

**Transforming Conflicts in Catastrophe, Disaster and  
Emergency Management (CDEM):  
The Development of a  
CDEM Conflict Transformation Platform**

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# Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

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## **Abstract**

Conflict transformation and catastrophe, disaster and emergency management both work toward the mitigation of a crisis. Lederach's conflict transformation theory provides the basis for a platform that employs conflict transformation concepts and processes to the phases of Catastrophe, Disaster and Emergency Management (CDEM): management, mitigation, preparedness, response and recovery.

The CDEM Conflict Transformation Platform was established by synthesizing elements of conflict transformation from the complete works of Lederach and organizing them according to the dominant CDEM framework in North America. It was used to analyze the mitigation, preparedness, response and recovery of Hurricane Katrina in New Orleans from a conflict transformation perspective to gain insights into how it could be applied to address some of the challenges faced due to conflict and latent conflict within the North American CDEM process.

The purpose of the CDEM Conflict Transformation Platform is to present an approach to managing conflict within CDEM in North America, which can be used by community members, CDEM professionals, such as city emergency management planners and first responders.

## **Acknowledgements**

There is a saying that it takes a community to raise a child. I have always observed this to be true. I think it takes a community to do most things that are challenging and this is definitely the case in regard to writing a thesis.

I have been fortunate to have immense support and encouragement to succeed and complete both my thesis and my MA from my family, friends and colleagues. This includes, my partner, Teague Lamarche, who would not let me give up, my family and friends who also encouraged me to finish, and my colleagues at Saint Paul University and co-volunteers at Red Cross, whose support was also outstanding, especially the Campus Services Team and Human Sciences department. I want to especially thank Chris Bishop, who helped me prioritize my thesis by giving me time off from work when I needed it. While there are too many people to thank, I do not want to underestimate how much their support helped me to finish the thesis. I greatly appreciate the genuine understanding and care everyone showed me.

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## **Introduction**

Within Catastrophe, Disaster and Emergency Management (CDEM) the mitigation, preparation, response and recovery of a hazard is planned and executed with the goal of saving lives, minimizing damage to property, and mitigating a crisis through reducing vulnerabilities and increasing resiliencies. Throughout this process, conflict can impede the CDEM process. The CDEM process can also impact conflict management by increasing or reducing a sense of justice and a population's vulnerability and resilience. Thus, it is imperative for CDEM to integrate a conflict management system within its process.

Despite this, throughout my research, I have not yet found a systematic analysis of the need and role of conflict management processes in CDEM. Nor have I found a platform to address the challenges conflicts can pose to CDEM. Due to the dynamic, context-driven nature of both CDEM and conflict management, this needs to be done in advance of a crisis and integrated into the planning and preparation. The proposed Platform would enable this to happen by providing an integrated, flexible, dynamic, and systemic approach to dealing with conflict within CDEM.

Hence, this thesis will argue that Lederach's conflict transformation theory, including its concepts and processes, should be engaged to develop a CDEM Conflict Transformation Platform, which employs conflict transformation to every phase of CDEM management.

To this end, this thesis will establish a CDEM Conflict Transformation Platform. This will be done by first outlining the problématique and methodology. Lederach's theory of Conflict Transformation will then be analyzed, followed by the development of a Conflict Transformation Platform and subsequently, a CDEM Conflict Transformation Platform. The

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CDEM Conflict Transformation Platform will then be applied to the response to Hurricane Katrina in New Orleans and the insights gained will be integrated within the CDEM Conflict Transformation Platform.

## **Chapter 1: Problématique and Methodology**

This section will outline the rationale for and significance of developing a conflict transformation platform for emergency management, discuss the main theories and literature in both fields and then outline how the platform will be developed.

The need for a conflict transformation platform within emergency management became apparent to me through my academic studies and volunteer experience. I completed a post-graduate diploma in Disaster and Emergency Management at York University before starting the Master's Program in Conflict Studies at Saint Paul University. However, I continued to remain active in Emergency Management through volunteer leadership roles. Throughout the Conflict Studies program, I gained a deeper understanding of the impact a disaster can have on a community and I had several informal discussions with emergency management professionals regarding how conflicts can hinder emergency response. These discussions and experiences are the background of my research and are part of my rationale for exploring this research topic. I hope to answer the call of my colleagues by furthering this discussion within the academic realm.

The more severe the emergency, the more players are involved in the response. This increases the possible sources of conflict within a response, as conflicts can arise within and between those impacted by a hazard, the volunteers, the Federal, Provincial/State, and Municipal responders and emergency planning departments and the contractors hired to rebuild.

The conflicts may also be deep-rooted. For example, in New Orleans, Hurricane Katrina had a greater impact on African Americans and other vulnerable populations (Logan, 2009, 253).

The impact can not be solely attributed to size and magnitude of Hurricane Katrina but

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shows “a pattern with deep roots...that both high ground and public investments in drainage and pumping systems consistently worked to the advantage of certain neighborhoods in past storms” (Logan, 2009, 253).

While it would be important to address this disparity as part of CDEM, this is not a simple task. One mitigation tool is zoning. The vulnerability of the population can be reduced by shifting people into less vulnerable areas; however, this is likely to have a greater impact on the lower-income neighbourhoods located in high-risk areas and may reduce the amount of low-income housing. Not only does this type of policy seem to deepen historical discrimination but also the relocation can cause conflicts. For example, in December 2005, there was a proposal to locate FEMA trailers provided to people affected by Katrina in the public spaces of less vulnerable neighbourhoods, which sustained less damage from the hurricane (Logan, 2009, 258). The proposal was opposed and prevented by the community members of the less vulnerable neighbourhoods (Logan, 2009, 258). Another approach to reconstruction was that it would focus on the neighbourhoods with the largest number of returnees in addition to evidence of individual and collective investment and actions towards rebuilding and recovery (Logan, 2009, 257). While it makes sense to provide assistance to impacted areas with the largest population and / or where the community has taken initiatives to commence redevelopment, this policy would again provide greater assistance to those with the resources to return home and / or with the resources to begin the process of recovery.

It can be a very complex process to reduce vulnerability and increase resiliency in the recovery phase to mitigate future disasters that can lead to conflict but it is a process that must be faced for successful mitigation within disaster and emergency management. Indeed, the complexity of this phase alone can lead to conflict and tension between fast recovery,

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which responds quickly and returns the community to normalcy but does not reduce vulnerability and a well-planned recovery, which integrates constructive changes to mitigate hazard impacts, reduce vulnerability and increase resiliency.

Throughout the Conflict Studies Program, I grew to understand more about the roots of these conflicts and the need for a process to manage conflicts within emergency management to avoid conflicts spiralling out of control. Indeed, there is a constant risk of conflict. This could lead to a conflict spiral in which “each threatening communication incites even more threatening responses in a move-countermove sequence...as parties become absorbed in the emotions of the situation” (Isenhart & Spangle, 2000, 17). In emergency management, this can disrupt the emergency response and thus minimize the ability to save lives, minimize property damage and reduce vulnerabilities.

### **Catastrophe, Disaster and Emergency Management**

For humans, disasters, like conflicts, have been and will continue to shape our history, as they have brought great civilizations to their knees and at times substantially reduced the world’s population (Coppola, 2007, 1). Indeed, there is evidence that throughout human history, people have taken efforts to mitigate their risks (Coppola, 2007, 2). Examples include the story of Noah and the Ark<sup>1</sup>, the decision analysis process of the Asipu in Iraq in 3200 BC and the response to a volcano in AD 79 in Herculaneum and Pompeii (Coppola, 2007, 2). While the comprehensive approach to disaster and emergency management is new, it is based on the lessons learned throughout history, such as Egypt’s river control system in

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<sup>1</sup> Whether one believes in the validity of the Noah and the Ark story or not, the existence of the story displays that in the Ancient world there was knowledge of natural disasters along with the perception that people could prepare for them.

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1817 – 1722 BC, the creation of the first fire department in Rome over 2000 years ago after a devastating fire and the Inca's urban planning and land terracing in South America in the 13<sup>th</sup> and 15th centuries, which conserved water and protected the population from landslides (Coppola, 2007, 3). Indeed, North America is no exception to this.

Throughout history North America has been vulnerable to hurricanes, tornadoes, earthquakes, floods, droughts, blizzards, fires, and, to a lesser extent, volcanic activity, along with industrial accidents (Trevino, 2011). It is through the lessons learned from these hazards that shaped North America's approach to emergency management. It is also through knowing the history and patterns of hazards in a given area that one prioritizes the risks for which to prepare. Indeed, research shows a long history of hazards facing North America. The First Nations in Canada recount a tsunami in their oral histories (Trevino, 2011). Earthquakes were also documented in Canada as early as 1663 (Rholetter, 2011) and in the United States, as far back as 1755 (Trevino, 2011).

Earthquakes were not the only hazard that North America faced. The poor maintenance of a dam resulted in its collapse, which caused a flood in 1889 in Pennsylvania, killing over 2,200 and leaving more homeless and a flood in 1861-62 in California, forced the temporary removal of the state capital to San Francisco during relief and rebuilding efforts (Trevino, 2011). Floods are also common in Canada. Records show 260 known floods since 1900 and this includes the Red River flood of 1950, which triggered the evacuation of more than 100,000 people and caused more than \$1 billion in damages (Rholetter, 2011).

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The United States is no stranger to tornados, especially along the Midwestern region known as Tornado Alley (Trevino, M. B., 2011). Tornados were recorded as far back as 1840 in Mississippi (Trevino, 2011).

Cities also faced the risk of fire. For example in 1871 a fire burned over 2,000 acres and caused an estimated \$200 million in damages in Chicago and around the same time a forest fire occurred in Wisconsin and Michigan (Trevino, 2011). Another type of industrial disaster that occurred in Canada was the Halifax Explosion of 1917 in which a boat carrying explosives collided with another boat causing an enormous explosion that killed 1,963 people, destroyed 1,600 buildings and left 6,000 people homeless (Public Safety Canada, 2009).

As can be seen from above, the number and variety of disasters to strike North America throughout history are numerous. While the survivors of these early disasters in North America's history did not have insurance, individuals, private and religious-based charities provided voluntary disaster relief aid and funds for recovery (Trevino, 2011). Indeed, these disasters not only shaped and impacted the history of Canada and the United States; they are also important to mention, as they helped to shape disaster management in North America. The Red River Flood of 1950 led to the construction of the Red River Floodway, Canada's most successful flood-control structure (Rholetter, 2011). The forest fire in Wisconsin and Michigan helped spur the development of forest management programs and the Chicago fire raised awareness of the need to improve fire safety and knowledge (Trevino, 2011).

As populations grew, the vulnerability to disasters grew along with the number of people impacted. Thus, relief organizations became more coordinated and in the United States in the

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1960s, the federal government became increasingly dominant in the disaster relief efforts (Trevino, 2011). Indeed in the mid-20<sup>th</sup> century, disaster management standards and organized efforts emerged around preparedness, mitigation and response (Coppola, 2007, 4). This change was not only in response to specific disaster events, but was also incited by a shift in social philosophy on the role of governments in disaster management due to the threat of air-raids and nuclear attacks (Coppola, 2007, 4).

The 1990s were declared by the United Nations as the decade for natural disaster reduction, which culminated in a world conference in 1994 that focused on disaster mitigation and prevention (Coppola, 2007, 5-8). This move was due to the increase in costs and lives lost in disasters between 1975 and 1994 (Mileti, 1999, 4). It was also impacted by the research and report by White and Haas, in 1975, which focussed on the economic, social and political impacts of hazards, along with planning, prevention and mitigation measures (White, G., Haas, E., 1975 in Mileti, 1999, 4). Indeed, through planning and improved warning systems, disasters claim less lives, but unfortunately property for the most part cannot be evacuated, so industrialization, urbanization, and population densities have increased the cost of disasters (Trevino, 2011).

More recently, in Kobe, Hyogo, Japan another World Conference on Disaster Reduction took place in January 2005. The goal of the conference was to note what had been accomplished since 1994 and to make a framework for action for the next ten years (United Nations, 2005). Both Canada and the United States were participants in the Conference (United Nations, 2005). The expected outcome of the Framework for Action is to substantially reduce disaster losses, including lives, social, economic and environment assets through three strategic goals and five main priorities for action (United Nations, 2005). The strategic goals focus on the

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integration of disaster risk reduction into sustainable development policies and planning, building resilience to hazards and the systematic incorporation of risk reduction into emergency preparedness, response and recovery programmes (United Nations, 2005, 1). The five priorities for action include the following: Ensuring that disaster risk reduction is a national and local priority; identifying, assessing and monitoring disaster risk and enhancing early warning systems; building a culture of safety and resilience at all levels through knowledge, innovation and education; reducing the underlying risk factors; and strengthening disaster preparedness for effective response at all levels (United Nations, 2005, 1). There are also four cross-cutting issues mentioned, which are using a multi-hazard approach, gender perspective and cultural diversity, community and volunteer participation and capacity building and technology (United Nations, 2005, 1).

There is still a focus on the economic and social impact of hazards, along with the mitigation of hazard impacts and preparation. However, there is more of a focus on a multi-hazard approach, community participation, capacity building, increasing resiliency and incorporating disaster risk reduction into all development policies and at both national and local levels.

The history described above resulted in four main stages in disaster and emergency management in North America: They are mitigation, preparedness, response and recovery of hazard impacts.

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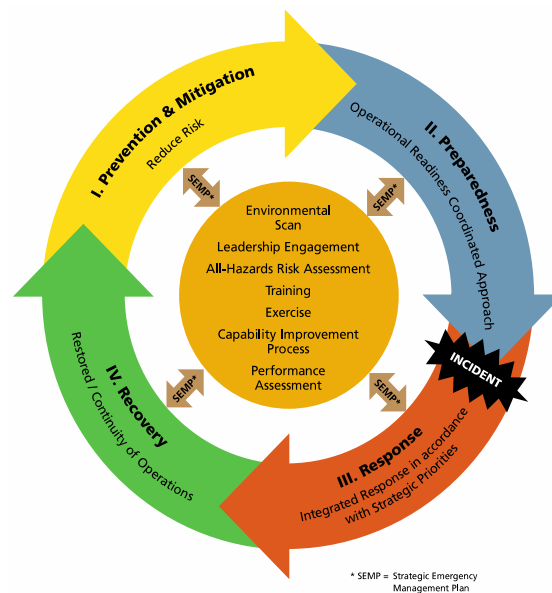
Mitigation refers to actions taken prior to a disaster to reduce or eliminate the likelihood of a hazard occurrence and / or the consequences due to a hazard impact (Coppolo, 2007, 8).

Examples of mitigation tools are land use planning and enforcing building codes. Mitigation tools can avoid or reduce the risk of an emergency situation. In contrast, the preparedness phase is based on the assumption that not all hazard impacts can be averted through mitigation, so plans should be developed and actions should be taken prior to a disaster to ensure adequate response, relief and recovery (Coppolo, 2007, 209). Thus, preparedness efforts “develop the capacity to respond” to hazard impacts (Canton, 2007, 158). The development of an emergency response and business continuity plan or purchasing equipment in order to effectively respond to hazard impacts, such as radios or sirens and practicing response drills and exercises are all examples of preparedness. Indeed, the level of preparedness has a large impact on both the CDEM response and recovery phases.

Response begins from the point that it is certain a hazard impact will occur in the near future and includes actions taken immediately after the hazard event takes place to minimise environmental and

property damage, save lives, and take any last-minute preparedness and mitigation measures (Coppolo, 2007, 251-283). Thus, it refers to the initial actions to deal with the hazard impacts (Canton 2007, 158). Following the response, the objective of the recovery phase is “to

**Figure 1: Emergency Management Continuum**



**Source: Public Safety Canada, 2010, pg. 4**

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restore the community to normal” (Canton 2007, 158). This includes the reconstruction and/or regaining of what was lost and actions taken to minimise of the risk of the disaster reoccurring in the future (Coppolo, 2007, 299). These stages represent the overall framework for catastrophe, disaster and emergency management, which will be referred to within the rest of this document as CDEM.

The phases are often presented in a cycle, as seen in Figure 1. The cycle shows the sequence of the stages. Mitigation and preparedness take place prior to the impact of a hazard while response occurs immediately following the impact and recovery takes place in the post-disaster phase.

Activities to return the community to normalcy are often associated with the recovery phase through “the repair, reconstruction, or regaining of what has been lost as a result of a disaster” (Coppola, & Maloney, 2009, 55). However, recovery also includes actions taken to minimize the risk of a disaster reoccurring (Coppola, & Maloney, 2009, 55). Indeed, there is an opportunity to improve the resiliency to a hazard following the response phase within the rebuilding process and also due to the heightened awareness of the risk. This not only includes physical mitigation, such as land zoning and improving building standards but it can also include reducing vulnerabilities.

A potential vulnerability less discussed within CDEM is conflict. However, populations in conflict would have specific vulnerabilities and the conflict may hinder a disaster response. For example if a violent conflict erupts during a disaster response, responders may be pulled out for safety reasons or the parties in conflict may not allow responders into specific areas affected by both the disaster and the conflict.

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On the other side, if a disaster occurs in the midst of conflict management, the disaster may help to encourage conflict negotiations, as parties work together on a common challenge of overcoming the impact the hazard in order to save lives and regain what was lost. There may also be a reduced capacity to continue the conflict due to the damage incurred. In contrast, the disaster response could reinforce the injustice or conflict, which existed prior to the disaster, and make a conflict worse through sudden stresses, economic decline and/or the deepening of inequalities (Renner, et al, 2007, 16). This could be caused through a CDEM process that does not identify and take into account the root causes of the conflicts, vulnerabilities and inequalities that exist within a community resulting in a CDEM process that is either biased toward a specific group or a process that does not address the challenges faced by the most vulnerable.

The relationships between disasters and conflicts have been researched and proven within the field of Disaster Diplomacy. Ian Kelman, Senior Research Fellow at the Center for International Climate and Environmental Research in Oslo, explains that Disaster Diplomacy examines “how and why disaster-related activities do and do not reduce conflict and induce cooperation” (Kelman, 2012, 4). Thus, the field researches whether disasters cause conflicts and/or make conflicts worse or whether a disaster can be used as an opportunity to resolve a conflict within the disaster diplomacy field (Kelman, 2012; Waizenegger & Hyndman 2010; Akcinaroglu, DiCicco & Radziszewski, 2011; Nel, 2008; Glantz, 2007; Holloway, 2007; Ker-Lindsay, 2007; Kelman, 2007). After examining several case studies, Kelman concludes that “opportunities exist for disaster-related activities to create diplomacy, but those opportunities are rarely fulfilled” (Kelman, 2012, 66). In contrast, a country without the political and economic resilience to effectively respond to a crisis and / or prone to conflict

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will be more likely to experience political instability following a disaster (Omelicheva, 2011, 463).

While a context-driven cause and effect relationship between disasters and conflicts has been shown through the disaster diplomacy field, what has not been addressed is how to identify and manage opportunities to transform conflicts and mitigate the risks that exist to cause and / or inflate conflicts within CDEM.

### **Methodology**

At the heart of the methodology is the research question: How can conflict be constructively and systematically addressed in the CDEM context? To address this, I am using the conflict transformation approach of highly acclaimed scholar/practitioner John Paul Lederach. The methodological challenges are to demonstrate why his approach has heuristic potential and to show how one can systematically identify the key elements of CDEM policy and practice so as to synthesize a CDEM Platform that can be used by those in the field. Such a Platform needs to be tested; hence it will be tested through an analysis of the conflicts within the mitigation, planning, response and recovery to Hurricane Katrina. Demonstrating its heuristic potential in a real case will point to the kinds of conflict transformation and management practices that could be incorporated within the CDEM context. I will first show how Lederach's work lends itself to the development of a Platform. Second I will show how a combination of scholarly literature on CDEM combined with an analysis of one national policy will provide a common understanding of the elements of a CDEM framework that can be used for the development of the Platform. Third, and finally, I will show why Hurricane Katrina is a fitting example to use as a case study to establish the usefulness of the Platform.

## Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

*John Paul Lederach*

Lederach is a professor of International Peacebuilding at the University of Notre Dame and has been involved within conciliatory work and training in many countries since the 1980s. His experience is diverse including national, inter-communal and organizational conflict including both crisis and long-term interventions. His training approaches build on contextual and cultural resources, with a focus on sustainability (Kroc Institute for International Peace Studies, 2012).

Lederach's theory was also chosen because it integrates well with CDEM through compatible stages and goals. Lederach, who is widely known as a pioneer in regard to the theory of conflict transformation, outlines how the timeframes in conflict transformation can be divided into interconnecting stages, which are crisis intervention, preparation and training, design of social change and desired future (Lederach, 1997, 76). As will be shown below, these stages correspond well with the interconnected stages of disaster and emergency management, which are mitigation, preparedness, response and recovery. Also, the timeframe stages indicate the need for a long-term process in which short-term decisions and actions need to be focussed on sustainability and reaching the future desired by the community.

While this theory is normally applied to protracted conflict, Lederach indicates the need to also begin applying conflict transformation theory in creative ways to change processes outside of protracted conflict due to the complexity and interdependence of conflict transformation (Lederach, 2011, 8). Lederach emphasizes that transformation can only be established and maintained through multiple processes, levels, organizations and actors over the long term (Lederach, 2011, 8).

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CDEM also necessitates long-term processes, as it continuously works to improve the preparation, response and recovery to the impact of hazards through planning and reducing vulnerabilities. The inequities that can cause conflict also have the potential to cause disasters. For example, if a population is historically discriminated against, not only might this lead to a conflict, but also in a disaster, the population would potentially have less resources and resiliency to respond and recover from the disaster because of the discrimination. Minimizing these inequities is part of the Lederach's theory of conflict transformation (Lederach, 1995, 15).

