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## **DISASTER RECOVERY POLICIES IN TERMS OF SUSTAINABILITY: LOUISIANA STATE LEGISLATURE**

*Sürdürülebilirlik Açısından Afet ile Mücadele Politikaları: Louisiana Eyalet Mevzuatı*

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**Abstract:** As one of the coastal states of the USA, Louisiana has been on the verge of many environmental disasters such as floods, typhoons, and hurricanes throughout its history. These disasters caused property damage, personal injury, and even death. They also caused great economic damage. The development and follow-up of sustainable policies after disasters have gained importance to recover after the devastating effects of disasters. In this study, the laws enacted by the Louisiana State were examined within the framework of the concept of "sustainability". The search page on the Louisiana State Legislature website had been used. The concept was also examined in terms of post-disaster recovery policies. For this, the concept of sustainability in the laws had been evaluated together, such as disaster, hurricane, typhoon, earthquake, flood, housing, environment, and climate change. The contents of the returned laws results were included in the working text. This study aimed to determine the content of the sustainability concept and in what ways it is involved in the Louisiana State Legislature.

**Keywords:** Public Policies, Sustainability, Disasters, Louisiana State Legislature.

**Öz:** Louisiana Eyaleti, Amerika Birleşik Devletleri'nin bir kıyı eyaleti olarak tarih boyunca birçok su baskını, tayfun ve kasırga gibi afetlerle karşılaşmıştır. Eyalette ciddi yıkım ve ölüme yol açan bu afetler aynı zamanda büyük ekonomik zararlar da vermiştir. Afetler sonrası sürdürülebilir politikaların geliştirilmesi ve takibi, afetlerin yıkıcı etkilerinden kurtulmak için önem kazanmıştır. Çalışmada, Louisiana Eyalet Meclisi tarafından çıkarılan kanunlar "sürdürülebilirlik" kavramı çerçevesinde taranarak içerik analizi yapılmıştır. Bunun için, Louisiana eyalet mevzuatı web sitesindeki (Louisiana State Legislature) arama sayfası kullanılmıştır. Kavram, aynı zamanda afet sonrası iyileştirme politikaları açısından da incelenmiştir. Bunun için kanunlarda yer alan sürdürülebilirlik kavramı afet, kasırga, tayfun, deprem, sel, konut, çevre, iklim değişikliği gibi farklı kavramlarla birlikte değerlendirilmiştir. Elde edilen sonuçlar tarih sırasına göre listelenerek kanun içerikleri çalışma metnine aktarılmıştır. Çalışma ile Louisiana Eyaleti yasalarında sürdürülebilirlik kavramının ne şekilde ve hangi içeriklerle yer aldığının belirlenmesi hedeflenmiştir.

**Anahtar Kelimeler:** Kamu Politikaları, Sürdürülebilirlik, Afetler, Louisiana Eyalet Mevzuatı.

## **INTRODUCTION**

Louisiana State has been on the verge of many environmental disasters such as floods, typhoons, and hurricanes throughout its history. These disasters caused property damage, personal injury, and even death. They also caused great economic damage. The disaster terms such as hazard, risk, vulnerability, natural phenomena, emergency, disaster mitigation, disaster risk reduction, preparedness, disaster response and recovery are also so important for Louisiana State in terms of managing the disaster recovery period. The development and follow-up of sustainable policies after or before disasters have gained importance in recovering from the effects of disasters. Because, between 1953 and 2019, Louisiana declared 84 major disasters, of which floods and hurricanes happened the most according to the Federal Emergency Management Agency (FEMA).

The concept of sustainability has become a powerful policy approach to overcoming disaster effects. So, in this study, the analysis of sustainability laws related to disaster terms in the Louisiana State Legislative was examined. Also, some international and sub-national institutions publish reports about how sustainability policies are developed and maintained stronger. For example, Local Agenda 21 was published after United Nations Conference on Environment and Development in 1992 and The EU (European Union) adopted a strategy for sustainable development in 2001 two of them.

It is important to find out policies that come to the scene before and after disasters. In this study, the disaster recovery policies were analyzed with the term “sustainability” from the point of Housing, Environment, Disaster Management, Hurricane Protection, and Flood Control. After the analysis, the general evaluation was done for sustainability policies placed in Louisiana State Legislature such as Housing, Environment, Disaster, Hurricane and Flood Control.

An overview of sustainability laws with disaster recovery policies was carried out around the main focal points of laws. Laws with Sustainability are seen with Revised Statutes main body and are counted as 25. Sustainability Laws connected with disaster terms are 13 and placed in 7 different sub-titles. Final results are most commonly seen with the environment, housing, hurricane, disaster, and flood terms. On the other hand, the results are not related to typhoons, Earthquakes, and Climate change with sustainability.

