and transportation. Others however ended up in trailer parks which as it turned out later became more permanent arrangement for many persons in the poorest quintiles. Reports have found the GBV did occur on a high level both in the shelters and the trailer camps, women have witnessed about threats both from strangers as well as partners and others for the victim known persons, forcing them to not report the incidence (Luft, 2016; Thornton & Voigt, 2007; Harville et al., 2011).

The access to transportation has been a big problem since many living in trailer camps cannot afford a car and it is far to the nearest bus stop. This has made it difficult to get children to school as well as going to apply for work as they are lacking means of transportations (Enarson, 2012). Areas surrounding the trailers does furthermore not have proper lightening which makes it very dark and easier for criminals to go unnoticed (Luft, 2016). Many of these trailer camps were distributed by FEMA which is an organisational branch of U.S national safety department, activated in major disasters. FEMA further distributed economical funds to people in need, however they made the decision to give the aid familywise instead of individually making the economic distribution dependent on family structure (Luft, 2016).

Because of the disaster, many people became unemployed as several workplaces got destroyed by the flooding. This affected both women and men and it was difficult to find new employments in the aftermath as some stores, both local and bigger chains, did not re-open due to the risk of a new disaster that would be too costly for them (Thornton & Voigt, 2007). Economic constrains have further showed an increased level of stress which some explain as a reason to more aggressive fights among couples. Economic hardship and loss of housing can furthermore force people to reunite with partners from abusive relationships which can have severe effects regarding increased IPV (Enarson, 1999).
In the aftermath of the hurricane, volunteers streamed in to aid the affected population with necessities such as food and clothing. However, not long after this, reports started to spread informing that male volunteer staff had used their positions and sexually assaulted women and girls displaced to the shelters. Even women volunteer workers witnessed about sexual assault, not only from other volunteers but also from people displaced by the storm (Thornton & Voigt, 2007). Moreover, when the acute phase after the disaster were over, reconstruction of buildings damaged by the storm and the flooding started. Because of the major destruction, reconstruction workers had to be hired from outside the affected area in order to speed up the rebuilding process. However, this led to an increase of male construction workers who came to the area for a short term only to work with the reconstruction which lead to greater anonymity. Reports has shown that some individual took advantages of the high number of construction worker and used disguise to be mixed with them when doing crimes of different kinds including sexual assault (Thornton & Voigt, 2007)

4.2.3 Increase of GBV
Both sexual assault and domestic violence increased in the aftermath of the hurricane even though the increase differed slightly among the affected cities. The disruption in police work consequently lowered the statistics as no reports could be written and calls regarding crimes and violations could not be answered (Thornton & Voigt, 2007). However, studies have despite this been able to conduct reliable data regarding number of crimes in the post disaster period. Anastario et al., (2009) found in their quantitative study that crime reports regarding rape and abusive crimes in Mississippi increased from 4,6 every day to 16,3 one year after the hurricane.

Source: Anastario et al., 2009, p. 23
This study, conducted in trailer camps, further showed that IPV and rape did evolve differently in time where there was a more rapid increase in regard to rape compared to IPV. Though IPV did not decrease as much in the following years as rape did (Anastario et al., 2009).

National Sexual Violence Resource Center (2006) established a cooperation with other expert organisations on the subject including police and health institutions to collect information about post-disaster GBV. The collection of information was anonymous and gave information about 47 individual cases. These showed that 93 percent of the victims were women, rapes most commonly happened in evacuation sites (31 percent) with secondary place being in hotels or similar with an answer rate of 23 percent. Furthermore, 39 percent of the perpetrators were not known from before. Other studies also discovered that the most vulnerable group of women to be victims of GBV was those who had been displaced into trailer camps or other shelters (Enarson, 2012). Though IPV and sexual violence also increased outside of shelters and trailer camps, some women have witnessed about increased forced sex by their partners and more violent behaviour (Thornton & Voigt, 2007). Harville et al., (2011) also found that there was an increased risk for IPV after hurricane Katrina and that it increased even more if there had been experiences of substantial losses, as for example the destruction of homes.