### *Catastrophe, Disaster, and Emergency Management (CDEM)*

CDEM theory also calls for a contextual approach, as it is based on the risks and vulnerabilities faced by a specific community. CDEM is also located within crisis, long-term and organizational spheres, as the field responds to crisis situations, mitigates crisis through long-term approaches and is based within an organizational and governmental environment. Catastrophe, disaster and emergency management (CDEM) includes sets of objectives, policies and procedures for preparing for, mitigating, responding to and recovering from the impact of a hazard. It is not feasible to define CDEM on a worldwide level as countries have their own policies based on their individual risks, vulnerabilities, resources and priorities. Thus, this study will be limited to the overall theories, governmental objectives, policies and procedures in Canada and the United States. In both countries CDEM is a government-run program, which has distinct responsibilities at the municipal, provincial/state and national level.

The overall CDEM objectives, policies and procedures will be defined through journal articles, books, reports and government websites. At a policy level, an analysis of municipal

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) and provincial regulations would be beyond the scope of this thesis, thus the focus of the analysis below is national or federal policies. Since both Canada and the United States works with three levels of government, and also to show examples of policies at the different levels of government, an analysis of Canada's National Policies was included. Indeed, Canada's national emergency plans, set forth by Public Safety Canada, are easily accessible and define the country's objectives well; this includes a National Mitigation Strategy. The objectives at the national level will be indicative of the provincial/state and municipal level, since they must comply with the policies and objects set out nationally. For example, the objective of Canada's Federal Policy for Emergency Management is "to promote an integrated and resilient whole-of-government approach to emergency management planning, which includes better prevention/mitigation of, preparedness for, response to, and recovery from emergencies" (Public Safety Canada, 2010). As will be seen below, they also correspond well with the CDEM literature analyzed.

### *Hurricane Katrina*

The analysis of the impact of Hurricane Katrina in New Orleans, which shows the importance CDEM policies and plans in a response, gives both the municipal and the United States perspective. Hurricane Katrina was a very severe disaster and due to the extensive research on the disaster along with the vulnerabilities and latent conflicts that existed pre-Katrina, there are a lot of lessons to be learned.

Indeed, Hurricane Katrina broke many records in the United States in regard to its size, storm surges and overall severity (Committee on Homeland Security and Governmental Affairs, 2006, 37). When the severity was mixed with the pre-existing vulnerabilities and lack of preparedness, the results were catastrophic. In fact, it has been described as the most

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) destructive disaster in U.S. history (Committee on Homeland Security and Governmental Affairs, 2006, 2). As will be shown below, the importance of the lack of preparedness and mitigation efforts to protect the most vulnerable citizens in New Orleans is well displayed in the analysis of the disaster. Through the analysis of Hurricane Katrina and conflicts within New Orleans, new insights were gained into the potential application of the CDEM Conflict Transformation Platform.

While it may seem like New Orleans can be treated as a one-off situation due to its the physical and social vulnerability, racial and economic divisions, as will be described within this paper, it should be remembered that many cities in North America have low-income areas, which are often located in hazard-prone, vulnerable areas and deal with issues around inequality. An example of this can be found in the issues and debates around the homeless populations in cities including issues around ownership and regulation of public space, criminalization of homelessness and the use of the term NIMBY in regard to the homeless population, which originally referred to hazardous waste (Ruppert, 2006, 272 & Ross, 2007, 3). Secondly, there is an overall trend of developing in more vulnerable areas in North America (Renner, et al, 2007, 7). Third, the processes that exacerbated the social vulnerabilities and injustices that had existed prior to Katrina are not exclusive to New Orleans. For example Khan (2009) points out that disaster-housing policy in the United States tends to benefit those with the most resources rather than those who are the most in need of assistance. Thus, there are many lessons that can be drawn from the Hurricane Katrina disaster in New Orleans.

The CDEM analysis focused on outlining the overall objectives, policies and procedures within CDEM in Canada, while the analysis of Hurricane Katrina focused on outlining the

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challenges faced in the response in order to integrate the lessons learned from these challenges into the CDEM Conflict Transformation Platform.

### *The CDEM Conflict Transformation Platform*

Following the analysis of Lederach's Theory of Conflict Transformation and the objectives, policies and procedures of CDEM, there is a section analyzing and comparing Conflict Transformation and CDEM. This analysis is used to develop a CDEM Conflict Transformation Platform, which is integrated with the insights from the analysis of Hurricane Katrina to generate the final CDEM Conflict Transformation Platform presented in this thesis.

Thus, throughout the analysis on CDEM, the questions that were asked were the following: what facets of Conflict Transformation could be applicable and beneficial to CDEM and how could the integration of these two theories improve conflict management as well? While one may question the feasibility and practicality of the platform generated, it should be noted that the platform was generated as much from Conflict Transformation as it was from CDEM and while the platform suggests changes and additional actions within the CDEM, the platform responds to important challenges faced within CDEM.

In summary, the purpose of the CDEM Conflict Transformation Platform will be to present an approach to managing conflict within CDEM based on Lederach's theory of conflict transformation along with current CDEM objectives, policies and procedures in North America and the challenges faced in New Orleans in response to Hurricane Katrina.

## **Chapter 2: Lederach's Theory of Conflict Transformation**

An analysis of John Paul Lederach's theory of conflict transformation will be provided in this section to distinguish Lederach's theory within the conflict transformation field and gain a deeper understanding of his theory and outline the need for a conflict transformation platform.

### **Conflict Transformation**

Conflict transformation emerged as its own field and practice in the 1990s (Kriesberg, 2011, 50). Conflicts are viewed as not only inevitable, but they are also desirable to incite constructive change. Conflict transformation also perceives a conflict to be constantly changing, interlinked and nested within other conflicts involving parties that will use various methods to reach their goals (Kriesberg, 2011, 52).

While Conflict transformation incorporates aspects of the conflict resolution approach, it focuses on constructive change to transition society from destructive to constructive conflict, ending the use of violence and integrating sustainable peaceful relationships through addressing the root causes of the conflict and the impacts of the conflict (Kriesberg, 2011, 50). Kriesberg (2011) also states that the field encourages inclusive actions involving and analyzing all stakeholders, long-term perspectives and situating the current conflict amongst the larger picture of linked conflicts. Lastly, Kriesberg (2011) asserts that conflict transformation is a multi-dimensional, context-specific process that is not linear, has diverse timeframes and can be initiated at diverse points for the different groups involved within a conflict and in diverse stages of a conflict. Ropers links this aspect of conflict transformation

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with systems theory, asserting that the complexity of interactions, time delays and built-in opposition, one cannot assume a linear model or set of steps (Ropers, 2011, 106).

Joseph G. Bock and Mary B. Anderson (1999) distinguish between pre-emptive and promotive conflict transformation approaches. Pre-emptive approaches are defined as actions to prevent the outbreak of violent conflict when “tensions are high and violence seems imminent” through preparing people to dismiss the urge to turn to violence (Bock, Anderson, 1999, 329). Promotive approaches are used before, during and after violence to create trust through cultural and social interaction focused on shared interests and history (Bock, Anderson, 1999, 327). Pre-emptive actions would be included in the training and crisis response of Lederach’s theory and the promotive approach is integrated throughout the process in each stage with the emphasis on improving relationships.

In contrast to this, Kriesberg (2011) emphasizes mechanisms used to transform a conflict prior to violence and mechanisms used post-conflict. Indeed Kriesberg (2011) includes a very broad view of conflict transformation, which includes many conflict resolution mechanisms that can or have led to a transformation in a conflict ranging from the defeat of one side to interaction between adversaries in a conflict. He also integrates negative and positive peace, basic needs theories, peacebuilding theories, the relationship between justice and peace among others as sub-theories regarding the sources of perpetuating violence (Kriesberg, 2011, 55-56). While some of these theories do apply to Lederach’s use of conflict transformation, many do not as they may have incited a change in the conflict but the change was not part of a long-term sustainable process focused on increasing justice and reaching the desired future. This will be further explained in the description of Lederach’s theory below.

### **John Paul Lederach's Approach to Conflict Transformation**

Similar to what Kriesberg describes above, Lederach emphasizes that conflict is normal in human relationships and can be a driving force for constructive change toward “the building of healthy relationships and communities, locally and globally” (Lederach, 2003, 4-5). Thus, it should not be a surprise that conflict is a challenge within CDEM, as conflicts should be expected whenever people are working with one another. This includes both times of peace and prosperity and stressful times when life is full of uncertainty, such as in the response to a disaster. Lederach defines conflict as a disruption in relationships, which is usually described through emphasizing the significant and most recent challenges, along with the failures and inability to negotiate adequate solutions to the challenges (Lederach, 2003, 7-8). Change within communication patterns and methods, social organization, goals, self-perception and perception of the other can all be impacted by a conflict (Lederach, 1995, 17-18) and depending on how the conflict is handled, it can move a community towards destructive and violent ends or lead to constructive change (Lederach, 1995, 19).

Transformation suggests a dynamic understanding that conflict can move in destructive or constructive directions but proposes an effort to maximize the achievement of constructive, mutually beneficial processes and outcomes.

Lederach, 1995, 19

Thus, conflict transformation, as outlined by Lederach, envisions a process in which conflict directed away from destruction and violence towards constructive change. Conflict transformation is seen as an opportunity for constructive change at both personal and societal levels.

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Lederach goes beyond the promotive and pre-emptive approaches through his focus on increasing justice. Lederach (2003) notes that conflict can also increase justice. This is the notion of Just Peace.

Conflict transformation is to envision and respond to the ebb and flow of social conflict as life-giving opportunities for creating constructive change processes that reduce violence, increase justice in direct interaction and social structures, and respond to real-life problems in human relationships.

Lederach, 2003, 14

The sustainability of the change and processes required in conflict transformation is improved by increasing justice, such as increasing access to resources, and reducing or eliminating violence in relationships (Lederach, 2010). Thus, peace is associated with a shift in relationships and communication methods from violence to dialogue (Lederach, 1999, 66). Three main assumptions about conflict within conflict transformation become apparent: First, conflict is dynamic and normal within human society; second, conflict can create opportunities for constructive change within human relationships by reducing violence and increasing justice or it can lead to violence and destruction depending on how it is handled; and third, both long-term processes and outcomes are important for conflict transformation. Indeed, Lederach lays out a conflict transformation process, which has a continuous focus on the long-term goal of reaching a sustainable social design for dynamic, peaceful relationships. This includes measuring short-term efforts by long-term implications (Lederach, 1997, 75). This process is built upon the research of Adam Curle, who created a matrix to chart out the movement from un-peaceful to peaceful relationships (Lederach, 1995, 12). Figure 2 below represents Curle's stages as presented by Lederach. As can be seen, Lederach notes that Curle's stages as outlined below include multiple activities focused

on both conflict resolution and the longer-term goal of change towards interdependence, peaceful relationships, justice and equality (Lederach, 1995, 15). It is also interesting to note that as can be seen through Figure 2, conflict is seen as an opportunity for change in equity and justice even if it is expressed in violent or nonviolent confrontation. This is not only shown in the latent conflict and confrontation stages but also in the overall process. The first two stages are focused on balancing the power and increasing justice, thus they focus on the parties who are experiencing injustices.

**Figure 2: Curl's Typical Stages of a Conflict**



**Source: Curle, A. (as cited in Lederach, 1995, 12 - 14)**

According to this framework, the stages are interdependent in that mediation and negotiation can only commence once there is a balance of power. Whether one thinks a balance of power is possible or not, what is important to note is that conflict transformation goes beyond conflict management and resolution practice by emphasizing that the expression of conflict is the result of social injustices and can be improved through constructive change resulting from conflict (Kaye, Béland, 2009, 181).

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These main concepts are also represented within Lederach's conflict transformation process:

Preparation and Training, Crisis Intervention, Design of Social Change and Desired Future (Lederach 1997, 76). While this process may seem like a linear process toward the desired future, it should be pointed out that in reality the process may not smoothly move from one stage to the other. A population may move forward, backward or become stagnant. This concept of change and time within Conflict Transformation will be discussed further below.

Preparation and Training focuses on improving conflict preparedness and mitigating conflict escalation through approaches and tools, which assess and deal with a latent conflict to improve crisis management (Lederach, 1997, 76). This stage also focuses on conflict prevention, as Lederach emphasizes the need to prevent conflicts in the latent stages (Lederach, 1997, 73). While, the activities outlined by Curle to educate and raise awareness of injustices can be seen as a means to prevent a conflict from escalating, Lederach takes a broader view of this stage by including both actions to mitigate a crisis and training and preparation for managing a crisis.

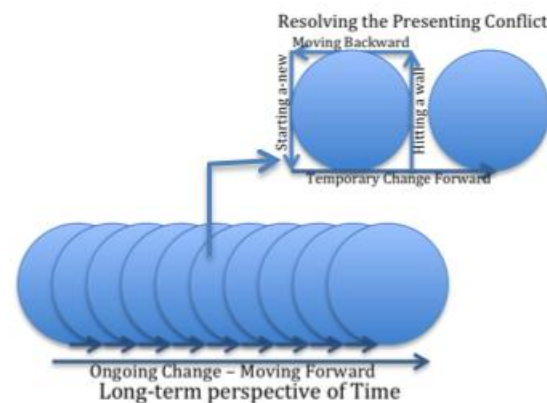
In contrast, Crisis Intervention refers to emergency relief to alleviate suffering along with the goal of ending the violence associated with the conflict (Lederach, 1997, 76). This stage also includes performance monitoring of the progress. This stage is primarily and necessarily a responsive stage to the outbreak of violence and would be comparable to Curle's second stage; however, Lederach notes that within Crisis Intervention and Preparedness and Training stages, one must start to consider the structural and systemic root causes of the crisis along with the management of the current situation (Lederach, 1997, 79- 80). This is important for the next stage, but also it might help to ensure long-term goals and systemic root causes are considered within the actions and decisions made within the first two stages.

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Design for Social Change is the next stage described by Lederach. Similar to Curle's third stage, mechanisms are put in place during this time to transition into the envisioned future in which crises can be prevented and sustainable peace can be realized (Lederach, 1997, 77-78). This requires reflection on the root causes of the crisis and the crisis management in order to take hold of the opportunity for constructive change. It also requires a vision of the social structures and relationships desired along with mechanisms implemented to prevent a repeat crisis (Lederach, 1997, 81-82).

**Figure 3: Perception of Change and Time in Conflict Transformation**

While one can see the similarities to Curle's stages as shown above, Lederach describes a fourth stage called Desired Future, which includes a dynamic perspective of a sustainable, peaceful and harmonious future (Lederach, 1997, p.76).



Source: Lederach, 2010

This definition is necessarily broad and overarching, as the specifics of this stage would be contextual and dynamic depending upon the desired future of those within the peace process. One may also note that by including this as its own stage, emphasis is placed on the overall focus on sustainable change to reach this stage within the first stages described.

This is not the end of a process. As community members change and the surrounding world changes, so would the vision of the community's desired future. In addition, conflict is an inherent part of society, needed for constructive change, so conflicts will continue to occur and transform the community.

This brings us to Lederach's perception of change and time in conflict transformation, which is shown in Figure 3 above. Lederach states that while it is easy to become overwhelmed

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with the immediate conflict, it is a symptom of the root, which is based on or linked to the long-term, overarching perception of change to one's identity, meaning and values (Lederach, 2010).

The resolution of each overt conflict that is created, represented by a loop in Figure 3, may at times seem to move forward, backward, stop or begin again, as shown in the process of resolving the immediate conflict (Lederach, 2010). Thus it is helpful to look at the overall picture of long-term change for two reasons.

If one focuses on solutions to each immediate conflict without seeing the overall picture, conflicts could be temporarily resolved without any real change (Lederach, 2010). For example, if a worker's strike goes to binding arbitration, there will be a quick end to the dispute. However, there is no guarantee that all or any of the parties will be happy with the decision to which they are bound. While the binding arbitration may officially end the strike, it does not mean the decision will create any real change and hence, there is no guarantee that the dispute will not re-present itself again in another form.

The second reason for the long-term perspective is to obtain a full understanding of the dynamics of the conflict to enable more creativity on the solutions to the immediate conflict at hand (Lederach, 2010). According to Lederach, the expression of conflict is like a window (Lederach, 2010). One can look at the windowpane, which would be the immediate conflict or look through the window to see the historical context, relationships and patterns that are embedded in the conflict (Lederach, 2010). In order to move conflict away from violence and towards constructive change, it is necessary to see the whole picture. Thus as discussed above, the immediate conflict can be seen as a lens through which to view and understand the long-term issues, which are at the root of the conflict, such as power, participation,

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decision-making, identities or relationships (Lederach, 2010). Conflict transformation requires one to look at the wider patterns and ask what changes are needed within the relationships, what are the dynamics of the conflict, what has been tried before, why did it not work, what change is wanted by the parties and so on (Lederach, 2010).

After fully understanding the dynamics of the conflict, one must then look at whom to involve in the conflict transformation process. It is important to think critically about who is included in conflict transformation and to move from thinking of “critical mass to critical yeast” by being less concerned about the quantity of people and more concerned about the ability of the people involved to impact the conflict along with the diversity of viewpoints and the quality of the relationships of those involved (Tippett, 2010). While Lederach thinks it is important to have peacebuilding take place at various levels, he emphasizes the potential impact of mid-level leaders to work from the middle-out to influence both the top-level of peacebuilding, such as politicians and grassroots initiatives, such as the work of community based organizations (Lederach, 2005, 79). This could both reduce the gap between the two levels and also improve coordination to make the peacebuilding process become more holistic.

Indeed the question of who is involved and their relationships brings us to one of the central themes in conflict transformation. The purpose of the process of conflict transformation and peacebuilding i.e. the desired outcomes should be aligned with the methodologies including a long-term view of a conflict transformation, which is focused on relationships, as Lederach asserts, “our security is tied to the quality of our relationships” (Tippett, 2010). This is emphasized through the moral imagination, as described by Lederach.

Transcending violence is forged by the capacity to generate, mobilize and build the moral imagination...[which] requires the capacity to imagine ourselves in a web of relationships that includes our enemies; the ability to sustain paradoxical curiosity that embraces complexity without reliance on dualistic polarity; the fundamental belief in and pursuit of the creative act; and the acceptance of the inherent risk of stepping into the mystery of the unknown that lies beyond the far too familiar landscape of violence.

Lederach, 2005, 5

Relationships are not only at the centre of conflict transformation and moral imagination, but as noted earlier, they are at the heart of the desired future, as it includes a social design for dynamic, peaceful relationships; thus, conflict transformation requires “an unconditional commitment to build authentic relationships” (Lederach, 2005, 61). Indeed, it is important to identify or create “social spaces”, defined by Lederach as spaces of interaction where relationships cross the lines of conflict (Lederach, 2005, 96). A good example of this is in the Wajir district in Eastern Kenya, in which six women were frustrated with ongoing and frequent outbreaks of violence (Lederach, 2008). They identified the market as a place in which everyone necessarily interacted and worked to negotiate this as a safe space by establishing a monitoring group to respond to conflicts and strategically bringing in key leaders and community members such as women who had married across clans, youth and elders to promote the idea of a safe market (Lederach, 2008). The women recognized that they were in an interdependent relationship with their enemies and the other community members, identified a common interest and a social space, and brought in key people to negotiate and promote the idea of a safe market.

Bargal (2004) describes a second example of the centrality of relationships and creation of social spaces through reconciliation-transformation workshops between Israeli and Palestinian youth. Bargal emphasized that the workshops “serve as a corrective emotional

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experience and a self-reconstructive process” (Bargal, 2004, 599). Bargal choose workshops to incorporate Lederach’s method of creating space for face-to-face encounters to address the past, express any trauma, loss, grief and anger without getting locked into the past (Bargal, 2004, 599). This leads us to the next aspect of social spaces and relationships, which is meaningful conversation.

Lederach emphasizes the importance of meaningful conversation. “Meaningful conversation suggests mutuality, understanding and accessibility. Power suggests that the conversation makes a difference: Our voices are heard and have some impact on the direction of the process and the decisions made” (Lederach, 2005, 56). This meaningful conversation is not likely to occur without the creation of a safe space. As Lederach explains, this is not only about improving relationships but it is also about empowerment to participate in a meaningful way (Lederach, 2005, 56).

Lederach, along with his daughter, (Lederach, J.P, & Lederach, A. J., 2010) emphasize social space, proximity, relationships and meaningful conversation as important aspects of reconciliation and healing after violence. Thus, these items would be especially important in the Crisis Intervention and Social Change stages following a Crisis Situation.

Protracted conflict and violence destroy human life, divide relationships and create irreplaceable loss... dimensions of this destruction are the loss of voice, sense of self, place and purpose. When deep harm is done and when it is sustained over time, life loses meaning. Simply put violence destroys voice, belonging and place.

Lederach, J.P, & Lederach, A. J., 2010, Chapter 12: Conclusion

It is logical that in order to heal and reconcile from the destruction caused by violence as described by Lederach, one would need to regain what was lost. While some of this healing

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may be needed on an individual level, Lederach notes the importance of community within this process.

Social healing represents the capacity of communities and their respective individuals to survive, locate voice and resiliently innovate spaces of interaction that nurture meaningful conversation and purposeful action in the midst and aftermath of escalated and structural violence. Social healing sparks collective voice... fosters a sense of belonging and purposeful action.