Considering that disasters will have serious effects on the state in the future, disaster recovery policies and disaster management principles should be empowered in the legislature. Also, it is recommended that future studies could be conducted on the survey analysis on beneficial effects of laws, difficulties in implementation, and implementation practices.

### **The Aim of the Study**

The state of Louisiana has struggled with many disasters throughout its history. As a coastal province, it seems likely that it will face especially hurricanes and floods in the future. In this context, The aim of the study is to investigate the disastrous policies of the legal legislation of the state of Louisiana and to examine it in terms of sustainability.

The policies developed for disasters must be sustainable. In this study, it was tried to put forward that to what extent the concept of sustainability takes place in the policies developed for disasters. It is considered that this study, which provides an overview of Louisiana state legislation, will guide future studies on the legislature about disaster policies.

## Methodology

Firstly, to make a content analysis of the laws related to "sustainability" regarding the Louisiana State Legislature's post-disaster recovery policies, the state legislature website is used for searching laws (Louisiana State Legislature, [www.legis.la.gov](http://www.legis.la.gov)). The "sustainability" is determined as a keyword and makes a search one by one on basic legislation field areas. The main fields of laws in the Louisiana State Legislature are the Children's Code and Civil Code, Code of Civil Procedure, Code of Criminal Procedure, Code of Evidence, Constitution Ancillaries, Louisiana Constitution, House Rules, Joint Rules, Revised Statutes, and Senate Rules.

The returned results are listed in chronological order, and the contents of the laws are included in the study. The concept of sustainability in the laws was evaluated together with the words such as disaster, hurricane, typhoon, earthquake, flood, housing, environment, and climate. That is because to examine also post-disaster recovery policies. Finally, content analysis with the laws related to "sustainability" passed by the Louisiana State Legislature was done.

The laws returned after the search with the keyword "sustainability" only belong to the "Revised Statutes" main field. There are 25 laws for that main field. Each main body in Louisiana Legislature has sub-titles. The Revised Statutes' main field also has 56 sub-titles. The "sustainability" keyword is searched with the disaster terms to find out post-disaster recovery policies along with these sub-titles. Table 1 shows the law numbers and keywords with subtitles.

**Table 1.** Sub-Titles and Number of Acts in Revised Statute Main Field

Law Body		Number of Acts
Title	Revised Statutes	Sustainability with Disaster Terms
3	Agriculture and Forestry	1 (housing) 1 (environment)
9	Civil Code-Ancillaries	1 (environment)
24	Legislature and Laws	0
25	Libraries, Museums, and Other Scientific	0
29	State Unified Command Group	1 (disaster) 1 (housing)
30	Minerals and Environmental Quality	1 (environment)
38	Public Contracts and Works	2 (environment)
39	Public Finance	0
40	Public Health and Safety	0
49	State Administration	1 (disaster) 2 (hurricane) 1 (flood)
56	Wildlife and Fisheries	1 (environment)
<b>Total</b>		13

The terms disaster, hurricane, typhoon, earthquake, flood, housing, environment, and climate are also searched within 25 laws related to sustainability. The results of this search show that 13 law bodies have these terms. However terms Typhoon, Earthquake, and Climate returned no results. Remained 12 laws have sustainability terms, each with no other disaster terms.

## General Information About Sustainability And Disaster Management Policies

Oxford Dictionary defines sustainability as "*the use of natural products and energy in a way that does not harm the environment*" (Oxford 'Learner's Dictionary). Sustainability is defined as "*a concern for social equity that must logically be extended to equity within each generation*" (Brundtland Report, 1987). It seeks the protection of social and environmental balance to reach economic development. The UCLA Sustainability Committee has defined this term as "*the integration of environmental health, social equity and economic vitality.*" Sustainability creates resilient communities for present and future generations (UCLA).

Cutter (2014, pp. 72-74) argues that sustainability's primary goal is improving the human condition without harming the environment, so it is a key to maintaining the social, economic, and environmental requirements of present and future generations. It stresses the interdependencies of environmental protection, human needs, and the welfare of society. Sustainability presumes that resources are finite and should be used economically and efficiently with a view to long-term priorities and consequences of how resources are used (UCLA, What is Sustainability? <https://www.sustain.ucla.edu/what-is-sustainability/>)

There are some disaster management terms such as hazard, risk, vulnerability, natural phenomena, emergency, disaster mitigation, disaster risk reduction, preparedness, disaster response and recovery.