However, another quantitative study made by Brezina and Kaufman (2008) does not show any difference in threat of violence pre- or post-disaster. This may be because they have included both women and men at the age of 18 and upwards which can make the higher threat of GBV to decrease when including both sexes. There is continuously a risk, as with the statistics of Haiti, that it is easier to report violence when organisations are more accessible than they are in normal circumstances (Sarnecki, 2009). Though many women organisations were destroyed by the hurricane which may have led to a change in the reporting as well (Thornton & Voigt, 2007). However, most studies have shown an increase in GBV both through quantitative and qualitative studies whereas in can be assumed that the statistical increase follows the reality in this case.

5.0 Analysis
This chapter will analyse the data presented in the findings and compare the differences as well as similarities regarding the earthquake in Haiti and Hurricane Katrina. The analysis will further try to answer to the research questions if there are any common factors that seems to have a stronger impact on increased GBV as well as how the incidence can be reduced. Even though Haiti and United States is seemingly different countries in regard to their social structure, governmental and economic stability among other factors it is interesting to note that many observable factors which
can lead to an increase in GBV is presence in both countries. Though it is not all of them and there are different levels of presence among them. To easier distinguishing between theories the following analysis will be divided by theories with a concluding discussion in the end taking all theories and observable factors into account.

5.1 Eco-Feminist Theory
When looking at the observable factor used to distinguish the eco-feminist theory as a root-cause explanation for increased GBV there are some differences between the case studies. However, both Haiti and the U.S are societies built on patriarchal structures that makes women secondary citizens though the level of inequalities between the sexes differ between the cases. Rape has for example been seen as a criminal act for a much longer time in the U.S compared to Haiti whereas the rights to one’s body and integrity has been acknowledged for a longer time in the society (LII, n.d.; HRW, 2011). Though this has not prevented a post-disaster increase of GBV in the U.S. It may however have lessened the extent of the increase and furthermore lowered the amount of rapes in general. It is moreover evident that rape is a severe crime in Louisiana and Mississippi where so called Sexual Battery can give a life time sentence in Mississippi and life time sentence without parole in Louisiana if defined as a first-degree rape (Miss. Code Ann. § 97.3:65-71, 2017; RS 42:14, 2016). However, there have been difficulties with convictions especially during the emergency phase, as neighbouring states have different laws regarding sexual abuse and other forms of GBV.

Furthermore, one suggested observable factor for increased GBV was lack of education since it may lower the understanding of ones’ rights as well as the understanding of gender equality. However, there is a considerable difference between Haiti and the U.S as 56 percent of people 3-5 year older than the primary graduation age had completed primary school in Haiti 2012. In comparison with the U.S where an average of 99 percent completes primary school (WIDE, 2012; WIDE, 2013). The gender division is further different between the countries where the majority of enrolled student are women in the U.S and the majority are men in Haiti (Selinger & Wagner, 2013; World Economic Forum, 2016). Though it might be of importance to consider why this factor can change the prevalence of GBV and if it can take different forms. School enrolment is commonly used as a factor when looking at gender inequality as boys tend to be prioritized. This is because they have a higher chance to get a well payed job after their studies in comparison to women and will therefore have a greater ability to support the family in the future (UNICEF, 2017). This might be they reason to low enrolment of girls in Haiti, as approximately 90 percent of Haiti’s schools requires tuitions fees for enrolment (World Bank, 2015). In comparison, elementary up to high school in the U.S are most often funded by taxes whereas the cost for enrolment is lower. This can therefore increase the rates
of girl’s enrolment in schools in the U.S which improves their statistics. However, if investigating other contributing factors regarding gender equality in the U.S, there still is a gap between gender. One example of this is that women, although more are enrolled in school, have lower wages than men afterwards which could mean that they are valued less as workforce in comparison with male staff (World Economic Forum, 2016).

