

5-2018

# Natural Disasters: Continued Security in the Aftermath

Victoria Quinones

*Pace University, Dyson College of Arts and Sciences*

Follow this and additional works at: <https://digitalcommons.pace.edu/homelandsecurity>



Part of the [Defense and Security Studies Commons](#), and the [Emergency and Disaster Management Commons](#)

---

## Recommended Citation

Quinones, Victoria, "Natural Disasters: Continued Security in the Aftermath" (2018). *Master in Management for Public Safety and Homeland Security Professionals Master's Projects*. 13.

<https://digitalcommons.pace.edu/homelandsecurity/13>

This Thesis is brought to you for free and open access by the Dyson College of Arts & Sciences at DigitalCommons@Pace. It has been accepted for inclusion in Master in Management for Public Safety and Homeland Security Professionals Master's Projects by an authorized administrator of DigitalCommons@Pace. For more information, please contact [nmcguire@pace.edu](mailto:nmcguire@pace.edu).

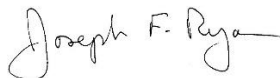
NATURAL DISASTERS: CONTINUED SECURITY IN THE AFTERMATH

BY

VICTORIA QUINONES

SUBMITTED IN PARTIAL FULFILLMENT OF  
REQUIREMENTS FOR THE DEGREE OF MASTER OF  
ARTS IN MANAGEMENT FOR PUBLIC SAFETY  
AND HOMELAND SECURITY  
DYSON COLLEGE OF ARTS AND SCIENCES  
PACE UNIVERSITY

MAY 2018

A handwritten signature in black ink, reading "Joseph F. Ryan". The signature is written in a cursive style with a horizontal line extending from the end.

June 5, 2018

### Abstract

This paper reviews one of the leading threats that the United States faces: natural disasters. As the rate, strength, and cost of damages increases, so too does the vulnerabilities of the country's security and that of its people's. This paper highlights several significant points that surround the topic of natural disasters. First, identifying first the importance of such a topic and the threats that natural disasters pose; and, secondly, how to manage those threats. This paper shows the development of a strategic plan that incorporates a multidisciplinary approach, intelligence gathering, and an assessment of the proposed plan. This strategy identifies shareholders and stakeholders and other key players involved in this topic such as the Emergency Services Sector, first responders, and FEMA. In addition, this paper demonstrates the effect that natural disasters have on human rights issues, ethical issues, as well as the public health. The main goals of this paper are to identify and discuss the impact that natural disasters have on the safety and security of this nation and to mitigate the vulnerabilities that come in the aftermath of a disaster.

## Acknowledgments

*“When you want something, all the universe conspires in helping you to achieve it.”*

*-Paul Coelho*

I want to express my gratitude to the people who have helped me get to this point. Thank you to the wonderful staff at Pace University. To Dr. Joseph Ryan, Ms. Melissa Schilio, and Dr. Ruth Thompson, the dedication you show to your students is incredible and has truly been a helping hand in my success. To my friends, thank you for putting up with me throughout this rigorous process. Most importantly, I want to thank my family. Your loving support has been a blessing. Without you I would not be in this position. I am forever grateful to have such a supportive group behind me.

*Victoria Quinones*

## Table of Contents

<b>Abstract.....</b>	<b>2</b>
<b>Acknowledgments .....</b>	<b>3</b>
<b>Chapter 1: Strategy / Natural Disasters and the Threat They Pose to Our Nation ...</b>	<b>6</b>
<b>Chapter 2: Management / Managing Threats from Natural Disasters .....</b>	<b>18</b>
<b>Chapter 3: Strategic Planning and Budgeting / FEMA: The Development of a Strategic Plan .....</b>	<b>29</b>
<b>Chapter 4: US Constitution and Ethical Issues / Natural Disasters, Strategic Issues, &amp; the Constitution .....</b>	<b>48</b>
<b>Chapter 5: Policy Analysis and Evaluation / Assessment of a Developing Strategy</b>	<b>60</b>
<b>Chapter 6: Comparative Governmental Approaches / Haiti: A Strategic Plan to Address Threats .....</b>	<b>73</b>
<b>Chapter 7: International Human Rights / Natural Disasters and its Connection to Human Rights Issues and National Security .....</b>	<b>90</b>
<b>Chapter 8: Intelligence Gathering Strategies / Natural Disasters &amp; Intelligence Gathering .....</b>	<b>103</b>
<b>Chapter 9: Technology and Critical Infrastructure Protection / Critical Infrastructure: Emergency Services Sector .....</b>	<b>111</b>
<b>Chapter 10: Multidisciplinary Approaches to Homeland Security / A Multi- Disciplinary Approach to Mega-Communities .....</b>	<b>121</b>
<b>Chapter 11: Public Health and Pandemic Issues / Natural Disasters and Public Health Issues.....</b>	<b>130</b>
<b>References .....</b>	<b>146</b>

*This page intentionally left blank.*

## **Chapter 1: Natural Disasters**

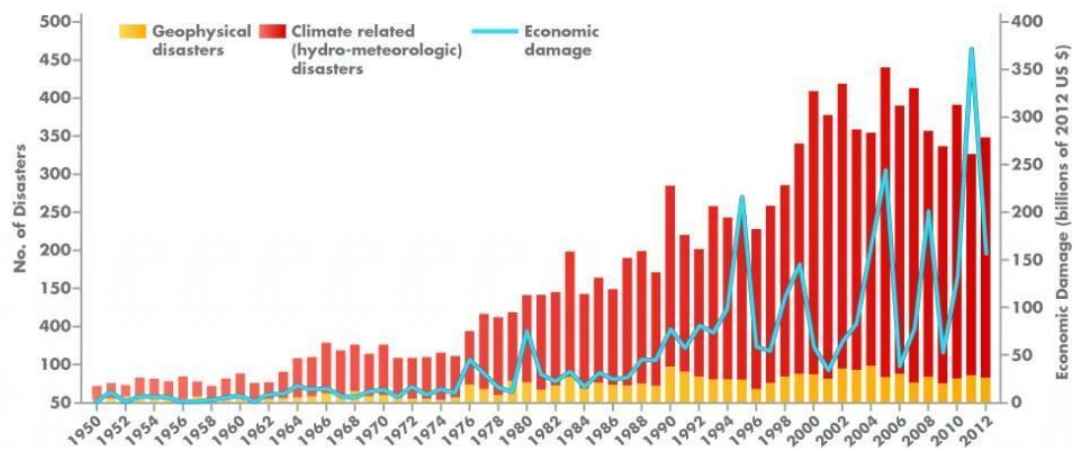
### **Natural Disasters and the Threat They Pose to Our Nation**

#### **Introduction**

The environment of today is constantly changing. There is no denying that. Change, especially for a country as grand and diverse as the United States of America, is inevitable. Whether those changes are anticipated and welcomed or sudden and undesired it is important that the country react appropriately by increasing awareness of the problems that can develop within the environment as a result of change. Today the media shines its lights on the many issues and changes that sweep across the country and around the world, issues such as: racial inequality and discrimination, gender identity, use of excessive force, the political divide, the fluctuation of the economy, health care reform, unemployment, the education system. Each one has the potential to cause changes to society. Some might be beneficial, such as giving students the opportunity to receive a better education, which, in turn, helps to propel them into a successful future. Others may be more damaging than anything else. It is how these important issues are addressed that determines the outcome. Where they fall of the grand scale of importance may be different for everyone, however, certain issues must take precedence over others; such as the constant terrorist threats or the growing pool of cyber hackers, aging infrastructure, or the possibility of a mass epidemic. One such issue is the “controversial” topic of climate change and the implications faced at the growing rate of natural disasters.

Climate change refers to any significant change in the measures of global or regional climate patterns lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among

other effects, that occur over several decades or longer (EPA, 2017). This type of change can develop naturally but it is largely attributed to the increased levels of atmospheric carbon dioxide produced by the burning of fossil fuels (Oxford). This is an urgent and growing threat to United States that society must pay more mind to. The effects that climate change poses are extremely broad, causing risks to human health and society, alterations to ecosystems and habitats, even an erratic climate and extreme weather patterns. One of the most damaging consequences of climate change is the increased likelihood of natural disasters. Natural disasters are catastrophic events that are caused by nature or by the natural processes of the earth. Earthquakes, floods, volcanic eruptions, tornadoes, tsunamis, wildfires, droughts, hailstorms, heat waves, hurricanes are some of the most common natural disasters. In many cases they are unforeseen, severe, and immediate. In recent years, natural disasters have been more frequent, and their effects more destructive and financially costly, than at any time in recorded history (See chart below). Current trends show that natural disasters and extreme environmental events are expected to increase in number and severity (Bostjanbb, p. 2).





It is important to discuss the effects of natural disasters because as they continue to increase so, too, does the strain it puts on society and the government. Following any type of natural disaster in the country there is a government response in which resources are redirected toward disaster recovery. With resources directed to the recovery effort the government's ability to provide top security to the country while simultaneously maintaining control in disaster stricken areas can suffer significantly.

The United States is constantly subject to the threat of attack at the hands of domestic and international terrorist organizations. These organizations wait to exploit a moment of weakness that arises in the wake of natural disasters as the country mounts efforts to recover. It is during this post-disaster period when the country is suffering and the focus is otherwise on the task at hand that the United States is the most vulnerable to attack. Berrebi and Ostwald (2007) have noted terrorists' ability to exploit existing vulnerabilities as a result of their tactical agility. A prime example of this act of cowardice was seen in Pakistan following the major floods of 2010.

Shah Mahmood Qureshi, the Foreign Minister of Pakistan expressed the same fears shared by the United States, that terrorist groups would use the floods of 2010 to take advantage of the government in its weakened state. Reports from Pakistan indicated that militant groups did utilize the disruption of the flooding to carry out acts of insurgency (p. 6). This demonstrates that there is direct and concrete evidence supporting the connection or influential relationship between natural disasters and increased terrorist activity.

Using detailed information on terrorism, natural disasters, and other relevant economic and demographic variables of 167 countries between 1970 and 2007, it is possible to identify and estimate the effect of natural disasters on terrorism. Disasters have a strong positive association with subsequent terrorism incidents and fatalities. Berrebi and Ostwald's results showed that terrorist attacks rise following a natural disaster.

The effect that natural disasters have on the safety and security of this nation and its people is an issue that concerns many individuals and organizations across the globe. In a world of interconnectedness and interdependence people have to work together and collaborate with all elements of society, individuals, local communities, the private and non-profit sectors, faith-based organizations, and all levels of government to make sure America is resilient in the face of adversity (National Security Strategy, 2015). From first responders, Federal Emergency Management Agency (FEMA), National Guard, Coast Guard, to agencies like the United States Agency for International Development (USAID), National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), Department of Defense (DOD), and the Nairobi Work Program (NWP) (Department of State, 2014), all have a vested interest in climate change and natural disasters. All of the intelligence agencies, the think tanks, and the academic specialists involved with these agencies should increase their focus on the addressing the potential for fallout after major disasters; causing economic, social, and political ripple effects that may have lasting effects on society. All of these aforementioned agencies and essential services help to shape American society and they must remain secure and functioning in the face of diverse threats and hazards.

**Support for Strategy**

This is a topic that has yet to be given the proper or adequate level of attention, especially considering that in the public eye the reality of natural disasters and the implications they have on homeland security are still a point of controversy and debate. The problem still lies with the ignorance of the public, the apathy of private sector interests, the lack of scientific and media scrutiny, and the disjointed efforts on behalf of the government. This nation has the requisite technology, financial viability, and physical capability to implement the necessary measures to safeguard the country and its citizens, but pragmatism, politics, personal interests, fear of change, and what can be called lethargy, often apathy, stops policymakers from making the self-evident decision to improve the system. That is why this thesis will approach the process from a new perspective in an attempt to identify and rectify the errors of previous planners through what research shows are existing, but under-utilized, programs, concepts, and models to help create a tentative theory for the country to assess and refine the end result of an emergency response system.

One such example of an existing program is the Nairobi Work Program (NWP) which is a part of the UN Framework Convention on Climate Change. The members of the program work toward gaining a better understanding and assessment of the impact and vulnerabilities that climate change can cause and use it to educate other countries. This gives them the ability to make informed decisions on necessary and practical alterations to the measures they had been using based on sound scientific, technical, and socioeconomic information. According to the Department of State (2014) the NWP has attracted more than 200 partner organizations whom they have taught to handle climate

issues by: assessing risk and vulnerability; raising awareness of climate impacts and adaptation solutions; building capacity; delivering climate information and services to decision makers; facilitating the sharing of knowledge and good practices; and providing financial and technical support for adaptation planning and activities. It is commonsense actions such as these that form the foundation of this strategy.

Another organization that which performs a significant role in dealing with climate change is the Department of Defense (DOD). Part of the DOD's system is to assess how climate change can impact readiness. Those assigned to the task test this by affecting or altering: the existing and planned military facilities and equipment, training exercises and deployment of those forces, the health and safety of military personnel, the frequency, location, and types of military operations, the need for new or expanded training, and the necessity for new equipment.

Another aspect of the DOD's role in keeping this country safe is supporting the climate change initiatives of the United States government. The DOD can, and will, be expected to provide critical support to interagency climate change efforts to direct near-term activities and adaptation towards conflict prevention. They will also need to play the lead role in the military to military cooperation, especially with foreign militaries. Efforts to mitigate and minimize the impact of these changes need to be pursued both at home and abroad through international cooperation. Multiple DOD officers are addressing climate change and energy issues with a wide range of perspectives, but with limited unifying guidance. This fragmented approach is the aspect of the DOD's involvement that needs to be revised in order to provide clarity, responsibility, and accountability in

addressing the full range of international climate change-related issues such as natural disasters, and the impact they have on a country's continued safety and well-being.

One document that has had a recent impact on the country is known as the National Security Strategy. President Obama's agenda in implementing this strategy was advancing the nation's interests, universal values, and a rules-based international order through strong and sustainable American leadership. The National Security Strategy (2015) sets out the principles and priorities that describe how America will lead the world toward greater peace and prosperity:

- Lead with purpose;
- Lead with strength;
- Lead by example;
- Lead with capable partners;
- Lead with all instruments of U. S. power;
- Lead with a long term perspective (Office of the Press Secretary, 2015).

These statements are intended as powerful and profound, however it is important that the United States not simply iterate these ideals but exemplify them in its actions. The United States as a country is a formidable power and must take its place where it belongs, as a leader.

One of the most influential programs, combined with its many subsequent documents, that best exemplifies the necessary response following natural and/or man-made disasters is known as the National Incident Management System (NIMS). NIMS serves as a requirement of all state, territorial, tribal, and local personnel who have emergency assignments at any level of government. NIMS is comprised of several

components that work together in congruence to provide a national framework for: preparing for, preventing, responding to, and recovering from domestic incidents.

Several reasons NIMS is such a useful document is because it is applicable across jurisdictions and functions with its flexible framework promoting all levels working together. According to the Department of Homeland Security, NIMS establishes standardized incident processes, protocols, and procedures to help agencies/organizations work together during any type of incident and integrates the best practices into a comprehensive, standardized framework that is flexible enough to be applicable across the full spectrum of potential incidents, regardless of cause, size, location, or complexity. This provides the foundation needed to ensure that people can work together when communities and the nation is most in need.

### **Strategy**

In an era of information warfare it is only appropriate to develop a strategy for the continuity of operations. Creating such procedures means there is an effort from the various agencies to ensure that the security and protection of this country maintain without fault, even during a wide range of emergencies; including localized acts of nature, accidents, and technological, or attack-related, emergencies. It helps to foster a feeling of stability throughout society especially after an incident such as a natural disaster.

A smart national security strategy or emergency response does not rely solely on governmental agencies and organizations. Citizens, too, have the capability to help protect their country if they have the proper education. This is why individuals are, or should be, advised and encouraged to educate themselves on the topics of preparedness,

communications and information management, resource management, command management, and the ongoing need to adapt and evolve with the changing threats. Increased awareness of such objectives allows for the greater likelihood of a successful emergency management system.

Reducing the direct harm from natural disasters will require attention to certain aspects such as increasing local resilience, improving relief capabilities, and, when it is unavoidable, assisting with the evacuation and relocation from the most vulnerable areas. Through the implementation of efficient monitoring systems across the various institutions, organizations, business and private sectors, and most importantly amongst the local tiers of citizens and potential responders in the eventuality of crises, no matter the cause, size, location, or complexity the country will be able to address the myriad of threats it faces with greater functionality. Secondly, having a centralized 'Head of Command' to be the figurehead for the emergency response effort would be a means of efficiently communicating and allocating the most situationally-appropriate needs, roles, responsibilities and policies to mitigate the loss of lives, living accommodations, and livelihoods. To have a successful strategy which ensures the safety of the American people and advance national security interests there must be a defined leader in the event of a natural disaster, without such, the country is certain to be unsuccessful in many aspects of the response and recovery efforts.

Lastly, these challenges require strategic patience and persistence...Knowing that it is important to continue growing a knowledge base and improve functionality, the United States will need to draw from the experiences and expertise of those individuals, organizations, and countries that deal, or have dealt with, the varying array of natural

disasters that threaten America and its interests. This will require the country to take its commitments, responsibilities, and obligations seriously and to make smart investments in the foundations of national power. At times it may be necessary to reach out to allies to request aid without hubris interfering. Learning how they not only responded to, but prepared for, those situations will prove invaluable in the continued effort of the United States to improve its own strategies. The safety and security of the nation and its citizens is too important a calling to cause worry about wounded pride.

### **Discussion**

This strategy will provide protection from all hazards for the citizens, properties, and government agencies and organizations within the United States. Effective emergency management includes a functional approach to all emergencies, cooperative planning, appropriate use of resources, and shared responsibilities among all levels of government. This strategy addresses those types of issues as it incorporates the ideas and overall input from all the levels of government, various agencies and organizations, but it also includes the unique skill-sets and perspectives provided by civilians and allies from foreign nations. The collaborative effort of all the individuals involved is extremely beneficial, but it also emphasizes the need for central leadership in the response efforts. Any effort made without a source of leadership has less chance of being successful due to failures in communication and the mishandling of critical resources.

### **Conclusion**

A topic discussing the potential harm natural disasters can cause the nation is relevant due to the increase in frequency as well as intensity of such events in an era of rampant terrorism. In many instances emergency response plans perform as hoped for:



they provide aid to those who are suffering and in need as a direct result of natural disasters, acts of terror, epidemics, mass casualty events, cyber incursions, or failing infrastructure, but the attention is more often focused on the cooperation of emergency response authorities in their response, rescue, and relief efforts which diminishes the focus on national security.

It is times like those that the country becomes the most vulnerable to attack. The monitoring of security threats is of the utmost importance for the country due to its many enemies and the plots it faces on a daily basis. The reallocation of attention from the security and defense efforts to that of emergency response, while not inherently bad, can be detrimental to the nation as it has been proven that enemies wait to exploit moments of weakness or vulnerability in the aftermath of natural disasters. Consequently, the nation must be ever vigilant in its threat monitoring. The best way to handle any issue is to continue developing and honing new methods and strategies to address threats to the United States' national security be they natural or man-made.

*This page intentionally left blank.*

## **Chapter 2: Management**

### **Managing Threats from Natural Disasters**

#### **Introduction**

As Hurricane Katrina in 2005, the 2010 Haiti earthquake, or the 2004 Indian Ocean tsunami have made all too clear, natural disasters can be very difficult to predict and fully prepare for. They can have incredibly far-reaching consequences for the safety and wellbeing of individuals and communities. The impacts on people and society in affected areas are immediate and overwhelming. Such catastrophes tend to exacerbate pre-existing problems and insecurities. In the United States, fallout from a substantial natural disaster could unintentionally increase the nation's vulnerability for a terrorist attack. The effect natural disasters have on the country's national security is an important issue that needs to be addressed. This can be seen throughout history, for example, in the aftermath of the 2004 Indian Ocean tsunami, studies show that the rate of terrorist attacks in Sri Lanka and Thailand rose significantly as a result of vulnerabilities exposed through the disaster (Berrebi & Ostwald, 2011). This is amongst the most dire consequence of natural disasters, one which this country must monitor and work to eliminate.

Throughout the chapter the effects and dangers natural disasters pose significant danger against the backdrop of this country's safety. To combat these dangers the U S must develop a course of action or management program to preemptively deal with the issues as well as more readily respond when they arise. It is the duty of the government to protect the welfare of its citizens, and thus must be prepared to handle any eventuality. What works to the benefit of such efforts is the myriad management theories that can be used to address the unique aspects of each problem. As each new situation comes to pass,

there are often differing opinions as to how best to handle them; having so many different management and leadership theories is beneficial as they allow for flexibility and the incorporation of shifting focuses. This chapter identifies and discusses the management theory or theories that inform the development and implementation of a management system aimed at neutralizing or at least diminishing the risk that natural disasters pose.

### **Management Theory**

The success of any organization, whether it is a small, homegrown mom-and-pop shop or a multi-billion dollar conglomerate with thousands of employees, is contingent on the efficiency and effectiveness of internal operations. The best way to achieve that success is to have a system of management in place. Management is defined as the organizational process that includes strategic planning, setting objectives, managing resources, deploying the human and financial assets needed to achieve objectives, and measuring results for later use or for others within the organization (Stuhlman, 2015). Effective management is important to an organization because it involves planning and goal setting, along with motivating workers in order to execute the plans.

Effective management creates a direction for the organization and communicates the vision both internally and externally (Brecken, 2004). Management functions are not limited to managers and supervisors. Every member of the organization has some management and reporting functions as part of the job. Across the spectrum every member can have an impact on the respective failures and/or successes of a system of management within the organization. Therefore, the actions of the individuals within the organization or corporation directly correlate to organizational survival.

A key aspect that fosters the survival of an organization is its ability to adapt to the constantly changing times and situations. The methods leaders use to learn and to impart operational knowledge must change as fast or faster than the environmental changes which threaten viability. The new strategy for leaders has to be about constantly adapting to a constantly changing landscape. In order to achieve this, the focus must be to look beyond competition and market share to more fundamental questions of survival and sustainability in a turbulent and continuously changing environment (Matai, 2011).

There are many different frameworks and methodologies for strategic planning and management. While there are no absolute rules regarding the 'right' framework, most follow a similar pattern and have common attributes. They differ though in their methods of achieving a desired goal, which in this case would be a successful and prosperous emergency response organization. The need to address the failures in the handling of previous natural disasters is what influences the development of new theories of management.

There are three important management theories that informed the development of the strategy outlined herein. Developing knowledge or understanding, even in a limited capacity, of the management concepts enables intelligent, well-informed decisions. In this case the theories that helped shape this strategy are: Chaos Theory; Complexity Theory; and Systems Theory.

Chaos Theory was developed by Edward Lorenz (Oestreicher, 2007). It is a scientific principle describing the unpredictability of a system. Its main idea is that systems sometimes reside in chaos, generating energy but without any predictability or direction. The two main components of Chaos Theory are the idea that systems,

regardless of how complex they may be still rely upon an underlying order, and that even very simple or small systems and events can cause very complex behaviors or occurrences. These complex systems may be weather patterns, ecosystems, water flows, anatomical functions, or other organizations. As a business gets larger and more complex, it becomes even more susceptible to chaos.

One of the major concepts of Chaos Theory is the Butterfly Effect which essentially maintains that small changes can have an immense impact on future events. The Butterfly Effect can be both good and bad for a system and in turn for the people and the country. Although change is necessary, if it is a change forced on a community or country as a result of a natural disaster, then it can be harming in many ways. However, change does not have to be seen through the lens of negativity. Instead of letting chaos and change cause a long lasting harmful effect on society it could be the catalyst for developing a new emergency response system designed to handle natural disasters and the potential fall outs (Oestreicher, 2007). Embracing the ideas and concepts behind Chaos Theory could help create a system that is more capable of mitigating the dangers the United States faces and make it more secure against potential threats.