Lederach, J.P., & Lederach, A. J., 2010, Chapter 12: Conclusion

The ability to create spaces of interaction, establish relationships and meaningful conversation is something that can only be done in relationship with others as a collective. This process also emphasizes the need for reconciliation and recovery processes during and following a crisis to include community-based participation to ensure the process is meaningful and to empower the community to find its voice and identity again (Lederach, J.P., & Lederach, A. J., 2010). While Lederach is describing the process for reconciliation and healing following violence, he notes that social interaction created through this process should be sustained. Thus, social interaction is important for all stages of conflict resolution.

Social healing suggests a need for much longer-term approaches that work towards assuring that platforms exist locally for sustaining interaction. The aural aspects of voice, music, poetry, ceremony and meaningful conversation open towards more than just counting events, providing training in conflict resolution or creating dialogues. It requires a capacity to attend to, notice and encourage the fields and landscapes of change... aural in their touch and reach.

Lederach, J.P., & Lederach A. J., 2010, Acknowledgements

Conflict Transformation then, should necessarily integrate methods for creating space for social interaction. This space should not only include more formal processes of dialogue and conflict resolution activities, but it should also include culturally significant rituals to create shared social experiences that give meaning and identity to a community. This would require

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both knowledge of the community, which is included in the first capacity described above and it would also require creativity.

Lederach notes the importance of creativity within the next capacity: the ability to sustain paradoxical curiosity that embraces complexity without reliance on dualistic polarity.

Paradoxical curiosity and creativity are about being able to use creativity and peripheral vision to sidestep roadblocks and polarities to find innovative resolutions that hold together social energies that seem to be in opposition to one another (Lederach, 2005, 36).

Lederach defines curiosity as attentiveness to detail through observing, listening, watching, learning through engaging all of the senses, which has as its roots an instinct to care for people, a passion for the truth and continuous inquiry into meaning (Lederach, 2005, 36).

The paradoxical aspect of this capacity is the ability to reframe and link together interests and needs that seem to oppose one another within the outcomes of the peacebuilding process (Lederach, 2005, 36).

Paradoxical curiosity and creativity also includes the need to be flexible and adaptable in order to transcend the current situation through innovative, realistic responses that lead toward the desired change (Lederach, 2005, 86). Lederach describes this ability as being smart-flexible (Lederach, 2005, 86).

Secondly, there is always risk in change. Thus actions towards constructive change require the will to risk. “The journey toward change...requires more than a strategy of good ideas or technique. Fundamentally, it requires a willingness to risk and great vulnerability” (Lederach, 2005, 169). Indeed change impacts people’s lives and one’s community. There is also a risk in trusting and engaging a perceived enemy who may have a point of view deeply different from yours (Lederach, 2010). Even the change from violence to peace is risky for

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someone for whom peace is a mystery (Lederach, 2004 18). “By its very nature therefore, peacebuilding requires a journey guided by the imagination of risk” (Lederach, 2004 18).

Lederach identifies four main paradoxes that are held together in peacebuilding. They are personal and systemic change, justice and mercy, empowerment and interdependence, process and outcome (Lederach, 1995, 19-22). The above paradoxes may seem contradictory by definition but conflict transformation should integrate all of them. In order for change to occur it must occur both at an individual and structural level, such as the healing and reconciliation processes described above. For people to reconcile they often need to feel a sense of justice for the wrongs that were committed and mercy, as it is not always easy to label a person as either a perpetrator or a survivor following a conflict. For example, a child soldier is often both a survivor and a perpetrator of violence. The parties of the conflict need to see that they are dependent on one another. For example, Lederach notes that in a reconciliation process parties reach a turning point when they recognize that “the future of their grandchildren is dependent upon the future of their enemies’ grandchildren” (Tippett, 2010). In other words, parties need to recognize that their actions impact one another. However, it is important for parties to feel empowered through the process, especially those who previously felt a sense of powerlessness and experienced injustice.

Without taking the time to understand the dynamics of the conflict one could make the conflict worse through the actions taken. However, attention to the outcome has also been emphasized through the focus on reaching the changes desired within the community, such as improved relationships and the elimination of violence.

The above capacities would ideally be part of a conflict transformation process to cause a turning point and/or constructive social change. A turning point is “the movement toward a

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new horizon in order to redefine both moment and the relationship” (Lederach, 2005, 39-40).

Lederach points to the above capacities when identifying the cause of a turning point. “Time and time again the process was defined by the capacity of the actors to imagine themselves in relationship, a willingness to embrace complexity and not frame their challenge as a dualistic polarity, acts of enormous creativity and willingness to risk” (Lederach, 2005, 40). Thus, it is the capacities outlined above, along with key individuals and relationships that direct a turning point towards constructive social change.

Constructive social change is “the pursuit of moving relationships from those defined by fear, mutual recrimination, and violence toward those characterized by love, mutual respect, and violence toward those characterized by love, mutual respect and proactive engagement...relational dignity and respectful engagement” (Lederach, 2005, 42). Thus, Conflict Transformation needs a “platform capable of generating adaptive change processes that address both the episodic expression of the conflict and the epicenter of the conflictive relational context” (Lederach, 2005, 47). The platform would need to have a long-term view focused on the desired change that is created through a process focused on the parties and communities involved, their relationships, the flexibility and creativity of the process (Lederach, 2005, 47). Indeed, the immediate conflict is important in that it can create an opportunity to engage the parties on the root causes of the issue, such as power, inequity and relational issues (Lederach, 2010).

Given the complexity of Lederach’s theory, I have used a concept map found in Appendix 1 to visually show all of the aspects of Conflict Transformation and how they link together. As can be seen from the Conflict Transformation Concept Map, the map is not linear, resembling a web of interrelated concepts and capacities. This is an accurate depiction of the

theory Lederach describes, as he relates Conflict Transformation to spider web watching and spider webs.

In the case of web watchers, this is about a way of approaching and being in a universe made up of intricate connections that must be seen before steps are taken. It applies equally to the case of web watchers in the context of building constructive social change.

Lederach, 2005, 106

It is emphasized that Conflict Transformation is contextual and thus there is no one-size-fits-all set of specific steps. For example, to build peace some countries have started with focusing on the past through truth commissions, dealing with the present through activities, such as amnesty programs, and then negotiating peace focused on the envisioned future (Lederach, 1999 65-66). In contrast to this Lederach describes how other peace processes moved from the present to the future with former enemies linked through interdependence on each other due to a common need for survival (Lederach, 1999, 70-71). In an example of a Cambodia training team, the peace process was held together through the shared hope in the future, which provided space to work together in the present and the past was not yet part of the process (Lederach, 1999, 70-71).

In the next section, I will bring together the various elements of Lederach's conflict transformation theory described above into a framework that will be synthesize his theory. As will be seen below, it is necessary to synthesize his theory before creating a platform due to complexity of conflict transformation.

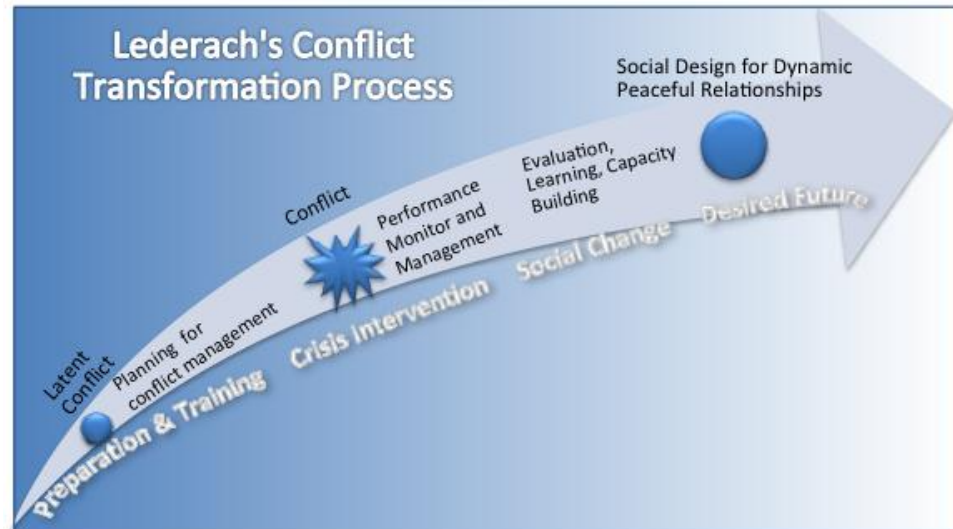
### **A Synthesis of Lederach's Thought**

Several aspects of the Conflict Transformation Process are shown in Figure 4. The transition toward the desired future does not normally occur in a smooth movement from one stage to the other, as the process is situated in a dynamic system, which may impact the process.

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The arrow at the end of the process on Figure 4 indicates that this is not the end of a process. As the

**Figure 4: Lederach's Conflict Transformation Process**

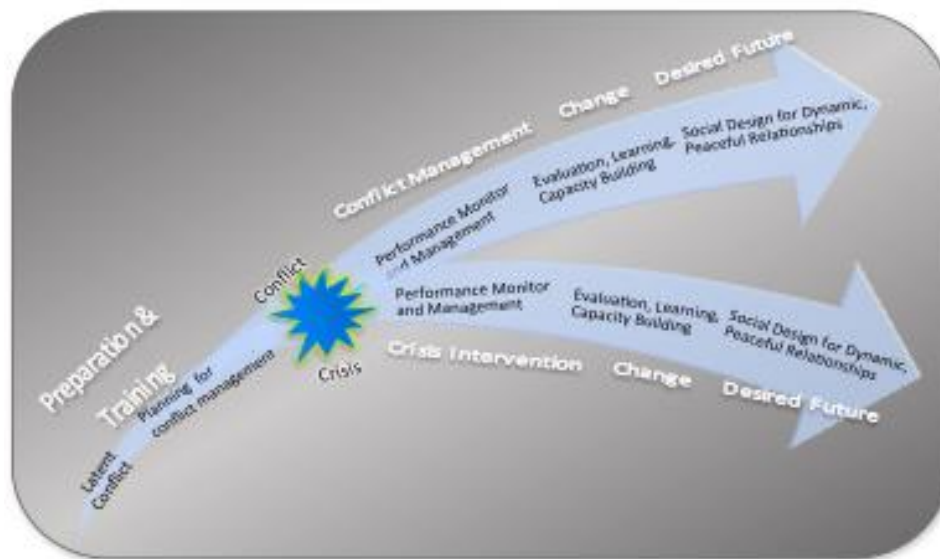


Source: Author based on Lederach, J. P.

community changes and the surrounding world changes, so would the vision of the community's desired future. In addition, conflict is an inherent part of society, needed for constructive change, so conflicts will continue to occur and transform the community.

After reviewing several books, articles and videos to get a full understanding of Lederach's theory of Conflict Transformation, it is apparent that there are actually two different conflict transformation processes as seen in Figure 5 below. One process would include the response to a conflict and the other would respond to a crisis. Both paths commence with a latent conflict, following by a crisis or conflict and lead to transformation and constructive change towards a dynamic, sustainable peaceful community. The difference between the two processes is that one mitigates a crisis through the preventative actions taken within the preparedness and mitigation stage and can focus on conflict management and social change while the other must move into crisis intervention and emergency response before moving into the Social Change Stage.

Figure 5: Successful Conflict Transformation Process



Source: Author

As noted above, Lederach describes Crisis Intervention as including emergency relief with a focus on ending the violence associated with the conflict through installing the changes needed to reach the desired future. Conflict transformation is directing conflict away from violence and destruction towards positive social change. Thus, the difference between a crisis and a conflict is the outbreak of violence. A crisis would be highlighted by the loss of control in the transformation of the conflict. It should be noted here that this loss of control is also dependent on the context, most importantly the severity, frequency and impact of the violence experienced along with the resiliency of the community. The level of violence a community or society can tolerate before the situation is considered out of control due to a lack of resources or capability will vary from area to area. This will be discussed further in the section below on catastrophe, disaster and emergency management.

While the exact distinction between a crisis and a conflict would be contextual, one can imagine that the Conflict Transformation Process and activities would necessarily change

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and adapt if a situation became outright violent by focusing on emergency relief and violence reduction to re-establish a safe space for social interaction. Dissimilarly, if the conflict does not transform into a crisis, this stage would focus on managing the conflict through social interaction and improving equity, re-enforcing peaceful relationships and installing the changes needed to reach the Desired Future Stage.

While this distinction may seem to appear minimal on paper, as the overall goal and process of Conflict Transformation is not altered, in practice, whether a conflict turns into a crisis and includes violence or not, drastically changes the response to the conflict. This would include but is not limited to the scale of the response, techniques used to respond, the length of time it takes to address the root cause of the conflict and to repair broken relationships and the number of immediate conflicts that need to be addressed due to the risk of the conflict spiraling into new conflicts. When the conflict becomes violent and destructive, there is a potential loss of control in the process until the initial Crisis Intervention is completed. This loss of control would not occur to the same scale within every conflict. For example if there was a dispute in which a group or several groups staged a peaceful protest, the response is quite different to a violent riot,

which destroys property and / or injures people.

The other reason to show the two paths is also to remove the assumption that a crisis will re-occur. As seen in Figure 6, on the right, if the assumption were made

**Figure 6: Unsuccessful Conflict Transformation Process**



Source: Author

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that a conflict would always result in a crisis, one would be assuming that the process of Conflict Transformation is unsuccessful. The assumption that a crisis will inevitably erupt accepts that there were no real transformative changes or the changes were too negligible to cause any real change and/or the changes do not address the root cause of the conflict, such as the broken relationships, inequities or injustices. Alternatively, a new conflict may have occurred, which was not managed well in the preparation and training stage and led to a new crisis. Either way, a cyclical process visually depicts a Conflict Transformation process that will bring a community back to where they started instead of mitigating crisis and / or directing the conflict towards constructive change and the desired future. However, it is important to prepare and train for the possibility of a crisis occurring. Thus, it is important to represent and take note of both possible outcomes and paths within Conflict Transformation.

Lederach uses observations and experiences to create and outline the concepts and capacities needed for Conflict Transformation. These concepts and capacities are summarized below.

Conflict Transformation is focused on relationships and conflicts are considered a dynamic, normal aspect of human relationships. Conflict can create violence and dualistic polarities within the communication methods, the perception of the self and other and the social organization of relationships thereby reducing justice and equity. It can however be an opportunity for constructive social change through increasing dialogue and communication patterns that are non-violent, constructively changing the perception of one's self and the other, causing constructive change in the social organization thus, increasing justice and equity.

This constructive social change creates dynamic conflict transformation. This process is dynamic in that it is constantly changing as it adapts and responds to human relationships

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and the context within which they exist. There are four distinct stages within Dynamic Conflict Transformation: They are Preparation and Training, Conflict or Crisis Intervention, Constructive Social Change and Desired Future. Preparation and Training focuses on identifying and managing latent conflicts to mitigate conflict escalation through various tools and approaches, such as education, training and awareness raising activities on justice and equality. If the conflict does not escalate to violence, it would be managed and transformed towards constructive social change to continue to mitigate violence.

In contrast, if the conflict does become violent and results in a crisis, the crises would be responded to through emergency relief to reduce the impact of the violence on those affected. This stage would necessary include performance monitoring to evaluate actions and ensure the methods used retain focus on both responding to the immediate conflict and directing change towards the desired future. Within these two stages the structural systemic roots of the conflict starts to be considered and this is further reflected on within the next stage, Constructive Social Change.

Within Crisis Prevention, the root causes of the conflict and the long-term goals are reflected on through the transformation towards the envisioned future. The change needed to make the desired future a reality is created through designing social spaces for interaction and meaningful conversation including formal conflict resolution techniques, such as negotiation and mediation and also less-formal culturally-significant rituals, such as community-based participatory events, for example music, literary, artistic and sporting events. The goal is to re-establish peaceful relationships through regaining what may have been lost in the conflict, such as identity, meaning, justice, equity and empowerment, to create space for social healing and reconciliation.

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As shown above, several methodologies and capacities can be utilized to create a turning point that directs a conflict towards constructive social change. A long-term, holistic perspective on the conflict, which sees the immediate conflict as a lens to understand the conflict history and desired change helps to gain a full understanding of the situation. This includes an understanding of the parties involved in the conflict, which is important to ensure peacebuilding activities exist at all levels of society and that the persons who can act as critical yeast are involved. That is the participation of those able to work from the middle out to influence and reduce the gap between the peacebuilding activities taking place at the top-level and the grass-roots level of the community is emphasized.

Secondly, there are several important capacities to create conflict transformation. This includes the ability to see one-self as part of an interdependent, social relational web including one's enemies to redefine and reframe relationships. The ability to retain creativity and peripheral vision in order to sidestep dualistic polarities through flexibility, curiosity, attention to detail and a willingness to risk without losing focus on the future that is desired. Lastly, it is important for the peace process to include personal and systemic change, justice and mercy, empowerment and interdependence while focusing on both processes and outcomes in order to create sustainable, constructive, ongoing change towards peaceful and harmonious relationships.

### **Conflict and Disaster as Precipitating a Broken Narrative**

While Lederach's Conflict Transformation theories are applied to protracted conflict, such as in the examples above on Israel and Palestine and Cambodia, the theories can be applied more broadly. For example Lederach's theory of a broken narrative can be used to

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understand the impact and steps to recover from a single act of violence or even a disaster scenario. This is described below.

Imagine there is a community picnic. Children are laughing and playing together and youth are dancing and having fun while neighbours enjoy each other's company. Suddenly, the atmosphere changes quickly to chaos with the sound of guns. This is the scene described by the media on Monday, July 16<sup>th</sup>, 2012 in Toronto's East End.

In Toronto this week, a block party... a BBQ meant to bring a community together instead ends up tearing lives apart... Two young people, innocently attending a community gathering, lives ended in an instant, 2 out of 25 hit by gunfire after a fight broke out on a hot summer's eve.

Finnerty, M. 2012

As described by CBC, the violence in Toronto left a mark on the city (Arsenault, A. 2012).

The police are preparing themselves for more violence and community members express anger towards the violence, while their fear of retaliation keeps the witnesses from speaking to the police (Arsenault, A. 2012).

In contrast, imagine a twelve-year-old girl on vacation, walking along a beach in a place she describes as paradise when a wall of water comes to tear her family apart for 48 hours and take away thousands of lives around her. This is what Haley Pipher from Vancouver faced while vacationing in Thailand (Syrett, 2012). Haley had a bad feeling and had just left the beach with her dad when the 2004 tsunami hit (Syrett, 2012). Her dad felt he had no choice but to leave her with a British couple to search for Hayley's aunt and sister (Syrett, 2012). Hayley then became separated from her family for 48 hours (Syrett, 2012). With the help of the British couple, she searched for her family on the notice boards of those who were killed and at the Canadian Embassy with no avail until she remembered the name of the resort at

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which they were staying, which allowed her to be reunited with her family (Syrett, 2012).

While this event did cause her to have recurring nightmares and post-traumatic stress disorder, it also gave her a sense of purpose in her life and the need to make the best use of time she had gained by surviving such an event (Syrett, 2012). This is called post-traumatic growth, which refers to profound, positive psychological transformation after a traumatic event or adversity (Syrett, 2012). Since then Hayley has travelled to Kenya to help build a school, started an organization to support inner-city youth, excelled as a competitive swimmer and is planning to return to International Development to work in the field of food and nutrition (Syrett, 2012).

While these two stories are very different they do have one thing in common, a break in the lives of those impacted. The community in Toronto was enjoying an annual community event when suddenly traumatized by the shooting and left to face questions around the safety, fear and the identity of their community. In contrast, Hayley was enjoying a day at the beach when a wall of water hit and left her with survivor guilt, as she wondered why she survived along with her family while so many died around her (Syrett, 2012). This break could create a positive turning point, as in Hayley's experience. It could also cause a break in one's narrative. Lederach describes a broken narrative in terms of protracted conflict causing a loss in meaning, identity and place in history (Lederach, 2005, 146). While these two stories are not about protracted conflict, the effects are similar in that the events left those impacted asking these deep identity-based questions. Thus, I would like to propose that the impact of a disaster on a community could be analyzed in terms of a broken narrative. By examining a disaster through this lens, it calls for disaster response and recovery to include the reconstitution of the narrative and the restoration of the community's place in history (Lederach, 2005, 146). It also implies the need to examine what happened to regain a sense of the issues in order to gain perspective on the desired future and generate solutions (Lederach, 2005, 146). This is a process of looking back in the past to recognize patterns and cycles within relationships and identify and engage where the narrative was broken in order to give space to recreate the narrative (Lederach, 2005, 147 – 149). Indeed, from the two stories above it is easy to see how violent events, either through conflict or through disasters shapes the identity of an individual and / or a

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community. This is an important aspect of conflict transformation to include within a platform for disaster and emergency management. CDEM would need to allow space to identify these past events, their impacts and the means to channel the events towards constructive social change through a response and recovery process that strengthens relationships (Lederach, 2005, 145 & 162).

It can also be observed that the impact of a disaster even without a conflict has the potential to cause a turning point through the tremendous change it produces within the lives of those impacted. Thus, applying conflict transformation theories could potentially channel the change through a disaster towards constructive change. This means that the integration of Conflict Transformation into CDEM could potentially prevent future conflicts through both personal and societal constructive change.

Indeed, the overarching Conflict Transformation concepts outlined above will be brought together through the development of a platform to be applied to CDEM, in which it is understood that the exact processes and specific actions should be contextual. The creation of a Conflict Transformation platform requires an integrated approach with change needed at “every level of human experience and endeavor” (Lederach, 1997, 81). This thesis will answer Lederach’s call by integrating a Conflict Transformation Platform into one level of human experience, Catastrophe, Disaster and Emergency Management (CDEM).