Moreover, exclusion of women from decision making and male staff among aid workers is also observable factors related to the eco-feminism explanation. This is factors that can be observed in both case studies even if it is exaggerated in Haiti when compared with the U.S. This is however not remarkable as Haiti was chosen because of its “boundary case” characteristics. However, it is interesting to see that the same behaviour is manifested in the U.S. Women have most often been underrepresented in decision making and studies has continuously showed that post-disaster action groups has been constructed with a male majority in the board and women positioned on lower posts (Luft, 2016). This can continuously show the patriarchal structure in society and make it more difficult to construct gender mainstreamed disaster action plans. Consequently, this can make women more vulnerable as their needs are not met in disasters and furthermore make them dependent on men who are the ones distributing aid and deciding about future actions.

Furthermore, as discussed earlier the eco-feminist theory cannot in itself explain the increase of GBV after disaster. It can however be argued that it can provide the societal environment in which GBV in general is justified and therefore legitimize violence after disasters. It is however difficult to say how much a patriarchal structure influences GBV and if it would disappear in a gender equal society. However, if looking at the numbers presented above there is a higher risk of being exposed to GBV in Haiti where gender inequality is more prevalent than in the U.S. There is discussed in earlier research that gender inequalities may be exaggerated in disaster settings which therefore can explain the difference between Haiti and U.S as a patriarchal root structure is prevalent in both countries but to different degrees (UNFPA, 2015).

5.2 Hyper-Masculinity Theory
Hyper-masculinity fits well in combination with the eco-feminist theory as it draws from the idea of different gender roles in which men have hierarchical power in the contemporary society. What can be noticed when investigating the observable factors that relates to hyper-masculinity is that these would probably not lead to increased GBV if there was not a feeling of loss of control and a feeling of not being able to live up to the given gender norms. With this said, relief funds to women could most certainly be a positive idea as well as a sign of progress in gender equality but in combination with existing gender norms it may instead lead to increased risk of violence as it makes it more
difficult to fulfil contemporary norms. It can therefore be stated that these factors only lead to increased GBV in relation to a society with patriarchal structures. Moreover, relief funds to women was distributed differently in the two cases chosen for this study and may therefore have led to different results. After hurricane Katrina, money was given to the household instead of an individual which could be a smart way to prevent increased feeling of loss of control and consequently violence. However, it is argued that men have a higher tendency to spend money on alcohol and gambling than women whereas household distribution might lead to increased alcohol consumption which in “normal” times has proven to correlate with increased risk of GBV (IFRC, 2015; Enarson, 1999). This may therefore have had a negative impact regarding the increased risk though not correlating with the hyper-masculinity theory. Furthermore, in the case of Haiti, relief funds were given to individuals instead to aid them with daily shores. It did not take into account the gender though there has been criticism regarding the aid distribution since it has not reached the population in a culture sensitive way and there has been a lack of information concerning the use of the donations (Amnesty International, 2011). There is however insufficient information of how relief funds to women may have affected the gender relationship and triggered increased use of violence. Though what can be extracted when analysing the finding is that frustration regarding relief funds and aid may well lead to increased violence if there is a feeling of not receiving sufficient information or help. This can consequently be drawn back to the hyper-masculinity theory as is may be combined with loss of control when dependent on aid.