The second theory that informed this strategy is Complexity Theory. Most of the ideas and concepts of this theory were developed at the Santa Fe Institute in New Mexico (Mason, 2016). While Complexity Theory is strikingly similar to Chaos Theory, complexity theorists maintain that chaos, by itself, does not account for the coherence of self-organizing, complex systems. Rather, complex systems reside at the edge of chaos. The actors or components of a system are never locked-in to a particular position or role within the system, but they never fall completely out of control (Mason, 2016). This

system shows the combination of independent actors behaving as a single unit. This theory attempts to explain how even millions of independent factors and elements that are involved can unintentionally reveal a pattern in behavior and properties that, while present in the overall system, are not present in any individual component of that system (Mason, 2016).

The third management theory that informed this strategy is Systems Theory. It is utilized as an essential tool to develop a plan to handle the threats the United States faces as a result of natural disasters. Systems Theory was founded on the work of several influential contributors including Ludwig von Bertalanffy, Anatol Rapoport, Kenneth E. Boulding, William Ross Ashby, Margaret Mead, Gregory Bateson, C. West Churchman, among others, throughout the 1950s. It was also backed by the cooperation of the Society for General Systems Research (Gaia, 2008).

Systems Theory is based on several fundamental ideas. The first is that all phenomena can be viewed as a web of relationships in a system. Each aspect of the system is connected and plays a role in the outcome of the others as well as the system as a whole (Gaia, 2008). Another core principle is the belief that all systems, whether electrical, biological, or social, have common patterns, behaviors, and properties that can be understood (Gaia, 2008). Understanding patterns and various properties within a system allows those developing new policies and programs to make educated decisions based on the research as to what will likely be the most effective course of action.

Systems Theory is essential to establishing, as well as maintaining, a sustainable management strategy. This theory looks at management as a collection of disparate parts that are drawn together to accomplish a common goal. These parts have specific jobs and

responsibilities and they intertwine becoming dependent upon one another so much so that if one part is removed the entire system itself has to change.

The theory speaks of the system having four key components: inputs, which are the resources that are used; processes, the planning and brainstorming put in to develop ideas; outputs, the services they provide; and outcomes, an increase in productivity (Tropeano, 2015). The diagram below gives a visual of this system and its key components.

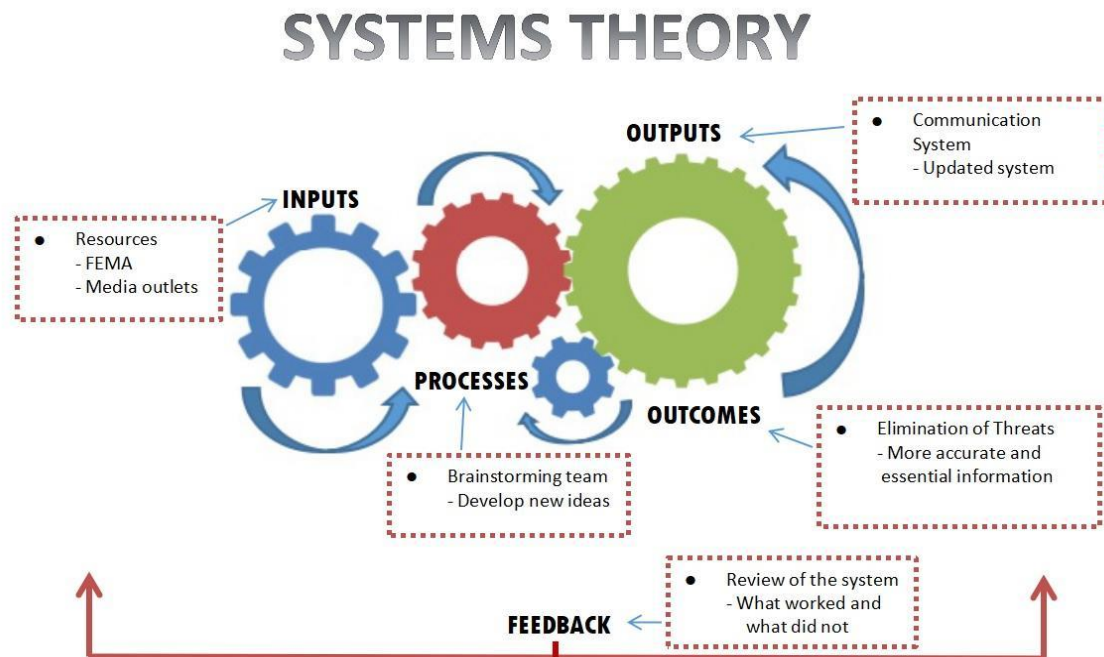


Figure 1. Systems Theory illustrates a breakdown of Systems Theory interconnecting parts.

Learning about the various management and leadership theories demonstrates and encompasses the diversity of ideas and concepts that can be utilized in the development process. Like a venn diagram, the theories and standards converge upon the central goal of establishing an efficient and sustainable management system.



It is for that reason that every endeavor should tailor the most appropriate theories to suit its central purpose. The theories which best complement the topic of this thesis are Chaos Theory and Systems Theory as they are ideally suited to complex, multi-tiered, and chaotic events such as natural disasters, while simultaneously maintaining tangential awareness of national security demands in their wake.

Systems Theory can be of particular benefit in the development of a management system. This theory serves as a guide to the development and prioritization of ideas. At the same time, it aids in taking into account the individual elements as much as the outcome. The concept is reminiscent of an excerpt from an article by Alex Wright (1997): "You will not improve an outcome by concentrating on that outcome, you will only realize an improvement through making a change to the process that results in an improvement in the outcome" (p. 319). This method has developers making changes to the processes, which, as Wright's ideas suggest, will improve the outcome overall of an endeavor. Systems Theory may seem like basic methodology, but simplicity mastered can trump more elaborate processes, ensuring a discerning eye for every aspect of this system of management.

### **Application of Theory to Strategy**

The utilization and successes of management theories can be seen throughout society as readily as those which have failed. The inner workings of any prosperous business need not be examined to see whether or not they have a management strategy, but simply to determine which theory was used. The necessity of management theories in any organization is of the utmost importance.

The strategy developed will provide protection for the citizens, properties, and government agencies from threats in the face of natural disasters. Effective emergency management includes a functional approach to all emergencies, cooperative planning, appropriate use of resources, and shared responsibilities among all levels of government. The strategy developed incorporates these ideals in its approach to handling some of the main issues at hand.

The end goal of this system is to guarantee the United States is secure from threats even in times of struggle, as after a natural disaster. To do so entails addressing the components that are not working within an organization. An issue that has been made clear time and time again is the lack of communication which has the potential to cause long-lasting and devastating consequences.

Systems Theory has four basic components that help manage and address problems within a system: Inputs, Processes, Outputs and Outcomes. For the system developed in this thesis, the inputs are the resources that are utilized. This includes resources such as the various emergency response agencies like the Federal Emergency Management Agency (FEMA) and media outlets like television, radio, printed newspapers, even many of the new social media applications which would be useful to relay information to the people in times of emergency. These resources will be essential in addressing the communication problem.

The Processes component includes planning and brainstorming ideas that will implement the resources to develop a system that creates a better communication system. Some ideas will be good and others less so, but this is where the ideas are worked and developed into something more. Within this system the Process component includes the

development of a communication team between the emergency response organizations and agencies like FEMA and the various media outlets. This communication team will be made up of several branches, each focusing on a specific form of media in order to best communicate during emergency situations.

The Outputs of this process will be the services this communication system provides, which in this case would be a better system of communication. This process will utilize today's media outlets, such as local and national television, radio, and newspapers. It will also utilize social media outlets like Twitter, Facebook, Snapchat, and similar media to reach the people. This communication system looks to eliminate the issue of misinformation that is common currently with the media.

The Outcome of this system will be to convey the most accurate and essential information to people and communities which have been affected by a natural disaster. The proper utilization of this type of system will eliminate some of the chaos and confusion that people succumb to after a tragedy; without such it would put more strain on the country and emergency response organizations. A proper communication system will also mitigate the problem of wasted resources and manpower. Overall, the implementation of this communication system will leave this country more prepared and secure even in challenging times.

## **Conclusion**

The different theories of management and leadership described above are only some of the many concepts developed over the years. They are extremely important because they are the framework behind the ideas that go into developing a strategy of management that addresses the underlying issues. Choosing the right model to combat an

issue is essential; the use of Systems and Chaos Theories addresses the issue of natural disasters and the effect they have on the nation's security. Management like this is essential in addressing the communication issue that the United States suffers after a natural disaster. Management systems are utilized to develop plans of action that combat the growing issues and adapt to changing times to ensure that homeland security is effective, efficient, and successful.

Chapter 3 focuses on strategic planning and budgeting. It examines the budgeting needs of the essential changes in this developing strategy. Funding for proposed changes will have to be provided. Therefore, the study of the budgeting system is necessary in order to obtain the funds required for the changes. This is a topic that is discussed at greater length in the next chapter.

*This page intentionally left blank*

## **Chapter 3: Strategic Planning and Budgeting**

### **FEMA: The Development of a Strategic Plan**

#### **Introduction**

Strategic Planning is an important development tool for an organization. This chapter will demonstrate the use of this tool in one of the United States most noted emergency response agencies the Federal Emergency Management Agency (FEMA). The process includes several components that when addressed, help to develop an effective and efficient strategic plan. This strategic plan includes: an executive summary; FEMA mandates; stakeholder analysis; a vision statement; a mission statement; an internal and external analysis; strategic issue identification; performance goals; an organizational checkup; and discussion of budget and resources. Each of these components will be discussed in greater detail throughout the chapter to formulate a new, more successful strategic plan for FEMA.

It was on April 1, 1979 that President Jimmy Carter signed the executive order that created the Federal Emergency Management Agency, otherwise known as FEMA. This organization was established under the 1978 Reorganization Plan that put in place a number of civil preparedness and disaster relief functions (Carter, 1978). The beginning of this concern can be traced back to the Congressional Act of 1803:

In 1803, American responses to disaster took a significant turn, beginning a pattern of federal involvement that continues to this day. When an extensive fire swept through Portsmouth, New Hampshire, community and state resources were taxed severely by the recovery effort. This situation was dramatized to Congress, which responded with the first legislative action making federal resources

available to assist a State and a local government. This congressional act of 1803 is commonly regarded as the first piece of national disaster legislation. (Drabek & Hoetmer, 1991

From that point FEMA's purpose was to coordinate an emergency response to disasters that occur in the United States, ones that overwhelm the resources of local and state authorities. This new organization was created as an independent federal agency that oversaw disaster relief efforts and was given other responsibilities such as overseeing the nation's civil defense with the authority to counter terrorism. Following the tragic events that occurred on September 11, 2001 the Department of Homeland Security (DHS) was created. It was not until 2003 that FEMA was brought under DHS's umbrella and it is presently still part of DHS, one of several agencies that was siphoned into this organization. This however did not change their mission: to provide aid and support to those that need it.

## **Mandates**

As John Bryson states in his work, "Before an organization can define its mission and values, it should know exactly what it is formally and informally required to do (and not do) by external authorities" (Bryson, 2011 p. 121). The Department of Homeland Security, and more specifically FEMA, represents this country's effort to monitor threats and implement plans that target crisis situations that may leave this country vulnerable. FEMA has its own responsibilities or set of mandates that shape the organization:

- FEMA is the primary agency for coordination of federal disaster relief, emergency assistance, and emergency preparedness and is responsible for

coordinating the federal government's response to natural and man-made disasters.

- FEMA is charged with providing both immediate and long-term financial and physical assistance to local and state governments as well as individuals any time there is a presidential disaster declaration of emergency announced.
- It is designed to bring an orderly and systematic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens.
- It supports citizens and first responders to promote working together to build, sustain, and improve capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.
- It ensures that the nation's first responders are trained and equipped to deal with weapons of mass destruction. (FEMA, 2016)

### **Stakeholder Analysis**

An important concept that is often misconstrued is the difference between a shareholder and a stakeholder. Contrary to popular belief, the two terms are not interchangeable. According to Surbhi (2015) a shareholder is a person who has invested money in the company by purchasing its shares. On the other hand, a stakeholder is one whose interests are directly or indirectly affected by the company's actions. The difference is important to understand because they each have their own connections to the organization and, therefore, are affected differently based on internal and external activity of the company.



FEMA handles emergency situations both nationally and internationally which causes the agency to have numerous shareholders and stakeholders. The shareholders invest their money in an organization. FEMA's shareholders include state and local emergency management agencies, private businesses and non-governmental agencies (NGOs). These types of agencies play various roles throughout emergency response situations, from first-responders to those supplying resources like fresh water and medicine; this therefore, leaves them highly invested in FEMA. When these organizations, invest in FEMA as they have in the past, they are looking to see how best to mitigate the damage from natural disasters. It is a mutually beneficial relationship; if they collaborate and invest in FEMA, they will have a better response effort in a crisis.

The process of developing strategies should focus on the effect they will have on stakeholders mainly because they have a personal relationship with the organization that shareholders lack. Without consideration for the stakeholders, there is a greater likelihood of an oversight in strategic development that could weigh heavily on the success or failure of an organization and its goals. If there is cooperation between policymakers and the various stakeholders the major concerns can be addressed and met.

There are many options a stakeholder may utilize in order to monitor and critique strategic plans. Some of these options include Stakeholder Support Versus Opposition Grids, Stakeholder Role Plays, and the Ethical Analysis Grids. The Stakeholder Support Versus Opposition Grids helps group members identify stakeholder support, opposition, and importance. Bryson (2003) describes the process: to utilize this method a grid is constructed that contains the names of all the stakeholders involved. These names are placed in different sections on the board and are discussed in terms of the viability of

specific proposals and of stakeholders requiring special attention. The Stakeholder Role Plays is another method that allows a stakeholder to evaluate the strategic plan. As the name suggests, it has those developing the strategy role play as the stakeholders who would be affected by the outcome. It allows the team that is developing the strategy to develop “proposals that are likely to address stakeholder interests effectively, build a supportive coalition, and ensure effective implementation.” Lastly, the Ethical Analysis Grid is the method that examines the ethics behind the decision of a strategic plan. It delves deeper into the understanding in order to make a more informed and sound decision on what is ethical in the development of a strategic plan. This method also uses a grid like the Stakeholder Support Versus Opposition Grid does, to understand the results and make sure they are ethically sound. These methods are all viable options for a stakeholder to evaluate a strategic plan, which is an essential step in the development process.

### **Vision Statement**

A vision statement is critical to the development of an organization’s strategic plan. It is used to explain an organization’s core beliefs and values and what it wants to be in the future. In the development of new strategic plan for FEMA a vision statement is a necessary component. Developing a vision statement will help it work in accordance with the organization’s beliefs and keep it on track to reach its goal. An example of a vision statement for FEMA follows: By 2025, we foresee FEMA as a fully realized agency through improving functionality, communication, and cohesion between the now disparate offices, organizations and subcultures of Homeland Security. This will give rise to an American populace that will be regionally and nationally protected in the event of

natural disasters. Through centralized communication, technological innovations, preparedness, and planning FEMA will be able to completely navigate the needs and assignments of all partners, contractors, responders, and volunteers, uniting all efforts under one banner to mitigate the immediate aftereffects of natural disasters and save every possible life in any and all stricken regions no matter the severity. FEMA will serve as a symbol of compassion and understanding, a beacon of hope and relief, the embodiment of fairness and integrity, and of dependability and efficiency in the event of all disasters around the world.

### **Mission Statement**

Mission statements discuss the reasons organizations exist. For the most part mission statements stay relatively the same as when they are first developed. Obviously, the reason the organization was created in the first place does not undergo as drastic a change as the vision and goals that have been set might. There are times when developing a new strategic plan one might add to an existing mission statement to include certain aspects that may have been missing. With an organization such as FEMA that has in existence as long as it has, the mission statement has been generally consistent with only slight changes. FEMA's mission is "to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards" (FEMA, 2018). In an attempt to improve FEMA's current mission statement one might look to increase the focus on preparations and recovery efforts. Also in an increasingly technological age one might add a focus on improving the awareness against technological hazards. In addition,

highlighting the need for a community-based program that gets everyone involved and working together would help FEMA in its attempts to become more secure in its efforts.

### **Internal & External Situational Analysis**

In Robert M. Grant's work, "Contemporary Strategy Analysis" (2016), he states that "without analysis, strategic decisions are susceptible to power battles, individual whims, fads, and wishful thinking". To add to that idea Bryson (2011) states that, "simply creating a list of strengths weaknesses, opportunities and threats is not enough. The list must be carefully discussed, analyzed, compared, and contrasted; that is how a SWOT analysis must be performed." On a fundamental level a SWOT analysis is a process that identifies the strengths, weaknesses, opportunities and threats of an organization. A SWOT analysis determines what helps the organization in accomplishing its objectives, and what obstacles must be overcome or minimized to achieve the desired results. This is vitally important because it helps the organization to be efficient, successful, and sustainable. Conducting a SWOT analysis on FEMA is a beneficial tool for the organization because it identifies its strengths, weaknesses, opportunities, and threats.

FEMA is an important agency in the field of disaster relief. A quick review shows it has many strengths. First FEMA has been in existence since the late 1970s which counts as a strength because it shows that this organization has endured the changing and sometimes challenging times. It has dealt with emergency situations in the United States which has given it much needed experience and expertise in the handling of those situations. Another strength of this organization is its flexibility. Obviously, times change and the effects of disasters can be more severe than in past instances but FEMA has been

able to change with it. If this organization was not as flexible throughout the years, it would not have been able to meet new challenges and assist in emergency situations. Another strength of this organization is the staff because they make FEMA successful. They are smart, competent, and specially trained individuals, which is a critical component for any emergency management agency. These individuals make it possible for FEMA to provide the response, rescue, and recovery effort needed in emergency situations. One strength that many may overlook is FEMA's website. It contains easily accessible disaster prevention materials and other information about various types of nature-caused incidents and how to prepare for them. FEMA also has a presence in local, regional, and federal levels which makes it better able to administer aid in times of need. It also gives it an advantage because there is a greater possibility of communication among groups.

Every organization has weaknesses but it is how these are handled that that makes the difference. Instead of looking at a weakness in a negative light, an organization must make it a positive learning experience. For an organization like FEMA there are definitely some weaknesses. One of weaknesses FEMA faces is the fact that not all emergency situations can be anticipated. Some situations are unprecedented which can leave established plans ineffective. Another issue that can be considered a weakness is the fact that sometimes there are too many emergency response teams involved. While the offer of aid and assistance is greatly appreciated and welcomed, it can cause the possibility of a miscommunication between teams or people involved. This can lead to resources and help not being distributed effectively. The effect of poor communication was seen most notably during the response to the September 11th attack. Poor

communication can be detrimental to an emergency response plan and cause unnecessary loss of life.

FEMA has the opportunity to use international experiences in disaster situations, rescue, and crisis management. It allows FEMA to be one of the most knowledgeable and reliable organizations for disaster planning and handling. Some people have the opinion that the U S should take care of U S problems first and not get involved with disasters in other countries. However, when it helps others in times of need, it has an opportunity to learn. When some groups may be suffering or experiencing a disaster, it is a chance for FEMA to advance the organization while aiding other countries. It makes the United States better able to handle a wide-variety of situations.

In turn, a major threat that FEMA faces is from media outlets which can spin the story of an emergency situation in ways that can damage response efforts. It can threaten to tarnish the confidence citizens have in the agency's qualifications and also can create inaccurate coverage during a crisis. Media outlets should ethically and accurately report information to do what is best for all citizens. Unfortunately, that is not always the case; instead they can focus on the shortcomings that may arise. On the other hand, if FEMA were to choose to not communicate with or work with the media, it would prove to be detrimental. There would be countless people without knowledge of the current situation, leading to a rise in panic and unrest. Also, if FEMA is not open about what is going on, media outlets may dig for a sensational story to tell, exposing any flaws they discover in the process.

### **Identifying the Strategic Issues**

As Bryson (2011) mentions, strategic issues are “fundamental policy questions or critical challenges affecting the organization’s mandates, mission and values, product or service level and mix, clients, users or payers, costs, financing, organization, or management.” Any attempt to address these issues must begin with first identifying them. There are eight different approaches used in strategic issue identification. These approaches are: the direct approach; the goals approach; the vision of success approach; the indirect approach; the action-oriented strategy mapping approach; the alignment approach; the issues tensions approach; and finally, the systems approach. The direct approach is seen as the most useful approach for government and nonprofit organizations. This is so because planners use the review of mandates, mission, and SWOTs to identify strategic issues. The goals approach requires the organization first to establish goals and objectives for itself and then identify issues that need to be addressed to achieve those goals and objectives, or it may go straight to developing strategies. The vision of success approach occurs when organizational members are asked to develop a "best" picture of the organization in the future, as it fulfills its mission and achieves success. The indirect approach begins with brainstorming about different kinds of options before identifying issues. The action-oriented strategy mapping approach involves creating word-and-arrow diagrams which contain statements about potential actions the organization might take, how these actions might be taken, and how linked arrows indicate the cause and effect or influence relationships between them. The alignment approach helps to identify where there are gaps, inconsistencies, or conflicts among various elements of an organization. The issue tensions approach states that any strategic issue always presents four basic tensions: human resource, equity concerns, innovation, and change maintenance of

traditions and productivity improvement. The last approach is the systems approach which describes the best way to frame issues when a system contains complex effects in order for the organization to fully understand them (Beulah Heights University, 2015).

To identify strategic issues with an organization like FEMA, while it is certainly possible to use a different approach, the direct approach is probably best suited. Some of the strategic issues FEMA might face are in the media and public opinion. In many instances the media has had a significant effect on a situation. In some cases it can be positive and other cases less so. In the past media has found ways of twisting a story to give a particular slant to it whether or not it is the actual truth. In instances where FEMA is involved with the media, it is usually important events such as natural disasters or other tragic events. This is a time where all the right information needs to be given; otherwise it can cause mass hysteria or complications and delays in relief efforts. The media's effect can also influence the community and its opinion of FEMA. The influence can either help and strengthen FEMA's public opinion or harm it by creating doubt and uncertainty in the people. Teaming up or partnering with media sources would be a way to combat the issue of any negative influence that has happened in the past. It is a way for the media to get the correct information and work together to give the people the answers they are looking for. It allows FEMA's plans and goals to be better understood so that it does not cause confusion, fear, or doubt in the people. This can lead to the people having a greater sense of reliance and trust in FEMA and its ability to help them in their time of need.

The concepts behind the strategic issues that FEMA faces gives it the ability to learn which is that the American populace will be regionally and nationally protected in the event of natural disasters. Addressing the issues that arise prepares FEMA and forces



it to make changes and to strive to meet those challenges. The ability to be flexible and face those new challenges gives people knowledge of the organization and confidence that can be used when developing an updated strategic plan. This experience helps FEMA to take steps toward its vision of success.

### **Performance Goals**

SMART goals is a widely used concept and effective tool that provides the clarity, focus and motivation an organization needs to achieve its goals. At the same time it can also improve an organization's ability to reach them by encouraging people to define specific objectives and set a completion date (Haughey, 2014). SMART is an acronym that stands for specific, measurable, attainable, assigned responsible and with a time frame (Bryson, 2011). Goals need to be specific by answering the questions of "how much and what kind." They must be stated in a way that can be monitored and measured to see the progress being made. Being able to measure one's progress creates a sense of accomplishment when goals are met. That sense of accomplishment can be reached sooner if an organization creates goals that are attainable. Creating realistic goals helps to eliminate any disappointment or sense of failure. For a greater chance of goals being met they must be assigned to a person or a department to be handled. It is too easy to believe that someone else will do what is necessary to accomplish the goals. A timeline of when the goals should be accomplished must be included. Having a timeline helps an organization to meet its goals by adding a slight pressure. Setting a timeline can also be used as a tool to foster growth and efficiency.