### **Chapter 3: The Emergence of a CDEM Conflict Transformation Platform**

The CDEM Conflict Transformation Platform is situated in the context of CDEM policies and practices in Canada and the United States. Thus, I will examine North American academic literature as well as some policy manuals to draw out some shared understandings regarding the CDEM policy structure. I will then show how these shared understandings are manifest in Canada's CDEM policy, which sets out the manner in which CDEM preparation and policies are structured at the provincial and municipal levels. This will set the context for the Platform that integrates Lederach's conflict transformation approach with CDEM policy.

Latent conflicts, discrimination and injustice can impact CDEM, as the vulnerability of the population facing discrimination is reduced, including their access to resources and ability to cope with the hazard impact. Thus CDEM should address the root causes of latent conflicts, discrimination and injustice to reduce the community's vulnerability and increase their access to resources and resiliency. In addition new conflicts can be generated through operational clashes over strategies and tactics to address a conflict due to the high-stake, dynamic environment in which leaders need the confidence to make decisive decisions when needed.

#### **Elements of CDEM Practice**

While the emergency management cycle includes mitigation as a phase, which is presented as a stage that starts after recovery and stops before preparation, effective mitigation is multifaceted and must be incorporated into all of the stages of CDEM. Mileti points out that sustainable hazard mitigation should be integrated into social and decision-making processes,

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such as consensus building, environmental and inter/intra-generational equity, and local economies (Mileti, 1999, 4-10).

Overall the cyclical process does not accurately depict CDEM. CDEM should not be a cyclical process, leading a community back to where they started with no improvement but it is part of a long-term process towards a less vulnerable, more prepared society.

Many manuals attempt to put disaster-related activities into a sequence or a never-ending cycle...by having a disaster-oriented focus, the cycle could sometimes be interpreted as implying that disasters must always happen and that the disaster part of the disaster cycle can never be changed – whether or not that is the intention or implementation of the cycle.

(Kelman, 2012, 2)

To respond to the need for a non-cyclical CDEM figure, I created Figure 7 below. Figure 7 shows the three outcomes to a hazard impact – emergency, disaster or catastrophe. Similar to

the distinction made in

**Figure 7: CDEM Phases with an emphasis on Mitigation**

previous diagrams

created within this thesis,

this distinction points to

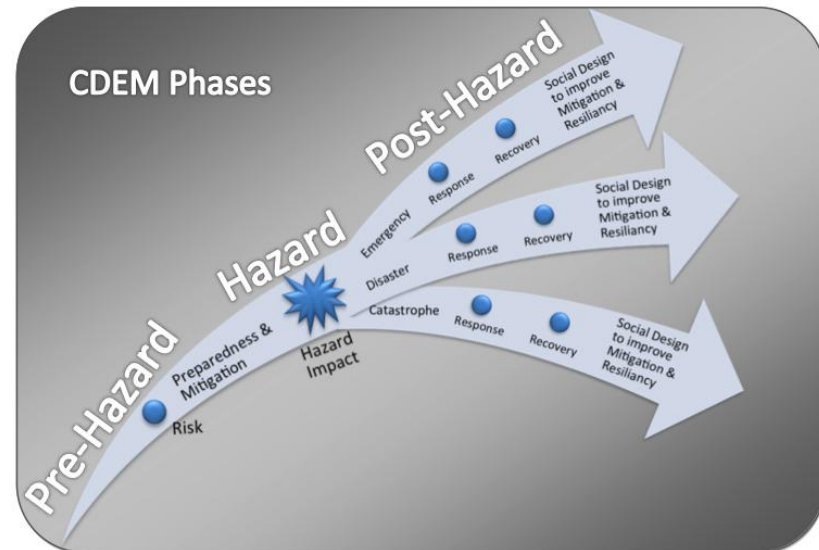
the fact that in practice

the scale of the response

and recovery efforts

needed would be less

within an emergency than



Source: Author

within a disaster. Similarly, the resources needed to respond and recover from a disaster would be less than what would be needed to respond and recover from a catastrophe.

Secondly, this figure does not assume that a catastrophe or disaster is inevitable. It

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emphasizes that through mitigation and preparedness, it is possible to respond to the impacts of hazards effectively and remain in an emergency phase.

Though the scale of the response changes depending on whether one is responding to an emergency, disaster or catastrophe, the need to make decisions that correspond to the long-term goals within the CDEM process remains the same. These long-term goals should include integrating mitigation within the decision-making process and increasing resiliency while reducing vulnerability.

CDEM decision-makers should be constantly analyzing their decisions to assess the future positive and negative impacts that might occur and what can be done to mitigate and/or prepare for the negative impacts identified. This is especially important for the most vulnerable who have the highest risk of being affected by an emergency, disaster or catastrophe.

Indeed, the goal of emphasizing mitigation throughout preparedness, response and recovery, would not be to return to the normalcy that existed prior to the hazard impact, as indicated through a cyclical process, but to take advantage of the opportunity for constructive change provided by the emergency, disaster or catastrophe to improve the resiliency of a community.

Improvement of resiliency and mitigation is dependent upon hazard adjustments, which include “actions that can reduce vulnerability to disasters...such as, purchasing hazard insurance, living in safer locations and renting or buying homes that are resistant to disaster” (Lindell, Prater & Perry, 2007, 42). It is also dependent on the development decisions of the community (Mileti, 1999, 4) and this is why it would not be limited to a specific CDEM phase. Examples of constructive change that could be implemented in a recovery phase

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) through the development decisions are putting in place parks with flood zones, rebuilding with higher standards of building codes and ensuring equal delivery of service with priority on the most vulnerable to reduce inequities. The appropriateness of a specific initiative would depend on the needs within the context.

Mileti (1999) emphasizes sustainability as the overall goal for CDEM to improve resiliency and mitigation within day-to-day actions, decisions and processes. This highlights the importance of conflict management within CDEM, as the ongoing development decisions made from a CDEM perspective may be impacted by or may impact a current or latent conflict within a community. For an example of this, one can again refer to the development decisions made within the recovery efforts following Hurricane Katrina in New Orleans. The perceived inclusion or exclusion of groups historically discriminated against, may also have an impact on a conflict or increase the potential of a conflict.

While the academic literature on CDEM as described above emphasizes mitigation, preparedness, response and recovery, one may ask whether these theories and discussions are reflective of the practice of Emergency Management. The brief analysis below of Canada's Federal Emergency Management Policies will show how the theories and discussions relate to the practice of Emergency Management.

### **Canada's Federal Emergency Management Policies**

Emergency management in Canada starts at a local level. An emergency in a given area is responded to at a municipal level and moves up to a provincial and then subsequently to a federal level if necessary and if requested depending on the scale of the emergency and the resources needed to respond.

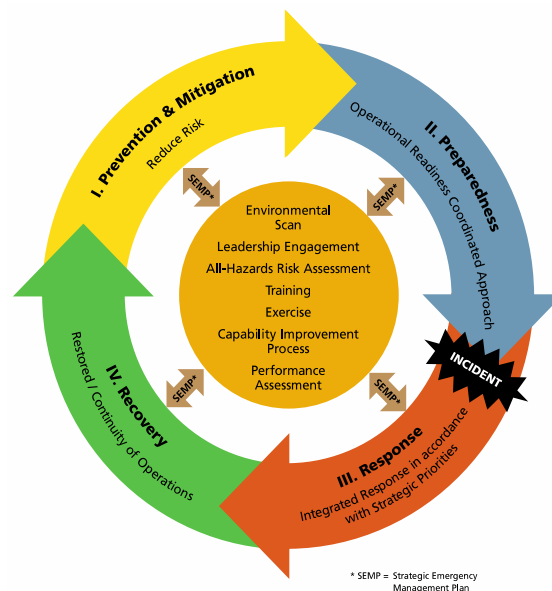
## Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

Thus emergency management plans and policies will vary from city to city and province to province, as they are necessarily responsive to the context in which they are developed. An analysis of every municipality and provincial plan is beyond the scope of this paper and is not necessary. The federal emergency management policies, set forth through Public Safety Canada (PSC), give an overview of the overall direction and concepts within Canada due to its role in Canadian Emergency Management, which will be explained below.

PSC sets out procedures, standards, templates and definitions for coordinated and integrated emergency mitigation, preparation, response and recovery to an emergency situation. Public Safety Canada's mandate “is to keep Canadians safe from a range of risks, such as natural disasters, crime and terrorism” (Public Safety Canada, 2012). To fulfill this mandate Public Safety Canada (PSC) works with other levels of government, first responders, community groups, the private sector, critical infrastructure and other nations to provide preparedness information to Canadians, deliver programs, develop policy and to ensure continuity of essential services during an emergency

(Public Safety Canada, 2012). Within the federal government, PSC provides support, tools and guidance to departments in order to assist them in fulfilling their responsibilities covered under the Emergency Management Act and to promote a coordinated approach and uniform structure (Public Safety Canada, 2012). Figure 8, on the right, shows the

**Figure 8: Emergency Management Continuum**



**Source: Public Safety Canada, 2010, pg. 4**

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) process of Canada's Federal Emergency Management Continuum. As one can see, this covers the four main stages of CDEM as outlined above and the definitions of the stages correspond to those outlined above as well.

Mitigation is also promoted by PSC. Through the 2009 National Strategy on Mitigation, the PSC promotes the importance of Mitigation by emphasizing the cost-benefits of mitigation strategies, along with their success in reducing or preventing disaster losses (Public Safety Canada, 2009, 1).

The overall goal of the National Disaster Mitigation Strategy is to “protect lives and maintain resilient, sustainable communities by fostering disaster risk reduction as a way of life” (Public Safety Canada, 2009, 2). The strategy also includes the following six principles. The first principle is to protect lives through prevention; the second principle is to reduce disaster impacts to safeguard economic and social viability of communities; the third principle is to consider fairness, equity and consistency within emergency management implementation; the fourth is to focus on sustainable, long-term economic, social and environmental decisions; the fifth is to be flexible and responsive to different perspectives; and the sixth is to incorporate shared ownership and accountability through partnerships (Public Safety Canada, 2009, 2). These goals and principles are to be achieved through four key program elements – Leadership and Coordination, Public Awareness, Education and Outreach; Knowledge and Research and Cost-Shared Mitigation Investments (Public Safety Canada, 2009, 2). One can see from the goals, principles and key elements that they do fall in line with the Mitigation information outlined earlier. It not only includes the basic principles of emergency management, such as disaster prevention, but it also includes equity and sustainability, which is necessary for long-term mitigation.

## Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

In regard to preparation, each Federal Department or Institution is responsible to plan for emergencies through establishing emergency management policies, programs, measures and plans, and also to maintain, test, implement and coordinate the plans, as outlined in the Government of Canada's Emergency Management Act of 2007 (Government of Canada, 2007, 3). PSC also works with provinces, territories, first responders and emergency management personnel to provide training, education, support and exercises (Public Safety Canada, 2012). They also provide a business and first responder guides, emergency preparedness funding and a national public alert broadcasting system (Public Safety Canada, 2012). Through each federal department instituting its own emergency management plan, departments and ministers are involved in emergency management. This would increase the plan buy-in through a jointly owned emergency management overall plan for the federal government and increase the dialogue on emergency management outside of the PSC. However, whether this policy and dialogue goes outside of the emergency management planning process and is incorporated into the development decisions of the country would be difficult measure. For example, there could be an emergency management assessment mandated into development projects and programs similar or linked to an environmental project assessment.

The PSC promotes whole-of-government, all-hazard response management system through the Federal Emergency Response Plan, the National Emergency Response System and the Government Operations Centre, which is activated if an emergency escalates beyond the capacity of municipal and provincial response capacities (Public Safety Canada, 2012).

PSC provides recovery financial and programmatic assistance to provinces and territories through Disaster Assistance Programs, Disaster Financial Assistance Arrangements and the

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Federal Disaster Assistance Initiative (Public Safety Canada, 2012). These programs include arrangements and agreements in the areas of agriculture, health, physical damage and taxes (Public Safety Canada, 2012).

While support is available in the response and recovery to emergencies upon request, it seems that there is a lot more energy put into the mitigation and preparation role of PSC.

However, this perception might be due to the strategic role PSC can play, as they are not the initial responders to an emergency. Also, response planning is indeed included in preparation. In any case, the focus put on mitigation does fall in line with the literature above, especially the focus on a mitigation strategy that considers equity and sustainability.

Secondly, it was noted above that the literature calls for the integration of emergency management into everyday development decisions. The fact that there is a joint ownership of Emergency Management is a step in this direction by training, educating and raising awareness of emergency management policies throughout the entire government. To measure the impact of this would be a different thesis. However, it is important to note that the academic literature does coincide with the practice of Emergency Management in this respect. While PSC does still use a cyclical process of Emergency Management stages, since it includes the same concepts within the process, the CDEM phases presented in this thesis will still be applicable to the field.

The next section will pull together Lederach's theory of conflict transformation with the above CDEM theory and practice to develop a conflict transformation platform within CDEM. This platform will then be applied to the Hurricane Katrina catastrophe in New Orleans, Louisiana.

**Conflict Transformation Platform**

When comparing conflict transformation with CDEM, as shown in Figure 9 below, one can see they both have an end goal of a sustainable and resilient community. They also both necessitate a continuous focus on the long-term end goal. Another similarity is the process steps or actions can be

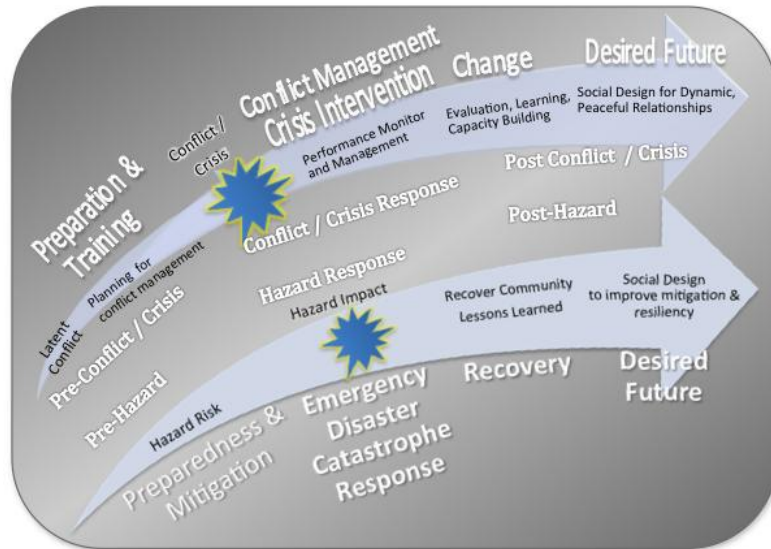
divided into pre-response, response and post response phases.

The similarities in goals and processes highlight the potential for establishing a conflict transformation framework using

Lederach’s Theory.

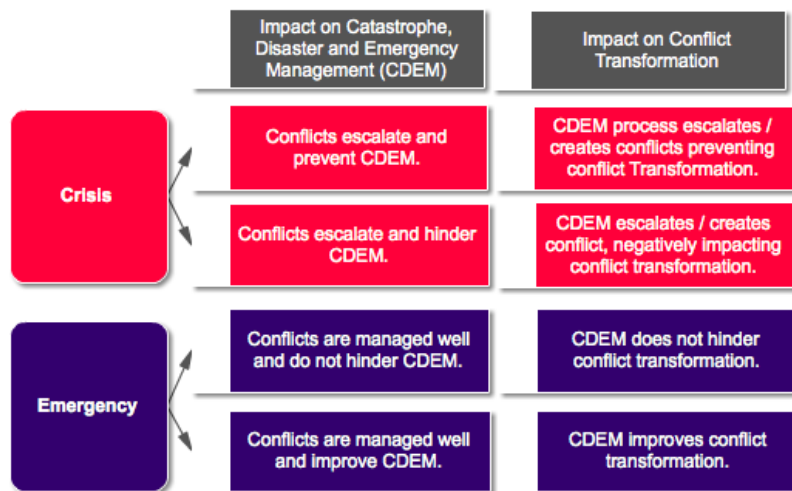
The importance of establishing a framework within CDEM is emphasized when one examines how the two processes can affect one another.

**Figure 9: Comparing conflict transformation and CDEM**



Source: Author

**Figure 10: Interaction between CDEM and Conflict Management**



Source: Author

As shown in Figure 10, a conflict or crisis could positively or negatively impact the response to a catastrophe, disaster

## Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

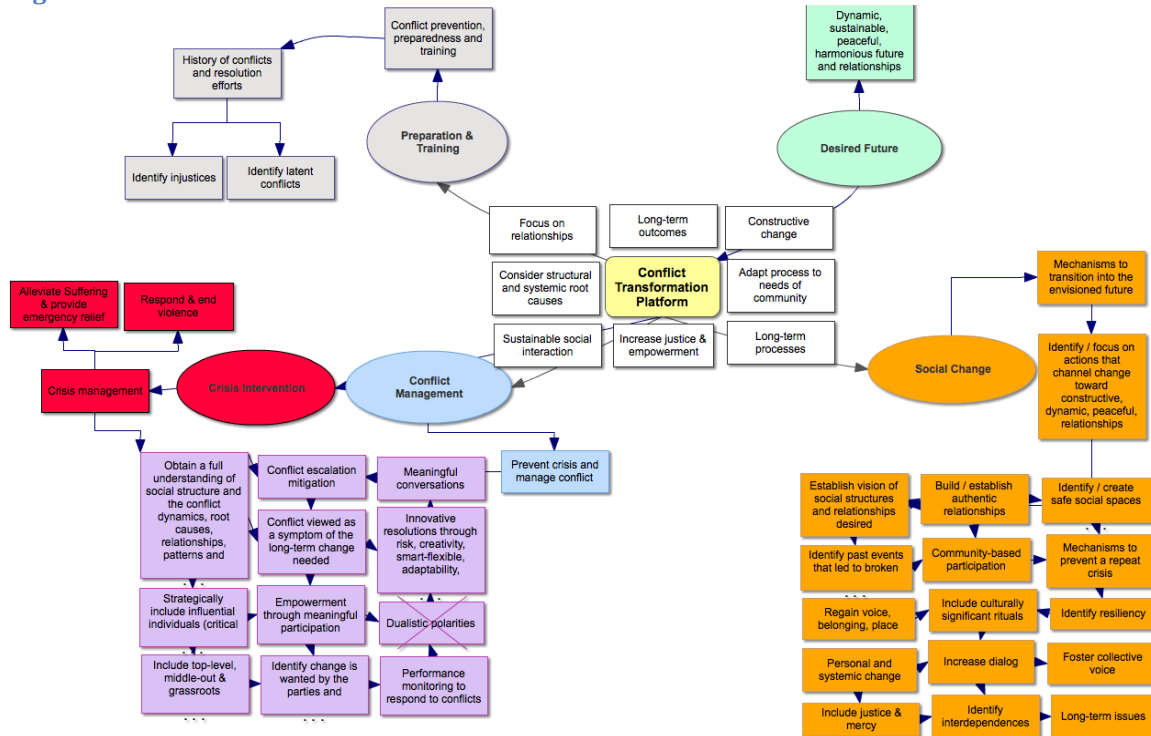
or emergency situation and visa versa. Within the left column, one can see the possible impacts of a conflict on the CDEM process and the right column shows the possible positive and negative impacts CDEM could have on conflict management.

Indeed, “sudden stresses caused by a disaster may strain the social and economic structures of a community, deepening existing inequalities and triggering conflicts” (Renner, et al, 2007, 16). The relationship between disasters and conflicts have been researched and proven within the field of disaster diplomacy. Disaster diplomacy research tries to answer the question around whether disasters cause conflicts and/or make conflicts worse or whether a disaster can be used as an opportunity to resolve a conflict (Kelman, 2012; Waizenegger & Hyndman 2010; Akcinaroglu, DiCicco and Radziszewski, 2010; Nel, 2008; Glantz, 2007; Holloway, 2007; Ker-Lindsay, 2007; Kelman, 2007). “Disaster Diplomacy examines how and why disaster-related activities do and do not reduce conflict and induce cooperation” (Kelman, 2012, 4). After examining several case studies, Kelman concludes that “opportunities exist for disaster-related activities to create diplomacy, but those opportunities are rarely fulfilled” (Kelman, 2012, 66). In contrast, a country without the political and economic resilience to effectively respond to a crisis and/or is prone to conflict will be more likely to experience political instability following a disaster (Omelicheva, 2011, 463).

# Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

While a context-driven cause and effect relationship between disasters and conflicts has been shown, what has not been addressed is how to identify and manage opportunities to transform conflicts and the risks that exist to cause and / or inflate conflicts within CDEM.

**Figure 11: Conflict Transformation Platform**



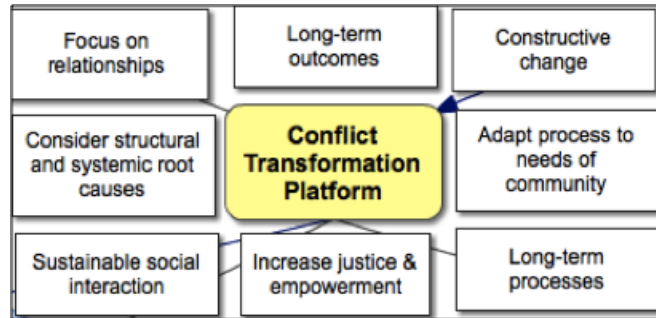
Source: Author

To address this, I have created a CDEM Conflict Transformation Platform, seen above in Figure 11, through which the conflict transformation process can be integrated into CDEM. I did this by first summarizing and organizing the Conflict Transformation Concept Map found in Appendix 1. While the concept map is quite detailed, it visually displays the interconnected and non-linear nature of the Conflict Transformation Theory. However, to integrate the theory into CDEM, it was necessary to summarize and organize the concept map. Through this process, I have created the Conflict Transformation Platform that will be applied to CDEM. Each section of the platform is outlined below with a description as to how the platform aspects are integrated with one another.