Furthermore, if investigating unemployment and economic loss there is a similar pattern in both cases. Unemployment rate increased drastically in the aftermath of the disasters as a great quantity of jobs disappeared. More than once, those most affected by increased unemployment was the poorest population but also small-scale business. This was for example those working in stores before Hurricane Katrina as many closed and those working as street venders in Haiti since they lost the majority of their products and therefore had to close their businesses. Without any money to re-start the business and without the re-opening of work places, numerous people were stuck in unemployment as there was nothing to go back to after the acute phase of the disaster. Loss of income was in both cases combined with loss of housing, inventory and other investments whereas the need of money was higher than usual. Regarding the hyper-masculinity theory, unemployment may lead to a loss of control and frustration of not fulfilling given gender norms which can threaten the hierarchical order and lead to violence in order to state positions in and outside the household. To improve the validity regarding this, research should investigate the rate of GBV in combination with women’s and men’s employment as violence should increase if only the husband is unemployed.
Furthermore, economic loss and unemployment is often combined with overcrowded housing or the move to shelters which can lead to increased frustration and violence. Overcrowding in combination with unemployment can force families to spend more time than usual together which can intensify relations and lead to more conflicts that, because of the disaster, can end in violent behaviour. Furthermore, the high amount of construction workers who was employed after Hurricane Katrina can have had a negative impact on GBV as the frustration grow when people from outside the affected area got jobs while those who experienced the disaster still struggled to find work and to restore their economy. It can give some explanation to why some people took advantages of the re-construction phase to commit sexual offences.

Continuously, overcrowding and living in non-permanent shelters, was prevalent both in Haiti as well as the U.S gulf coast. Being forced into severe living conditions in itself is difficult. It does continuously decrease the household structures regarding decision making as well as the individual level of freedom which can contradict with contemporary social structures and gender norms. This can be seen when investigating the two cases as numerous people were forced into tent-cities, trailer camps and co-living which for many families has turned into more permanent homes even though they are not constructed for it. Not being able to decide over the future and to live in insufficient housing can be related to not fulfilling one’s gender norm since the family is suffering and can be a reason to the increase.

5.3 Situational Theory
As this theory aims to explain the increase of GBV through cost/benefit analysis and focus on situational changes that increases the benefits, factors relating to it consider beneficial environments. Factors related to this theory is furthermore easy to distinguish in a society whereas it facilitated the collection of data. Firstly, one major factor is the lack of protection which is significantly prevalent in a post-disaster setting. Many reports have witnessed about people sleeping outside for days or even weeks after the disaster, this accounts for both case studies. People in New Orleans had to take shelter on roofs or hills where the water could not reach, this led to many people seeking shelter on the same area. In Haiti, many were forced to sleep outside as houses had turned into ruins and even those who still had houses often slept outside in fear of a new earthquake. Furthermore, protection is also lacking for those staying in tent-camps or other types of shelters as there is no possibility to lock the private space where one is sleeping. Strangers do therefore have high accessibility to their victims and women has testified about rapes both in their gardens, on rooftops and in all kinds of shelters whereas it is evident that the lack of protection and increase access to suitable target can explain increased GBV. Disruption of community settings as well as the destruction of families did
leave many women and children alone without the protection they usually have through husbands, brothers or neighbours. This further lowered the safety as male protectors increases the risk for an aggressor to get caught and potentially attacked. Furthermore, when being displaced the normal setting of neighbours are disrupted and new “neighbours” does not have the same relation and knowledge of each other whereas there can lower the chance to help if there might be a potential attack (Sarnecki, 2009).

Both countries also had high levels of impunity after the disasters as many police offices got destroyed and police forces were affected and could not work. Furthermore, even where the work could re-start the focus of the police had swift to be more about rebuilding of communities instead of the conviction of criminals. Many women have moreover witnessed about a feeling of not being taken seriously when trying to report a crime. This has led to a high number of women, both in Haiti and USA, not reporting crimes as they feel that it will not lead to anything. Furthermore, bad lightening in shelters has also been a problem in both cases where the risk of being victimized is much higher in dark areas. Easy access and dark places has increased the number of suitable target for perpetrators and does together with higher impunity changes two of the situational factors that is argued to change the amount of perpetrated crimes whereas it can suit as an explanation to the post-disaster increase.