The development of a new and innovative strategic plan is subject to the implementation and use of SMART goals. For FEMA to make strides towards accomplishing its mission, it should break goals into smaller units. These smaller goals can serve as building blocks or first steps towards reaching the major goal. One of those steps can be to develop a partnership between FEMA and media outlets so as to foster an informative and beneficial source of information during emergency situations. In order to efficiently reach this goal FEMA should follow the SMART guideline. To be specific: FEMA should put together a team of five individuals that directly handle the information that flows between the organization and the media outlets. There would be one that oversees the four other members in that team. One member would be in charge of handling the flow of info from FEMA to the television outlet such as the news channels like FOX or CNN. The second individual would handle the relationship with radio outlets such as the emergency warnings and any evacuation notices. The third individual would handle the print media which includes sources such as newspapers like the *NY Times* or magazines. Lastly, there would be someone to handle the internet sources. This would include all the news websites, blogs, social media sources like Facebook, Twitter, and Snapchat among others. These four individuals will each have their own team to assist them in their task. This should be done by the end of 2017. FEMA will measure the success of the four team leaders within their new program to handle the media outlets. Each of these team leaders will have their own team to put together. This team may consist of approximately 30 to 50 individuals to handle the different aspects of the media outlet they have. They should do this before December 31, 2017. FEMA would assign a new individual to head this program and manage the new team leaders that handle the

media relations. It is essential that this person be experienced in leadership to be better able to handle the weight of the responsibility. The head of the program would be also in charge of hiring four individuals to fill the positions of team leaders who are in charge of handling the relationship between FEMA and specific media outlets. While the four team leaders would be in charge of building their teams, they would still have to be approved by the head of the program who would also oversee or monitor the hiring of the teams. Finally, to be time specific, FEMA will hire the head of the media relations by April 2017. The new leader would then have until the end of June 2017, to hire the four team leaders under him/her. From there, they would have until December 2017, to hire their teams to assist them in their goal.

### **Indicator**

Bryson (2011) writes, “Strategy may be thought of as a pattern of purposes, policies, programs, projects, actions, decisions, or resource allocations that defines what an organization (or other entity) is, what it does, and why it does it.” In order to measure the status of a certain strategy an organization can use the “Five-Step Process.” By doing so the organization, FEMA in this case, must ask itself five questions: first, what are the practical alternatives, dreams, or visions we might pursue to address this strategic issue, achieve this goal, or realize this idealized scenario; second, what are the barriers to the realization of these alternatives, dreams, or idealized scenarios; third, what major proposals might we pursue to achieve these alternatives, dreams, or idealized scenarios directly or to overcome the barriers to their realization; fourth, what major actions (with existing staff within existing job descriptions) must be taken within the next year (or two) to implement the major proposals; and lastly, what specific steps must be taken within the

next six months to implement the major proposals and who is responsible. Answering these questions may help an organization determine its performance concerning a specific issue.

One of the strategic issues mentioned earlier was media outlet's negative involvement in emergency situations. There are some practical alternatives that FEMA can use to alleviate this issue such as teaming up or partnering with media sources. It is a way for the media to get the correct information and work together to give the people the answers they are looking for. It also allows FEMA's plans and goals to be better understood so that it does not create more confusion or fear in an already trying time for people plagued by a disaster. Having a clear channel of communication would eliminate the unnecessary confusion and panic. This would also lead to the people having a greater sense of reliance and trust in FEMA and its ability to help them in their time of need.

Today with so many distractions and influences, the issues an organization faces are not as easy to fix as one might hope or it would be done already. There are always issues that may hinder attempts to eliminate the original strategic issues. In this case with FEMA, an obstacle that may hinder the elimination of negative media influence is the media's goals where individuals may try to advance themselves and their careers without concern for the damage it may do to others. This is why the media influence can be dangerous. There are many different options that FEMA could pursue to help circumvent issues and achieve its goals. There could be new training programs implemented by both FEMA and the media to teach their employees how to build better communication skills and develop better relationships between the two. This would promote a better flow of information. There could also be a complete overhaul of both FEMA and media outlets

by introducing new staff that may be better suited or qualified for the new programs and who would put the importance of information to the public over personal or organizational goals.

In order to make the much needed changes in the work between FEMA and media, there needs to be major changes within the next two years. One aspect of this change would include staffing alterations, whether additions or eliminations. The implementation of new programs and methods might intimidate some people because it requires change. It may be hard at first but it is needs to be done if an organization wishes to evolve into its best version.

It may call for FEMA, within the next few years, to bring in new team members that are more qualified and to release those that are not doing what they need to do to keep up with the growing organization. Also some might argue that certain programs that FEMA implements currently are working and do not need to be changed. It is through other changes that FEMA has the opportunity to grow and be better. In actuality revamping the think-tank may be a starting place. Alteration in the staff can help because it fosters the flow of fresh, new ideas and keep people thinking outside the box. At the same time it is advisable to keep some people who can provide experience. The combination would help the organizations build success. Within the next months FEMA should develop a think-tank team to develop with ideas that could improve the relationship between the two organizations and in-turn set the stage for new programs that may change the flow of information within. They could analyze the existing programs for problems. Only by knowing that can the organizations hope to make the necessary changes.

## **Budget and Resources**

The importance of money cannot be denied. That is why budget development plays such a critical role in the creation and implementation of an organization's strategic plan. A budget is "a comprehensive financial plan for achieving the financial and operational goals of an organization," as explained by Louis Stratton (2015). An organization can use the budget to develop and set goals that are attainable with the resources they have. It is clear that budgets can be advantageous for organizations if used properly. It can promote coordination efforts and team building between different groups within the organization in order to cut excess spending. At the same time it builds the morale and feeling of interconnectedness by highlighting the fact that they are all working towards the same goal. This promotion of teamwork can help in cutting excess spending as well as increasing efficiency within the organization. The problem with budgets is that they can become very difficult to create due to the fact that they frequently fall prey to politics. Bryson (2011) notes in his text that, "the hustle, hassle, and uncertainty of politics means that budgeting typically tends to be short-term, incremental, reactive, and oriented toward tracking expenditures and revenues- rather than long-term, comprehensive, innovative, proactive, and oriented toward accomplishment of broad purposes, goals, or priorities." Regardless of the importance of budgeting in the process of strategic planning or the potential advancement it can promote in an organization, politics can still significantly affect the allotment of budgets and, ultimately, an organization's future. Each step of the budgetary process involves negotiations and interactions among the political actors and stakeholders alike. It is essential that stakeholders build a working relationship with those

political actors so as to eliminate any misuse of power and increase the chance of success in the development of a strategic plan.

## **Conclusion**

Throughout this chapter the importance of implementing strategic planning within FEMA has been highlighted, discussing in greater detail the emergency response agency FEMA, its history, its requirements, and its aspirations for the future. The strategic plan involves including the needs and ideas of stakeholders, which have a vested interest in the respective successes and failures of the organization. Additionally, the SWOT analysis was described which identifies the strengths, weaknesses, opportunities, and threats of an organization. This analysis in combination with the Direct Approach helps identify the strategic issues that FEMA faces. After the strategic issues within FEMA have been identified, the use of the SMART goals concept helps provide the clarity, focus, and motivation an organization needs to achieve their goals. With the goals set, strategic issues identified, and the budget concerns discussed, the use of the Five-Step Process help keep FEMA on track to meeting those goals. Addressing these components are necessary steps in strategic planning and in the development of a effective and efficient strategic plan for FEMA.

*This page intentionally left blank*



## **Chapter 4: U. S. Constitution and Ethical Issues**

### **Natural Disasters, Strategic Issues, & the Constitution**

#### **Introduction**

When a pebble is dropped in calm water, ripples are produced in every direction. If nothing else interferes, the range of the ripples will increase, even though the effect of the pebble diminishes as they go. This concept, called the Ripple Effect where one event causes a series of other events to happen, shows how connected things can be and the impact one event can have on the future. The Ripple Effect can be seen in many instances and events, for instance, in the aftermath of a natural disaster.

For example, if a hurricane hits New York, causing massive amounts of power outages, flooding, and fires, it leaves the community in a state of emergency and the people in a panic. Emergency response agencies will receive the call and take the appropriate steps to provide aid and resources to the affected area. Due to the severity of the hurricane and the surge of injured following the storm, the response and recovery effort can overstretch available resources, such as manpower, medical supplies, and fresh water. Then with attention and resources being directed to the afflicted area, a terrorist organization may see this as its opportunity. Observing the current state of vulnerability in the aftermath of a disaster, terrorist organizations can utilize this distraction to execute an attack.

This chain of events is hypothetical, but the moral behind this scenario is that the danger is very real. Emergency response organizations expend much of their time reacting to unexpected events instead of anticipating and learning to prepare for them. In such instances, in the event of a natural disaster, organizations can get caught off guard

and unprepared, often leaving them to cope with the sudden surge and other ensuing problems. Consequently, these organizations and the country are left vulnerable with little energy and resources to anticipate and prepare for the next challenges to come. This cycle of hindrance can lock organizations into a reactive posture rather than a state of readiness or better yet, a proactive stance. Strategic planning provides a sensible alternative. In short, strategic planning is defined as a step by step procedure with definite objectives and solutions that can be implemented as well as reevaluated throughout changing times. This process allows organizations to look to the future, to envision scenarios based on relevant trends that can either be prevented or properly addressed, while also influencing the forces that may affect the organization.

This chapter reviews the various constitutional Amendments and how they may have an impact or may affect the issues being discussed. The Constitution affects everyone in the country and, so too, do natural disasters. The unexpected nature of these incidents leaves agencies to clean up after it has finished. Various agencies are involved in the response effort following a major incident. It is the methods and strategies that are used to respond to these incidents that may fall under the scope of the Constitution, especially the Amendments. Discussing the relationship between the issues being addressed and the constitutional Amendments will reveal the significance on the implementation of a just and successful emergency management system.

This chapter will also go into detail on the highly controversial Patriot Act. It will discuss the controversy behind the Patriot Act and the role it plays in regards to communication, the media's influence and the threat that natural disasters pose.

## **Constitution**

On September 17, 1787, delegates to the Constitutional Convention in Philadelphia, along with George Washington, signed into effect the U S Constitution. This document established America's national government and fundamental laws, and guaranteed certain basic rights for its citizens. In the beginning, this country was divided and weak having been governed by the Articles of Confederation. To remedy the situation delegates developed a new plan that would make this country stronger than it was before. To do so they planned to have a stronger federal government comprised of three branches: the executive to execute the law; the legislative to write the laws; and the judiciary to interpret the law.

In addition, a system of checks and balances was set up to make sure that no one branch held too much power over the other. It was only four years later in 1791, that the first ten Amendments, or Bill of Rights, were developed. The Bill of Rights covers the concept that every individual has certain unalienable rights guaranteed. The founding fathers knew that this was a document that had to withstand time so they wrote it as a living document, one that grows with the times, and therefore can address new and current issues. The power to amend this document allowed the government to expand on certain right or laws that needed to be put in place. As of today, there are twenty-seven Amendments to the U S Constitution (FindLaw, n.d.)

The Constitution has been the backbone of this country for over two-hundred years. It is a flexible document that is broad enough to cover the myriad of issues that it faced throughout the years. This left the Constitution open for interpretation by the people. Over the years there have been a plethora of interpretations on all aspects of the

Constitution. The two main philosophies of constitutional interpretation are: strict construction and loose construction.

Those who are strict constructionists interpret the Constitution based on a literal and narrow definition of the language without reference to the differences in conditions when the Constitution was written and modern conditions, inventions and societal changes (Legal Dictionary, n.d.). It also occurs when judges and Supreme Court Justices aim to use only the text of the Constitution and the facts of the current case in making their decision. On the other hand, loose or broad constructionists look at may be the "intent" of the framers' language and expand and interpret the language extensively to meet current standards of human conduct and complexity of society (Legal Dictionary, n.d.). As the definition suggests, loose constructionists give broader powers to the federal government. These views are two very different viewpoints on the Constitution. This affects the impact of the Constitution on certain issues.

The concept of strategic planning is crucial to the success of any organization. Strategic plans put into effect goals that will help the parent organization take steps towards reaching its vision. In the previous chapter, a strategic plan was developed for the Federal Emergency Management Agency, FEMA. This initiative worked on creating a mutually beneficial relationship between FEMA and media outlets. A positive relationship between these two entities will create a necessary flow of accurate information from FEMA to the people. This initiative would exemplify the media's First Amendment right to freedom of speech and press.

When emergency response organizations provide the people with the most accurate information possible, it diminishes much fear that accompanies a national disaster. It enables the emergency organization to provide aid where needed which further bolsters confidence in the agency and the abilities of its agents. The domino effect is massive, as from a public relations standpoint, there has yet to be a definitive voice. The gap invites chaos, as a gap in the wall that is the security of the nation, one which could potentially be exploited for the benefit of any number of threatening organizations, foreign or domestic.

This is why creating a central hub of communication, particularly a point person who can liaise publications and media outlets and act as a sounding board for concerns. It provides a human and relatable element to an otherwise expansive and enigmatic area of public service. The element is necessary to further consistency in execution of the relief process on any scale while maintaining the integrity of the nation's security.

Furthermore, given the current political climate revolving around the Trump presidency, many vulnerabilities are being created as the focus is on the various political issues. Understandably, national security begins and ends with the President and the various choices he and his advisors and Cabinet members make. However, it is the responsibility of those who are being governed, protected and represented, not to remain silent but to stay aware of what is going on in the country and their own areas in order to fulfill their civic duty.

Concerning Second Amendment, and using a strict constructionist lens, it is within the scope of reason to assert that in times following a national disaster, when resources

are scarce, dispatched elsewhere, or otherwise depleted, it is the constitutional responsibility to provide to citizens what is needed in the way of security and relief efforts. As President John F. Kennedy once declared, “Ask not what your country can do for you - ask what you can do for your country” (Rott, 2011). It is likely that he already realized that what he optimistically declared to the country, and the world over, was already an integral part of American identity. With the Second Amendment right to bear arms and form militias, citizens have the ability to respond in times of emergency in order to defend themselves and the nation against any real and immediate threat.

However, that optimistic and patriotic mentality is not always the reality faced by the federal government following any national incident. The burden often falls upon the government and other relief organizations to handle the threat while maintaining stability throughout the rest of the country under the “clear and present danger clause.” For instance, if something the media, in its various outlets, presents something about an emergency situation or crisis that is likely to cause unrest and further aggravate the already tenuous dilemma of how to allocate resources, it should act.

### **Patriot Act**

The creation of the U S Patriot Act came at a desperate time in American history. Following the aftermath of the tragic attack on the World Trade Center, the government needed to take action. The people wanted answers and someone held responsible for the attack. It was in this time that the Patriot Act (Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001) was developed and brought before Congress. After several attempts were made to block

the vote on this bill it, was finally signed and made law by President George W. Bush on October 26, 2001. The act itself included several provisions including:

- Pen Registers
- Addition of Terrorism and Computer Crimes as Predicate Offenses  
Permitting Interception of Communications Under the Wiretap Act
- Expanded Dissemination of Information Obtained in Criminal Investigations
- Interception of "Computer Trespasser" Communications
- New Treatment of Voice-Mail Messages
- Application of Cable Companies to Electronic Surveillance
- Nationwide Application of Surveillance Orders and Search Warrants
- Authority to Conduct Secret Searches ("Sneak and Peek")
- Expanded Scope of Subpoenas for Records of Electronic Communications
- Lowered Standard for Foreign Intelligence Surveillance
- Multi-Point ("Roving Wiretap") Authority
- Liberalized Use of Pen Register/Trap and Trace Devices under FISA
- Access to "Any Tangible Things"

- Sunset Provision
- Additional Amendments Providing Government the Authority to Combat

Terrorism

- Amendments to Immigration Laws (EPIC, n.d.)

These provisions show the extent to which the Patriot Act increased the government's investigative ability. It was not long until the Act went under fire as grossly unconstitutional legislation.

The right to privacy and the issue of government surveillance were some of the most controversial topics. This is rooted in the issue of whether or not the Act is unconstitutional. The Fourth Amendment found in the Bill of Rights in the Constitution protects the "right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures" (McInnis, 2009, p. 20). This leads some to question the provisions of the Patriot Act and the people's unalienable right to privacy.

Another aspect of the Patriot Act controversy is the fact that there was little debate in the passing of this act. As the Electronic Privacy Information Center explained, "many of the provisions of the Act relating to electronic surveillance were proposed before September 11th, and were subject to much criticism and debate" (EPIC, n.d.). The smooth passing of the act was no doubt aided by the public's reaction to the attacks on 9/11; the prior criticism was all but forgotten. In the end, the decision was nearly unanimous.



The Patriot Act had both its positives and its negatives. On one side many argued that it assisted law enforcement agencies, it increased the ease of surveillance, sped up investigations, and even increased security measures which in turn make the country a safer place for the people. Not everyone thought these pros outweigh the cons such as the unconstitutionality of some of the provisions. The Act was seen as a waste of vital resources, that it lacked effectiveness, that too much power was given to the government and that it led to unlawful detainment and/or imprisonment (Occupytheory, 2015). Understanding the different aspects of the Patriot Act is an important act of citizenship.

The government's creation of the Patriot Act was an attempt to heighten security against terrorism but instead was seen a gross overstep on its part. A strict constructionist might argue that it did violate the Tenth Amendment because the right to privacy is not explicitly stated in the Constitution (Sharp, 2013), and therefore, it should be up to the states to decide. On the other hand, as long as the government does not abuse the power and use the knowledge for unintended purposes, then added security would be good for the United States. In regards to the issues being discussed in this chapter the Patriot Act could be viewed as beneficial or detrimental in nature. In either instance, the Patriot Act plays a significant role concerning the threat natural disasters pose to this country, with any lack of communication in emergency response agencies, and the negative influence of the media.

Natural disasters can be as devastating as a terrorist attack. Both, in effect, are unexpected occurrences that leave this country damaged and vulnerable. In the recovery effort the disbursement of resources can unintentionally leave gaps in security and, in essence, provide an opportunity for malicious entities to exploit. In this case, the Patriot

Act would be a beneficial tool to be utilized as an aid to future emergency response strategies. It would allow for more freedom to monitor and eliminate potential threats before they can take advantage or exploit our weaknesses. This threat is very real, as, for example, in 2010, when Pakistan experienced a rise in natural disasters and terrorist groups used the chaos in the aftermath as an opportunity to attack (Berrebi and Ostwald, 2011).

The Patriot Act would be more of a burden with respect to the issues of communication and media relationship. The Act's provisions do not foster open communication which is necessary in any successful organization. The controversial nature of the Act would make it extremely difficult to have a positive relationship with the media. In another light, the Patriot Act was burdensome to the prospect of communication. Countless times throughout history poor communication has led to failures, for instance, like that of the response to Hurricane Katrina or to the attack on the World Trade Center. The failure in communication was detrimental to the relief effort and caused much more pain, suffering, and sacrifice than was needed.

## **Conclusion**

The ripple effect shows how there are connections in many ways. This theory is shown throughout the chapter in the various relationships that display the connectivity between the organizations involved. The significance of and the impact that the Constitution has in regards to communication skills, the negative media influence, and the overall concept that natural disasters pose a threat to national security are analyzed. As discussed, the Constitution can be interpreted in many different and versatile ways, especially in this case through the First, Second, and Tenth Amendments. Discussing the

impact that these three Amendments have on the strategic plan of emergency response agencies reveals the possibilities that are available.

The second section of this chapter focused mainly on the creation and the implementation of the Patriot Act and the overwhelmingly controversial nature that caused much dispute. The concern was whether or not its provisions made it unconstitutional. Regardless of the constitutionality, or lack thereof, the Patriot Act was used as a tool to strengthen national security. Also discussed was how the Patriot Act was both an advantage and a burden in the interests of communication, media influence, and the natural disaster threat.

The following chapter discusses policy analysis and the importance of assessing public policies. Also to be discussed are the various methods of policy evaluation that can be used in policy development.

*This page intentionally left blank*

## Chapter 5: Policy Analysis & Evaluation

### Assessment of a Developing Strategy

#### Introduction

The beginning of something new is always a challenge. It is a step into new waters that are, at times, unfamiliar and rough to traverse. Meeting those hardships requires strength and versatility. Mistakes and bad decisions will be made but there are ways to learn to handle the issues that arise. One of the most powerful speeches given in recent times is from a television show, *The Newsroom*. In this pilot episode written by Aaron Sorkin (2012), there is a college panel taking place about politics and hot button issues. The question that comes up that spurs this memorable speech is “What makes America the greatest country in the world?”

It’s not the greatest country in the world....there’s absolutely no evidence to support the statement that we’re the greatest country in the world. We’re 7th in literacy, 27th in math, 22nd in science, 49th in life expectancy, 178th in infant mortality, 3rd in median household income, number 4 in labor force and number 4 in exports. We lead the world in only three categories: number of incarcerated citizens per capita, number of adults who believe angels are real and defense spending, where we spend more than the next 26 countries combined, 25 of whom are allies....It sure used to be... We stood up for what was right. We fought for moral reason. We passed laws, struck down laws, for moral reason. We waged wars on poverty, not on poor people....We were able to be all these things and do all these things because we were informed... by great men, men who were revered. First step in solving any problem

is recognizing there is one. America is not the greatest country in the world anymore. (Sorkin, 2012)

This motivational speech points out that there are issues about which this country is refusing to face the truth and require changes: immigration reform, gun control, unemployment, climate change, the growing national debt are some of these. The president has reservations about certain issues and on several occasions has spoken out against global warming and climate change. In one social media post he wrote, “The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive” (Trump, 2012). And more recently, President Trump withdrew from the Paris Climate Accord (Trump, 2017). When faced with issues such as these, this country needs to, as Sorkin noted, acknowledge and accept there is a problem. It is for this reason that this discussion is focused on the growing issue of climate change, the increase in natural disasters, and the danger this poses to the country.

Natural disasters have increased in frequency exponentially in recent years, whether because of climate change or any number of other factors. In the wake of natural disasters cities, towns, and neighborhoods are left in disarray, giving rise to panic and chaos which makes it harder to recover from these situations. It can cause government instability in that area which can leave it vulnerable to outside threats, like terror organizations, which are looking to take advantage of the situation. In an attempt to diminish that threat, it is important to examine all aspects involved in resolving this problem. The Systems Theory explains that an organization is like a machine made up of different parts and gears (Environment and Ecology, 2018). It is necessary to take a proactive stance to address issues such as preparedness and communication. This will cause a ripple effect and foster

a change in the outcome of emergency situations and responses. One study by BMC Public Health stated:

The most pressing problems were found to be a lack of coordination between PIO's (public information officers) and journalists, lack of resources for appropriately evaluating information and disseminating it efficiently, and a difference in perception of PIO's and journalist towards each other's role during emergency situations" (Lowery et al., 2007).

This supports the crucial role effective communication plays in shaping public response to terrorism and other disasters. This program calls for a liaison team to handle communication issues between media and one of the major emergency response players, the Federal Emergency Management Agency (FEMA). Having someone that is so central to the response allows for a more efficient and direct flow of information. Past experiences show failure in communication occurs when one group will share information among themselves but not share with another group. If the liaison team is made up of members of the organizations, there is a greater chance of avoiding any such issues. Emergency response organizations such as FEMA and media outlets must work together to facilitate the sharing of essential information. This will eliminate any miscommunication and false information being made public which will cause unnecessary confusion and fear, adding to vulnerability.

Implementing a new program takes an extreme effort on all sides, with input from all stakeholders and parties involved. Developing a program around natural disasters is even more difficult due to their unpredictable nature. Implementing a program like the one described above is a crucial step in the effort to diminish vulnerability in the aftermath of

a natural disaster. The needs, goals, and overall objectives of this program will be discussed and evaluated in order to show the importance of it.