I have highlighted the overall concepts that should be integrated into every aspect of the process in Figure 12 on the right.

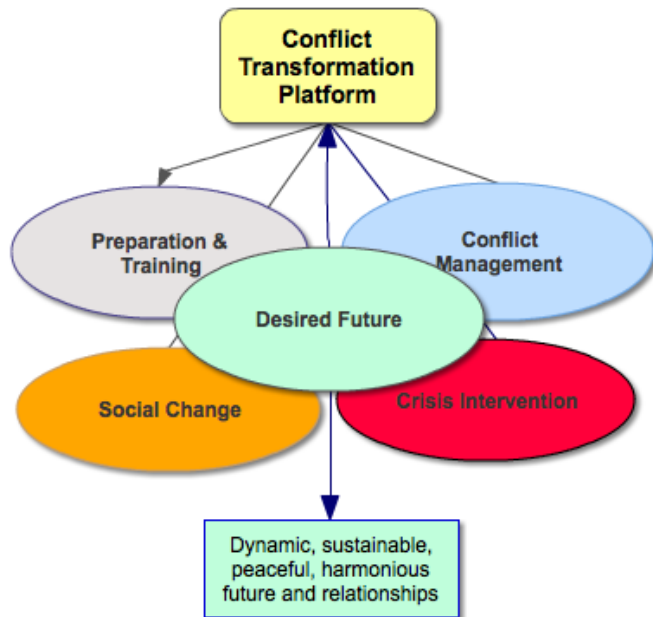
These are the important concepts that are integral to each aspect of Conflict Transformation. Indeed the goal of Conflict Transformation is to incite constructive change from conflicts. This is through a process that would be context specific, adapting to the needs of the community or group. By focusing on relationships and sustaining social interaction, one can determine the structural and systemic root causes of the conflict and the changes, outcomes, process, along with improvements in justice and empowerment that are needed for conflict transformation.

Figure 12: Conflict Transformation Concept



Source: Author

Figure 13: Conflict Transformation - Desired Future



Source: Author

This is achieved through five interconnected aspects including the Desired Future. As seen above in Figure 13, the desired future is a dynamic aspect of Conflict Transformation given the changing nature of the environment and communities. As changes occur in the environment and the make-up a community, a new desired future may emerge to aim

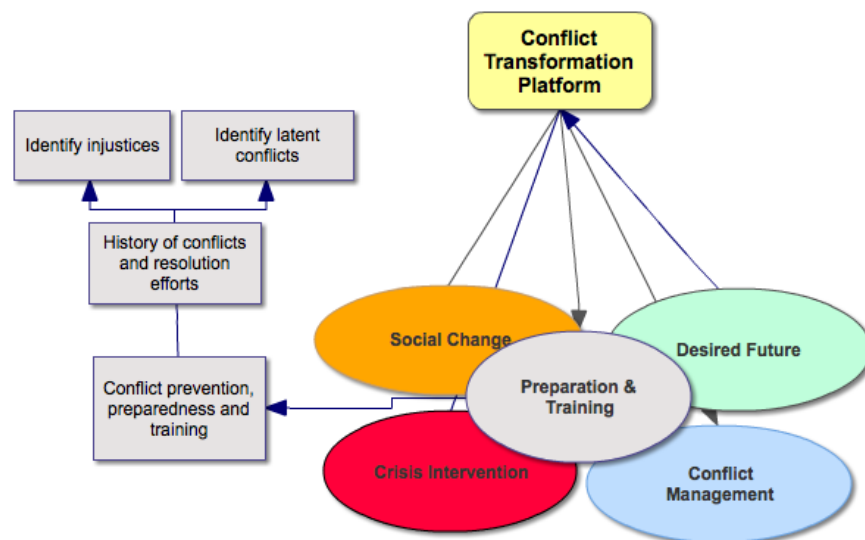
## Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

towards. As the vision of the desired future emerges, it should be integrated into the other aspects of conflict transformation. For example, if part of the desired future envisioned includes reducing injustices and vulnerabilities of a specific group, the members of that group could participate in the CDEM process through incorporating their vision into the desired future, actively participating in the preparation and training, in order to respond to a crisis intervention and conflict management, give input into the social change desired and actions taken to obtain the change desired. Thus, the vision of the desired future assists in reminding one of the long-term outcomes and change desired, so that short-term actions help to achieve those

**Figure 14: Conflict Transformation Platform - Preparation and Training**

goals.

Preparedness and training, seen in Figure 14 on the right, would focus the efforts to prevent, prepare and train for conflict



**Source: Author**

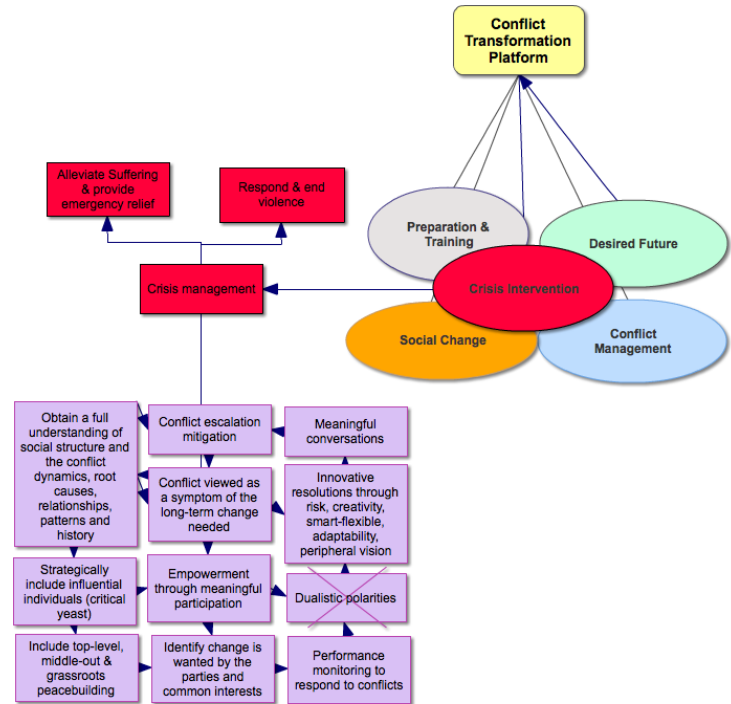
transformation. This would include and understanding of the history of conflicts in a given area and the resolution efforts that have either worked or not worked to resolve the conflicts. It would also focus on identifying the injustices and latent conflicts within the community in order to proactively prepare for and manage the conflict in order to mitigate a crisis.

# Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

If a conflict arises, the focus will be to prevent a crisis through managing the conflict in an attempt to mitigate escalation and dualistic polarities.

As seen in Figure 15 on the right, this would be through gaining a full understanding of the conflict, its roots, the relationships, patterns and history associated with it and the constructive changes the parties would like to see occur through the conflict. Some of the tools that could be used for this would be to engage in meaningful

**Figure 15: Conflict Transformation Platform - Crisis Management**



Source: Author

conversation, using innovative solutions to sidestep polarities, being strategic about who is involved in the conflict management process and their role in the community, along with how they are involved, as meaningful participation can help empower an individual and / or group. Indeed, conflict should be viewed as a symptom of the long-term change that is needed. For example, a conflict may seem trivial in nature but it may have at its root an on-going and long-term issue that the participants would like to change. Through understanding the long-term change that is wanted, one would begin to identify the desired future and hopefully some of the common interests of the parties involved in the conflict.

## Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM)

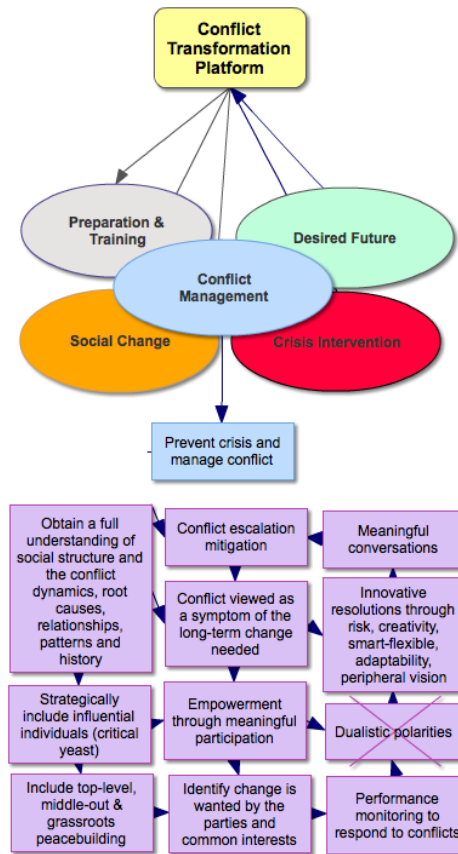
Crisis management would include many of the same goals and activities as conflict management, as can be seen in Figure 16, on the right. However, it would have the added goals of responding to the crisis, which might include providing emergency relief, alleviating suffering and responding and ending violence reduction. The other actions and goals would correspond with conflict management.

While the goal of Conflict Transformation is to move conflicts toward constructive change and avoid a crisis, crisis prevention is included here as it is necessary to prepare and train for the possibility of a crisis in order to better respond if one does occur.

Conflict Transformation focuses on how a conflict can incite change to reach a desired future. Thus, social changes are the mechanisms by which the desired future can be achieved. The overall goal of this aspect is to focus on actions that channel change toward the desired future.

As can be seen through Figure 17, below, there are several possible actions or activities that can be taken to incite social change. For example, there are focusing on relationships through identifying spaces for social interaction and subsequently, increasing dialogue and building authentic relationships. Other activities focus on healing, such as community rituals;

**Figure 16: Conflict Transformation Platform - Conflict Management**

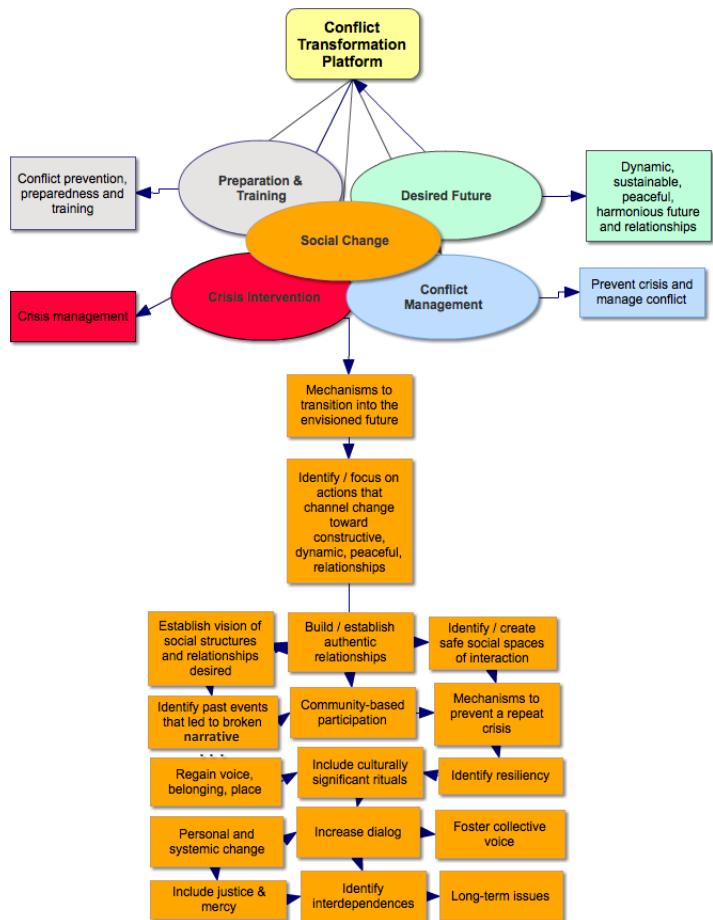


Source: Author

regaining individual and collective voice; identifying events that might have lead to a broken narrative; including both justice and mercy in healing processes, and so on.

As noted above, PSC already considers equity and sustainability within Canada’s National Mitigation Strategy. The difference between what exists currently and what is being proposed here is the focus. The distribution of aid based on equality and need may be a best practice to improve CDEM, however, the

Figure 17: Conflict Transformation Platform - Social Change

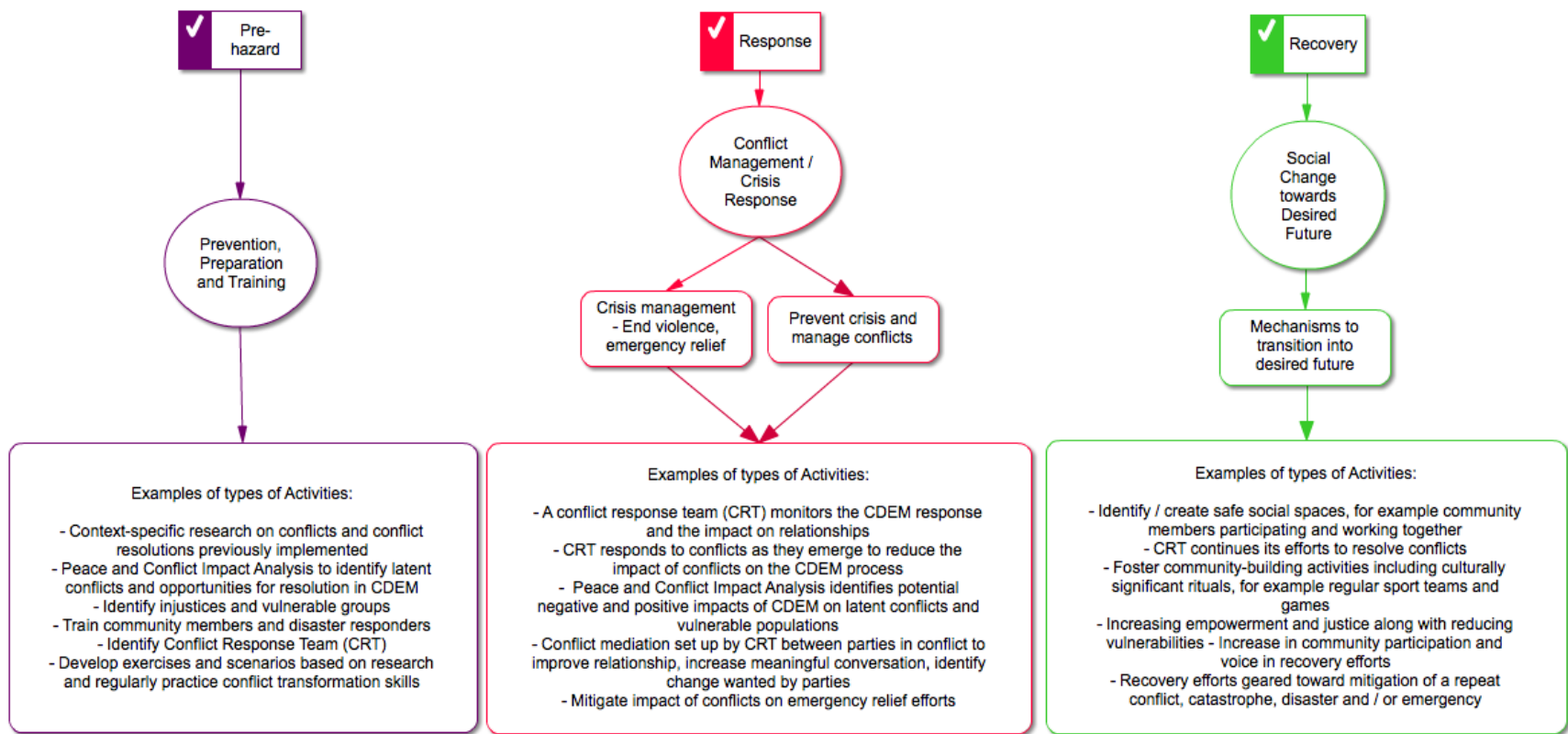


Source: Author

measures proposed here are to bring conflict transformation into consideration within CDEM in order to reduce the negative impacts that conflict can have on the CDEM process and visa versa and also to take advantage of the opportunities that can arise by the two fields working together.

As can be seen in Figure 18, below, to improve the integration and applicability of the Conflict Transformation Platform into CDEM, the goals and activities were organized into three categories, Pre-hazard, Response and Recovery. While the three timeframes in CDEM would necessitate different actions, similarities and interdependences can be found between them

Figure 18: CDEM Conflict Transformation Platform

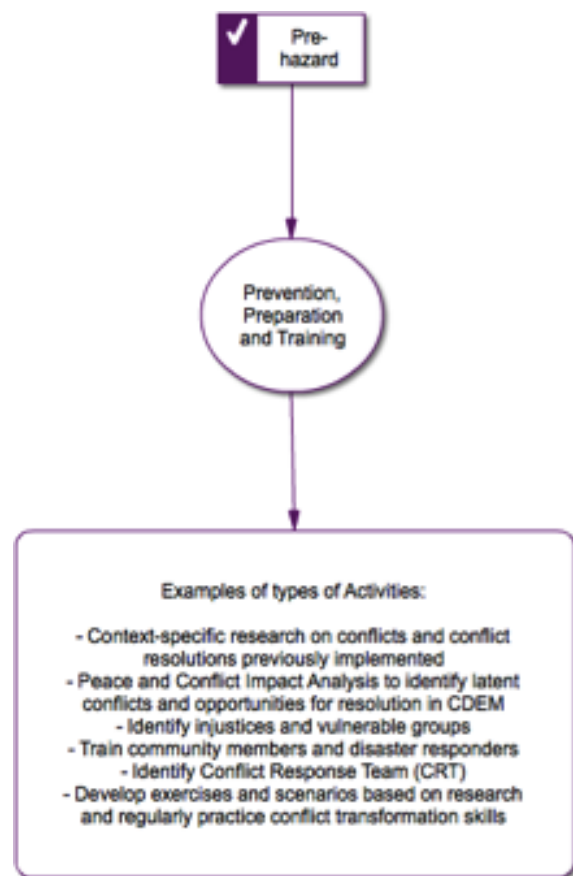


Source: Author

Pre-hazard would take place within the mitigation and preparedness stage in the CDEM process. It would focus on prevention, preparedness and training through various activities, such as conflict resolution training, research into conflicts in a given area, identifying a team of individuals to focus on conflict management and response (Conflict Response Team - CRT). It is important that the CRT be given a clear mandate and resources to deal with conflict and that this mandate be clearly understood by all involved in CDEM. Other activities might include identifying injustices and latent conflicts that might arise within the CDEM process.

As can be seen in Figure 19, on the right, one tool, which could assist in the prevention and preparedness of conflict management in CDEM, is the Peace and Conflict Impact Analysis (PCIA). Undertaking this process prior to an emergency would be helpful to gain an understanding of not only the potential conflicts that might be created or escalated within the CDEM process, but also to identify opportunities and community resiliencies to strengthen relationships, highlight interdependencies and take advantage of the shared interest in saving lives and recovering from an emergency situation. It helps one to

Figure 19: Pre-hazard



Source: Author

understand how an initiative contributes to, or hinders movement towards violent conflict

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(Bush, 2009, 10). PCIA has three objectives: The first is to map the peace and conflict environment within which a project is to take place; the second is to identify the impacts of conflict or peace on the project and third is to identify the impact of the project on peace or conflict within the environment (Bush, 2009, 4).

Bush (2009) emphasizes that the PCIA process is best implemented when it is integrated into all stages of the project cycle starting from the planning and ending with assessment (Bush, 2009, 4). Thus, PCIA is divided into project phases, pre-initiative, in-initiative and post-initiative and each phase includes three steps (Bush, 2009, 9): The first is a mapping exercise of the peace and conflict environment including the interests, objectives and actions of stakeholders (Bush, 2009, 9). The second step is a risk and opportunity assessment, which identifies how the conflicts identified in the mapping exercise would impact on the initiative (Bush, 2009, 9). A peace and conflict impact assessment is the third step, which focuses on the impact of the initiative on the peace and conflict environment.

While PCIA is a time-consuming process, which must be carefully undertaken and managed, given the risk of negative impacts and opportunities for positive impacts between CDEM and PCIA, it is worth applying it to CDEM.

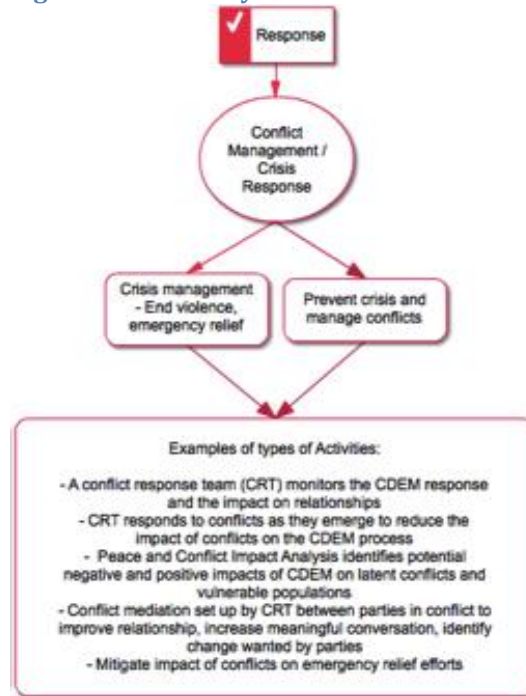
The response phase would be integrated throughout a disaster response and would include monitoring of latent and potential conflicts along with consideration of equity and justice. For example, the distribution of aid during the response and recovery of a disaster can be a source of conflict. Indeed, an increase in inequalities, competition for resources, changes in social, political or economic institutions or inadvertently supporting armed groups can all create or escalate conflicts (Bush, 2009, 13). In Sri Lanka immediately following the tsunami, there was good will and cooperation within the leadership and forces on both sides

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of the conflict, the government of Sri Lanka and the LTTE (Uyangoda, 2005a as cited in Le Billon, P., & Waizenegger, A., 2007, 418).