However, this would mean that there is a latent eager to expose women for GBV during normal times which is prevented by institutional and social mechanism that makes the risk related to certain crimes higher than the benefits. It is therefore of importance to instead analyse how this theory can be used in combination with the other two when trying to explain the phenomena whereas this will be done below.

5.4 Discussion
When trying to explain the causal mechanisms and required environment for a phenomenon to be empirically observable it is necessary to investigate if there are parts of theories that are more suitable to explain the reality and if there are some parts that are less suitable. By utilizing several theories, this research can find the best explainable answer to increased post-disaster GBV. To be able to extract the most important factors, the theories that has been used for this study will be triangulated and compared in a close analysis.

As mentioned above, if only applying a Situational Theory there would need to be a latent wish to use violence against women and is furthermore only in control because of contemporary institutional and social mechanisms. However, this would lead to the question of why these mechanisms are in
place from the beginning considering that only 23 of the world’s head of state or head of government are women as of 2017 (UN Women, 2017). It is arguable that if there was a wish to revolve into violence there would not be preventing laws on all levels of society. Moreover, this theory cannot either explain why this eager to use GBV mostly is found among the masculine population and not among women. Therefore, it may be needed to combine the situational theory with other theories in order to give it explanatory ground.

However, if putting the Situational Theory in the context of Hyper masculinity it does have a higher creditability. This is due to the feeling of not being able to live up to expectations set up by gender norms and feel a loss of control. At the same time, Hyper-masculinity might not lead to increased violence if the risk for reprisals in the aftermath of a conflict would be the same as in normal times whereas high impunity and suitable targets need to be prevalent in the context in order for the hyper-masculine man to carry out the violent act. Though this can explain why there is preventive mechanisms during normal times and gives another explanation than saying that there is a constant will to use violence. However, in order for the hyper-masculinity to take hold and be developed during and after a disaster there must be some sort of norms in the society connected to gender since there otherwise would not be a feeling of not being able to perform connected to masculinity. The same concerns the loss of control as it likewise relates to norms and hierarchical structures which in turn can be drawn to the Eco-Feminist theory and its explanation that patriarchal structures lay ground for discrimination and legitimize women as secondary citizens. What can be extracted from the findings is furthermore that an underlying patriarchal structure does legitimize GBV in all times whereas a long-term goal to reduce gender inequality and work for women’s higher value should be in focus and can improve future disaster settings.

Furthermore, the factors that mostly explain the phenomenon in this analytical framework is connected to Hypermasculinity and Situational theory where all investigated factors except relief fund to women was prevalent in both cases. Though it can be discussed that stress and uncertainty around relief funds can have an impact on violence, however not only connected to means of distribution. Also, as discussed in combination to impunity and a low will among women to report crimes because of a neglecting approach from the police should be mentioned as it can be seen as a product of gender inequalities. Police officers are often men whereas the understanding of the GBV crimes may be weakened and the reason to not being taken seriously can be because of the patriarchal structure which legitimize violence to a higher extent and can lead to the re-production of stigma.
Drawn on data found for this study, the result shows that post-disaster GBV is a very complex phenomenon which may depend on different variables and factors. This in turn suggests there might well be additional factors that have not been found or included in this study. Even so, this research presents one potential explanation to the increase of GBV after hurricane Katrina and the earthquake in Haiti, this explanation can later be used as a tool if investigating other disaster or as template for future action plans. What the analysis suggests is that a patriarchal structure has a negative impact on the society as it legitimizes GBV and establishes expectations regarding gender norms. It is therefore of importance to continue the work towards gender equality, also in regard to masculine frustration and feeling of powerlessness. A rapid restoration of livelihood, through employment, sustainable household economy and move to a functional house can furthermore have a positive impact on the prevalence of GBV as it can lower levels of stress and frustration. This is of course not always possible after a disaster since it often also has a severe impact on the state and its capacities to help their citizens. An action plan does therefore need to consider the states capacities and how fast it can be functional again before establishing the plan. If there is a low capacity, focus should be to change factors related to Situational theory as it can be done fastest but still have a positive impact. This is for example improved lightening and better supervision around toilets and showers to lower the possibility for criminals to go unnoticed. Furthermore, it is necessary to have an open dialog informing about decision taken and future action plans to improve people’s understanding of the rebuilding process.