### **Literature Review**

Evaluation is a systematic and objective assessment of an ongoing or completed project, program or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, efficiency, effectiveness, impact and sustainability (UNODC, 2018). Evaluation can be used in different ways to help a developing organization, agency, program, or policy. Policy makers rarely base new policies directly on evaluation results but evaluations can be useful. A study on the relationship between evaluation and public policy explained that evaluation, “challenges old ideas, provides new perspectives and helps to re-order the policy agenda” (Weiss, 1999). The use of written evaluation policies is important: using written evaluation policies is a way for organization and its stakeholders to know what evaluations should be done, what resources expended, who is responsible, and how they should be accomplished. It also makes evaluation a more open, clear, and involved procedure. It allows those involved to express ideas and in turn develop the best policy. Having these policies written down allows an organization to reference what was included in this policy and see what worked and what did not and evolve from there.

This program focuses on working with FEMA as it is one of the leading Emergency Response organizations. The goal is to create a better and more secure emergency response system and eliminate any vulnerabilities that can come as a result of a disaster or crisis. Evaluating and sharing information between agencies is a good procedure to make everyone aware of both successes and failures. Agencies cannot make changes that



they will benefit from if they make the same mistake another agency has made before.

Sharing information cuts down on that inefficiency. Data and research that others develop should be used as tools to develop a more secure and prepared future. Studying plans that may have failed is extremely valuable. In order to make changes that will actually make a difference this country needs to acknowledge the problem and address it at the source.

In the process of developing and evaluating a policy the collection of data is a requirement. For emergency disaster relief efforts, the need to collect, analyze, and act on data is increasingly important to organizations. There needs to be evidence supporting and building on the decisions being made about policies. With an organization like FEMA which deals with emergency situations such as natural disasters, it is especially important. Policies have to be relevant to the issues being faced. The rate at which natural disasters are increasing only heightens the need for data in the development of policies. An organization needs to be able to react quickly to changing demands and issues. Data reflecting trends and potential issues will help to develop relevant policies for this organization. Also understanding the data collected from previous disasters and relief efforts will help improvement of response efforts from what they once were.

Just as it is important to gather and maintain data from previous natural disasters, it is also important to know prior public policies. Some may overlap or have similar ideas that can be utilized as bases for new policies. Public policy can be generally defined as a system of laws, regulatory measures, courses of action, and funding priorities concerning a given topic promulgated by a governmental entity or its representatives. One such policy is the Emergency Alert System (EAS). The EAS is a national public warning system that requires broadcasters, cable television systems, wireless cable systems,

satellite digital audio radio service (SDARS) providers and direct broadcast satellite (DBS) providers to make available their communications capabilities to the President to address the American public during a national emergency (FCC, 2016). This system is capable of reaching the people and spreading information nationwide quickly. This strategy stems from a proactive stance in the development of a liaison-type team to handle communication between emergency response organizations and media outlets. It is necessary to keep growing with advancing technology to stay ahead of any problems. By using television, radio, and even social media networks, this country stands the best chance of reaching all those who need help or information during an emergency situation.

The development of a new program in an established organization like FEMA may be difficult because policies and programs already exist. This requires permissions and authority to make changes. With FEMA and the evaluation policy, it is important to establish who controls it; in this case it is the Policy, Plans, and Evaluation Division (PPED). This division supports the goals and strategic objectives for this organization and the continuity of support for its branches. It also provides the foundation the organization needs to provide aid to all those that are affected by the incident, while ensuring a constitutional government in the wake of a disaster. FEMA and the PPED need to collect data on natural disaster trends and the steps previously taken to respond to it. In addition to that, they need to know the outcomes, whether successful or not. This will allow policymakers to acknowledge the relative successes or shortcomings and work around them by creating new policies better suited to address the issues.

The goals for this program are to build on and create a better, more efficient communication system. Knowing its aims is essential in its implementation. This is a

system that will be critical to areas across the nation but especially in areas that are more prone to natural disasters. Therefore, the best target is implementing the program first into higher risk areas where the most frequent and damaging incidents occur. Not only will this focus on those areas but it is necessary to pinpoint which locations, if struck by a natural disaster, would leave the country most vulnerable to outside threats from terror organizations. It can be a dangerous circumstance but one that the country must be prepared for.

### **Evaluation Design**

A Logic Model is “a systematic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve” (W.K. Kellogg Foundation, 2004). Logic Models are a useful strategy for identifying the elements of a program in order to meet the desired outcomes. They are beneficial to organizations that are trying to implement necessary changes. Creating logic models for an organization brings the power of consensus and group examination of values and beliefs about change processes and program results. Using that concept makes it easier to meet the needs of the stakeholders involved with the organization. Logic models help create plans that are achievable by providing a strategy or a map with clear outcomes and explicit steps for solving problems that may arise.

The strategy or goal of this program is to eliminate potential terrorist threats, whether foreign or domestic, that this country may face in the aftermath of natural disasters. In developing a logic model for this strategy the focus must first be on the resources that are

essential: increased budget, a greater attention on emergency response manpower with knowledge of those types of emergency situations, and an improved relationship with media outlets. Next is the development of a program to better educate communities and agencies on ways to prepare and respond to emergency situations. There needs to be an initiative to bridge the longstanding gap between FEMA and media outlets to increase the flow of accurate information. These steps will lead to a better understanding of the roles and responsibilities of each individual in emergency situations. This will increase confidence in the organization as well as decrease fear or chaos that might develop from the natural disaster. The short term outcome will be to meet the needs of those affected while the long term will be to eliminate the vulnerability and threat that the country can suffer in the wake of a natural disaster.

There are a number of research methods available for the evaluation of this developing program. Some of these are: Documentation Review, the use of Trained Observers, and Survey research. Documentation review is a form of collecting data through the review of existing documents. It provides comprehensive and historical information, it does not interrupt program or client's routines in the program and because the information already exists, there are few biases about it. There are however some weaknesses to this method. It is often a process that takes much time, and sometimes that information can be incomplete (Howie, 2017).

Trained observers can provide reasonably reliable data on outcomes that otherwise would be difficult to measure. These trained observers are non-biased individuals that can evaluate the study. They can offer alternative observations that may have been overlooked by earlier observations. This offers a better understanding of the results

and the changes that need to be made. This program can also use trained observers to rate the quality of previous studies.

Survey research is a commonly used method of collecting information about a population of interest. There are many types of surveys, several ways to administer them, and many methods of sampling. While survey research is widely used in part due to the ease of development, there are some issues that cause concern for this type of research as a reliable source of information. Some disadvantages may stem from respondents not feeling comfortable providing answers that present them in an unfavorable manner. Others may misinterpret the questions or the provide answers different from what was asked, which can cause errors in the data. In many instances survey research can be a completely unreliable source of information.

While there are many disadvantages to survey research, there still can be advantages if it is implemented properly. As this project has to do with natural disasters and their connection to an increased terror threat, there is an opportunity to use several surveys that could prove informative: one which will question the people on their level of preparedness before a natural disaster; another will question whether people know the steps to take after a natural disaster; a third will be to question how the people receive their updates and information about what is going on after a disaster. These could help develop programs that can adequately meet the needs of the people so they can have the most up-to-date and accurate information in times of crisis.

Being prepared for a disaster is so important it should be part of any well thought-out response plan. The policies that are developed and put in place to respond to emergency

situations must include what happens afterwards. They must be proactive and make sure the people and responders know what to do in the event of a major calamity. Therefore, having a survey to gauge the rate of preparedness will be the first step in determining whether or not the system will be effective. There are certain areas more prepared for crises than others and this can reveal which locations need more attention. In order to be a strong and secure country all parts must be equally prepared for emergency situations. Sharing information is essential for any program or organization to be successful so the data that is found will be shared among the agencies in order to develop the response programs.

Ensuring a program or initiative is successful can be difficult. A method to minimize this burden is the use of evaluations. Two methods of evaluation that can be useful are the multi-site evaluations and focus groups. Multi-site evaluations enable organizations to gather knowledge on their programs at a faster rate. With natural disasters becoming increasingly frequent the need to have answers quickly is important. This multi-site strategy involves examining a program in multiple locations. This allows those involved with the organization to evaluate the difference the various factors make in the study. One concern with this method, however, is the “Hawthorne Effect,” which basically acknowledges that when people know they are being watched, they behave accordingly, thus contaminating data. In developing research for a situation such as a natural disaster, the Hawthorne Effect can be very damaging. There are programs that are conducted which generate a scenario in a virtual reality (VR). In studies like these the possibility of the Hawthorne Effect is more of a threat. The fear and adrenaline that might follow in a true disaster might not be present in the VR program where people may act the way they

believe they are supposed to act versus how they might act in reality. So any policy that uses studies like that to support its methods could be tainted.

The focus group method is useful in many settings and especially so in this program. The focus group method is research that organizations do to gather information about the customer perspectives and opinions about new ideas, products or services either being offered or are in the product development stage. Anyone living in this country has the potential to be affected by natural disasters and given that fact, it is beneficial to know their opinions on the policies and initiatives that are being developed to respond to such crisis. The open and free discussions within these focus group interviews typically generate ideas and can provide a wealth of information that can be used to better formulate programs and adapt to any changes. Focus group research is used to develop or improve the services this program will provide and to better meet the needs of those it is meant to help.

In the evaluation of this program there are advantages and disadvantages to each method. That, however, does not automatically govern their usefulness. Challenges that exist in one method can be balanced by another method and overall can help develop a more accurate picture of the issues that need to be addressed.

## **Conclusion**

In this country there are a plethora of relevant issues to discuss. The topic of climate change, however, tends to be high on the list. Developing a program that addresses this major issue is a difficult task and evaluating that program even more so. The process of evaluation makes it is easier to address the issues within this developing program. This

program first entails accepting that there is a problem that needs fixing. As this program continues to grow, it will one day be implemented throughout the nation. The next chapter will discuss the versatility of this program as it is implemented into another nation.



*This page intentionally left blank*

## **Chapter 6: Comparative Governments**

### **Haiti: A Strategic Plan to Address Threats**

#### **Introduction**

Scenario: “You are a senior manager in your present agency (or one that you aspire to join) and you have been transferred to a new assignment in another country, and have been tasked to prepare a strategic plan to ensure enhanced safety and security involving your work facility and co-workers. Thoroughly outline the perceived terrorist and organized crime group threats, successful strategies proposed or utilized by government agencies similarly impacted, and propose the strategy that you would implement for your agency or organization.”

Each day the world is changing and becoming increasingly more complex than previously envisioned. Many government institutions, agencies, and programs are not prepared for such changes and as a result are facing more imminent challenges and pressures than they have ever be charged with in the past. One of the most prominent and rapidly changing issues facing every country is climate change. Countries are experiencing weather patterns and severity unlike anything they have dealt with before and are often unprepared for and lacking the necessary resources needed to handle the situation. The unfortunate consequence of these shortcomings are seen through the devastating impact such climate and natural events can have on a country’s people and security. This can happen to anyone, anywhere, any time. A few prominent examples of the effect natural disasters can have on a country include the following: The United States experienced Hurricane Katrina in 2005, there was the 2011 Tsunami and earthquake in Japan, the blizzard in Afghanistan of 2008, the 2000 Mozambique Flood, and the

earthquake in Haiti in 2010 (Zarin 2017). For the purpose of this scenario the primary focus of discussion will be the country of Haiti.

Southeast of the state of Florida, occupying a space no larger than the size of Maryland, lies Haiti. A small country on the island of Hispaniola, located between the country of the Dominican Republic and the island nation of Cuba, Haiti is the poorest country in the Caribbean (CNN, 2017). As of 2015, the French-speaking nation had a Gross Domestic Product of nearly \$19 billion, and was populated by just under ten and a half million, of which over forty percent are unemployed, fifty-four percent are living in abject poverty, where eighty out of every thousand children die before the age of five, and the life expectancy was sixty-one years of age. In spite of the natural beauty the nation is beset by unsettlingly high rates of natural disasters. According to the Inter-Agency Standing Committee (IASC) and the European Commission's 2017 Risk Index shown below (Figure 1) Haiti has an extremely high risk value of hazards, vulnerability, and coping capacity (INFORM, 2017).

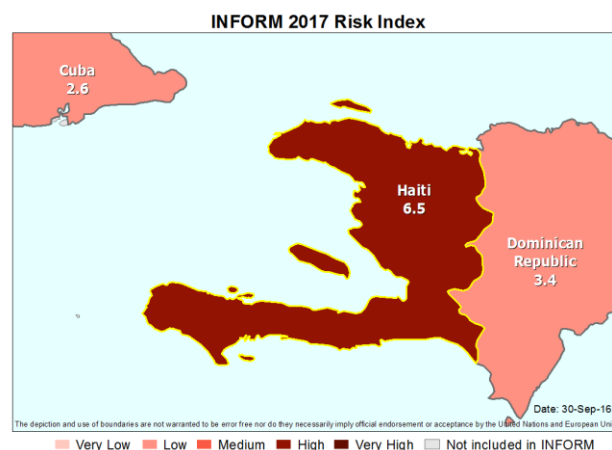


Figure 1: Inter-Agency Standing Committee Task Team for Preparedness and Resilience and the European Commission 2017.

Most notably, in 2010 Haiti suffered one of the most devastating natural disasters in its history. The epicenter of this 7.0 magnitude earthquake struck the country near the capital city of Port-au-Prince. Over three and a half million people were impacted, with an estimated two-hundred-and-twenty thousand deaths as a direct result. The number of those displaced by this catastrophe was over two million, of which six-hundred thousand had host families and the other one and a half million were homeless entirely. The country's citizens suffered not only through loss of housing, the country lost a quarter of its civil servants, almost two-thirds of their governing and administrative sites, and four thousand schools were damaged or lost completely. Subsequently, in congruence with the damaging effects of the earthquake, Haiti experienced an outbreak of cholera which resulted in six thousand deaths and an additional two hundred thousand infected by July of 2011 (DEC, 2015). By 2015, it has increased to over eight thousand.

Due to the susceptibility of the Caribbean region, and more specifically Haiti, to disasters, emergency management systems had to be put in place to reduce their impact on people, properties, and the environment. In 1991, the Caribbean Disaster Emergency Management Agency (CDEMA) was established. It works as a regional inter-governmental agency for disaster management in the Caribbean Community (CARICOM) (Lambert, 2017). The CDEMA efforts have proven to be beneficial, as they have provided much needed aid in times of need, their most noticeable support being the availability of resources within the region. The proposed program, which discussed in more detail below, works from a more proactive stance than that of some programs of the past. It creates a system of effective and efficient communication that can benefit any country in its most desperate times. Being proactive means establishing a network of

systems and communication channels before an emergency situation arises so that when there is a problem, governments, organizations, and communities can take action. This leads to many benefits: it builds preparedness through education, saves time and money in the budgeting process, alleviates the severity of problems before they arise, recognizes the need for change and flexibility for optimizing outcomes, promotes the bigger picture, sets long term goals; this gives a clearer direction for the future (Rankin, 2015). This program is designed to be flexible and dynamic in structure which makes it applicable and accessible on a global scale. The implementation of this program in Haiti, used under the proper conditions, can reduce vulnerabilities to hazards in the aftermath of disasters and build resilience in a country.

### **Strategic Plan**

Strategic planning is important to an organization because it provides a sense of direction and outlines measurable goals in order for governments and non-governmental bodies to be organized in their attempts to implement necessary changes to programs and procedures. When developing a strategic plan, following the appropriate steps helps to address the myriad issues that may arise and keep the developing program on track to meeting the timeline and goals set forth on inception. This case discusses the implementation of a new program through the Federal Emergency Management Agency (FEMA) in the country of Haiti. This program works in tandem with previously established programs and initiatives in the region of CARICOM as well as through its own emergency management agency known as CDEMA for the foundation of a stronger, more efficient emergency management and response program.

On April 1, 1979, that President Jimmy Carter signed the executive order that created the Federal Emergency Management Agency, otherwise known as FEMA. This organization was established under the 1978 Reorganization Plan that put in place a number of civil preparedness and disaster relief functions (United States et al., 1978). The beginning can be traced back to the congressional act of 1803:

In 1803, American responses to disaster took a significant turn, beginning a pattern of federal involvement that continues to this day. When an extensive fire swept through Portsmouth, New Hampshire, community and state resources were taxed severely by the recovery effort. This situation was dramatized to Congress, which responded with the first legislative action making federal resources available to assist a State and a local government. This congressional act of 1803 is commonly regarded as the first piece of national disaster legislation. (Drabek, Hoetmer, 1991)

The Caribbean region has its own version of this known as the Caribbean Disaster Emergency Management Agency (CDEMA). It was in 1991 that CDEMA was established following previous attempts to meet the needs of this disaster ridden region. It works as a regional inter-governmental agency for disaster management in the Caribbean Community (CARICOM) (Lambert, 2017). The implementation of this developing strategic plan will have FEMA working with CDEMA to ensure the successful emergency management program.

### **Mandates**

Developing a strategic plan for Haiti that will be successful will require identifying the mandates that FEMA has set forth for the agency as well as any Caribbean or Haitian government policies. The following are the mandates for FEMA:

1. FEMA is the primary agency for coordination of federal disaster relief, emergency assistance, and emergency preparedness and is responsible for coordinating the federal government's response to natural and man-made disasters.
2. FEMA is charged with providing both immediate and long-term financial and physical assistance to local and state governments as well as individuals any time there is a president declares a disaster emergency
3. It is designed to bring an orderly and systemic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens.
4. To support the citizens and first responders to work together to build, sustain, and improve the capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.
5. To ensure that the nation's first responders are trained and equipped to deal with weapons of mass destruction. (FEMA, 2016)

Similarly, CDEMA has its own mandates that factor into the implementation of a new program. This new initiative will abide by the any laws or mandates that the established government and agency have. CDEMA's mandates are as follows:

1. mobilizing and coordinating disaster relief;

2. mitigating or eliminating, as far as practicable, the immediate consequences of disasters in participating states;
3. providing immediate and coordinated response by means of emergency disaster relief to any affected participating state;
4. securing, coordinating and providing to interested inter-governmental and nongovernmental organizations reliable and comprehensive information on disasters affecting any participating state;
5. encouraging the adoption of disaster loss reduction and mitigation policies and practices at the national and regional level; cooperative arrangements and mechanisms to facilitate the development of a culture of disaster loss reduction;
6. coordinating the establishment, enhancement and maintenance of adequate emergency disaster response capabilities among the participating states.

### **Stakeholder Analysis**

Identifying key stakeholders and shareholders in an organization and country is essential to the strategic planning process. To be clear, a stakeholder is the party whose interest is directly or indirectly affected by the company's actions (Surbhi, 2015), and shareholders are those that invest their money in an organization. In Haiti there are copious stakeholders and shareholders. FEMA is an organization that handles emergency situations all across the country and manages programs that help internationally so it makes sense that state and local emergency management agencies, private businesses and non-governmental agencies (NGOs) are on this list. In addition, CDEMA, the Office for



the Coordination of Humanitarian Affairs (OCHA), and even the CARICOM will be included due to their investment in the Haitian community and motivation to further their own emergency management systems. These types of agencies have a keen interest in emergency responses. When state and local emergency management agencies, private businesses, and NGOs invest in FEMA, they are engaging in the big picture mentality. It is a mutually beneficial relationship; if they invest their efforts into a better emergency response team from FEMA, then when they face a crisis themselves, they will have support.

### **Vision Statement**

In the process of developing a new strategic plan for FEMA in Haiti a vision statement is necessary. A vision statement is critical to the development of an organization's strategic plan as it is used to explain what that organization's core beliefs and values are and what it wants to be in the future. A vision statement is a company's road map; it guides initiatives specific enough to outline the direction by which the company can and should continue to grow. By 2025, the country foresees FEMA's new Haitian initiative as a fully realized program improving functionality, communication, and cohesion between the now disparate offices, organizations and subcultures making up the Haitian emergency response agencies. Through centralized communication, technological innovations, preparedness, and planning this Haitian initiative within FEMA will be able to completely navigate the needs and assignments of all partners, contractors, responders, and volunteers, uniting all efforts under one banner to mitigate the immediate aftereffects of natural disasters and save life in any stricken region no matter the severity. FEMA will serve as a symbol of compassion and understanding, of

dependability and efficiency, a beacon of hope and relief, and the institutional embodiment of fairness and integrity, in the face of all disasters around the world.

### **Mission Statement**

For the most part mission statements stay relatively the same as when they are first developed. Although goals and visions for an organization might change over time, the reason for its existence, the reason why the organization was created in the first place, does not undergo a drastic a change. There are times when developing a new strategic plan that an organization might add to an existing mission statement as it recognizes the need to change certain aspects that may have been missing or unnecessary. With a well-established body such as FEMA the mission statement has maintained its consistency with only minimal changes as necessitated. FEMA's mission is "to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards" (FEMA, 2016). To improve FEMA's current mission statement in connection with the country of Haiti, one might look to increase the spotlight on preparations and recovery efforts. Also, in an increasingly technological age, one might add a focus on improving awareness towards technological hazards and the lapses in communication systems. Additionally, highlighting the need for community based programs that get everyone involved, invested, and working together would help FEMA in its attempts to build security and cement the measured efforts towards self-sustainability.

### **SWOT Analysis**

In order to understand the merit of a program or initiative, every aspect of it from inception must be understood. Performing a SWOT analysis is a process that identifies the strengths and weaknesses of an endeavor so as to best take advantage of immediate and future opportunities, and mitigate, if not entirely avoid, any threats. Conducting this SWOT analysis aides an organization in regulating itself and determining the best course of action to accomplish its objectives while simultaneously minimizing and overcoming obstacles to desired outcome. This adds to success in an organization's overall efficiency and sustainability.

FEMA is an integral agency in the field of disaster relief both at home and internationally. It is clear with even a passing glance it has many strengths. First, FEMA has been in existence since 1979, which shows this organization's endurance through the changing and sometimes challenging years. It has dealt with emergency situations in this country, giving it much needed experience and expertise in the handling of those situations. Another strength of this organization is its flexibility. Obviously, times change and the effects of disasters can be more severe than in past instances but FEMA for the most part has been able to change with it. If this organization was not as flexible throughout the years, it would not have been as able to meet new challenges and be helpful in emergency situations. Another strength of this organization is the staff because they make FEMA the merit-worthy organization it is today. They are very smart, competent, and specially trained individuals capable of handling situations ranging from earthquakes, wildfires, floods, tsunamis, tornadoes and more, a cornerstone for an emergency management agency. These individuals make it possible for FEMA to provide the response, rescue, and recovery effort needed in any situation. One strength that many

may overlook is FEMA's website. It contains easily accessible disaster prevention materials and other information about various types of nature-caused incidents and how to prepare for them. FEMA also participates in local, regional, federal and international levels which makes it better able to administer aid in times of need. This is an advantage because there is a greater possibility of communication between similar groups. Another strength of this organization is that, in comparison to Haiti, one of the poorest countries in the Western Hemisphere, the United States has a distinct advantage in respect to funding, manpower, and resources. The organization based in the United States can provide much needed aid and assistance to the Haitian community.

The people that make up FEMA and other emergency response organizations are key to its successes and failings. Organizations have to have a good system of management to monitor and maintain a positive and proactive work ethic. However, it is through the people that there is a possibility of weakness. Monitoring the performance of the people gives an opportunity to eliminate that weakness before it becomes an issue. Some other major weakness that FEMA could face in Haiti is the poor infrastructure, the poverty, low levels of education, political instability, a lack of building codes, deforestation, and a lack of coordination among NGOs. While FEMA has programs in place and has ideas for new initiatives, it has to take into account the key players in the country which reflect these weaknesses. Knowing the weaknesses that face the program is the first step needed to eliminate it.

This scenario being discussed here enables people to see the opportunity FEMA has to help other countries handle all aspects of a natural disasters. Many of the poorer countries like Haiti, experience many hazards and struggle significantly in their

aftermath. Without the proper resources, aid, and machinery those hurt and the damage done to the community are not handled properly, leading to more unnecessary deaths, destruction of the land, and chaos. FEMA has the opportunity to provide the necessary resources and new initiatives that can help a country in desperate times. At the same time, this also can be used as a learning experience. Though it is unfortunate that a country is suffering or experiencing a disaster, it is a chance for FEMA to advance the organization while aiding other countries. It also enables the United States to handle a wide variety of situations.