However, within the year the conflict escalated and one trigger for this escalation was the politicization of disaster relief, which “undermined the pre-existing, but already collapsing cease-fire agreement” (Stokke, 2005 as cited in Le Billon, P., & Waizenegger, A., 2007, p.413). Brancati (2007) also

Figure 20: Recovery



Source: Author

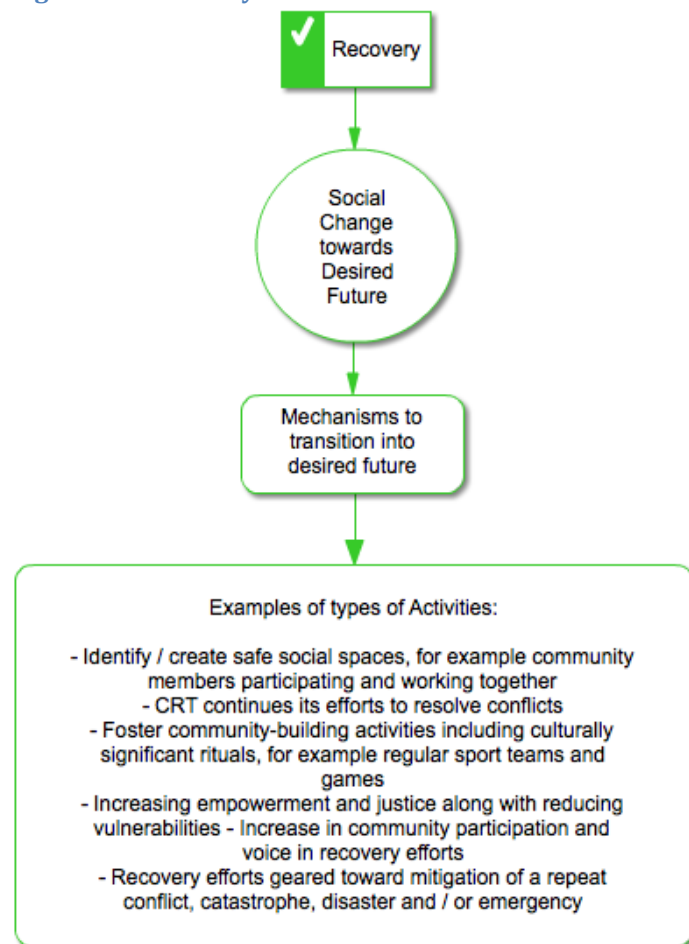
studied the link between earthquakes and conflict and concluded that disasters have a potential to intensify conflict through a scarcity of resources and the attraction of international aid (737). However, through managing the CDEM process with a focus on creating shared interests, creating and / or supporting mechanisms for cooperation and communication emergency relief have been shown to support the peace process. In Greece and Turkey earthquakes helped to reduce tensions between the countries through reciprocal aid agreements within both the political and public level (Akcinaroglu, DiCicco & Radziszewski, 2010, 271). Also, in Aceh, Indonesia, the devastation from the tsunami coupled within international pressure, military setbacks and a shift of focus helped to push the Indonesian government and Free Aceh Movement, who had been in conflict for over 30 years, to a peace agreement (Renner, et al, 2007, 20 - 21). Thus, it is very important to consider both the possibilities for conflict escalation within the response and recover CDEM

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process, but also opportunities to resolve latent or current conflicts. These are examples of the activities listed within Figure 20: Response, located above. While this process would focus on avoiding conflict escalation within the response, if a conflict does arise in a response, the CRT team could quickly respond. Efforts would be toward avoiding a secondary emergency, disaster or crisis that can be created through a conflict escalating and spiralling out of control. Indeed, as discussed above, this could minimize or even halt the CDEM response or the CDEM response could hinder or impede on a conflict resolution process.

Figure 21: Recovery, on the right, shows the final aspect of the CDEM Conflict Transformation Platform. The recovery process in CDEM not only focuses on healing after an emergency in order to resume daily activities, but as discussed above, it includes mitigation. Through empowering those impacted by a hazard, reducing vulnerabilities, increasing equity and reducing injustices, not only is the community more resilient in its ability to handle an emergency, but also latent conflicts

Figure 21: Recovery



Source: Author

can be reduced and mitigated through this process.

For example, after a large apartment fire a community in Ottawa, Ontario combined recovery efforts with a community event through community members coming together to fundraise for those impacted by the apartment fire and also holding a community fundraising event (Pfeffer, 2012). The event brought the neighbourhood together after an emergency and also assisted in the recovery efforts of the emergency.

#### **Chapter 4: Hurricane Katrina**

This section will outline the pre-hazard conditions, which increased New Orleans' vulnerability to Hurricane Katrina. It will then outline some of the major challenges and conflicts that were created and/or became apparent within the response and recovery to Katrina in New Orleans. Following this analysis, the CDEM Conflict Transformation Platform will be applied to the analysis to gain insights into how the platform can be applied to the challenges faced in the mitigation, preparation, response and recovery to Hurricane Katrina in New Orleans.

When Hurricane Katrina made landfall in Louisiana on August 29, 2005, it was a severe hurricane with 460 miles of force winds, sustained wind speed of 125 miles per hour, rainfall accumulation of 8 to 10 inches along Gulf Coast and the storm surges above normal ocean levels were on average 20 to 30 feet (Committee on Homeland Security and Governmental Affairs, 2006, 2 & 37). Hurricane Katrina, along with levee failure, caused a flood that exceeded the 100-year Base Flood Elevations by as much as 15 feet and waves recorded as high as 34.9 feet, almost 12 feet higher than the typical surge of 23 feet (FEMA, 2006, v – ix).

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The level of destruction was so severe that it has been coined as the most destructive disaster in U.S. history (Committee on Homeland Security and Governmental Affairs, 2006, 2 & 37).

The destruction was not solely due to the force of Hurricane Katrina. The destruction was caused also by the pre-hazard conditions including the physical and social vulnerability of the areas it hit.

While it is beyond the scope of this paper to outline every detail of the pre-existing vulnerabilities and preparation, response and recovery in New Orleans, this section will paint the overall picture, the challenges faced in the CDEM process in order to see how and where the CDEM Conflict Transformation Platform can be applied to a disaster situation.

### **Pre-hazard**

New Orleans was a very vulnerable area pre-Katrina both physically and socially. The Louisiana deltaic plane, on which New Orleans is situated, is sinking through a natural subsidence process and this will continue to increase the vulnerability of the city, especially its coastal areas (Dokka, Sella & Dixon, 2006, 1 & 4). Processes that contribute to subsidence are still being debated; however, some of the causes cited are oil and gas production, the rising sea level due to global warming (Committee on Homeland Security and Governmental Affairs, 2006, 121-128) and tectonic natural processes (Dokka, Sella, Dixon, 2006, 1 & 4). This includes a continuous loss of wetlands. Wetlands act as a natural barrier to hurricanes by absorbing wave energy and reducing the destructiveness of storm waves on the levees (Committee on Homeland Security and Governmental Affairs, 2006, 120). Despite this importance, the coast of Louisiana has lost an average of 34 square miles of wetland per year and about 1900 square miles were lost between the year 1932 and the year 2000 (Committee on Homeland Security and Governmental Affairs, 2006, 120). The

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loss of wetlands in Louisiana has been linked to subsidence, decreased river sediments (levees and floodwalls inhibit this process), economic activity and erosion (Van Heerden & Bryan, 2006, 234). The persistent loss of wetlands from the coast of Louisiana continues to increase the vulnerability of New Orleans, as its natural protective barrier to hurricanes storm surges is lost.

Indeed, the factors resulting in higher vulnerability of New Orleans due to the loss of the wetlands are interconnected. Through the development of floodwalls and levees a false perception of security was created and used to justify the development of the wetlands (Colten & Giancarlo, 2011, 12). The development in the wetlands puts residents in harms way and hastens wetland loss resulting in more severe impacts from hurricanes on the residents living in more vulnerable areas, which leads to an increase in structural mitigation to reduce the impact and again increases wetland loss. Thus, it is a cyclical process that continuously increases the risk of the residents of New Orleans. The answer to the severe impact of a hurricane is the expansion of the levees and floodwalls, which in turn is used as a reason to increase the development of the wetlands and low-lying areas, increasing the number of people vulnerable to the impact of a hurricane. Looking at this cycle may prompt the solution of removing the development in the wetland but this may not seem like the best action to those who have their homes, their history and social links to the area and the community around them. However, the natural subsidence, the frequency of hurricanes, the loss of wetlands and the development of highly vulnerable areas in New Orleans, continuously increases the city's vulnerability to the impact of hurricanes.

Adding to this is the frequency of hurricanes in New Orleans. The City has faced one or more hurricanes every year between 1997 and 2006 (NOAA Coastal Service Centre, 2006).

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Thus, hurricanes have a very highly likelihood and when combined with the vulnerability of the area, the impact of hurricanes is likely to be severe. Indeed, there is a long history of hurricanes of various severities making landfall in New Orleans.

Historically two mitigation methods used to protect New Orleans from hurricanes and tropical storms were land-use planning by not developing the most vulnerable parts of the city and second, building practices that included building homes on piers two or more feet above ground (Orleans Levee Board, 1972, 21). Following a severe storm in 1915, residents in New Orleans focused on structural mitigation measures to reduce the damage caused by hurricanes (Colten & Giancarlo, 2011, 8). This began with a 9.5-foot concrete seawall, which was completed in 1934; however, when the wall was tested by a storm in 1947, the wall reduced damage but increased flooding (Orleans Levee Board, 1972, 33). This incited the commencement of a levee system to increase protection and allow for the development of high-risk areas (Colten & Giancarlo, 2011, 9). Development of high-risk areas started in the 1950s, despite acknowledgements that the current levee system would only protect against tidewater (Colten & Giancarlo, 2011, 9).

Following Hurricane Betsey in 1965, 43 per cent of New Orleans was flooded including some of same areas, which were flooded in 1947 and would be flooded by Hurricane Katrina, such as the Ninth Ward and the St. Bernard Parish (Colten & Giancarlo, 2011, 10). Hurricane Betsey resulted in the construction of a larger levee system surrounding New Orleans; however the cost-benefit analysis of the system was based on a growth-oriented policy that projected the value of the real estate that could be developed once the levee system was completed (Colten & Giancarlo, 2011, 11). This conflicted with the traditional mitigation measure of land-use planning mentioned above.

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Indeed, the development incited debate and conflicts. The Orleans Levee Board appealed the developments because the levees were not yet completed; environmental groups opposed the development of the wetlands due to the protection they gave from a hurricane and the false sense of security a levee can give to residents and wetlands development was also opposed for housing due to the vulnerability of the land (Colten & Giancarlo, 2011, 11-12). There were also several debates and conflicts round how to build the levees and what areas would be protected, which delayed the construction and increased costs (Colten & Giancarlo, 2011, 11-12). During this time New Orleans did not face a severe hurricane, so emergency response plans assumed that the levees would hold despite the fact that they had not done so in the past and the wetlands development continued under the category Environmentally-Sensitive Planned Development (Colten & Giancarlo, 2011, 12).

While the physical vulnerability of New Orleans was increasing through development in high-risk areas, loss of wetlands and an over-reliance on the levee system, social vulnerability was also becoming an issue. Within a community the ability to respond to and recover from the impact of a hazard is relative and thus, there are likely individuals, households and / or groups who face a greater risk of difficulty in the response and recovery process (Levine, Esnard & Sapat, 2007, 5). Social vulnerability can have several contributing factors, including but not limited to a lack of income, lack of transportation, age, gender, minority status and a lack of information (Levine, Esnard & Sapat, 2007, 5). This list would be contextual depending on the area, the population and the risks a hazard imposes. Identifying and addressing the vulnerability of populations is an important aspect of mitigation and preparation.

The greater vulnerabilities for low-income households generally, and rural households in particular, translate into an increased likelihood of greater damage

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in a disaster, followed by an increased likelihood of insufficient insurance, inadequate insurance settlements, and less government assistance to repair and rebuild.

Bassett, 2009, 50

Given the results of vulnerabilities within CDEM, it is imperative for successful mitigation, response and recovery plans and actions to reduce these vulnerabilities throughout plans and responses.

Indeed, New Orleans has a long history of social vulnerability. The poor in New Orleans had increased vulnerability both due to their economic situation and the high-risk areas in which they lived. After the Civil War, New Orleans had a large population of ex-slaves searching for employment and housing and most of the poorest population settled in an area that would routinely flood and wash away their shelters (Bullard & Wright, 2009, 21). While this area is no longer occupied, it seem the poor still need to repair, rebuild or relocate due to their location in the low-lying areas of city and with an economy built on low-wage service and tourism jobs, it is difficult to get out of poverty (Bullard & Wright, 2009, 22).

There is a long history of environmental racism in New Orleans, which increases the vulnerability of the poor and African American population. For example two mostly black subdivisions, Gordon Plaza and Press Park were built on a municipal landfill in 1969 and the area was used to encourage low-income families to purchase their first home (Bullard & Wright, 2009, 23). Also, in 1989 the Moton Elementary School was also built on the Agricultural Street Landfill despite the fact that lead, zinc, mercury, cadmium and arsenic were found on the property (Bullard & Wright, 2009, 23). The residents of the Agricultural Street Landfill Community of approximately 900 African Americans recently won a case in

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2006, in which the judge declared the area to be dangerous and uninhabitable (Bullard & Wright, 2009, 23).

Before Katrina, New Orleans also suffered from low wages, a lack of education and high unemployment and these statistics were substantially higher for the black residents of the city (Khan, 2009, 208). Indeed, the level of concentrated poverty found in New Orleans does not happen overnight, it takes decades of reduced investment, segregation, economic hardship, inadequate housing, education and employment opportunities (Dyson, 2006, 7).

The Emergency Planning was not exempt from the overall lack of investment in poorer areas. For example the lower ninth ward had been 80 percent flooded in 1965 by Hurricane Betsy (Dyson, 2006, 11) and despite serious warnings that the levees would not hold against a major hurricane, action was not taken to repair them, leaving the poor living in low-lying areas in New Orleans defenceless (Sanyika, 2009, 92-93). Indeed, the low-lying areas, mostly populated by African Americans, were very vulnerable to floods and bore the brunt of the floodwaters (Vollen & Ying, 2006, 3). The African American population, due to their location and lack of income, had much higher risk than other populations.

Another major oversight of the social vulnerability in New Orleans was the evacuation strategy. A lack of communication and coordination also existed between the City of New Orleans and the Louisiana Department of Transportation and Development in planning evacuations. Neither the City of New Orleans or the Louisiana Department of Transportation and Development had established a plan regarding how transportation would be provided in the event of an evacuation despite the fact that both had accepted responsibility for transportation in the event of an evacuation (Committee on Homeland Security and Governmental Affairs 2006, 3-13).

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New Orleans had a high percentage of elderly residents, persons with disabilities and people in living poverty prior to Katrina (Khan, 2009, 210). Nearly one in four households did not have access to a car (Dyson, 2006, 5). This pointed to mobility issues for those in hospitals, nursing homes and prisons, along with those without the economic means to evacuate as well. Despite this fact, the primary evacuation strategy was via car excluding the large number of people in New Orleans who had mobility issues, did not have access to a vehicle to evacuate and / or could not afford to evacuate (Vollen & Ying, 2006, 2). Indeed, this evacuation policy, whether intentional or not, excluded a large segment of population in New Orleans to face one of the most destructive hurricanes in U.S. history.

By not planning for the evacuation of those with mobility issues, the most vulnerable in society were left behind and their family members and emergency response personnel had to cope with their inability to save everyone in the midst of the disaster response.<sup>2</sup>

Despite the physical and social vulnerabilities in New Orleans and the over-reliance on the levees, the 2006 Special Report of the Committee on Homeland Security and Governmental Affairs outlines many of the neglects of the levee system. For example, the levee project was never fully completed according to its original design and designs were not reviewed or modified to take into account the soil subsistence, the sinking of the levees or the risk of a severe hurricane (Committee on Homeland Security and Governmental Affairs, 2006, 129-141). Secondly, there was uncertainty around responsibilities, a lack of coordination and a lack of training in regard to the levee maintenance and repairs, leaving urgent levee repairs

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<sup>2</sup> While this sounds very matter-of-fact on paper, I will never forget watching a video on Katrina in an emergency management course and hearing an emergency response personnel cry because he could not make it on time to save his mother who had called him and asked when they were coming to evacuate the nursing home.

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) that were reported, unfixed (Committee on Homeland Security and Governmental Affairs, 2006, 135-147). Adding to this were inadequate levee inspections, which excluded sections of the levee, internal degradation and anything below the waterline (Committee on Homeland Security and Governmental Affairs, 2006, 135-147). Despite the needed repairs and inspections, not only was action not taken to improve the situation, but there is also evidence that the Levee District misused funds allocated for levee improvements and flood protection (Committee on Homeland Security and Governmental Affairs, 2006, 131).

Lastly, the levee system was not integrated into emergency response plans and the plans that existed around levee failure were inadequate and incomplete and were not followed due to a lack of awareness and training, for example levee emergency plans did not include the emergency repair of major breaches (Committee on Homeland Security and Governmental Affairs, 2006, 132).

According to Federal Emergency Management Agency (FEMA) (2006), beyond the challenges surrounding the current levee system, there was also an overall lack of other forms of mitigation prior to Katrina. For example one common mitigation tool used is building codes. Prior to Hurricane Katrina, Louisiana did not have state wide building codes for buildings not owned by the state (FEMA, 2006, v). The FEMA Mitigation Assessment Team (MAT) found that many of the communities heavily impacted by Hurricane Katrina had either not adopted up-to-date building codes, enforced minimal building codes or did not follow any building codes at all (FEMA, 2006, vi). Another related issue was that most critical and essential facilities were as damaged and / or destroyed as other buildings including hurricane evacuation shelters, police and fire stations, hospitals, and Emergency Operations Centers (FEMA, 2006, viii). This caused many challenges in responding to

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Hurricane Katrina, as essential buildings along with their critical support equipment were not accessible leaving emergency response and recovery personnel to respond to Hurricane Katrina without the necessary equipment and facilities (FEMA, 2006, viii- ix). Given this lack of mitigation, it was not surprising that when a hurricane hit of the severity of Hurricane Katrina, catastrophe ensued.

New Orleans had requested assistance from the FEMA to plan evacuations and shelters since 1998 and only in 2004 did FEMA respond by hosting and funded a hypothetical exercise called Hurricane Pam (Committee on Homeland Security and Governmental Affairs, 2006, 3-13). The exercise resulted in some draft plans but they were incomplete when Katrina hit. Much of the delay was due to a widespread lack of funding across all divisions of emergency management, which also resulted in a lack of staff training (Committee on Homeland Security and Governmental Affairs, 2006, 3-13). FEMA was diminished through its integration into the Department of Homeland Security and current emphasis on terrorism (Hollis, 2005, 12-13).

### **Response**

The plans made to respond to and recover from a disaster are fully tested when a hazard strikes and gaps in preparation become evident in the response. The lack of preparedness and mitigation actions combined with the vulnerability of New Orleans and the severity of the Hurricane caused catastrophic results.

Hurricane Katrina was expected to make landfall in Louisiana on August 29, 2005. A State of Emergency, including a Federal State of Emergency, was proactively issued to allow preliminary actions to be taken, initial evacuation plans came into effect on August 27, 2005, including contraflow highway evacuation to reduce traffic congestion and the Superdome

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) was opened as a special-needs and last resort shelter for New Orleans residents (Committee on Homeland Security and Governmental Affairs, 2006, 68-69).

While the city did organize busses to bring the residents who either did not or could not evacuate after the mandatory evacuation order on August 28<sup>th</sup>, the shelters in which they were evacuated to were located in the city, so they did not bring them out of harm's way (Bullard, Johnson & Torres, 2009, 70). Though evacuating an entire city has been proven difficult in many cases (Bullard, Johnson & Torres, 2009, 72), it is a major component of emergency preparedness and the lack of planning for vulnerable populations shows "a clear connection between the social inequities and the policies, or the lack of concrete plans" (Bullard, Johnson & Torres, 2009, 66), as it has the greatest impacts on those with special needs and vulnerable populations (Bullard, Johnson & Torres, 2009, 79).

Fears that the levees will be over-topped were being expressed during this time and evacuation orders were made mandatory. When Katrina made landfall, the fears became reality: The levees and floodwalls were overtopped and compromised, flooding New Orleans (Committee on Homeland Security and Governmental Affairs, 2006, 69).

Several successes were achieved in the response due to the hard work of emergency responders, despite the many challenges faced. At the Superdome and within hospitals, a triage system that had been developed through the Hurricane Pam exercise was used to provide medical assistance to thousands of people (Committee on Homeland Security and Governmental Affairs, 2006, 3-13). Secondly, more than twice the number of National Guard Troops was called to duty and organised than in any other prior hurricane and the largest evacuation of a threatened population was achieved (Committee on Homeland Security and Governmental Affairs, 2006, 3-13).