Preventive work can therefore start as soon as possible by working towards gender equality. If the disaster has already occurred, work against high impunity should be done as well as protection of suitable victims. When this is ensured, projects should aim to restore livelihood as fast as possible. This can lower the incidence of post-disaster GBV and consequently improve the conditions for women.

6.0 Conclusion
The objective with this study was to investigate if there are any possible explanations to the increase of GBV in post-disaster settings that earlier research has found. This is of importance as global warming most probably will lead to an increase in natural disasters which will lead to a higher number of people affected of disaster every year. To do the research, two case studies of Haiti after the earthquake in 2010 and New Orleans after hurricane Katrina was chosen as both had experienced mayor natural disaster as well as an increase of GBV. The cases were then analysed through an abductive approach with the help of a constructed analytical framework based on three theories that could help to find the most truthful explanation to the phenomenon. The theories were then
combined with empirical factors that existing literature has discussed as possible explanations to post-disaster GBV. By analysing the cases with a retroductive influence, an explanation of causal mechanism was easier extracted.

What was found was that, even though Haiti and the United States had very different pre-conditions and different social structures, the same factors were prevalent in both cases though to different degrees. This can be explained by the higher general prevalence of GBV in Haiti in comparison to the U.S. Common factors contributed to a degree of generalizability, as they were found across different social structures. The findings show that lower protection, easier access to suitable victims and higher degree of impunity may all play a role in increased GBV as many people live in less safe environments after natural disasters, the work of police forces is often disrupted or changed regarding focus as there is a need to re-build the society. Other factors have also been found to have an impact on the risk of GBV, these are connected to the individual’s loss of livelihood which can lead to a feeling of loss of control and hierarchical power when the social environment is disrupted. This can be seen in economic loss, unemployment and overcrowded housing or camps as it can lead to distress. Gender norms further picture men as the sex that should protect the family from danger which can lead to frustration when there is a feeling to not living up to societies norms because of the disaster.

What this research suggests is that there are two main causal mechanisms that can explain increased GBV after disaster. One of them is the underlying patriarchal structure that is prevalent in the studied cases, as it makes women to secondary citizens. This can take expression in different treatment between men and women and therefore legitimize violence against women. The second causal mechanism is, though connected to a patriarchal structure, the frustration as a consequence of major losses in combination with difficulties to live up to norms in society. Though, future action plans should have its focus on short term improvements since the environment do play a key role concerning if crimes are committed or not. If there would be high risk of reprisals and difficulties to go unnoticed, less people would commit the crimes. If the disaster has occurred, first step would be to ensure safety and secondly restore livelihood of citizens as fast as possible through an open dialogue regarding the action plans.

The explanation found in this research can be of importance for future disaster action plans as it can facilitate the establishment of gender inclusive work. It may furthermore contribute to the understanding of the importance regarding continuous work toward gender equality since it, as seen in this study, would contribute to improved wellbeing for both women and men. However, there is
still a need for continuous work in the field where future research should study the intersectionality of the phenomenon to increase an understanding regarding the most exposed groups, this could facilitate targeted aid to minimize the risk of GBV. Furthermore, future studies can gain from focus on one type of GBV instead of several since it can give a deeper explanation for the specific issue.
7.0 References


Figure 8.1 “Peril classification at the Family, Main Event and Peril levels. The association of perils with main events is solely a suggestion. Some perils may change their main event association based on the actual event and loss trigger.” (IRDR, 2014, p.11)
Figure 8.2. Types of GBV against women investigated in the research.