Lastly, the SWOT analysis shows the perceived threats that FEMA and the new initiative in Haiti may face. Typically, the media may be one of FEMA's major threats due to its propensity to tell stories and fact-check after. More often than not the media's goals are aligned with its own success rather than that of the people. The relationship between FEMA and media outlets nonetheless are necessary to emergency response programs and therefore must be treated with care. Establishing and maintaining a positive, mutually beneficial relationship between media outlets and FEMA is a necessary component to emergency response systems. Since this scenario focuses on the implementation of a new strategic plan in Haiti, identifying the threats specific to the country is a way to determine what issues the organization may face. Haiti faces two different types of threats: natural and man-made. Location is significant and while Haiti is located in the beautiful region of the Caribbean, it also lies atop two separate fault lines. This poorly situated country is regularly battered by tropical storms, floods, and even powerful earthquakes. The unexpected nature of these events makes it that much more threatening to the security of the country and to the future of Haiti itself.

Other key players that pose a threat to this new FEMA initiative in Haiti are the local gangs. Some statistics by the Haitian National Police (HNP) indicate that Haiti is much safer than it actually is, due in part to the rate of underreported crimes in the country. Haitian gangs are typically involved in international drug trafficking as well as money laundering and a long list of other fraudulent and criminal activity. The drug trade, however, is tied to the United States, making it a greater threat to national security for both Haiti and the United States. Haiti, which had been experiencing a decline in gang activity, saw a sharp turnaround following a prison break made possible by the 2010 earthquake in Port-au-Prince (Berg, 2010). While most of the major gang leaders were captured or killed, their removal gave rise to competing gangs who aspire to capture the power that was available.

The government of Haiti continues to rebuild and improve the capacity of its law enforcement, corrections, and justice sector but the weakness of the Haitian judicial system continue to leave the country vulnerable (INL, 2014). Gangs and their involvement in criminal and political violence are deeply rooted in Haitian politics, fueled by widespread poverty, inadequate police presence, government weakness, and social and economic inequities (Berg, 2010). Political corruption is ingrained in the Haitian system, all the way to the top, which leaves the country very unstable. In January 2017, Guy Philippe, a Senator-elect of Haiti, was arrested and extradited to face drug trafficking charges in the United States. Philippe was the subject of a Haitian arrest warrant and had been on the U S Drug Enforcement Administration's Most Wanted List following a 2005 US indictment (Clavel, 2017). Another notable leader in Haitian politics facing allegations of corruption and criminal activity was the new Senate

President Latortue. Even Haiti's President-elect Jovenel Moise has been investigated for money laundering allegations. The depth to which corruption reaches this government only damages Haiti's ability to meet the challenges it faces, challenges that pose a serious security threat to the country.

## **Strategy**

As this scenario requires, a new strategic plan must be developed to ensure enhanced safety and security of a chosen country and its people. Following the steps mentioned above helps to shape the plan and shows what needs to be addressed, who will play a key role in this initiative, and what can damage these proposed plans. In an effort to increase the country's security while at the same time being cost-effective, it is beneficial that the plan follows specific, measurable, attainable, assigned responsible and with a time frame (SMART) steps (Bryson, 2011). It is a commonly used tool that helps provide the clarity, focus, and motivation an organization needs to achieve their goals. This scenario applies to Haiti where there are a number of issues to be dealt with from the destruction of natural disasters, to the rise in gang related crime, to the political corruption that runs at its core. These issues all have something in common since they can all be traced back to a failure in the communication system.

There are organizations in the region such as CDEMA, which is the Caribbean's version of FEMA, that have made attempts to combat this issue in the communication system. This organization has an advantage that Haiti can utilize which is knowledge of the local and regional area. The program being proposed, however, can add to the successes and the strides that CDEMA is making. The best way for the government to

attack these issues is to take one issue so there is a better chance of actually making some changes without attempting to do more than it can handle at once. The plan is to set up a better system of communication between the agencies, both local and governmental, the media and the people, specifically, to facilitate a better emergency response program in the wake of a natural disaster. As the danger of natural disasters is one of the most prominent issues this country faces, focusing on this aspect for the strategic plan is logical. Haiti has seen the destruction of major infrastructure, the deaths of leading political leaders, an outbreak of a deadly disease, even the prison break of several criminals, all as a result of natural disasters. A government like Haiti that is lacking in coordination and communication could benefit greatly from this new plan.

Originally, this strategic plan was developed for use in the United States; however, in this scenario it is implemented in the country of Haiti and so must factor in the country's specific characteristics such as a possible language barrier, lack of financial resources, the high rate of illiteracy, and the even higher rate of poverty. The plan will have FEMA work with CDEMA to put together a team of individuals that will handle the flow of information to media outlets. The main forms of media in Haiti are television and radio; therefore, this team will be set up with one group handling radio outlets while another works with the television outlets. There will be a team leader for each side as well as a head of the program to oversee the work of the two teams and the team leaders. This will be established by the end of next year. To keep the costs of this program down, the plan will hire a small team, first the director of the program, ideally by August of this year. This will provide ample time to hire the two media team. To guarantee that all aspects are covered, each team leader will have approximately twenty to thirty staff



members, hired by November to December of this year. This will leave enough time to put together a think tank to brainstorm the best ways to work with the media to get critical, potentially life-saving information to the people.

## **Conclusion**

The damaging effects natural disasters can have on a country are seen every year. The frequency of natural disasters is increasing at an alarming rate. For a country like Haiti which is already plagued with an abundance of natural disasters, the ability of those events to pose a danger to the safety and security of the country is very prominent. An earthquake in Port-au-Prince made it possible for criminals to get out of prison and run rampant as they had before they were imprisoned. A better system of communication it can cut down on occurrences like that because it facilitates a better flow of information between the necessary parties eliminating unnecessary confusion as well as the waste of resources and duplication of efforts. Implementing this strategic plan will enable Haiti to alleviate some of the pressure and challenges that it faces in the aftermath of disasters now and in the future.

*This page intentionally left blank*

## **Chapter 7: International Human Rights**

### **Natural Disasters and its Connection to Human Rights Issues and National Security**

#### **Introduction**

During the past several years, the threat and reality of natural disasters has grown exponentially, and countries throughout the world, including the United States of America, have been struggling to combat this problem. Not only do they cause great distress for the people and communities they can also pose a significant threat to the country's security. It is in the aftermath of events such as natural disasters that the concept of human rights comes into play. Human rights have a significant and undeniable connection to natural disasters and national security that cannot be ignored. The steps that the government takes in the wake of natural disasters can have an effect on both national security and the basic human rights of the people. The ideas that need to be addressed are: how the two concepts are connected; how these ideas might be conflicting with one another; and which of these concepts is more important and would take precedence, people's human rights or national security.

In previous chapters the topic is that of natural disasters that are faced in the United States and how that may affect the people and the national security of the country. To better discuss the implications of natural disasters on basic human rights it needs to be looked at on a wider scale. The following report discusses some of the important topics related to natural disasters and their connection to basic human rights and national security. This is a topic that contains conflicts for many different reasons. One example is the highly controversial issue of refugees. Also discussed is the involvement of the United Nations and the U S government after natural disasters. Lastly, using insights

from these important discussions, a plan will be developed and implemented that will protect people's rights without compromising the security of the country.

### **Natural Disasters, Human Rights and National Security Connections**

Human rights are universal values and legal guarantees that protect individuals and groups against actions and omissions primarily by State agents that interfere with fundamental freedoms, entitlements and human dignity. The full spectrum of human rights involves respect for, and protection and fulfillment of, civil, cultural, economic, political and social rights, as well as the right to development. Human rights are universal—in other words, they belong inherently to all human beings—and are interdependent and indivisible. (OHCHR, 1993)

In order to see the connection between natural disasters, human rights, and national security, it is first important to fully review what basic human rights are. The most widely known and accepted document on this topic is the Universal Declaration of Human Rights (UDHR) which was adopted almost 70 years ago by the United Nations General Assembly in 1948 (Morsink, 2009). It sets a common standard of achievements for all peoples and all nations to adhere to. As the Office of the United Nations High Commissioner for Human Rights explains, these rights are not warded and they are not a privilege that can be taken away, they are fundamental to human being on this planet. States have a duty to respect, protect and fulfill those human rights.

According to continuing research, the rate of natural disasters is increasing at a rather alarming rate. The NOAA National Centers for Environmental Information keeps a

record of the number of natural disasters per year which is updated to present day (Figure 1. NOAA, 2017).

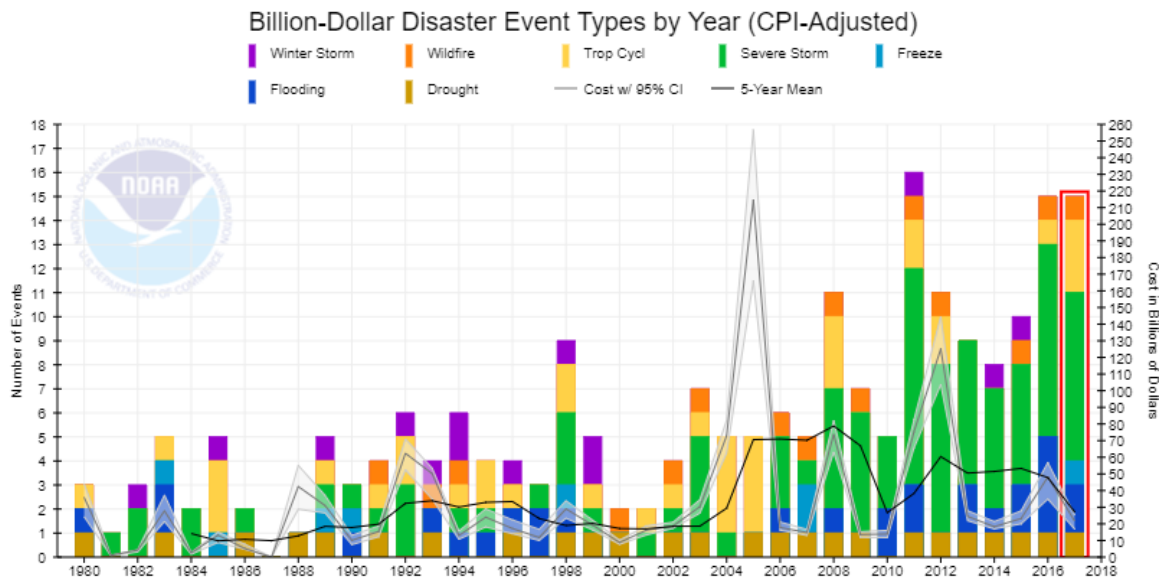


Fig. 1

Without factoring in the costs these events have on a country monetarily, which can be significant by itself, the graph depicts the number of natural disasters that have occurred each year. As can be seen above, there have been fifteen events this year already, a drastic difference from the 80s and 90s. It is important to know the significance of these statistics. An increase in natural disasters means people in the affected areas will likely need support and governmental assistance which requires added resources and manpower. This is when the concept of human rights becomes very important because there is a greater likelihood of human rights violations with the higher frequency of natural disasters. As a shared responsibility, aid must be provided to the people affected because in times of struggle human rights are fundamental and must be guaranteed to all people. Denial of aid would be a violation of a person's most basic human right: the right to life, including basic necessities of life like shelter, food, water, and protection, which

must be acknowledged and addressed. Often violations to human rights are not intended or planned. Sometimes they result from insufficient resources to prepare and respond to the consequences of the disasters. More often they are the result of inappropriate policies, neglect or oversight.

Another reason it is so important to understand and utilize these statistics is because as the rate of natural disasters increases, so too does the threat to national security. This is the time when a State is most vulnerable. Situations resulting from natural disasters require money, aid, and resources be redirected to the affected areas leaving room for error and oversight where terrorist threats can enter. Many terrorist organizations may take it as their opportunity to carry out an attack as attention and resources are divided. This raises some important questions: is it more important to respect people's basic human rights or does the need to be secure in the country override those rights. But then do these important topics conflict with one another?

### **Conflicting Ideas**

Answering the question of whether human rights or national security is of greater importance becomes complicated as a debate on morals, arguing what is the right thing to do verses what is the safe thing to do. This generates a significant amount of controversy. However, a persuasive argument can be expressed for each side of the question. It can come down to: does the end justify the means. Added security is for the greater good which benefits the masses. But that, in most cases, requires the government to impinge on certain rights of the individual. On the other hand, basic human rights are fundamental to every person, guaranteeing them equality and life. This, however, focuses on the

individual rather than the larger group of people. So answering this question is not easy as one might have originally thought.

There are many examples to argue in favor of added security over individual rights. There have been occurrences in the past where as a direct result of natural disasters, a country experiences a greater threat to national security, such as Pakistan in 2010. The country had experienced major floods and a terrorist organization took the opportunity to attack. Reports from Pakistan indicated that militant groups utilized the disruption of the flooding to carry out attacks (Berrebi and Ostwald 2011, 2011). This demonstrates that there is direct and concrete evidence supporting the connection or influential relationship between natural disasters and terrorist activity, a fact that would leave some favoring added security. Researchers from RAND Labor and Population were able to further support this conclusion. Using detailed information on terrorism, natural disasters, and other relevant economic and demographic variables of 167 countries between 1970 and 2007, RAND Labor and Population discovered that disasters have a strong positive association with subsequent terrorism incidences and fatalities (Berrebi and Ostwald, 2011). Another who recognizes the need for increasing national security in response to the growing threat of natural disasters is Michael Masters, senior vice president with security intelligence firm, The Soufan Group. He believes the national impact of natural disasters will increase instability and strife but also potentially terrorist activity (Martin & Masters, 2017).

Even some supporters of human rights have reservations on the infringement of certain rights in the event that it affects national security. One such supporter is James Nickel, a major scholar of human rights supports says, "Human rights standards will

provide substantial guidelines in emergency situations only if they are specific about which rights can be infringed in emergencies" (Ezra, 2010). The question remains: does it make it right. Should basic human rights be undeniable without reservation or do the impact of natural disasters and the potential national security threat outweigh that? It is argued that regardless of the benefits of added security for the country, individual rights should take precedence. The rights involved are the right to equality, the right to freedom from discrimination, and the right to privacy, all of which are designated in the Universal Declaration of Human Rights (United Nations, 2017). Governments provide aid and resources to the affected areas but sometimes that is not enough. The Universal Declaration of Human Rights, Article 14 states, "Everyone has the right to seek and to enjoy in other countries asylum" (United Nations, 2017). The vetting process that refugees face when trying to enter another country could be considered a violation of their right to equality, privacy, and freedom from discrimination.

The vetting process that refugees face includes seven steps which can be found on the Department of State website. These steps include: Registration and Data collection; Security checks; DHS interviews; Biometric security checks; Cultural orientation and medical checks; Assignment to domestic resettlement locations and travel; and, finally, arrival in the United States. The first step that refugees take is to apply for resettlement. The information provided in the application process is delivered to the Resettlement Support Center, RSC, which conducts the in-depth interviews, enters the data into the Worldwide Admission Processing System, cross references and verifies this information, and sends it to various U S agencies to run background checks. Next comes the security checks that include agencies such as the Federal Bureau of Investigation (FBI), the



Department of Homeland Security (DHS), Department of Defense and the National Counterterrorism Center. They check for security threats, which could include connections to persons of interest or past criminal offenses. The results of those security screenings are then sent back to the Department of Homeland Security and State Department for review by specially trained officers who conduct multiple in-person interviews with applicants and collect their biometric data. If that process goes smoothly, without any inconsistencies, the application is forwarded to the next step in the process which is the Biometric security checks. They collect fingerprints from the applicants to run through the FBI biometric database, the DHS biometric database and the Department of Defense database. Any problems that arise in this step can cause a denial of the application. If all goes well, the applicants are then given an orientation to American culture to make the transition easier. At the same time these applicants must undergo medical screening to check for any significant or possibly threatening diseases. After the previous steps are completed, representatives from the nine domestic resettlement agencies review the applicants to determine where to place the refugees. Once that decision is made, the International Organization for Migration (IOM) sets up the travel plans for each refugee. After this lengthy process the refugees that were approved are welcome into the United States to settle into new homes (U.S. Dept of State).

The problem with this process stems from the fact that terrorist organizations have smuggled their members into countries under the guise of refugees seeking asylum. Even with the thorough and lengthy process that is in place, individuals from these terrorist organizations tend to slip through. Earlier this year, Rowan Scarborough, from the *Washington Times*, wrote, “The CIA said last year that the terrorist group’s official

strategy is to hide its operatives among refugees entering Europe and the United States via human flows out of the Middle East and North Africa” (2017). The success of these terrorist operations can be seen from the 2015 Paris massacre and the Berlin Christmas time truck attack. The fact that these terrorist organizations are exploiting the system makes it harder and more complicated for a government to accept refugees without infringing on their rights.

### **United Nations Involvement after Natural Disasters**

The United Nations is a major player in the international field, representing 193 Nation States. This fact makes it the best source to provide aid in the event that a State faces a natural disaster. The United Nations recognized that it plays a crucial role in assistance, recovery and guaranteeing the rights of the people. Therefore, it has developed a program known as the Office for the Coordination of Humanitarian Affairs (OCHA) to coordinate and provide necessary aid. Following a natural disaster OCHA sends a team, the United Nations Disaster Assessment and Coordination team (UNDAC), to assess the needs and the extent of damages of the affected area. The team facilitates close links between country-level, regional and international response efforts and helps to meet the needs of people.

Along with the United Nations, the United States is a major contributor to relief efforts in international crises and disaster situations. USAID’s Office of U S Foreign Disaster Assistance responds to an average of 65 disasters in more than 50 countries every year, providing life-saving assistance to tens of millions of people (2017). The US does its best to make sure the rights of those suffering in the disaster are being protected.

The resources that the U S supplies help guarantee the people have access to water, shelter, power, and medicine, the basic necessities the people need to move on from the unfortunate disaster they have endured.

In a discussion of the involvement of the United Nations and the United States in disaster relief, it is necessary to consider the domestic and international laws which must be adhered to in the response efforts. First, it is important to understand what exactly domestic and international laws are and how they are different. Domestic law governs the actions, cultural norms and beliefs of individuals within a specific nation-state. They are agreed upon by their governing body. International law is a broader concept in that the rules and ideas established are agreed upon by and signed in a treaty by the nation-state and are recognized by nations as law in their dealings with one another.

When it comes to international law, the main players are the different nation states. These states have different types of law originating from the various treaties or other resolutions and guidelines that have been agreed upon, such as the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. It obligates the States under the Charter to promote universal respect for, and observance of, human rights and fundamental freedoms (OHCHR, 2017). It puts greater importance on the rights of the people. Other important treaties include the Universal Declaration of Human Rights and International Covenant on Civil and Political Rights, both of which state that no one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment which the people can fall subject to in the event of a natural disaster (OHCHR, 2017).

Domestic laws also play a significant role in disaster management. The primary responsibility of states is protecting the rights of their citizens, as evidenced by the fact that most countries have ratified the main international human rights treaties. Though the main goal is to protect those basic rights, violations are often seen in disaster situations. Each state is unique developing a framework for protecting human rights and handling the consequences of natural disasters. Many countries rely on their military forces to respond to major disasters when they declare a state of emergency. The U S has a law known as the Posse Comitatus Act. This law restricts the participation of the military in domestic law enforcement activities under most circumstances (Rand, n.d.). It is however, permitted in certain cases, which can be explained by the Department of Defense Directive which states:

Actions that are taken under the inherent right of the U.S. Government, a sovereign national entity under the U.S. Constitution, to ensure the preservation of public order and to carry out governmental operations within its territorial limits, or otherwise in accordance with applicable law, by force, if necessary. This authority is reserved for unusual circumstances, and will be used only under DoD Directive 3025.12 (reference (1)), which permits use of this power in two circumstances: The emergency authority authorizes prompt and vigorous Federal action, including use of military forces, to prevent loss of life or wanton destruction of property and to restore governmental functioning and public order when sudden and unexpected civil disturbances, disaster, or calamities seriously endanger life and property and disrupt normal governmental functions to such an extent that duly constituted local authorities are unable to control the situation. (Dunlap, 2017)

This means that in situations such as natural disasters the military can be used secure and restore order. Having this law in place helps to protect the basic rights of the people.

Relief efforts provided by the United Nations and the United States are focused on meeting the needs of the people. This involvement in disaster efforts shows the importance of basic human rights. These entities are held to a moral standard in which they share a responsibility to help the people. Although the U N and U S still have to ensure the safety of their nations, the basic rights of the people should not be hindered in the process. This leads to the issue of the process in which countries accept refugees.

### **Necessary Changes**

An article by the Office of the United Nations High Commissioner for Human Rights stated that, “the promotion and protection of human rights for all and the rule of law is essential to all components of the Strategy, recognizing that effective counter-terrorism measures and the promotion of human rights are not conflicting goals, but complementary and mutually reinforcing” (OHCHR, 1993). This supports the belief that these concepts are not in conflict but actually help to promote one another. They work in tandem to respect human rights without compromising national security. Currently, the system is not working adequately and there is much controversy. Terrorist organizations are using this system to their advantage, or rather they are exploiting the good will of those supplying aid. As it is, the system is violating the people’s rights to privacy, freedom from discrimination, and equality and is not making the countries or States more secure. Therefore, the United Nations and the United States, being prominent players in relief efforts and supplying aid, need to work together to develop a better system of

vetting refugees. The first goal is to reduce and eventually eliminate any human rights violations that are currently at issue. Another goal is to be able to weed out the individuals that are using the refugee system as a tool to foster the agendas of terrorist organizations.

## **Conclusion**

The rise in the rate of natural disasters can have a lasting effect on many different aspects of a country and its people. The primary focus of this report is to highlight the connection and implications of natural disasters on the basic rights of humans and the national security of a country. It shows that those concepts do not conflict with one another; rather they work in tandem and strengthen each other. The foundation of strength and security of a country is built from the adherence the laws, values and basic rights of the people. Current systems, such as the crisis with the refugees, have fallen short of that and the appropriate balance between the legitimate protection of national security and respect for human rights are violating the people's fundamental rights. As was discussed, appropriate steps must be taken to fix this issue by eliminating human rights violations without compromising the security of the State.

*This page intentionally left blank*

## Chapter 8: Intelligence Gathering

### Natural Disasters & Intelligence Gathering

#### Introduction

Maria, Harvey, Irma, Nate, Jose, Katia, Lee; all are major storms that hit the United States. Earthquakes, wildfires, tornadoes, floods, drought are also on the list. These are just some of the most recent natural disasters to besiege this great nation. Studies show that the frequency of natural biological events like the ones mentioned above is going to continue to rise at a rather alarming rate (*Economist*, 2017).

Figure 1.



(Lam, 2017)



These events are destroying homes, critical infrastructure, disrupting the economy, and claiming the lives and injuring many unlucky enough to get caught in them. Alone, these events are terrible and can have lasting effects on the community and the people; such is the case with those in Puerto Rico, many of whom lost everything in the recent hurricane. There is another risk that the United States faces in the wake of a natural disaster. As a leading power in the world, the U S is on a constant watch for terrorist activity and a possible attack. It is an unfortunate reality that terrorist organizations will take any opportunity to their advantage, exploiting a time of tragedy to execute their plans. Regrettably, there is nothing that can be done to stop some of these natural disasters from happening. So the question is, what can be done to prevent, preempt, and mitigate the potential threat the country faces from terrorist organizations after these disasters?

What must be done is to prepare and be ready to handle any disaster as it strikes. Eliminating the dangers that this country faces is no easy task because there are so many different aspects that need to be factored in. Governments try to keep their people and country safe, by attempting to reduce any dangers it may face. This chapter discusses how that can be made possible through the use of intelligence gathering and the application of the Intelligence cycle.