Hazards can be defined as damaging physical event, social and economic disruption or environmental degradation. For example, they can be listed as absence of rain or the abundance thereof. Risk is usually associated with the human inability to cope with a particular situation. It can be defined as the probability of harmful consequences, or expected losses death, injury, damage to property and the environment, jobs, disruption of economic activity or social systems. Where as vulnerability can be seen as, the ability a person or community has, to predict, cope with, or avoid and recover from, the consequences of a hazard or disaster.

One of the terms of disasters is "natural phenomena". It is known as extreme weather, water or geological (earth) processes that do not pose a threat to people or properties. Emergency means a local event within a community that affects a limited number of people or property. Preparedness enables organs of state and other institutions involved in disaster risk management, It is planning how to respond for example, preparedness plans; emergency exercises/training; warning systems.

Disaster risk reduction can be seen as the systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks. Disaster mitigation is the minimizing the effects of a disaster. Such as, building codes and zoning; vulnerability analyses and public education. Disaster response refers to the provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. They are the efforts to minimize the hazards created by a disaster. The examples of response are search and rescue and emergency relief.

And lastly, disaster recovery focuses on the decisions and actions taken after a disaster to restore lives and livelihoods, services, infrastructure and the natural environment. It is returning the community to normal. For example, temporary housing; grants, medical care (Western Cape Government, 2022; Warfield, 2022).

Some disasters, such as hurricanes, floods, typhoons, etc., occur during specific periods of the year, like in Louisiana, United States. National Oceanic and Atmospheric Administration report

hurricane seasons, and their periods are from May 15th to November 30th for The Atlantic, The Central Pacific, and The Eastern North Pacific area (National Oceanic and Atmospheric Administration, 2022).

Louisiana, as a coastal state, has faced many devastating disasters especially floods, hurricanes, severe storms, tornadoes, extreme heat and drought, power outages, wildfires, ice storms, and landslides throughout its history. Between 1953 and 2019, Louisiana declared 84 major disasters, of which floods and hurricanes happened the most according to the Federal Emergency Management Agency (FEMA).

According to The United States National Hurricane Center, Louisiana faced 36 hurricanes between 1900 and 2018. One of the most known hurricane struck in 2005 was Hurricane Katrina. It was one of the most devastating hurricanes in the history of Louisiana. It produced catastrophic damage-estimated at \$75 billion in the New Orleans area and along the Mississippi river. Katrina is responsible for approximately 1200 reported deaths (National Hurricane Center, 2021).

Another destructive and deadly hurricane was Rita in 2005 in Louisiana disaster history. It devastated portions of southeastern Texas and southwestern Louisiana and significantly impacted the Florida Keys. A tropical wave and the remnants of an old front combined to produce an area of disturbed weather in 2005. Maximum winds increased to 70 mph (National Hurricane Center, 2021). Hurricane Gustav in 2008 and Hurricane Laura in 2020 were other devastating hurricanes for Louisiana State. Hurricane Laura sustained winds of around 100 miles per hour (NASA, 2008).

In 2019, one of the worst floods were referred to as a 500-year event was seen in Louisiana. During the flood, some areas received 20 to 30 inches of rain, thereby resulting in flash flooding, rivers swelling, and overflowing creeks and waterways. It caused the death of 13 people, even loss of approximately 50,000 to 75,000 inundated structures, a significant loss in crops, livestock, and the fishing industry. Many places located near the rivers remained flooded for up to 9 months. The cost of flood damage was estimated to be around \$20 billion.

Each year, the state experiences approximately 37 tornadoes. The average number of tornadoes is 14 in a year. The strongest tornado outbreak in Louisiana occurred in 2017, and lasted a little over 13 hours. Each year approximately 1,431 wildfires are responsible for burning 14,950 acres throughout Louisiana. Nearly 45% of the population, over 2 million people, lives at an elevated risk of wildfire.

In 2021, an ice storm swept across southwestern Louisiana bringing frigid weather, temperatures in the single digits, and covering absolutely everything in a thick sheet of ice. This event halted transportation and caused rolling power outages leaving approximately 120,000 homes in the dark statewide (Crisis Equipped, 2022). Therefore, it is very important to make and improve sustainable policies before and after disasters.

The concept of sustainability has become a powerful policy approach. Some international and sub-national institutions publish reports about how sustainability policies are developed and maintained stronger. Local Agenda 21 was published after United Nations Conference on Environment and Development in 1992. The Local Agenda 21 calls for local governments to work with communities to achieve a local action plan for sustainability (United Nations, 1992, p.74). Also, The EU (European Union) adopted a strategy for sustainable development in 2001. It says, "*a long-term vision for sustainability in which economic growth, social cohesion, and environmental protection go hand in hand and are mutually supporting*" (EUR-Lex, Sustainable Development). The concept of sustainability limits the activities with technology and social

organizations on environmental resources. On the other hand, technology and social organizations can be maintained to reach economic growth with sustainability principles (UN). In addition, in the U.S. context, several cities have established local government sustainability initiative programs (Saha, 2009, p. 39).