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Despite these successes, some of the major challenges faced during the response were a loss of critical infrastructure including communication systems and in the Superdome where a shelter was set up for thousands of people, a lack of resources, and unclear roles and responsibilities.

Following Katrina, compound simultaneous infrastructural failures were experienced and most, if not all, critical infrastructure was damaged or destroyed for a considerable amount of time, which effectively crippled recovery operations in both the short and long term (Boin & McConnell, 2007, 51). This included the loss of communication systems, which had a major impact on response and recovery (Committee on Homeland Security and Governmental Affairs, 2006, 287). Firstly, it caused delays in recognizing the severity of the situation, as the initial damage assessments were not properly conveyed to all stakeholders and potential relief partners – some government departments actually relied on the media for the assessment (Committee on Homeland Security and Governmental Affairs, 2006, 310-311).

The Superdome also sustained damage and the following day, the plumbing, air conditioning and communication systems were lost (Committee on Homeland Security and Governmental Affairs, 2006, 69). While resources were directed towards the situation and efforts were made to find transportation and a shelter for approximately 25,000 people, a public-health emergency was declared on Wednesday, August 31, 2005 (Committee on Homeland Security and Governmental Affairs, 2006, 70).

Between Wednesday, August 31 and Tuesday September 6, 2005, evacuations took place. The U.S. Coast Guard alone evacuated more than half of the 60,000 survivors, who were stranded by Katrina, the Superdome was evacuated, shelters were set up, the National Guard Troops and active-duty troops were deployed and Search and Rescue operations continued

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) (Committee on Homeland Security and Governmental Affairs, 2006, 27, 69-71). However, despite efforts, a unified command and control over the response was not established, diminishing the ability for the relief efforts to be coordinated (Committee on Homeland Security and Governmental Affairs, 2006, 67 – 71). These efforts were also hindered by a lack of resources needed to respond causing a delay while the resources needed for a proper response were being obtained. This was not only due to the loss of resources during Katrina; the police and fire department together only owned 5 boats.

Another issue that arose, which could have been resolved with better planning was uncertainty of roles and responsibilities. One example that resulted from this was a disagreement arose as to who should take charge of repairing the levees and subsequently, a second disagreement was over how to fix the levees. This caused several delays and extended the time that the floodwaters remained in New Orleans (Committee on Homeland Security and Governmental Affairs, 2006, 67-71). As can be expected, the MAT noted in their report that the duration of the floodwaters in New Orleans increased damages, as some areas remained under water for several weeks. This saturated some types of building materials, contaminated the materials with chemical and biological substances and caused mould (FEMA, 2006, v-ix). Another example would be delay in providing buses to evacuate the Superdome. Confusion over responsibilities and a lack of coordination led to FEMA, DOT and the City of New Orleans all promising to provide buses and yet none of them followed through; it was the Governor who eventually secured the buses to evacuate the Superdome (Committee on Homeland Security and Governmental Affairs, 2006, 70). This left thousands of people in the Superdome and Morial Convention Center, not to mention hospitals and prisons, in squalid conditions without food, water or sanitation for four days

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) (Bullard, Johnson, & Torres, 2009, 75; Sanyika, 2009, 95). Without a unified command and control structure, there was also a lack of leadership. The lack of coordination discussed within the response phase continued into the recovery phase with at least four separate command structures operating in both the response and recovery phase, which hindered communication between military commanders and resulted in several duplications in regard to planning and tasks (Gheyntanichi, et al, 2007, 127).

As can be seen above, the lack of mitigation and preparedness had several repercussions during the initial response and had several consequences in the response phase. Indeed, it was the vulnerable populations and emergency responders, who suffered the most from the lack of planning and mitigation. For example, many nursing homes, which lacked emergency response plans and evacuation plans, felt neglected and unnecessary deaths were caused through this gap in planning (Dosa, 2007, 149).

### **Recovery**

Overall, the recovery efforts were criticized for being slow, being subject to profiteering, safety, and increasing vulnerabilities (Logan, 2009; Bullard & Wright, 2009; King, 2009).

Throughout the recovery process there was contention about recovery strategies, how recovery funds were being administered, distributed and spent by the Louisiana Recovery Authority (Sanyika, 2009, 106-107).

While there was criticism about the speed of the recovery phase, the distribution of government funds for recovery contracts was hastened through a no-bidding process (King, 2009, 175). This also led to a large amount of contracts being allocated to large businesses located outside of New Orleans (King, 2009, 175). The layers of contractors also made it difficult to hold companies responsible for the work. One example of this is a large debris

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) removal contract, which was awarded to Ashbritt to remove debris for \$23/cubic yard (King, 2009, 175). Ashbritt hired C&B Enterprises, who hired Amlee Transportation, who hired Chris Hessler Inc, who hired Les Nirdlinger to actually do the work for \$3/cubic yard (King, 2009, 175). The issue with this amount of contractor layers is not only the ability to regulate and companies and uphold them to environmental standards, but also that majority of the funds, which could give a boost to the economy in New Orleans, reduce unemployment and help the low-income residents are instead going into the pockets are large corporations, who were not impacted by the disaster. Some contractors also brought in undocumented Hispanic workers to do the labour (Sanyika, 2009, 107). The Hispanic workers were exploited during the rebuilding process by the contractors and many in New Orleans wanted to them to be excluded them from the rebuilding workforce, which led to conflicts between these groups (Sanyika, 2009, 107).

Indeed, the exploitation of those desperate for a job would have been worsened when following Katrina, Bush suspended the minimum wage, which was only reinstated after pressure from various directions (Bullard & Wright, 2009, 6). The removal of the minimum wage would have left the unemployed at the mercy of the employers and contractors in a city that, as mentioned before, already suffered from low-wage employment.

Safety was also a concern of those living in New Orleans. Issues around environmental justice and safety resurfaced, due to the contamination of soil and water (Nance, 2009, 155). Indeed, following Katrina, the city was covered with debris, sewage, toxic floodwaters, contaminated sediment and mould (Godsil, Huang & Solomon, 2009, 115). Unfortunately, little is being done about this contamination (Nance, 2009, 153). Another safety issue was

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the increase in violent crime and murder rates, including crimes committed by National Guard, who were employed to reduce crime (Sanyika, 2009, 105-106).

While the above issues were serious and raised concerns the two issues that seemed to cause the most contention during the recovery phase were over the basic necessity of shelter and housing, recovery and rebuilding efforts, and the overall vision of the future of New Orleans.

The first conflict over shelter was caused when FEMA provided trailers for temporary shelter. Following a lot of health effects and complaints, the trailers were found to have dangerous levels of formaldehyde gas (75 times what is considered safe) within them (Bullard & Wright, 2009, 36). This led to the approval of the construction of cottages, as an affordable shelter that would be designed to withstand storms but the construction was delayed due to conflicts over the type of cottages to be built (Bullard & Wright, 2009, 36).

While temporary shelters were being debated a public housing crisis was also taking place, as only some of the public housing units were re-opened and others were planned for demolition (Sanyika, 2009, 105). This has caused extremely high rent increases in the city, which has impeded the return of many who are dislocated (Sanyika, 2009, 108). In 2011, housing is still earmarked as an impediment for low-income residents who are displaced increasing the difficulty of their recovery and their ability to return to New Orleans (Mueller, et al, 2011, 301). Mueller et al (2011) attributes the challenges to housing to declining public funding for housing and a lack of concern for displaced, low-income households.

However, there was a program administered by the State of Louisiana to assist displaced homeowners to return to New Orleans, called the Road Home. This program has funnelled billions of dollars to New Orleans homeowners to assist them to either rebuild or sell the

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home (Green & Olshansky, 2012, 95). Green and Olshansky (2012) point out that using the value of the home prior to Katrina to determine the funding is a critical flaw of the program. It was common to receive a grant that was insufficient to rebuild, slowing the process of recovery and hindering the usage of flood and wind mitigation (Green & Olshansky, 2012, 95). Indeed, the value of the home prior to Katrina may not reflect the cost of repairing or rebuilding a home. More funding became available in 2010 but this is too late for the many that have completed the rebuilding process (Green & Olshansky, 2012, 95).

This program also put those living in lower-income areas at a disadvantage, as they were given smaller grant amounts due to lower housing values (Green & Olshansky, 2012, 96).

While Green and Olshansky (2012) note that other grants were available, the grants were not enough to fill the gap. Also, it is important to note that this program would have only assisted those who owned a home.

This is a good example of how recovery policies disadvantaged lower income groups in New Orleans. It was not the only policy that seemed to benefit some groups more than others. The 14 billion set aside for levee and floodwall repairs increased the height of the levees protecting white and affluent areas more than those protecting poor, low-lying areas (Bullard & Wright, 2009, 38-39). However, in a press release from February 2008, the City of New Orleans stated that the focus of recovery efforts will be on rebuilding public housing for middle / low-income families including four targeted development areas (City of New Orleans, 2008). While it is important to rebuild the housing and address the housing crisis, it is likely that history will repeat itself if increased protection is not provided to the low-income, high-risk areas, thus the vulnerability of this population is not reduced.

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The level of risk and physical vulnerability of the low-lying areas in New Orleans cannot be disputed and this fact created a conflict between the elites in New Orleans and the low-income residents around how New Orleans should be rebuilt. A meeting between business leaders took place in Dallas, following which a plan emerged to reduce the City's footprint by not rebuilding the high-risk areas, such as the Lower Ninth Ward and New Orleans East and converting the areas into flood protection zones and / or green spaces (Sanyika, 2009, 94).

This plan would have reshaped New Orleans, demographically, politically and geographically and was made without any representation or consultation with the residents who lived in these areas (Sanyika, 2009, 94). This caused a racial conflict in which the black citizens, some of whom were displaced, were outraged, while those who participated in the plan considered the results of Katrina as an opportunity to clean up the city (Sanyika, 2009, 94-95). The black population interpreted the clean up to mean reducing the city's black and poor population and the issue became about race instead of flood-protection (Sanyika, 2009, 95).

This conflict carried into the 2006 mayoral elections. The State Legislator and courts decided to not allow displaced people from New Orleans to vote (Sanyika, 2009, 101). Though this policy was later revoked and displaced citizens were given the right to vote (Zaidi, Wilner, 2012) since the majority of those displaced were low-income blacks, the black community felt under attack and adding to this was Mayor Nagin's description of New Orleans as a Chocolate City, which served to remind the residents that New Orleans was a black city and thus, he should be elected for a second term by extension (Sanyika, 2009, 101). This alienated and angered white voters but consolidated his black supporters as the term came to

Transforming Conflicts in Catastrophe, Disaster and Emergency Management (CDEM) represent the fundamental rights for the black citizens in New Orleans (Sanyika, 2009, 101-102).

A set of rights has also been developed called the Katrina Bill of Rights (Morial, 2009, xvi). These rights include the right to recover, vote, return, rebuild and work (Morial, 2009, xvii).

While the statements, recommendations and rights provide valuable information as to the wants and needs of the specific groups in New Orleans, there was not a consensus as to how the city should be developed or vision of the city's future between conflicting groups (Sanyika, 2009, 104). Several issues impeded this consensus. First, the initial plan developed by the business leaders was interpreted as a means to impose their vision of New Orleans as a smaller, whiter and richer city and was developed without consultation (Sanyika, 2009, 104). This was perceived to imply a fundamental difference between the elites and the low-income residents around public good and the desired future of New Orleans (Sanyika, 2009, 104).

The inability of the sides of the conflict to come together, along with the lack of coordination between different government departments led to four main planning processes implemented within the recovery process: This includes FEMA's ESF-14, which was compiled by local experts and outside consultants; the Bring New Orleans Back plan, which included local architects and neighbourhood-level work but this plan was defeated due to the recommendation to convert the highest risk and least populated areas into green space; the Lambert or New Orleans Neighbourhoods Rebuilding Plan, which focussed on 46 neighbourhoods that were flooded and involved residents and public meetings; and lastly, the Unified New Orleans Plan, which was completed in January 2007 and allows

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neighbourhoods to decide how to implement the ideas generated by the earlier plans into one unified plan for recovery (Khan, 2009, 214-215).

As New Orleans continues its recovery process, it is evident that the highly vulnerable areas, which are repeatedly flooded, will be rebuilt regardless of the vulnerability of the residents whom will live in the area (Colten & Giancarlo, 2011, 17). From an environmental and emergency management perspective, this does not integrate the lessons learned from the multiple hazards that have impacted the area; however, the residents of New Orleans consider the decision to rebuild their homes and neighbourhoods a fundamental right.

In the pursuit of a more resilient, post-Katrina New Orleans issues, such as those listed above, include questions around rights and justice, vulnerability, safety and long-term mitigation. The root question seems to be what future is desired for the new City and what will be the process to reach it. The above questions may seem to go beyond the goals of the CDEM process and one may question whether CDEM has the capacity to deal with injustice, racism, the envisioned future of the community and so on. However they cannot be avoided in the recovery process, as the lack of participation, dialogue and consultation is likely to lead to conflict. Secondly, by not considering both the physical and social vulnerabilities of an area and being sensitive to latent conflicts, CDEM can make a conflict worse.

What the New Orleans recovery process is also showing is that policies intended to be race-neutral can accelerate rather than alleviate the destructiveness of a disaster for the most vulnerable populations if the policies are not race-sensitive.

Bullard and Wright, 2009, 39

Thus, in New Orleans where racism, environmental racism and inequality were of concern and existed as latent conflicts, the CDEM process was not able to stay neutral. To address the vulnerabilities that existed, the CDEM process needed to identify and work towards reducing

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the vulnerabilities to mitigate their risks. The decisions made around whether or not to rebuild a highly vulnerable area may be made based solely on the physical vulnerability of the land and flood protection but because the decision impacted communities, which had been disadvantaged and faced years of racism, the decision was immediately interpreted as falling on one side or the other of the racial conflict.

Secondly, the fact that the highest risk areas were occupied by low-income communities, there was a lack of investment in mitigation, and the emergency plans did not address the most vulnerable shows the enormous level of risk that was placed on the shoulders of the low-income residents. Indeed the high physical and social vulnerability of New Orleans greatly impacted every aspect of the preparation, response and recovery efforts to Hurricane Katrina outlined above. Thus, another lesson learned is that CDEM needs to consider these vulnerabilities in order to successfully execute a successful response and recovery program.

## **Chapter 5: Applying the CDEM Conflict Transformation Platform to**

### **Hurricane Katrina**

While there were a lot of challenges in the mitigation, preparation, response and recovery to Hurricane Katrina, several opportunities existed to transform the conflicts and simultaneously improve CDEM, through the application of the CDEM Conflict Transformation Platform. These opportunities will be outlined below and changes to the CDEM Conflict Transformation Platform will be made according to the insights gained.

#### **Pre-Hazard**

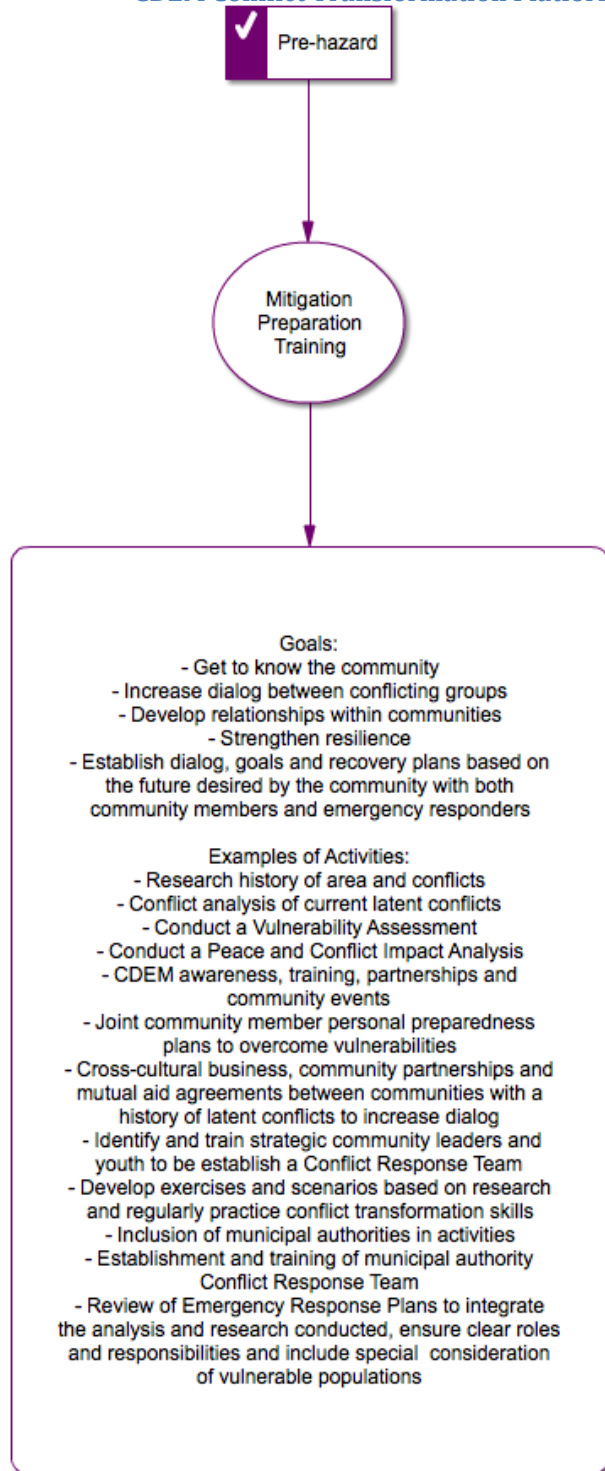
In the pre-hazard stage, the focus would be on gaining an understanding of the community and existing conflicts through research, using CDEM awareness events, partnerships, and training to increase dialogue between conflicting groups and secondly, to develop relationships within communities to strengthen their resilience and personal preparedness plans.

On the first goal, conflict analysis could be conducted around the development of the wetland area and levee system, and also analysis could be done on the relationship between different racial and economic groups in New Orleans, which resulted in the marginalization of the African American population. This would include researching the history behind the conflicts, the root causes, the key stakeholders and their interests, along with what, if any, methods have been used to try to manage and/or resolve the conflicts. Secondly, it would be important to gain an understanding of the physical and social vulnerabilities and those living in high-risk areas, along with the communities' resiliencies. Lastly, an understanding of the impact of CDEM on the conflicts in the area could be gained through a Peace and Conflict

Impact Analysis. Through this research several initiatives could be introduced to improve CDEM, reduce vulnerabilities and mitigate conflicts, as seen in Figure 22 on the right.

Through CDEM awareness, training, partnerships and events one could improve relationships and increase dialogue. For example, the Red Cross could be asked to offer first aid and personal preparedness training targeting the highest risk areas to empower them to better prepare for an emergency situation. Neighbours could be encouraged to work together on their personal preparedness plans to support one another. By working with businesses and governments, funding could be given to assist families to set up a to-go bag and a first aid kit. Also, community members could be encouraged to have pre-arranged car-pool arrangements with pick-up points

Figure 22: Pre-Hazard CDEM Conflict Transformation Platform



Source: Author

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in the case of an evacuation to share the cost of fuel and increase the amount of people who are able to evacuate without clogging up the roads more.

Cross-cultural business and community partnerships and mutual aid agreements could be initiated between communities with a history of latent conflicts to increase dialogue and reduce isolation. For example, grants could be sought for programs to fund the improvement of the structural mitigation of housing in low-income areas. The program could include the training of community members through involving non-profit organizations, such as Habitat for Humanity, contractors and businesses. These partnerships could help to increase the dialogue between these groups, as they work together to incorporate the flood and wind protection of the homes. This program could also be extended to include critical infrastructure buildings in the communities, such as evacuation centres.

It would also be important to identify and invite strategic community leaders and youth to join a Conflict Response Team. The teams could be offered trained in conflict resolution and mediation and could assist or lead the conflict research described above. Given the high vulnerability of some of the population in New Orleans, the CRT could also act as an advocate between emergency planners, response teams and the community members. This would be helpful both for the community members and for the emergency managers through increased communication and information flows.

While the research, training, events and actions could reduce vulnerabilities by better preparing individuals, families and communities, by strategically planning who to include, relationships within communities could be improved and latent conflicts could be reduced through increased dialogue and partnerships between communities, classes and racial groups in New Orleans.

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Lastly, municipal authorities and those in charge of the levees could also be involved in these events to improve the preparedness of community members and their relationship with municipal first responders. A group of community members could be designated to learn about the levee system, follow-up with, monitor and participate in the levee inspections, where it is safe to do so. Again, by improving these relationships, the community improves their preparation for an emergency but in a way that develops and / or establishes relationships.

While conflict between emergency responders was not the focus of this thesis and more research should be done in this area, conflict transformation can also be implanted within the responders. Municipal authorities could set up Conflict Response Teams focusing on the improvement of relationships within their teams and between teams. Secondly, though improving preparedness plans and preparedness training to increase clarity around roles and responsibilities, conflicts during the post-hazard stages could be reduced.

There are a lot of initiatives that could be implemented to improve the mitigation and preparation of community members in the case of an emergency. By strategically thinking about whom to involve, one could increase dialogue and relationships to reduce latent conflicts. Lastly, by having teams of youth and community members leading these processes through designating teams, such as the Conflict Response Team, community members and youth can be empowered through the training to build on their resiliencies and better prepare themselves for an emergency while mitigating conflict and reducing vulnerabilities.

Within the updated pre-hazard stage, one may notice that the goals and activities have increased; indeed, the more activities and planning done prior to an emergency will improve the response and recovery efforts.