### **Intelligence Gathering**

Intelligence gathering is the collection, culling, analysis, and dissemination of critical and strategic information (FAS, 2017). Intelligence gathering is an incredibly important tool for governments for it assembles together the essential information that is needed to

eliminate threats that a country may face. The topic that has been discussed throughout this entire project focuses on natural disasters and how they can leave the United States vulnerable to attack by terrorist organizations. This obviously, makes safety and security major factors to monitor. It also makes intelligence gathering a critical component in reaching and securing that goal. The way to secure this country from threats is to create new policies that the government can use to monitor and handle threats. That is how intelligence gathering functions. The way to create these new policies is to know as much as possible about the current situation, past situations and possible future occurrences, for knowledge is power. The more information that can be gathered the greater the opportunity there is to analyze the information and, in turn, the more prepared this country will be when it experiences unstoppable and unavoidable natural disasters.

The collection of information alone is not the answer and will not make a difference in eliminating threats if it is not utilized properly. In other words, intelligence without interpretation and analysis is meaningless. It is so critically important that all governments use the intelligence they gather. There are several methods by which intelligence can be studied and interpreted for further use. One of these is known as the Intelligence Cycle.

### **Application of the Intelligence Cycle**

The first step that needs to be taken to begin any type of intelligence work is that one must have an understanding of the strategic intelligence plan. The strategic plan in this case includes developing a team with the emergency response organization known as the Federal Emergency Management Agency, FEMA. This plan focuses strictly on its

communication system and the relationship it shares with media outlets. This is a proactive and preemptive step that can be taken to minimize any real threat that the United States faces. This creates the need to brainstorm new ideas on how to address this growing problem of sudden natural disasters. One such idea is to establish a program where emergency response organizations work together with media outlets, such as radio, television, telephone, internet, and social media to mitigate issues and publicize the most accurate information to the people, especially those being directly affected by the natural disaster. Providing critical information in this time of need will definitely diminish if not eliminate the panic and chaos that ensue in the aftermath of a natural disaster.

The Intelligence Cycle is a tool used for the creation of intelligence which informs the planning and decisions of policy makers. It helps to organize and focus the ideas and concepts that could be used to eliminate threats that the U S might face. There are six basic components of the Intelligence Cycle:

Figure 2.



(Wheaton, 2011)

1. Planning/Direction - Determining what issues need to be addressed and what information must be gathered to provide the proper answers.
2. Collection - (AKA Data gathering) Gathering raw information of the issues being discussed from many different sources.
3. Processing/Exploitation - Synthesizing the raw intelligence into a usable state.
4. Analysis/Production - Integrating, evaluating and analyzing all available data, and distilling it into final intelligence products.
5. Dissemination/Integration - Distributing intelligence products to the policymakers who requested them.
6. Feedback - A dialog between intelligence consumers and producers occurring before and continue after the intelligence has been received.

(IC, 2017)

Each of these parts is a necessary and important step that needs to be followed for the development of a well organized plan. This process is similar to the Systems theory, developed by Ludwig von Bertalanffy, discussed earlier. Both the Intelligence cycle and systems theory require that the user break problems down into their component parts, assess each part individually, and then put the parts back together. As author Alex Wright wrote, "You will not improve an outcome by concentrating on that outcome, you will only realize an improvement through making a change to the process that results in an improvement of the outcome" (Wright, 1997).

The developing plan is to handle the potential threat by taking a proactive stance and developing a communication system that works with the media to dispense essential information to those in need. It is a time when normally fear and confusion will be rampant. This will interfere with rescue and recovery efforts and the deployment of aid and resources. It is a time of turmoil that terrorist organizations wait for to use to their advantage. This program can help to have people more prepared and educated with better access to critical information, cutting down some of the confusion. In turn, it will help to keep the country more secure in that hectic time and to minimize or handle any potential threat. The planning step of the intelligence cycle includes determining what issues need to be addressed and what information must be gathered to address the issue at hand. In this case it is the issue of the rising rate of natural disasters and the threat that they pose to this country. The next step includes the collection of data through various methods. In this case the use of fusion centers is a good choice. "A fusion center is a collaborative effort of two or more agencies that provide resources, expertise and information to the center with the goal of maximizing their ability to detect, prevent, investigate, and respond to criminal and terrorist activity" (DHS Baseline Capabilities for State and Major Urban Area Fusion Centers, 2008).

The next phase in the planning is analysis, which some would argue is the most important of all. Statistical analysis can be used in this phase because it takes research and the data collected and determine what methods worked and what did not. Doing so helps the organization or agency make necessary changes to projects or programs. The information gathered is then processed and analyzed before it is used. Integrating the program into local agencies means it can be implemented on a larger scale

when needed. The slow integration of it gives the opportunity for those using it to give feedback on the pros and cons. The final aspect, though not officially mentioned in the Intelligence cycle itself, is the need for accountability. It is an important topic because regardless of whether or not the plan is successful, it is still an effective tool in this development process.

## **Conclusion**

There are things that most people will experience at some point in their lives that are unavoidable. from big things like experiencing heart break, or losing loved ones to the smallest things like losing a tooth. Unfortunately, a natural disaster is not something that can be controlled. At the rate at which these events are happening, the likelihood of one of them impacting an individual in some way is growing every day. Those events may not be controllable but what is controllable is the threat that this country faces in the vulnerable time after a natural disaster. There were several methods discussed throughout this chapter that will help mitigate the potential danger; intelligence gathering is one of the major ones in that process. Intelligence gathering works hand in hand with the Intelligence cycle to address the issue directly. The use of intelligence gathering and the implementation of the Intelligence cycle give this country the best chances at minimizing any threat that may arise.

*This page intentionally left blank*

## **Chapter 9: Technology and Critical Infrastructure Protection**

### **Critical Infrastructure: Emergency Services Sector**

#### **Introduction**

According to the Department of Homeland Security there are 16 different critical infrastructure sectors (DHS, 2017). They include: The Chemical Sector; Commercial Facilities Sector; Communications Sector; Critical Manufacturing Sector; Dams Sector; Defense Industrial Base Sector; Emergency Services Sector; Energy Sector; Financial Services Sector; Food and Agriculture Sector; Government Facilities Sector; Healthcare and Public Health Sector; Information Technology Sector; Nuclear Reactors, Materials, and Waste Sector; Transportation Systems Sector; and the Water and Wastewater Systems Sector. It is important to know these as they are critical components to this country. A discussion of the effects of natural disasters on the safety and security of this nation will focus on one of the sectors in particular: the Emergency Services Sector. The connection between natural disasters and the Emergency Services Sector is generally obvious. This sector includes emergency responders and physical and cyber resources that provide a wide range of prevention, preparedness, response, and recovery services throughout the country. The mission of this sector is to save lives, protect property and the environment, assist communities impacted by disasters, and aid recovery during emergencies. The importance of the Emergency Services Sector is without question, especially at this time high. Due to the increase in major storms and catastrophic events that have taken place in recent years, an effective and efficient Emergency Services Sector is a major priority. The people of this country rely on the Emergency Services sector to provide aid and resources in the event of a disaster.



## Critical Infrastructure

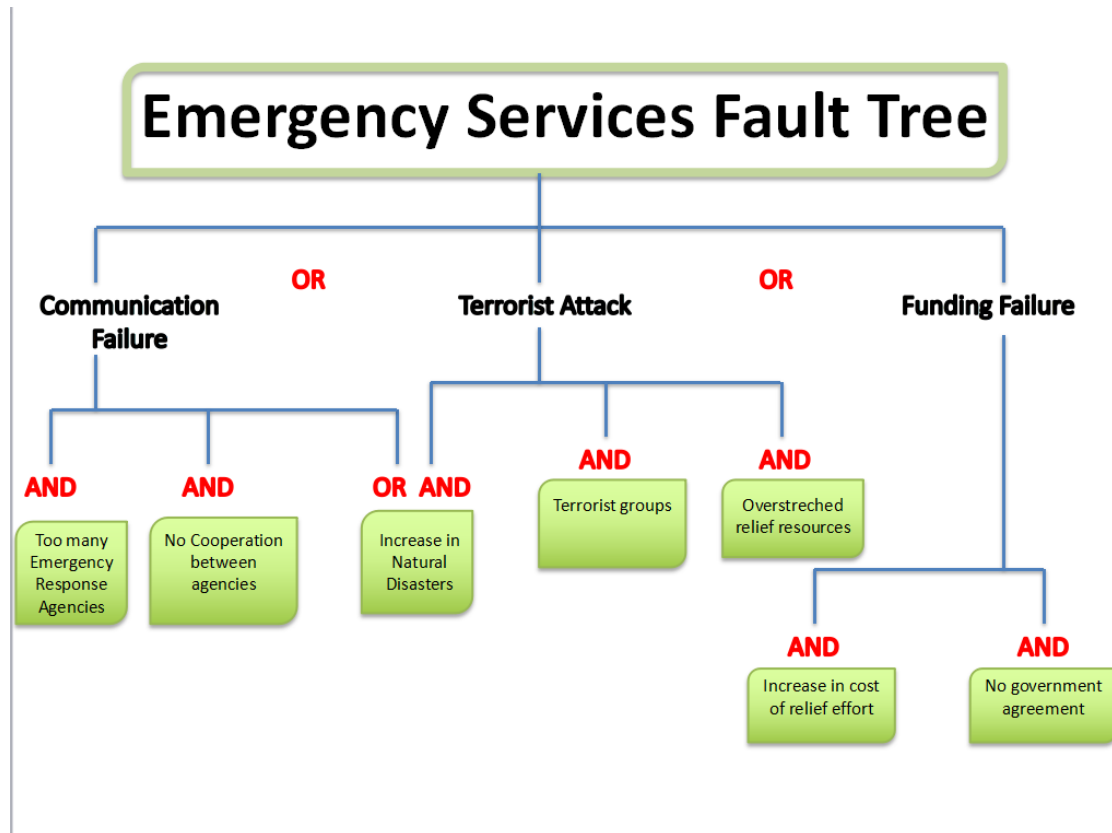
As the Department of Homeland Security states, the Emergency Services Sector (ESS) is a community of millions of highly-skilled, trained personnel, along with the physical and cyber resources that provide a wide range of prevention, preparedness, response, and recovery services during both day-to-day operations as well as during incident responses. This includes first-responders, like the police departments, fire departments, ambulance corps, the National Guard, and FEMA, among those involved. The image below shows the agencies each have their own responsibilities but they are connected and work together to create a successful sector.



(DHS, 2018)

The emergency services sector is very important and has several critical components to help make it successful. The best way to analyze this is by using the Network Theory. In the past network models have been used to understand social, neural, biological and computer science networks. In more recent studies this theory has been used to analyze infrastructure systems and demonstrate their potential to support broad scale infrastructure network design and management (Dunn, Fu, Wilkinson & Dawson, 2013). The Network Theory models infrastructure systems using nodes and links. This method's flexibility and scalability make it ideal to understand a wide range of infrastructure problems. The Network Theory illustrates which nodes are connected to other nodes in the network. Critical nodes included in the Emergency Services Sector are telephones, computer systems, roads, transportation systems, power generators, water systems, radios, televisions, fuel, and even manpower. These nodes are important to the Emergency Services Sector. They are connected to one another through another component known as a critical link. A critical link is a connection that separates major portions of a network into components (Lewis, 2015); if the link is removed, the flow between components will cease. One of the most critical links in this system is communication. Communication systems link the most important aspects of emergency responses. First responders like the police, fire, and medical services need to be able to communicate in a crisis, as do those who are victims in the situations. Without a working communication system necessary aid, whether it is aid in the way of food, water, or manpower, will not be available where it needs to be. That can cause major consequences like wasted funding and it can even contribute to the death of victims and responders in

the emergency. In order to minimize the damage of incidents, the Emergency Services Sector needs to address some of the major faults that arise.



(Quinones, 2018)

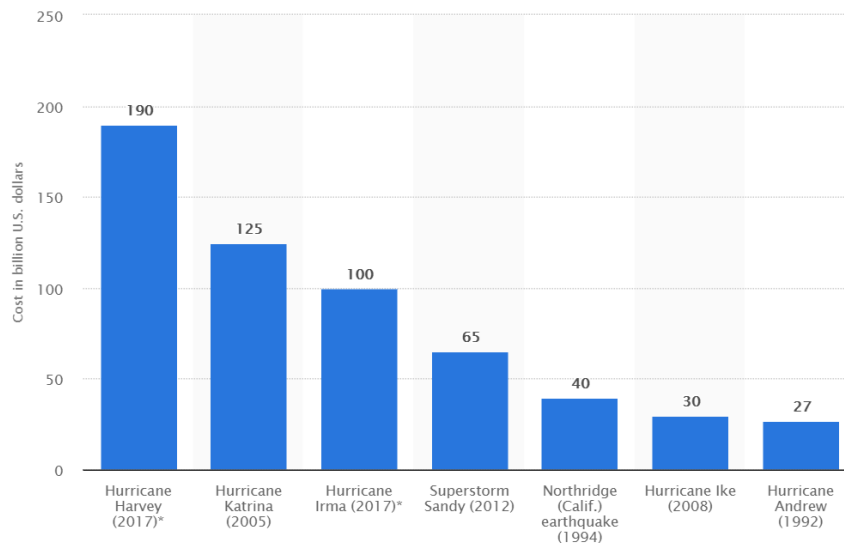
The Emergency Services Sector has three major faults: Communication Failure, Terrorist Attack, and Funding Failure. These faults are caused by different threats as seen in the diagram provided. These faults are possibilities that can occur and can potentially cause a major fault in the Emergency Services Sector. There is about an 80% probability of a communication failure. Communication is a major key to any successful system especially when there are several emergency response agencies. It is only when these agencies do not work together and cooperate with one another that it becomes cause for

concern. An increase in natural disasters along with those two factors can also cause a failure in communication.

The next branch in the diagram shows Terrorist Attacks for which there is approximately a 50% probability. Terrorist attacks can be large or small but the repercussions are long lasting. As one of the leading countries in the world the United States is subject to terror threats at virtually all times. Though there is a system in place to monitor and foil potential terror plots, there is always a possibility of one occurring. There are three factors that come to play in this section: increase in natural disasters, terrorist groups, and overstretched relief efforts. All three of these will have to occur for there to be a terrorist attack which would affect the Emergency Services Sector. These factors joined together can lead to a major fault in the Emergency Services Sector. Due to the increase in natural disasters there is the potential for resources to become strained. At times like that terrorist groups are more likely to exploit that vulnerability and to attack.

The last branch in this diagram illustrates that a failure in funding can cause a fault in the Emergency Services Sector. This has a 60% probability of happening. There are three reasons. First, not only has there been an increase in natural disasters in recent years but the strength and destruction of these disasters is increasing the cost of repairs exponentially. One example of this is the situation in Puerto Rico. CNN reports that the recent disasters can cost Puerto Rico anywhere from \$45 billion to \$95 billion in damages (Disis, 2017).

The graph below shows the most expensive natural disasters in the United States as of September 2017 (in billion U.S. dollars).

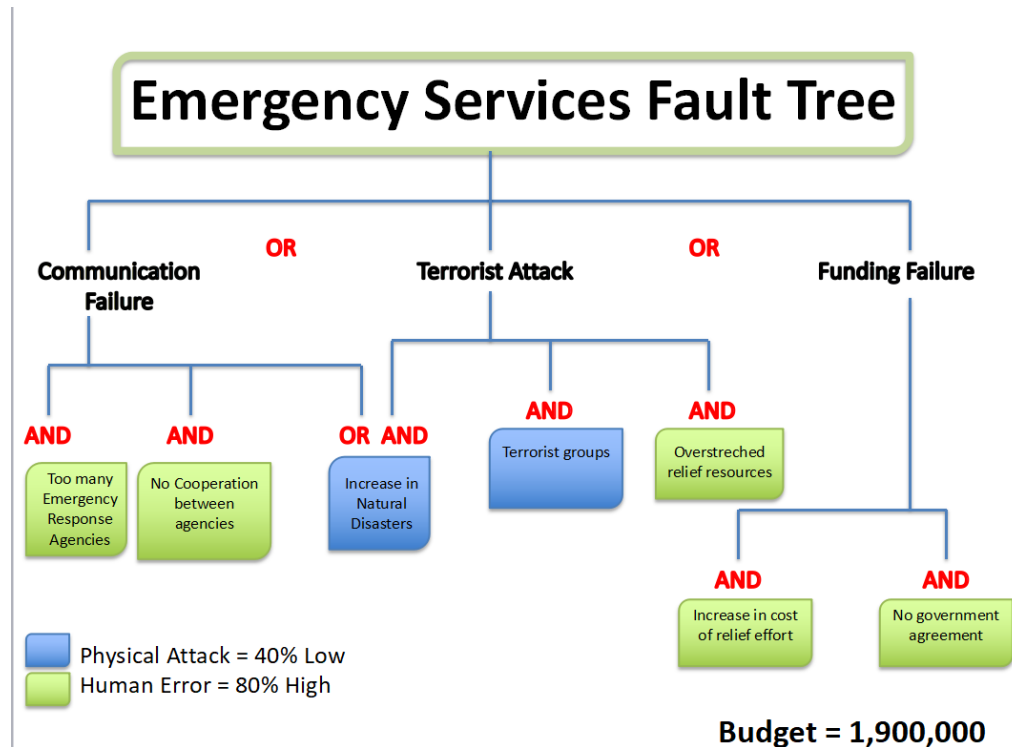


(Statista, 2018)

These disasters include hurricanes, mudslides, fires, droughts and other natural disasters which are causing a rise in costs which will continue.

The second factor that comes into play is the government. In recent months, the tension in the United States government has shown that agreement and compromise have not worked and has led to a government shutdown. If there continues to be no agreement in government and the cost of relief efforts keep growing, it could lead to a failure in funding and ultimately affect the entire Emergency Services Sector.

There are the threats that may induce the faults. Acknowledging the threats and predicting the likelihood of those threats becoming a reality helps to prioritize where funds and responsibilities need to be.



(Quinones, 2018)

This next diagram shows the same fault tree but this time it attributes a high or low percentage of probability to the different type of threats. Some of the threats that have been mentioned have a greater probability of occurring than others and, in turn, add to the possibility of affecting the sector. The first threat in the diagram is the possibility of too many emergency response agencies getting involved. Too many agencies, all with their own ideals and cultures, are bound to clash and cause confusion so that will cause a 30% likelihood of contributing to an overall fault in the system. Next would be the threat of a lack of cooperation between the various emergency response agencies. There has been rivalry and competition between FDNY and NYPD for some time, and if state and federal agencies become involved, the problem becomes greater, up to a 50% increase in

probability. The increase of natural disasters is definitely a growing threat with a 60% chance of occurring.

Terrorist groups are the next threat in the diagram with a probability of 50%. This is because this country has been a target of many terrorist attacks in the past. Although there is a system to monitor threats, terrorist organizations will take any advantage of any crisis in order to further their own cause. Since the probability of overstretched relief resources is at 70%, it is another of the major threats which could lead to a major fault to the sector that can, in turn, lead to a terrorist attack. The next threat is an increase in cost of relief efforts, at a 60% probability. The cost of relief efforts coincides with the increase in natural disasters. Due to the strength and frequency of these incidents, there is more destruction than in the past. The last threat in this diagram is the threat of a governmental stalemate in which leading figures cannot agree on important issues; the probability is as high as 70%. This has produced tension, which is clear from the fact of the recent government shut down with the possibility of another.

Identifying and discussing potential threats and their subsequent countermeasures is an important first step in any sector's development plans. The next issue, and in some instances the more important and controversial issue that arises is funding of the budget. It is important to identify threats and develop plans to combat them, but if there is not enough funding or poor allotment of the budget, then hard work and energy will be wasted. As the diagram about demonstrates, this plan will call for a budget of approximately \$1,900,000. Rising costs throughout the economy mean there needs to be adequate funding in the Emergency Services Sector to tackle all the issues that arise. The best strategy for establishing the budget allotment for the Emergency Services sector is

the Apportioned Risk Reduction. It will help in reducing the vulnerabilities that could have a significant effect on the sector. The Apportioned Risk Reduction strategy means spreading the money evenly across as many threats as possible, while reducing risk as much as possible (Lewis, 2015). In the Emergency Services Sector all threats can be potentially harming. For this reason, having a funding system that targets all threats and not just some more than others is the best type in this situation. Having funding that can cover all critical nodes for the Emergency Services Sector such as telephones, computer systems, roads, transportation systems, power generators, water systems, radios, televisions, fuel, and manpower is necessary to avoid any faults. This ensures that all possible vulnerabilities are being covered.

## **Conclusion**

Assessing the Emergency Services Sector has made clear some major faults and some significant vulnerabilities that it faces. This process is a necessary step in developing a strong and efficient sector. It identifies some of the critical assets of the Emergency Services Sector and understand why it is important to protect them. Surveying the threats and developing countermeasures helps to eliminate or at least minimize the potential impact of those threats. Then finally, through continued funding and appropriate allotment of the budget the Emergency Services Sector can continue to combat threats it faces and provide services for communities across the nation.



*This page intentionally left blank*

## **Chapter 10: Multi-Disciplinary Approaches to Homeland Security**

### **A Multi-Disciplinary Approach to Mega-Communities**

#### **Introduction**

This chapter discusses a multidisciplinary approach to homeland security. This is a topic that correlates with the overall topic of this Masters project which depicts the threat of natural disasters on the security of this nation. Natural Disasters are a growing risk for this country and this chapter discusses why using a multidisciplinary approach to Homeland Security is so important. This chapter will cover many topics including: the Emergency preparedness cycle; the scope of Homeland Security; and what exactly a multidisciplinary approach is. It will also address some of the biggest factors included in a multidisciplinary approach and how they come together to create a more effective system for homeland security.

#### **Emergency Preparedness and Response**

Today wildfires, floods, mudslides, hurricanes and other natural disasters have become a more common issue for communities. They are causing greater danger to this country as a whole and its security. The National Strategy for Homeland Security defines homeland security as "a concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur"(Homeland Security Council, 2007). This is an ideal that must be supported; it encompasses many important issues such as:

- Emergency preparedness and response (for both terrorism and natural disasters), including volunteer medical, police, emergency management and fire personnel;

- Domestic and International intelligence activities, largely today within the FBI;
- Critical infrastructure and perimeter protection;
- Border security, including both land, maritime and country borders;
- Transportation security, including rail, aviation and maritime transportation;
- Biodefense;
- Detection of radioactive and radiological materials;
- Research on next-generation security technologies (IBP, Inc., 2016).

It is a major task to address all these topics but it is one that must be done. Although each of these topics is important, the one in particular to focus on here is emergency preparedness and response.

Emergency preparedness and response is one of, if not, the greatest issues that comes to the forefront when developing a strategy to handle natural disasters and homeland security. The Department of Homeland Security, in conjunction FEMA, defines the preparedness cycle as "a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response" (DHS, 2017). This is a useful tool that should be utilized throughout the entire strategic development process. This method addresses the components that are critical to a successful strategy. In order to implement necessary changes and develop a new strategy that is effective and efficient, the developers have to look at all aspects involved, not just focus on the outcome. This method is similar to that

of reminiscent of the Systems Theory, in which one must view each of the components as pieces of a larger puzzle. This means that planning, organizing, training, equipping, exercising, evaluating, and taking corrective actions are essential to the success of the program. The question then becomes how to manage to address all these issues. The answer is to use a multi-disciplinary approach.

### **Whole Community and Mega-communities Concepts**

There are numerous ways in which this issue can be addressed but many agree that using the multi-disciplinary approach is the most advantageous. This means combining or involving multiple organizations, agencies, and various other groups in an approach to a topic or problem. The Multi-disciplinary approach can be used in conjunction with two other concepts: whole communities and mega-communities. Whole communities are communities that expand relationships beyond the traditional Emergency Management partners to include non-governmental assets, including the public, in preparedness plans. Mega-communities are communities of organizations whose leaders and members have deliberately come together across national, organizational and sectional boundaries to reach the goals they cannot achieve alone. It is important to be sure to include all elements related to this strategy. Due to the immense impact that natural disasters can have all over the country, the best place to start with strategy is at the federal jurisdiction since it has the furthest reach. Anything actions can be implemented through all the different state and local jurisdictions. There are major players at this level that should be included in a multi-disciplinary approach. Agencies such as the Federal Emergency Management Agency, FEMA, are critical to comprehensive collaboration which is required to sustain a successful strategy. FEMA, the organization that has one of the

greatest roles in emergency management, should be held responsible and accountable for getting others to join together to work towards a common goal. Many of the organizations may have differing reasons for wanting to initiate action or be included in the change. The motives, however, are not the focal point in creating mega-communities with a multi-disciplinary approach. The reasons for their involvement are not as important as their input and dedication to the mega-community and the end goal. Whichever organization or agency it is that initiates steps towards a multi-disciplinary approach can start to make strides in some of the major issues at hand. For example, one major issue, concern, and priority that needs to be addressed within emergency services is the flow of information between agencies, making sure people are prepared and know what their responsibilities, resource allotment, funding, and communication of essential information to the people in need consist of. Through the use of a multi-disciplinary approach mega-communities can target these issues.

One of the major factors in a multi-disciplinary approach includes the multi-disciplinary relationships or partnerships. The effects of natural disasters can be felt at all levels, federal, state, local, tribal, non-governmental and the private sector, which makes multi-disciplinary relationships a major factor in accomplishing their shared goal. Without such relationships between the various emergency response agencies, there is too much room for confusion and miscommunication. Communication is one of the single most important aspects that must be achieved. A lack of effective communication between the different agencies can easily waste essential aid and cause unnecessary hardship. In the planning and carrying out of activities, federal law takes precedence. Although the federal law is the highest, it does not diminish the fact that state and local

authorities also have their own ways of handling emergency situations such as natural disasters. And it is usually local and state authorities that have the responsibility of first responses in their areas. Local authorities provide the initial emergency response through their service agencies such as their police departments, fire departments and ambulance corps. It is the local government's responsibility to activate the Emergency Operations Center (EOC) and the Emergency Operations Plan (EOP) and to coordinate the response efforts with public and private organizations. State authorities are then notified of the scope of the situation. The state provides aid if it determines the situation is beyond the local capability. The next step is for the state to contact the federal government for further assistance. If the Federal government determines it is appropriate, it will then provide aid in the response and recovery effort (FEMA, 1996). The responsibilities of these authorities are vitally important to successful emergency response efforts. Yet none of this can be accomplished if there is not a clear, comprehensive and direct line of communication among the all of the agencies.

The next major component in a multi-disciplinary approach is dialogue, another aspect of communication. Dialogue is a type of communication that is defined as creating a shared understanding in an atmosphere of mutual respect and support in order to arrive at a mutually beneficial outcome. This is so important because it delves deeper into understanding the culture of the various organizations by allowing everyone involved to learn and collaborate. This dialogue process is a tool that should be utilized throughout the whole development process, beginning, middle, and end. It is important to have a way of connecting the many different organizations that are involved in mega-community's multi-discipline process. Dialogue is about sharing ideas, analyzing how they may be

similar and how they may differ in the attempt to come up with the best possible solution which meets all concerns. The dialogue process is an excellent tool for the development of strategies because the more dialogue that is fostered, the more input and ideas there will be to work with, to discuss, and to review. In most cases having a larger brainstorming pool will help inspire new ideas that can be employed in the new strategies.

In some sectors or jurisdictions the cultures of the various agencies or organizations are not that different and therefore they are more accepting of external input. Although communication and dialogue are more successful with certain organizations than others, and particular sectors this does not change the importance of it in all the organizations. There are many different emergency service organizations that are involved in the response effort, each with its own culture. Having very strong cultural values can be a good thing but if it comes to the point that these organizations cannot put aside their differences, communicate, and work together, it can lead to some severe consequences. Decisions made on new strategies without dialogue among all the agencies and organizations may cause organizational performance to suffer and may lead to a greater likelihood of failure. On the other hand, dialogue means new ideas, which equals more possibilities and more possibilities will lead to a greater success in the end.

Another component of the multi-disciplinary approach to mega-communities is the structure of such a system. Using a business approach to sustain a mega-community in most cases can be a method for success, although some think otherwise. The common idea that comes to mind when discussing a business approach is that everyone is dedicated only to profit. The bottom line is that emergency services require money to

provide the resources and aid in response efforts. Not only has there been an increase in natural disasters in recent years but the strength and destruction of these disasters is increasing the cost of repairs exponentially. There needs to be a way to address this issue; therefore, following a business approach is the best method to providing the necessary funds to assure success.

The final component in a mega-community's multi-disciplinary approach is also one of the most critical to success, leadership. A simple definition is that leadership is the art of motivating a group of people to act towards achieving a common goal (Ward, 2017). A mega-community is a conglomeration of people who share a common goal. All the ideas and the potential success that can come from their collaboration will fail if there is no leadership. Effective leadership is based upon ideas, whether original or borrowed, that are communicated to others in a way that makes them listen. If there is open, honest communication and effective leadership within the mega-community, it paves the way for a successful multi-disciplinary approach.

## **Conclusion**

It is the responsibility of all those in the emergency services community to do their best to meet the needs of the people and protect them in times of emergency. As was discussed above, implementing a multi-disciplinary approach is a way to achieve that. As long as there is an open line of communication between those involved, there will be less mistrust and more understanding and a greater possibility of cooperation and coordination in a mega-community. Creating a mega-community with a multi-disciplinary approach is not only a useful tool for achieving a common goal; it is a way to



form a strong stable foundation for the future. Building on a solid foundation makes it easier to prepare, organize, and evolve over time.

*This page intentionally left blank*

## **Chapter 11: Public Health and Pandemic Issues**

### **Natural Disasters and Public Health**

#### **Introduction**

In response to events that occurred on September 11, 2001, the United States Congress provided funding to strengthen public health systems in every state. This decision kick-started the collaboration of public health and homeland security. The system that ensued has attempted to facilitate information sharing across public health and homeland security organizations, a necessary endeavor to help achieve the goal of protecting all sectors of the economy from hazards such as terrorism, infectious disease outbreaks, and natural disasters. The United States faces dozens of these threats each day, all of great importance and lasting consequences.

An emerging threat to public health that deserves greater attention is natural disaster. This is an issue that should be brought to the forefront for several reasons: First, the rate of natural disasters per year is increasing; second, the strength of these disasters is causing more damage than it has in the past; and, third, these disasters have the ability to affect several aspects of society. There are a number of events that can result from natural disasters that affect public health, including but not limited to pandemics, nuclear attacks, surges, food and water contamination, and even the growth/surge of a drug epidemic. These events can be major fall-outs from natural disasters in their own right but it is also a major blow to public health. This chapter delve deeper into these issues to analyze the impact natural disasters can have on public health.

**Presidential Directives**

There was a time not too long ago when public health was not included in emergency management plans. It is not until recent years that the integration of the Public Health Sector has begun to emerge as the next supporting pillar in the preparedness structure. It is important to define and understand the role of the federal, state, and local governments in managing and protecting public health in the United States. Learning about the different roles of the federal, state, and local government includes Homeland Security Presidential Directives (HSPD) and Presidential Policy Directives (PPD). Presidential Directives are Executive Orders that state the Executive Branch's national security policy and seek to implement new policies and strategies to make this country safer.

Presidential Policy Directive 21, or PPD-21, discusses critical infrastructure security and resilience. The goal of this directive is to take proactive steps to manage risk and protect against physical and cyber threats by working with critical infrastructure owners and other governmental entities. Homeland Security Presidential Directive 18, HSPD-18, addresses the need for preparation against an attack by terrorist forces using a weapon of mass destruction. The method that is discussed in this directive is to have a two-tier approach where Tier I is a focused development of Agent-Specific Medical Countermeasures and Tier II concerns the development of a Flexible Capability for New Medical Countermeasures. The goal of HSPD-5 is to enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system. This approach will help provide a more efficient and effective approach to managing domestic incidents. PPD-8

addresses threats that pose the greatest risk to the security of the nation through systematic preparation. HSPD-9 is the Defense of United States Agriculture and Food in which a national policy is established to defend the agriculture and food system against terrorist attacks, major disasters, and other emergencies. HSPD-14 addresses Domestic Nuclear Detection to protect against the unauthorized importation, possession, storage, transportation, development, or use of a nuclear explosive device, fissile material, or radiological material in the United States, as well as to protect against an attack using such devices. HSPD-18 is Medical Countermeasures against Weapons of Mass Destruction where they focus on the development and acquisition of effective medical countermeasures to mitigate illness, suffering, and death resulting from chemical, biological, radiological, and nuclear agents. HSPD-19 establishes a national policy for the development of a strategy and plan for the prevention, detection, and protection against terrorist use of explosives in the United States.

There is a commonality among these directives. Each one of these directives is an action taken by the government to make the United States a safer and more resilient place. It highlights major issues and risks, some of which are a direct result of natural disasters, that are affecting this county and they provide potential solutions. Meeting the goals of these directives will help mitigate the growing issues as well as help to adapt to changes as they come to ensure a safe and secure future.

### **Pandemics**

As the Journal of Infectious Diseases describes, a pandemic is an epidemic, or outbreak of an infectious disease, that spreads worldwide or across a large region

(Morens, Folkers, & Fauci, 2009). There are certain features that must be present to identify a pandemic:

- Wide-spread extension;
- Disease movement;
- High attack rates and explosiveness;
- Minimal population immunity;
- Novelty of location or strand of disease;
- Infectiousness;
- Contagiousness;
- Severity (Morens, Folkers, & Fauci, 2009).

Diseases like acute hemorrhagic conjunctivitis (AHC), AIDS, cholera, dengue, influenza, plague, severe acute respiratory syndrome (SARS), scabies, West Nile disease, and obesity that can be considered pandemics (Morens, Folkers, & Fauci, 2009). Pandemics and outbreaks can result from natural disasters mainly as a result of population displacement. The availability of safe water and sanitation facilities, the degree of crowding, the underlying health status of the population, and the availability of healthcare services all interact within the context of the local disease ecology to influence the risk for communicable diseases and death in the affected population (Watson, Gayer, & Connolly, 2007).

The effects of a pandemic on a country can be extremely debilitating. The 2011 film *Contagion* depicts the very real and catastrophic threat that a pandemic poses a country. This film shows the outbreak of a lethal airborne virus, one which spreads quickly around the globe. Identified throughout the film are major challenges that the

country would face when dealing with this type of situation. The first challenge that they face is the public health effort to control its spread. This is a vital step in any outbreak. Containing the outbreak will stop the transfer and spread of a disease, protecting innocent people from becoming infected. A second challenge a country faces is to find the source of the outbreak. In order to be able to treat those who fall victim to this illness, the cause of the outbreak must be isolated and a treatment or antidote must be created or identified. This is a step that can take some time; a vaccine cannot be made overnight for example. A third challenge that a country faces from a pandemic is the devastation to everyday life. As the film suggests pandemics have the ability to cause chaos, confusion, and loss. The fictional virus in *Contagion* is based on a real-world scenario, one that can be just as damaging as that depicted in the film.

A real life disease outbreak that bears mentioning is the 2009 swine flu pandemic. This brought to center stage the effect that a disease outbreak can have on a country and the importance of infection control and hygiene. It is vital to monitor and implement new strategies to mitigate future outbreaks. This means improved infection control and hygiene which can be implemented in a number of ways.

One way to improve infection control is to encourage the use of medical masks, alcohol hand rubs, disinfectant sprays, etc., especially in locations that are experiencing higher infection rates. Another way is to educate the community. Community events can be organized to go through the various steps people must take to keep safe in times of emergency. Fliers could be distributed that highlight facts and resources that the people can utilize. A third method could be to approach vaccines in a new way. In 2009 during the swine flu pandemic the vaccine actually did more harm than good; vaccines were

produced only after the epidemic had passed and in the end cost the government a lot of money. There needs to be a better way to create vaccines and distribute them to the locations that require it. When these methods are implemented there is predictable improvement in infection control.

### **Nuclear Attack**

Attacks on the United States are a constant threat. In times of vulnerability, such as after a natural disaster, terrorist organizations can try to take advantage of the situation to further their goals. Any successful attempt by a terrorist organization could be extremely damaging. The International Office of Migration's (IOM) report *Assessing Medical Preparedness to Respond to a Terrorist Nuclear Event: Workshop Report* illustrates the impact nuclear detonations can have on a city. This report discusses many topics that address the potential issues that come as a result of nuclear detonations including the effects of a 10-kt IND detonation, medical care for victims of the attack, the benefit of radiation countermeasures, protective actions and interventions to reduce radiation injury, risk communication, public reactions, and psychological consequences of an IND event, the current preparedness for responding to the medical needs of those injured, and finally current preparedness to prevent and treat delayed casualties caused by radioactive fallout as well as the psychological effects of an IND event. This is especially important because today the possibility of a nuclear attack is very real and extremely dangerous; as indicated in this report even the smallest of nuclear attacks can cause a "national catastrophe of unprecedented proportions" (Benjamin, McGeary, & McCutchun, 2009). There is a chain-reaction effect: for example, the nuclear blast sets in motion events that can cause



short term effects as well as long term effects. This can cause the country to face many challenges in the response and recovery process.

Similarly to what was discussed in the IOM report, the Great East Japan Earthquake of 2011 caused massive damage to the country and set in motion a chain-reaction of events. The force of the earthquake initiated a tsunami that hit the coast less than an hour afterward. The tsunami brought waves as large as 128 feet high and drove water up to six miles inland which led to a cooling system failure at the Fukushima Daiichi Nuclear Power Plant. The cooling system failure then resulted in a level-7 nuclear meltdown and release of radioactive materials (Oskin, 2017). This shows how the effects of one event can cause more damage than one can predict and therefore for which one cannot prepare. What can be done is to identify and address the challenges that might be faced as a result.

One challenge that is faced is the response time for this type of incident. As the report points out, local and state responses would be overwhelmed almost immediately in the event of a nuclear attack and it could be several days or a week or longer before federal and other resources could be fully mobilized. This can be the difference between life and death for some. There are many agencies and organizations that can respond to emergencies but some policies and regulations hold them up causing the delay in response time. There needs to be a quicker and more efficient way to mobilize federal and outside aid to help in crisis situations. That brings up the challenge of being able to prepare for this type of threat. The government needs to develop policies that will be able to mitigate and minimize the threat of future nuclear attacks. The way to do that is to know as much as possible about these types of attacks. As previous chapters have mentioned gaining knowledge about natural disasters from other countries who have

faced similar events is essential. The more that is observed and learned from other countries on how they have handled attacks the more this country can prepare in the event of an incident.

The possibility of preparing for and the recovering from nuclear attacks is contingent on the budget that is allotted by the government. Attacks of this degree can cost the country greatly, between the damage to critical infrastructure, the number of those killed and injured, medical expenses, and even the amount of resources that are needed to aid the people and repair damages. Therefore, the government needs to address the potential issues that would arise from attacks; it needs to demonstrate that an increase budget is required to protect against attack and to recover in the event of an attack.

HSPD-19 (2007) establishes a national policy and calls for the development of a national strategy and implementation plan for the prevention and detection of, protection against, and response to terrorist use of explosives in the United States. With technology advancing as it is, the use of explosives in terrorism is becoming more common. Recent attacks in places like Manchester, London, and New York have shown the impact and effect that these attacks can have on a country.

The HSPD-19 discusses many issues that have been identified for the attention of Homeland Security professionals. The first is the need for collaboration and coordination between federal, state, local, territorial, and tribal governments as well as with the owners and operators of critical infrastructure and key resources. The combined efforts of these groups will help to deter, prevent, detect, protect against, and respond to future explosive attacks. A second issue that was identified in HSPD-19 is the need for an “inventory and description of current research, development, testing, and evaluation initiatives relating to

the detection of and protection against explosives and anticipated advances in capabilities for reducing the threat of explosive attacks, and recommendations for the best means of disseminating the results of such initiatives to and among Federal, State, local, territorial, and tribal governments and first responders” (2007). It is extremely important to be able to identify the means to identify and address the issue of terrorism using explosives. It is also vitally important to share that information among the people and organizations involved in this process. Communication is one of the most beneficial tools that can be utilized to mitigate this growing issue. A third step is to have an assessment of the effectiveness of, and recommendations for improving federal government training and education initiatives relating to explosive attack detection, including canine training and performance standards. Assessment is a major step in any developmental process. There needs to be a way to know whether or not the newly implemented policies are working. It would be of no benefit to implement a change that does not actually improve matters.

The CDC document Interim Planning Guidance for Preparedness and Response to a Mass Casualty Event Resulting from Terrorist Use of Explosives (2010) discusses the concept of meta-leadership. Leadership is a major concept in both the CDC document and the HSPD-19. The CDC document discusses meta-leadership and how the leaders from various response organizations take on a greater role in the event of an attack. One of the objectives of the HSPD-19 is to clarify the specific roles and responsibilities of agencies and heads of agencies through all phases of incident management from prevention and protection through response and recovery. This is a necessary tool because effective preparation will help maintain critical systems and can

improve both the clinical and psychological outcomes for the people affected by terrorist bombings and mass casualty events.

### **Surges**

In the event of a natural or man-made disaster, medical surges can occur. A medical surge is a high influx of patients at an unusually rapid rate. A surge requires the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. The work, *In a Moment's Notice* (2010), highlights a number of challenges that are associated with a medical surge. In the event of a natural disaster or terrorist bombing hospitals near the scene can expect to receive a large influx of victims. This rapid surge of victims typically occurs within minutes and many hospitals do not have the resources to handle such a situation. Resources in some hospitals are strained on a typical day without even factoring in a major catastrophe. Without immediate federal assistance most communities would have difficulty caring for a surge of victims. What needs to be done in this situation is to make sure there is enough funding that can be put towards strategic plans to address this. If these plans are developed and implemented hospitals will be prepared and there would be enough resources on hand to handle a major surge of patients.

Another challenge that is faced is that injuries to workers such as emergency responders and medical professionals involved in rescue and recovery can lead to a secondary wave of patients. Emergency responders commit to help in times of crisis but the community can help as well; however, people in the community may not know what to do in the event of a terrorist bombing. What can be done is to educate the people about this: plans can be set up to educate the people on evacuation plans, how to administer

basic medical treatment, and how they can help the first responders in any way.

Educating the people can reduce wasted resources and mitigate the typical second wave of injuries which can further strain hospital resources.

A concept that comes up in connection with surges is altered standards of care in a disaster. This concept does not mean that the standard of care or the treatment of patients is lowered, but that the way of administering of care needs to be changed in order to be able to handle a greater number of people than normal. What some may be afraid of is receiving a lowered level of care which is not actually the case.

Altering the standard of care will help medical professionals meet the needs of the high influx of patients in the event of a major disaster. The term "altered standards" refers to the shift of providing care and allocating scarce equipment, supplies, and personnel in a way that saves the greatest number of lives in contrast to the normal standards where there are more resources. Altered standards of care can greatly increase the quality of life of individuals who may have been injured in a major disaster.

Federal support is vital to handling surges. Local authorities such as the police, fire, ambulatory care, and hospitals will be overrun quickly after a terrorist attack or natural disaster because they are not adequately equipped to handle such a surge. Federal assistance in any capacity is much needed to provide resources to support local authorities in providing the best care possible at a critical time.

### **Food and Water Systems**

There are a number of staples needed in order to survive: food, drink, shelter, sleep and oxygen. In some places around the world, and even in some places throughout the United States, these life essentials are not easily accessible. Not only is water and food

a matter of necessity, it can also be a major public health and security concern for the county. The importance of the food and water systems makes them targets for organizations looking to harm this country. Attacking the food industry would be a furtive but effective way for terrorists to impact the public health of Americans and the economy of the United States. A multitude of suitable biological and chemical agents exists and can leave the vast contemporary food supply as well as community drinking water systems vulnerable (Sobel & Watson, 2009). In order to prevent this very real threat security, the food and water systems need to be enhanced such as by added monitoring of food quality and filtration systems to avoid contamination.

Though it is not an intentional one, natural disasters still pose a significant threat to the food and water industry. According to the Center for Disease Control (CDC), many of the most common epidemics come in the form of water-borne diseases. Flood-waters bring water that is infected with fecal matter and toxic chemicals. Diarrheal disease outbreaks can occur from this water and have been reported after flooding and related displacement. For example, an outbreak of diarrheal disease occurred after flooding in Bangladesh in 2004, and a large cholera epidemic in West Bengal in 1998 was attributed to preceding floods, and floods in Mozambique from January to March 2000 led to an increase in the incidence of diarrhea (Watson, Gayer, & Connolly, 2007). Hepatitis A and E, Leptospirosis, Salmonella, and toxigenic and nontoxigenic *V. cholerae* are among other diseases to be contracted as a result of natural disasters (Watson, Gayer, & Connolly, 2007). There is a great likelihood of contamination following a natural disaster. In order to mitigate this issue supplies like clean drinking water need to be ready and available to affected areas. Other resources like

medicines to fight off the possible infections and filtration systems to decontaminate water are also necessary.

### **Drug Epidemic**

Illicit drugs in the United States have been a major public health concern for many years now and the availability of illicit drugs in the United States such as cocaine, methamphetamine, marijuana, heroin, and ecstasy, has continued to increase. These drugs have a grave impact on the lives of many citizens, whether they themselves are victims of addiction or are the family and friends of those fighting addiction..

Studies have shown that illicit drug markets grew and instances of violence have increased in the wake of natural disasters; for example, a study by Eloise Dunlap and June Townes (2016) discussed the proliferation of illicit drugs and surge in violence following Hurricanes Ike and Gustav. A comprehensive understanding of the causes and consequences of drug-related activity and violence is important for implementing effective public policies for control and prevention of violence. Developing more studies similar to the Dunlap's and Townes' are necessary to understand the full extent of the effect of natural disasters on the illicit drug market.

The Government Accountability Office report 11-763 (2011) discusses the issue of illicit drugs at greater length, implanting cooperation and teamwork of the Drug Enforcement Agency (DEA) and Immigration and Customs Enforcement (ICE). One aspect of this article that has a particular impact on society is the economic impact that illicit drugs can have on the country. Trafficking and abuse of drugs affect nearly all aspects of life in the United States, with an estimated economic cost of nearly \$215

billion, as well as adding to an overburdened justice system, a strained healthcare system, and creating a loss in productivity.

The physical, emotional, and economical effects that illicit drugs have on this country should be enough to spur the government into action, to not just mitigate this issue, but to eliminate it. There have been attempts in the past to address this issue, such as the DOJ Reorganization Plan No. 2 and Executive Order 11727 or the 2009 Interagency Cooperation Agreement (GAO, 2011), but the issue of illicit drugs still plagues the country. Looking to other countries for guidance on this issue may lead to a better outcome. Gaining insight on the processes of other countries and their success and/or failures can help in developing new policies in the United States. There has been a trend of decriminalization of drugs that has had positive effects on participating countries. In 2001, Portuguese legislators enacted a comprehensive form of decriminalization, eliminating criminal penalties for low-level possession and consumption of all illicit drugs and reclassifying these activities as administrative violations. As a result the country has seen a decline in arrests and the use of illicit drug use overall (Drug Policy Alliance, 2015). To combat the illicit drug market that is affecting the public health of this country the previous attempts that have been made to combat the effects of illicit drugs must be assessed to see what worked and eliminate what did not. Combining those ideas with the ideas and concepts from other countries will make the best chance to develop a system that will work.

## **Conclusion**

The effects of natural disasters have shown to be a major factor in the field of public health. This chapter discussed the presidential directives that acknowledge the problem



and seek to implement new policies to help correct a flawed system. Next to be discussed were the different consequences of natural disasters that affect public health. Pandemics, nuclear attacks, medical surges, food and water contamination, and the abuse of illicit drugs can all result from both natural and man-made disasters and each can have a major impact on public health. Also discussed were ideas that could be implemented to improve the country's ability to combat and mitigate these potential hazards. Monitoring potential threats and developing new ways to address them are necessary steps for this country to stay on top of the growing threat to public health.