**Response**

The response to an emergency would be inherently improved if the community were better prepared through the pre-hazard stage and vulnerabilities were reduced.

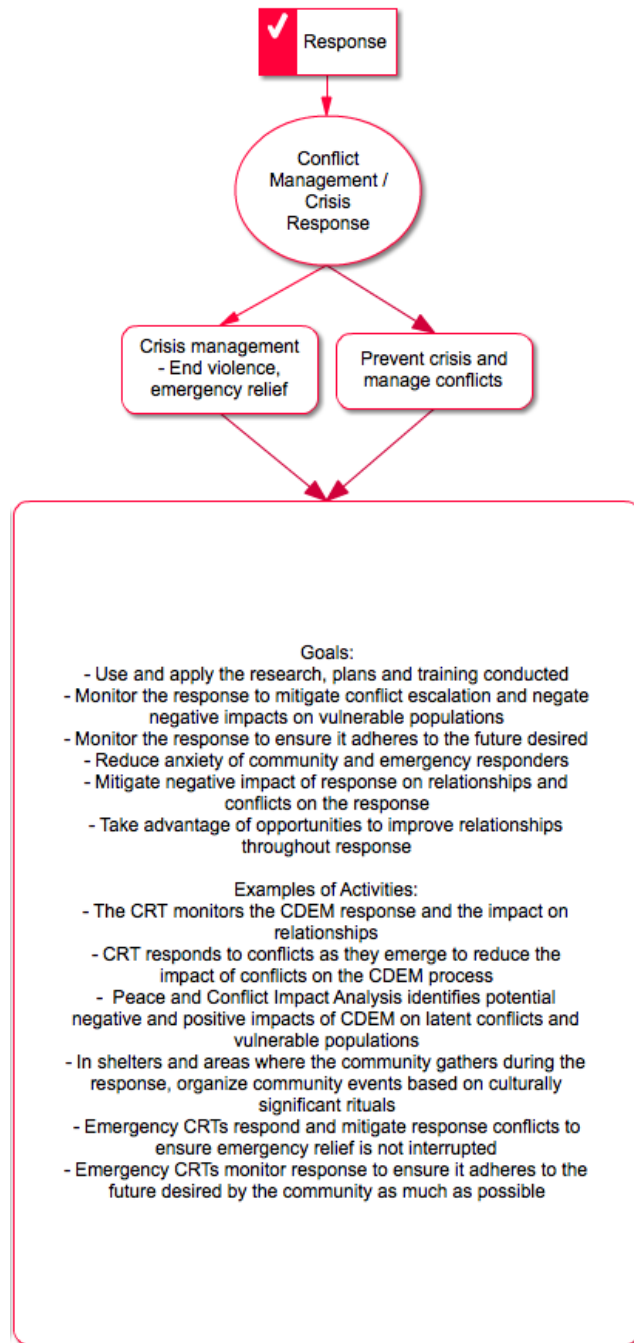
As seen in Figure 23 on the right, within the response to a hazard, if possible the Conflict Response Team established in the pre-hazard should be utilized during the response.

Evacuations could be improved through car-pools and communities working together to support one another. This would reduce the pressure on emergency response personal and the citywide emergency plans.

If the city had conducted a peace and conflict impact analysis in the pre-hazard stage, then their plans might have been executed in a way, which

mitigates the impact on latent conflicts. Also, through plans that focus on communities

**Figure 23: Response  
CDEM Conflict Transformation Platform**



Source: Author

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working together, the response can be used as a means to improve relationships. As mentioned earlier, in the response to a hazard there is an opportunity to improve relationships as the community works together to save lives.

If conflict does erupt, the Conflict Response Team can quickly respond to mitigate conflict escalation by pulling the parties aside and attempting to quickly resolve the conflict, so the conflict does not negatively impact the emergency response or escalate and damage the relationships developed in the pre-hazard stage.

The effectiveness of the Conflict Response Team would depend upon a quick response, thus it will be important to train several groups. The method used to resolve the conflict should be culturally appropriate.

Secondly, within shelters the Community Response Team could mitigate conflict by acting as advocates and assisting with information flow between emergency responders and evacuees. They could also organize games and activities to reduce anxiety. For example, in New Orleans music is an important part of their culture, thus by having instruments available, community members could play music and by having decks of cards, card game tournaments could be initiated and so forth.

Through relieving the anxiety of the evacuees, it will be easier as well for emergency responders to continuously respond to their needs and the changing environment.

Emergency Responder CRTs could respond and assist with conflicts between responders and volunteers to continuously mitigate the conflicts during the response.

Another issue that arose, which could have been resolved with better planning was uncertainty of roles and responsibilities and this hindered the emergency response. This

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could be improved through improving plans and training in the pre-hazard stage within and between emergency responders. The role of the CRT and also interconnectedness of the pre-hazard stage on the response stage is emphasized in this stage.

### **Recovery**

Increasing community participation in the recovery efforts and improving consultation could have mediated many of the conflicts mediated in the recovery stage in response to Hurricane Katrina. The benefits of the research on conflicts and vulnerabilities and the improved relationships developed in the pre-hazard stage would also be felt in the recovery stage.

The conflicts that arise in the recovery stage can be very challenging. How a community recovers and rebuilds to improve the communities' resilience to the hazard can impact the community in profound ways. Issues of justice and questions of identity are often raised in this stage through the distribution of aid and the decisions made as to where and how to rebuild. Thus, conflicts should be expected in this stage as the vision of the future desired by community members may conflict with each other. Some of these conflicts may be necessary to incorporate the different visions.

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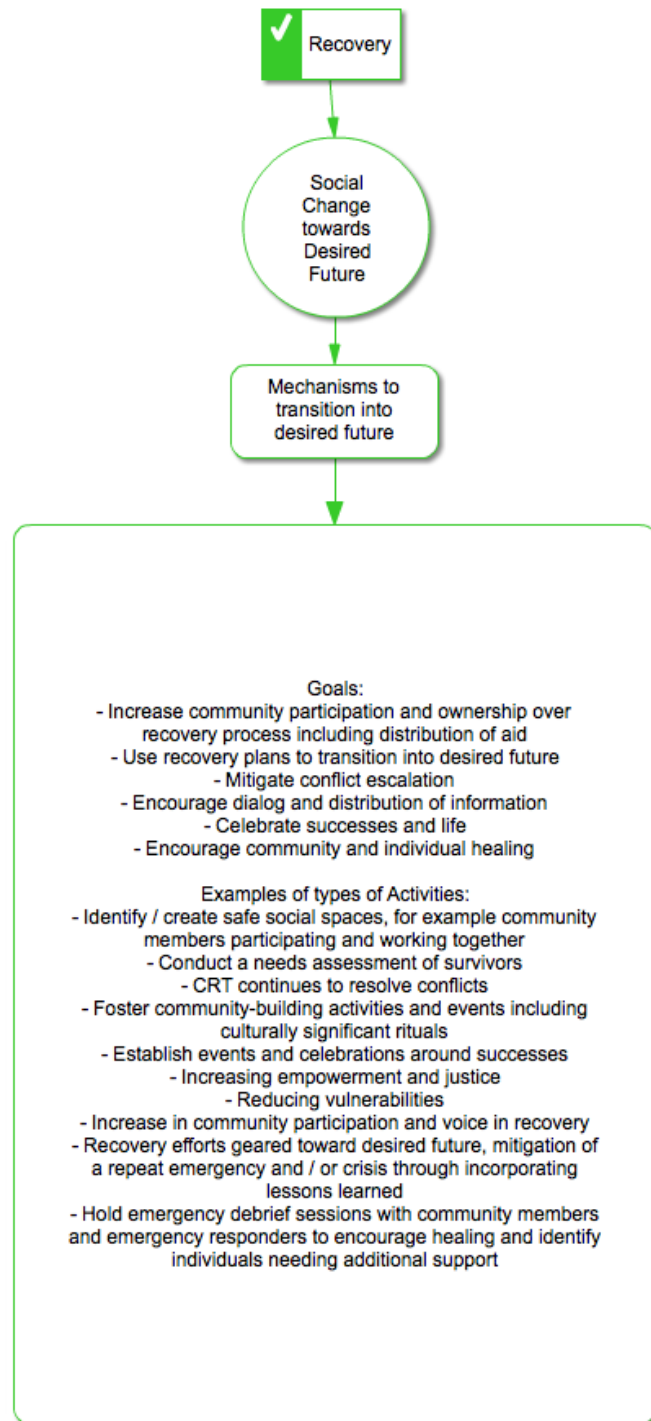
If the community's vision of their future has been considered and debated in the pre-hazard stage, this would help to mitigate the conflicts in the recovery process, as some consensus may have already been reached.

In any case, the Conflict Response Teams could be involved in this stage to help to mitigate conflict escalation and assist with the distribution of accurate information. The Teams could also work together to organize workshops and information sessions within and between communities to ensure everyone is well informed and dialogue takes place, as seen in Figure 24 on the right.

While, it may seem more challenging and delay the start of

recovery development plans, by involving the community and giving them ownership over

**Figure 24: Recovery**  
**CDEM Conflict Transformation Platform**



**Source: Author**

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the plans, it is less likely that the recovery development plans will be interrupted and delayed once they are decided upon.

In New Orleans, the idea of not rebuilding in the highly vulnerable areas caused a lot of racial tension, as this idea was interpreted as an attack of one racial group on another. While it is impossible to know for sure, if the communities impacted were not only consulted but allowed to participate and have a sense of ownership of the recovery plans, this idea might have been presented and interpreted as a legitimate means to reduce the cycle of increasing vulnerabilities of those living in these areas.

Secondly, the community ownership over the recovery phase and plans, should include the distribution of recovery aid to ensure it is used to benefit those affected by the disaster and is also used to jumpstart the economy through the use of local contractors and businesses where possible. The State of Louisiana could oversee the distribution and set standards to ensure the aid is allocated based on need. While this again may incite conflicts, through developing plans and programs in the pre-hazard stage and having a community vision of the future desired by the community members, conflicts and ethical issues would be mitigated.

Through the analysis of New Orleans, one can see how communities were disempowered initially in the recovery phase. Large foreign multinational corporations received large contracts to clean up the area and begin rebuilding without consulting the communities impacted by the decisions being made. Meanwhile, the citizens of New Orleans were disempowered in regard to how their community was being rebuilt, where they were going to live, the economy and was not benefiting in the recovery process. There were three different groups, the City, FEMA and the State of Louisiana, all making decisions and developing plans autonomously from one another, which would determine the future of the city and at

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the onset of the response the community was not consulted on these plans. The community was only consulted a year later, following the 2006 elections. It is not surprising that the residents of New Orleans would respond by fighting for their right to contribute to the recovery designs given the impact they were to have on their lives and communities.

Given the amount of conflicts that might erupt during the recovery phase while decisions around aid and the design of the city is being debated, it will be especially important to hold community events and celebrations. A good example as to how this can help is the example of the excitement generated due to the re-opening of a supermarket described earlier. Indeed, successes and the lives saved during the response phase can and should be celebrated throughout the recovery phase to assist the community in finding security and place again within the recovery phase.

Lastly, the CRTs could work with mental health professionals to hold debriefing sessions and group sessions with the survivors and emergency responders following an emergency to promote healing and grief support for anyone who has lost a loved one during the emergency. They could also assist the community to deal with level of change that occurred or will occur within their community. Also, through early identification of anyone suffering from trauma and offering extra support and services to them, community members could be given the support needed to emotionally heal following an emergency.

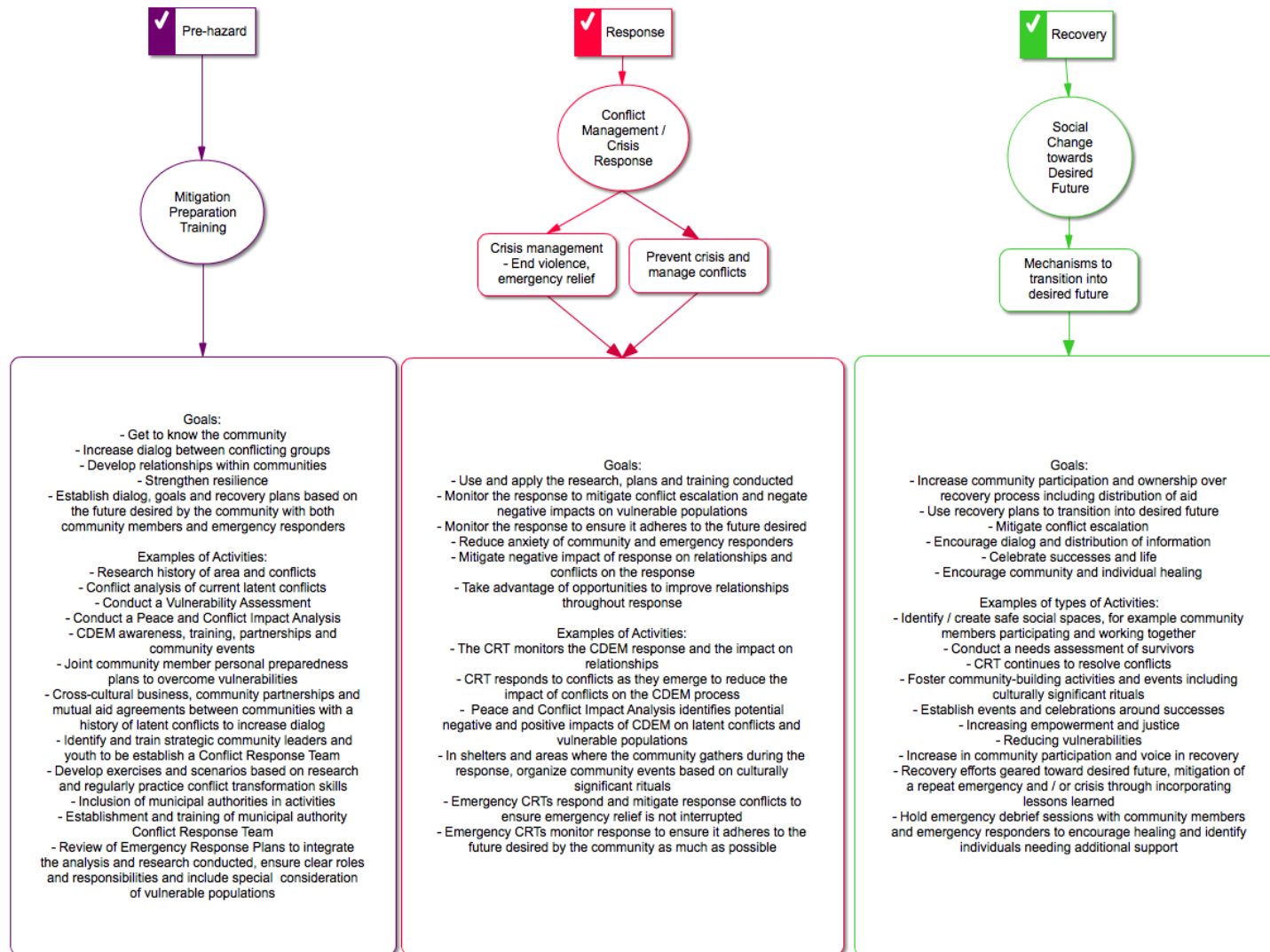
The updated Recovery Stage emphasizes the role of the CRTs, the interconnectedness of the stages and the need for meaningful community ownership of and participation within this stage.

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As can be seen from the analysis above, there are many applications of conflict transformation within CDEM that would both improve CDEM and the management of conflict within communities.

Through the above analysis and the application of Conflict Transformation to New Orleans, I have improved the CDEM Conflict Transformation Platform. The updated platform in its entirety can be seen in Figure 25 below. Goals have been added to improve the focus of the Platform to ensure it better addresses some of the needs that may arise throughout CDEM. For example, in the pre-hazard stage some of the additional activities generated through researching the challenges in New Orleans are to conduct a vulnerability assessment, having joint personal preparedness plans within communities and for the CRTs to review the Emergency Response Plans. While these ideas were generated for New Orleans, they have a potential to decrease the vulnerability of the populations elsewhere. While the examples of activities may not be suitable for every situation, it is hoped that they can be used to generate ideas when applying the platform to a specific CDEM process.

Figure 25: CDEM Conflict Transformation Platform (updated)



Source: Author

The updated platform is improved through the analysis of the CDEM process around Hurricane Katrina. The interconnectedness of the stages is shown, the goals of each stage are better defined, and both CDEM and Conflict Transformation are better integrated through strategies that incorporate the goals of both fields. Secondly, the analysis helped to raise the importance of community ownership of the process especially the recovery plans to ensure community members are not disempowered through the rebuilding process. The decisions made in this process will inevitably have an enormous impact on the communities and their future, thus it is important to involve them in the plans. This can be done by without causing too much delay of the recovery phase by planning as much as possible in the pre-hazard stage.

## **Conclusion**

Through preparation and training, crisis intervention and conflict management, Lederach's theory of Conflict Transformation, promotes that sustainable, constructive, social change towards a desired future can occur through the transformation of a conflict. However, given that Conflict Transformation is affected by its context, this is not a linear process. For example, while Lederach includes crisis management in the process, this stage would only need to occur if conflict escalation was not mitigated.

This is similar to CDEM in that it focuses on mitigating, preparing for, responding and recovering from the impact of a hazard. Whether or not the impact is classified as an emergency, disaster or catastrophe is dependent upon the pre-hazard CDEM efforts, the pre-existing vulnerabilities and the severity of the hazard. Indeed, it is very important to emphasize mitigation in each aspect of CDEM. This is also emphasized within Canada's National Mitigation Strategy.

Both CDEM and Conflict Transformation fields are focused on avoiding a crisis situation through a long-term focus on continuously reaching the future desired including, sustainability, peaceful relationships and resiliencies. The actions to do this can be divided into three interconnected phases, pre-response, response and post response.

Their success however can be impacted by one another. Latent conflicts, discrimination and injustice can impact create and/or increase the vulnerability of a population through reducing their access to resources and resiliency. The complexity of reducing these vulnerabilities points to the need to integrate a means to manage conflicts within CDEM. Similarly, the field of Disaster Diplomacy has shown that CDEM can also hinder the management of conflicts in

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an area. It has also shown that at times an emergency or disaster can provide an opportunity to reduce injustices and increase dialogue between parties in conflict.

Thus, through the analysis in this paper, I have established a CDEM Conflict Transformation Platform. This was accomplished through first creating a Conflict Transformation Platform to organize, summarize Lederach's theory, based on the Concept Map found in Appendix 1. The concept map and platform helped to show the interconnectedness of the aspects of Conflict Transformation along with the integral aspects of the theory, which need to be applied in each stage. After applying this platform to New Orleans, several lessons were learned due to the complexity of the disaster. These lessons were integrated to create the final platform presented in this thesis.

Indeed the goal of Conflict Transformation is to incite constructive change from conflicts, through a process that would be context specific, adapt to the needs of the community or group. Through the focus on relationships and social interaction, one can determine the structural and systemic root causes of the conflict and the changes, outcomes, process, along with improvements in justice and empowerment that are needed for conflict transformation.

One can apply these aspects to CDEM through integrating them into pre-hazard, response and recovery actions.

The pre-hazard stage would be focused on gaining understanding of the community and existing conflicts through research. Secondly, CDEM awareness events, partnerships, and training can be used to increase dialogue between conflicting groups. Third, partnerships can be used to develop relationships within communities and increase their resilience. Lastly, the establishment of a community based Conflict Response Team (CRT) and subsequent training will be used to quickly respond to conflicts within CDEM.

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In the response phase the focus will be to apply the research, plans and training from the pre-hazard stage to monitor the CDEM response, relieve anxiety and mitigate conflict escalation. The majority of these actions would be done through the CRTs. Also, it is noted that the emergency responders could also establish CRTs

In the recovery stage increasing community participation and ownership over the process is emphasized along with using recovery plans developed prior to the emergency to focus the energy of recovery towards the future desired. Conflict escalation should be mitigated through encouraging dialogue and information sharing. The recovery process should also include the celebration of success, debriefs and processes to promote healing. The CRTs again could have a major role within these activities.

Through the platform, the interconnectedness of the stages and is shown. Also, the Platform shows how the integration of Conflict Transformation can be used to help CDEM overcome the challenges faced through applying the platform to the preparation, response and recovery of Hurricane Katrina in New Orleans. Indeed both fields are enhanced through integrating their processes. Secondly, the analysis helped to emphasize the importance of community ownership of the CDEM process especially the recovery plans to ensure community members are not disempowered through the rebuilding process.

Though in the current economic situation CDEM is facing cutbacks in North America and this thesis is proposing an expansion of CDEM functions especially at the municipal level, much of the expansion proposed could be coordinated through a higher participation of community-based volunteers. Secondly, as noted by the PSC, there is a cost benefit to focussing on mitigation and preparedness. Improving the management of conflicts within CDEM, would have many positive implications for CDEM policy in North America by

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improving the resiliency of communities and mitigating the potential negative impacts

CDEM can have on latent conflicts improving the ability for CDEM to have sustainable impacts on vulnerabilities in a given community.

Indeed, this research could be used as a basis for integrating conflict transformation into CDEM and second, it could increase the sharing of information and partnerships between the two fields. Third, the Conflict Transformation Platform could be used as a basis for other fields, which are challenged by conflicts, While further research is still needed, for example the CDEM Conflict Transformation Platform could be applied to an emergency and its results could be monitored and evaluated, it is hoped that this thesis will open up and provide insight into the discussion around conflict transformation within CDEM.



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