*This page intentionally left blank*

## References

- Ashkenazi, I., MD, MPA, MSC, MNS, Hunt, R. C., MD, FACEP, Sasser, S. M., MD, FACEP, Basavaraju, S. V., MD, Sullivent, E. E., MD, MPH, FACEP, Kapil, V., DO, MPH, FACOEM, McGuire, L. C., PhD, Garbarino, L.T., and Peters, P. S., MPH, CHES (2010) Interim planning guidance for preparedness and response to a mass casualty event resulting from terrorist use of explosives. Atlanta, GA: Centers for Disease Control and Prevention. Retrieved May 1, 2018 from <https://stacks.cdc.gov/view/cdc/5705>
- Benjamin, G.C., McGeary, M., McCutchen, S. R., (2009). *Assessing Medical Preparedness to Respond to a Terrorist Nuclear Event: Workshop Report*. Committee on Medical Preparedness for a Terrorist Nuclear Event; Institute of Medicine [PDF]. Retrieved May 1, 2018, from <https://www.nap.edu/read/12578/chapter/1>
- Berg, L. (2010, September 28). Crime, politics and violence in post-earthquake Haiti. Retrieved May 05, 2017, from <https://www.usip.org/sites/default/files/PB%2058%20-%20Crime%20Politics%20and%20Violence%20in%20Post-Earthquake%20Haiti.pdf>
- Berrebi, C., & Ostwald, J. (2011, September). Earthquakes, hurricanes, and terrorism: Do natural disasters incite terror?. Rand Corporation. Retrieved November 10, 2016, from [https://www.rand.org/content/dam/rand/pubs/working\\_papers/2011/RAND\\_WR876.pdf](https://www.rand.org/content/dam/rand/pubs/working_papers/2011/RAND_WR876.pdf)
- Beulah Heights University. (2015, April 06). Identifying strategic issues facing the organization. Retrieved April 06, 2018, from

<https://www.slideshare.net/robintgreene/bryson-chapter-6-identifying-strategic-issues-facing-the-organization>

Bostjanbb. (2016, June 09). The 5 most destructive natural disasters of the past 10 years.

Retrieved November 10, 2016, from

<https://owlcation.com/stem/Worlds-worst-natural-disasters>

Brecken, D. (2004). Leadership vision and strategic direction. American Society for Quality.

Bryson, J. M. (2003, September 10). What to do when stakeholders matter: A guide to

stakeholder identification and analysis techniques. [PDF]. Retrieved April 06,

2018, from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.507.4165>

&rep=rep1&type=pdf

Bryson, J. M. (2011). *Strategic planning for public and nonprofit organizations: A guide*

*to strengthening and sustaining organizational achievement*. Hoboken, J. Wiley.

Bureau of International Narcotics and Law Enforcement Affairs (INL) (2014). 2014

International Narcotics Control Strategy Report (INCSR). Retrieved May 05,

2017, from <https://www.state.gov/j/inl/rls/nrcrpt/2014/vol2/222714.htm>

Bush, G. W. (2007, February 12). Homeland Security Presidential Directive/HSPD-

19. Retrieved May 1, 2018, from

<https://georgewbushwhitehouse.archives.gov/homeland/hspd19/index.html>

Caribbean Disaster Emergency Management Agency (CDEMA) (2017). Activities of

the agency. Retrieved May 05, 2017, from

[http://www.cdema.org/index.php?option=com\\_content&view=article&id=358&Itemid=120](http://www.cdema.org/index.php?option=com_content&view=article&id=358&Itemid=120)

Carter, J., & The White House. (1978, June 19). Reorganization plan No. 3 of 1978.

Retrieved April 04, 2018, from

<http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title5a-node84-leaf187&num=0&edition=prelim>

Chalfant, M. (2017, December 11). House passes Homeland Security cyber overhaul bill. Retrieved February 10, 2018, from

<http://thehill.com/policy/cybersecurity/364340-house-passes-homeland-security-cyber-overhaul-bill>

Clavel, T. (2017, January 26). Money laundering case against Haiti president-elect threatens island stability. Retrieved May 05, 2017, from

<http://www.insightcrime.org/news-analysis/money-laundering-case-against-haiti-president-elect-threatens-island-stability>

CNN. (2017, January 09). Haiti fast facts. Retrieved May 05, 2017, from

<http://www.cnn.com/2013/10/17/world/americas/haiti-fast-facts/>

Department of Homeland Security (DHS) (2017, June 21). National network of fusion centers fact sheet. Retrieved November 1, 2017, from

<https://www.dhs.gov/national-network-fusion-centers-fact-sheet>

Department of Homeland Security (DHS). (2017, September 15). Plan and prepare for disasters. Retrieved February 10, 2018, from

<https://www.dhs.gov/topic/plan-and-prepare-disasters>

Department of Homeland Security (DHS) (2017, July 11). Critical infrastructure sectors. Retrieved February 10, 2018, from

<https://www.dhs.gov/critical-infrastructure-sectors>

- Department of Homeland Security (DHS) (2018, January 26). Emergency Services Sector. Retrieved February 10, 2018, from <https://www.dhs.gov/emergency-services-sector>
- Disaster Emergency Committee (DEC) (2015), Haiti earthquake facts and figures. (2015, May 01). Retrieved May 05, 2017, from <http://www.dec.org.uk/articles/haiti-earthquake-facts-and-figures#>
- Disis, J. (2017, September 28). Hurricane Maria could be a \$95 billion storm for Puerto Rico. Retrieved February 10, 2018, from <http://money.cnn.com/2017/09/28/news/economy/puerto-rico-hurricane-maria-damage-estimate/index.html>
- Drabek, T. E., Hoetmer, G. J. (1991). *The Evolution of Emergency Management: Principles and Practice for Local Government*. Washington, DC: International City Managers Association.
- Drug Policy Alliance. (2015, February). *Drug Decriminalization in Portugal: A Health-Centered Approach*. Retrieved May 1, 2018, from [https://www.drugpolicy.org/sites/default/files/DPA\\_Fact\\_Sheet\\_Portugal\\_Decriminalization\\_Feb2015.pdf](https://www.drugpolicy.org/sites/default/files/DPA_Fact_Sheet_Portugal_Decriminalization_Feb2015.pdf)
- Dunlap, E. & Townes, J., (2016) *Violence and the Illicit Drug Market: Before During and After Disasters*. National Development and Research Institutes, Inc, New York. Retrieved May 1, 2018 from <https://www.omicsonline.org/open-access/violence-and-the-illicit-drug-market-before-during-and-after-disasters-2375-4435-1000141.pdf>

- Dunlap, C., J.D. (2017, October 03). Disasters and emergencies: Legal authorities and the military's role. Retrieved November 01, 2017, from <https://sites.duke.edu/lawfire/2017/09/21/disasters-and-emergencies-legal-authorities-and-the-militarys-role/>
- Dunn, S., MEng, GradICE, Fu, G., BSc, PhD, Wilkinson, S., MEng, PhD, & Dawson, R., MEng, PhD. (2013). *Network Theory for Infrastructure Systems Modelling* [PDF]. ICE Publishing.
- Economist*. (2017, August 29). Weather-related disasters are increasing. Retrieved November 01, 2017, from <https://www.economist.com/blogs/graphicdetail/2017/08/daily-chart-19>
- Electronic Privacy Information Center (EPIC). (n.d.). EPIC-USA Patriot Act. Retrieved April 10, 2018, from <https://epic.org/privacy/terrorism/usapatriot/EPIC>. (n.d.). USA Patriot Act. Retrieved February 17, 2017, from <https://epic.org/privacy/terrorism/usapatriot/>
- Environment and Ecology (2018). What is system's theory? Retrieved June 15, 2017, from <http://environment-ecology.com/general-systems-theory/137-what-is-systems-theory.html>
- Ezra, O. (2010). *Moral dilemmas in real life: Current issues in applied ethics*, (Vol. 74). Retrieved October 10, 2017, from [https://books.google.com/books?id=XtR2URTjlH4C&printsec=frontcover&source=gbg\\_ge\\_summary\\_r&cad=0#v=onepage&q&f=false](https://books.google.com/books?id=XtR2URTjlH4C&printsec=frontcover&source=gbg_ge_summary_r&cad=0#v=onepage&q&f=false)

Federal Communications Commission (FCC) (2016, January 06). Emergency alert system (EAS). Retrieved June 15, 2017, from

<https://www.fcc.gov/general/emergency-alert-system-eas>

Federal Emergency Management Agency (FEMA) (2016). About the agency.

Retrieved February 14, 2017, from <https://www.fema.gov/about-agency>

Federation of American Scientists (FAS). (2017). Intelligence collection activities and disciplines. Retrieved November 1, 2017, from

<https://fas.org/irp/nsa/ioss/threat96/part02.htm>

FEMA. (1996). Guide for all-hazard emergency operations planning [PDF].

Retrieved February 10, 2018, from <https://www.fema.gov/pdf/plan/slg101.pdf>

FEMA. (2005). Disaster assistance: A guide to recovery programs [PDF]. Retrieved

April 6, 2018, from <https://www.fema.gov/media-library/assets/documents/6341>

FEMA. (2017, February 9). Disaster relief fund: Monthly Report. Retrieved February

15, 2017, from <https://www.fema.gov/media-library/assets/documents/31789>

FEMA. (2018). About the Agency. Retrieved February 14, 2018, from

<https://www.fema.gov/about-agency>

FindLaw. (n.d.). Retrieved February 17, 2017, from

<http://supreme.findlaw.com/documents/consthist.html>

Gaia. (2008). Environment and ecology. Retrieved November 10, 2016, from

<http://environment-ecology.com/general-systems-theory/137-what-is-systems-theory.html>

Government Accountability Office (GAO). (2011, July). *Combating Illicit Drugs*



*DEA and ICE Interagency Agreement Has Helped to Ensure Better Coordination of Drug Investigations.* Retrieved May 1, 2018, from <https://www.gao.gov/new.items/d11763.pdf>

Grant, R. M. (2016). *Contemporary strategy analysis: Text and cases*. [Illustrated]. Retrieved February 14, 2017, from [https://books.google.com/books?id=DTDvCQAAQBAJ&dq=contemporary%20strategy%20analysis%20grant&lr=&source=gbs\\_navlinks\\_s](https://books.google.com/books?id=DTDvCQAAQBAJ&dq=contemporary%20strategy%20analysis%20grant&lr=&source=gbs_navlinks_s)

Haughey, D. (2014, December 13). A brief history of SMART goals. Retrieved February 14, 2017, from <https://www.projectsmart.co.uk/brief-history-of-smart-goals.php>

Homeland Security Council. (2007). National strategy for Homeland Security [PDF]. Retrieved February 10, 2018, from [https://www.dhs.gov/xlibrary/assets/nat\\_strat\\_homelandsecurity\\_2007.pdf](https://www.dhs.gov/xlibrary/assets/nat_strat_homelandsecurity_2007.pdf)

Howie, M. (2017, June). Document review and analysis. Retrieved June 15, 2017, from [https://www.bcps.org/offices/lis/researchcourse/develop\\_docreview.html](https://www.bcps.org/offices/lis/researchcourse/develop_docreview.html)

Hunt, R. C., MD, FACEP, Kapil, V., DO, MPH, FACOEM, Basavaraju, S. V., MD, Sasser, S. M., MD, FACEP, McGuire, L. C., PhD, and Sullivent, E. E., MD, MPH, FACEP. (2010). Updated in a moment's notice: Surge capacity for terrorist bombings. Atlanta, GA: Centers for Disease Control and Prevention. Retrieved May 1, 2018 from <https://www.acep.org/ptsurge/#sm.00000528jd8pq2csqt30fcutjqfpp>

IBP, Inc. (2016). *US Homeland Security laws and regulations handbook, volume 1: Terrorism and Homeland Security laws* [Illustrated]. Retrieved February 10,

2018, from [https://books.google.com/books?id=IjC4DAAAQBAJ&dq=US+Homeland+Security+laws+and+regulations+handbook+volume+1:+Terrorism+and+Homeland+Security+laws+%5B&source=gbs\\_navlinks\\_s](https://books.google.com/books?id=IjC4DAAAQBAJ&dq=US+Homeland+Security+laws+and+regulations+handbook+volume+1:+Terrorism+and+Homeland+Security+laws+%5B&source=gbs_navlinks_s)

Index for Risk Management (INFORM) (2017). Inter-agency standing committee task team for preparedness and resilience and the European Commission.

Retrieved May 05, 2017, from

[https://ec.europa.eu/europeaid/inform-2015-map-risk\\_en](https://ec.europa.eu/europeaid/inform-2015-map-risk_en)

Lam, L. (2017, October). 15 Billion-dollar disasters have impacted the U.S. this year:

2017 tied for second-most all-time. Retrieved November 01, 2017, from

<https://weather.com/news/weather/news/2017-10-17-billion-dollar-weather-disasters-united-states-record-pace>

Lambert, O. (2017.). What is CDEMA? Retrieved May 05, 2017, from

[http://www.cdema.org/index.php?option=com\\_content&view=article&id=89&Itemid=79](http://www.cdema.org/index.php?option=com_content&view=article&id=89&Itemid=79)

Lewis, Ted G., (2015) *Critical infrastructure protection in Homeland Security:*

*Defending a networked nation*, Second Edition. Wiley.

Lowrey, W., Evans, W., Gower, K. K., Robinson, J. A., Ginter, P. M., McCormick, L.

C., & Abdolrasulnia, M. (2007). Effective media communication of disasters:

Pressing problems and recommendations. BMC Public Health, 7, 97.

<http://doi.org/10.1186/1471-2458-7-97>

Martin, M., & Masters, M. (2017, September 10). How natural disasters make major

cities vulnerable to national security threats. Retrieved October 10, 2017, from

<http://www.npr.org/2017/09/10/549989643/how-natural-disasters-make-major-cities-vulnerable-to-national-security-threats>

Martinez, J. (2017, November 14). How do natural disasters cause disease outbreaks?

Retrieved May 1, 2018 from <https://www.passporthealthusa.com/2017/11/how-do-natural-disasters-cause-disease-outbreaks/>

Mason, W. H. (2016). Complexity theory (H. P. Kirkwood Jr., Ed.). Retrieved November

11, 2016, from <http://www.referenceforbusiness.com/management/Bun-Comp/Complexity-Theory.html>

Matai, D. (2011). What is the key to survival in a constantly changing environment?

Retrieved November 10, 2016, from <http://www.businessinsider.com/what-is-the-key-to-survival-in-a-constantly-changing-environment-2011-3>

McInnis, T. N. (2009). *The evolution of the Fourth Amendment*. Retrieved February 17,

2017, from [https://books.google.com/books?id=ZoY5dEQBoPAC&dq=fourth amendment](https://books.google.com/books?id=ZoY5dEQBoPAC&dq=fourth+amendment)

Morens, D. M., Folkers, G. K., Fauci, A. S., (2009, October 1) *What Is a*

*Pandemic?*, *The Journal of Infectious Diseases*, Volume 200, Issue 7.

Retrieved May 1, 2018, from <https://doi.org/10.1086/644537>

Morsink, J. (2009). The universal Declaration of Human Rights: Origins, drafting and intent. Retrieved October 10, 2017, from

[https://books.google.com/books?id=nSWZY3Rs9vQC&dq=The Universal Declaration of Human Rights \(UDHR\) adopted in 1948](https://books.google.com/books?id=nSWZY3Rs9vQC&dq=The+Universal+Declaration+of+Human+Rights+(UDHR)+adopted+in+1948)

- National Oceanic and Atmospheric Administration (NOAA) (2017). U.S. billion-dollar weather and climate disasters. Retrieved October 10, 2017, from <https://www.ncdc.noaa.gov/billions/>
- Occupytheory. (2015, March 20). *List of pros and cons of the Patriot Act*. Retrieved February 17, 2017, from <http://occupytheory.org/list-of-pros-and-cons-of-the-patriot-act/>
- Oestreicher, C. (2007, September). A history of chaos theory. Retrieved November 01, 2016, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202497/>
- Office of the Press Secretary. (2015, February 06). Fact Sheet: The 2015 National Security Strategy. Retrieved April 02, 2018, from <https://obamawhitehouse.archives.gov/the-press-office/2015/02/06/fact-sheet-2015-national-security-strategy>
- Office of the United Nations High Commissioner for Human Rights (OHCHR) (1993). Human rights, terrorism and counter-terrorism, fact sheet no. 32 [PDF]. Office of the United Nations High Commissioner for Human Rights. Retrieved October 10, 2017, from <http://www.ohchr.org/Documents/Publications/Factsheet32EN.pdf>
- OHCHR. (2017). Convention against torture and other cruel, inhuman or degrading treatment or punishment. Retrieved November 01, 2017, from <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CAT.aspx>
- Oskin, B. (2017, September 13). Japan earthquake & tsunami of 2011: Facts and information. Retrieved May 1, 2018 from <https://www.livescience.com/39110-japan-2011-earthquake-tsunami-facts.html>

- President's Critical Infrastructure Protection Board. (2002). *21 Steps to improve cyber security of SCADA networks* [PDF]. United States. Department of Energy  
United States. President's Critical Infrastructure Protection Board.
- Rand. (n.d.). Overview of the Posse Comitatus Act [PDF]. Retrieved November 1, 2017, from  
[https://www.rand.org/content/dam/rand/pubs/monograph\\_reports/MR1251/MR1251.AppD.pdf](https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR1251/MR1251.AppD.pdf)
- Rankin, C. (2015, October 09). 10 Benefits of being proactive instead of reactive. Retrieved May 05, 2017, from <http://empirelifemag.com/10-benefits-of-being-proactive-instead-of-reactive/>
- Rott, N. (2011, January 18). 'Ask not...': JFK's words still inspire 50 years later. Retrieved February 17, 2017, from  
<http://www.npr.org/2011/01/18/133018777/jfks-inaugural-speech-still-inspires-50-years-later>
- Scarborough, R. (2017, January 29). Islamic State finds success infiltrating its terrorists into refugee flows to West. Retrieved October 10, 2017, from  
<http://www.washingtontimes.com/news/2017/jan/29/isis-finds-success-infiltrating-terrorists-into-re/>
- Sharp, T. (2013, June 12). *Right to privacy: Constitutional rights & privacy laws*. Retrieved February 17, 2017, from <http://www.livescience.com/37398-right-to-privacy.html>
- Sobel, J., Watson, J.C. (2009) Intentional terrorist contamination of food and water.

- In: Lutwick S., Lutwick L. (eds) Beyond Anthrax. Humana Press. Retrieved May 1, 2018, from [https://link.springer.com/chapter/10.1007%2F978-1-59745-326-4\\_10#citeas](https://link.springer.com/chapter/10.1007%2F978-1-59745-326-4_10#citeas)
- Sorkin, A. (2012). The Newsroom script. Retrieved June 15, 2017, from <https://www.goodreads.com/work/quotes/23633463-the-newsroom-script-episode-1> United Nations Office on Drugs and Crime (UNODC) (2018).
- Statista. (2017). Most expensive natural disasters in the United States as of September 2017 (in billion U.S. dollars). Retrieved February 10, 2018, from <https://www.statista.com/statistics/744015/most-expensive-natural-disasters-usa/>
- Stratton, L. (2015, April 06). Importance of budgets in strategic planning. Retrieved February 13, 2017, from <http://www.portebrown.com/Consulting-Blog/importance-of-budgets-in-strategic-planning>
- Stuhlman, D. D. (2015). Knowledge management terms. Retrieved November 10, 2016, from <http://home.earthlink.net/~ddstuhlman/defin1.htm>
- Surbhi, S. (2015, August 7). Difference between shareholders and stakeholders (with Comparison Chart). Retrieved February 14, 2017, from <http://keydifferences.com/difference-between-shareholder-and-stakeholder.html>
- Tropeano, M. (2015). Theoretical approaches: Social work systems theory. Retrieved November 11, 2016, from <https://socialworklicensemap.com/theoretical-approaches-social-work-systems-theory/>
- Trump, D. J. ( 2017, June 01). Statement by President Trump on the Paris Climate Accord. Retrieved June 15, 2017, from <https://www.whitehouse.gov/briefings-statements/statement-president-trump-paris-climate-accord/>

- Trump, D. J. (2012, November 06). Tweets. Retrieved June 15, 2017, from <https://twitter.com/realdonaldtrump/status/265895292191248385?lang=en>
- United States. Congress. House. Committee on Government Operations. Legislation and National Security Subcommittee (1978). Reorganization plan no. 3 of 1978: Federal Emergency Management Agency: Hearings before a subcommittee of the Committee on Government Operations, House of Representatives, ninety-fifth Congress, second session, June 26 and 29, 1978. Washington: U.S. Govt. Print. Office.
- United Nations (2017). Universal Declaration of Human Rights. Retrieved October 10, 2017, from <http://www.un.org/en/universal-declaration-human-rights/>
- UNODC evaluation: What is evaluation? Retrieved April 15, 2018, from <https://www.unodc.org/unodc/en/evaluation/what-is-evaluation1.html>
- USAID. (2017). Disaster assistance: Working in crises and conflict. Retrieved November 01, 2017, from <https://www.usaid.gov/what-we-do/working-crises-and-conflict/responding-times-crisis>
- U. S. Department of Homeland Security (DHS). (2008, December). National incident management system (NIMS). U. S. Department of Homeland Security. Retrieved November 10, 2016, from [https://www.fema.gov/pdf/emergency/nims/NIMS\\_core.pdf](https://www.fema.gov/pdf/emergency/nims/NIMS_core.pdf)
- U. S. Department of State. (2014). 2014 Climate change adaptation plan (Appendix of 2014 Agency Sustainability Plan). Retrieved November 10, 2016, from <http://www.state.gov/documents/organization/233779.pdf>

- U.S. Environmental Protection Agency (EPA). (2017). Climate change: Basic information. Retrieved November 10, 2016, from [https://19january2017snapshot.epa.gov/climatechange/climate-change-basic-information\\_.html](https://19january2017snapshot.epa.gov/climatechange/climate-change-basic-information_.html)
- U.S. Intelligence Community (IC) (2017). How intelligence works. Retrieved November 1, 2017, from <https://www.intelligencecareers.gov/icintelligence.html>
- Ward, S. (2017, July 17). What is leadership? And can you learn to be a good leader? Retrieved February 10, 2018, from <https://www.thebalance.com/leadership-definition-2948275>
- Watson, J. T., Gayer, M., & Connolly, M. A. (2007). Epidemics after natural disasters. *Emerging Infectious Diseases*, 13(1), 1–5.  
<http://doi.org/10.3201/eid1301.060779>
- Weiss, C. H. (1999). The Interface between evaluation and public policy. *Evaluation*, 5(4), 468-486. doi:10.1177/135638909900500408
- Wheaton, K. J. (2011, May 26). Part 5 critiques of the cycle: Which intelligence cycle? Retrieved November 01, 2017, from <http://sourcesandmethods.blogspot.com/2011/05/part-5-critiques-of-cycle-which.html>
- Wholey, J.S., Hatry, H.P., & Newcomer, K.E. (2015). *Handbook of practical program evaluation*, 4th ed. San Francisco, CA: John Wiley & Sons.
- W.K. Kellogg Foundation. (2004, January). Logic model development guide [PDF]. Battle Creek: W.K. Kellogg Foundation. Retrieved from June 15, 2017, from



<https://www.wkkf.org/resource-directory/resource/2010/w-k-kellogg-foundation-evaluation-handbook>

Wright, A. (1997). Public service quality: Lessons not learned. *Total Quality Management*, 8(5), 313-320. Retrieved November 6, 2017, from doi:10.1080/0954412979550

Wright, A. (2010, August 25). Public service quality: Lessons not learned. Retrieved November 1, 2017, from [www.tandfonline.com/doi/abs/10.1080/0954412979550?journalCode=ctqm19](http://www.tandfonline.com/doi/abs/10.1080/0954412979550?journalCode=ctqm19)

Zarin, K. (2017, April 29). 10 Deadliest natural disasters of 21st century. Retrieved May 04, 2017, from <http://www.scienceve.com/10-deadliest-natural-disasters-of-21st-century/>