There are some principles for sustainability. To make efficient and effective policies, governments should follow these principles. These principles bring environmental quality, quality of life, and resilient and dynamic societies (Cutter, 2014, pp. 72-74). Sustainability principles are important to gain a certain fit with the local circumstances to reach the societal goals for regional development. The principles are mainly listed as the principle of ecological integrity, the principle of justice, and the principle of adaptive capacity (Schneider et al., 2015, p. 1585).

The number of disasters and population growth in hazardous urban areas (coastal regions), like in Louisiana, arise some sociological problems such as social differentiation. Thus, post-disaster works in damaged neighbourhoods are a crucial priority to mitigate both personal and social consequences of disaster (Tan et al., 2022, p.1).

Disaster is not just a « crisis » in the word meaning. Disasters are sudden events that cause great damage and loss of lives. Disasters are classified as man-made and natural. Natural disasters have three categories: hydro-meteorological disasters, geophysical disasters and biological disasters. Where as man-made disasters include socio-technical and warfare disasters such as plant, factory, transport and production failures. Disasters have management procedures that must be maintained problems coped with under threats of injury and loss of life. Disaster is an interdisciplinary term, so there is not a certain definition of it. It depends upon the discipline using the term. Disasters causes large scale damage to human life and also physical environment that have a large economic and social cost (Shaluf et al., 2003, p. 24-26; Sawalha, 2020, p. 469-470).

Traditional disaster management cycle (disaster lifecycle) includes four primary stages: preparedness, mitigation, response and recovery. Each stages is linked with multiple procedures, strategies and action plans. They vary between different organizations, disaster agencies and academic references (Sawalha, 2020, p. 470.). The Disaster management cycle illustrates the current process by which governments, businesses, NGOs' plan, reduce the effect of disasters, and follow the principles to recover after the disasters. The main stages in the cycle lead to preparedness, warnings, reduced vulnerability or the prevention of disasters during the next iteration of the cycle. The disaster management cycle includes the shaping of public policies that modify or mitigate the causes of disasters and effects on people, property, and infrastructure (EGU, 2022).

To get successful results and analysis with disaster recovery policies, they should also be supported with sustainability policies. Disaster recovery policy implementations are either complex processes or are comprised of multiple actors. All of these are called "disaster recovery assistance networks". This network consists of the roles of state agencies and governors, local and federal governments civil servants. Disaster recovery policy dimensions are funding policies and technical assistance, meeting local needs, collect delivery of resources across a large and efficient network. The network consists of private and public sector, non-profit organizations, pro-governmental and quasi-governmental actors, international aid organizations, emergent groups, and individuals (Smith et al., 2018, p. 206-217).

The disaster recovery studies explain mitigation, preparedness, response, and recovery processes. Specifically, studies have examined and focused on emergency management systems, disaster risk governance, risk reduction policies, and public expectations of government

response. Some structures are listed to gain governance principles such as creation and establishment, organizational structure, recovery funding, and local level involvement (Mukherji et al., 2021, p.2212-2216).

Louisiana is a state of some hazards, such as hurricanes and tornados, come to face during specific periods of each year. Because of this, fighting the adverse effects of disasters, it would be very important for the state to make sustainability policies. Following section examines the analysis of sustainability laws related to disaster terms in the Louisiana State Legislative.

### **Analysis Of Sustainability Laws Related To Disaster Terms In Louisiana State Legislative**

The search results for the term sustainability come from the Revised Statute main field with 25 laws. The laws also include disaster terms are 13. The "sustainability and housing" issues are stated under "Agriculture and Forestry" and "State Unified Command Group" sub-titles. The "sustainability and environment" issues are involved in "Agriculture and Forestry", "Civil Code-Ancillaries", "Minerals, Oil, and Gas and Environmental Quality", "Public Contracts, Works and Improvements", and "Wildlife and Fisheries" sub-titles. The "sustainability and disaster" issues are stated in the "State Unified Command Group" and "State Administration" sub-titles. "State Administration" sub-title contains hurricane and flood terms with sustainability. Most disaster terms are covered under the "State Administration" sub-title, and "environment" is the most term stated in five different sub-titles. The contents of the laws are as follows:

#### **Sustainability and Housing**

In Louisiana, the poverty rate is near twice the national average. The economy is in a trouble situation. Because of it, issues related to poverty, education, health care, economic development, jobs, housing, and culture are vital. Delta Development Initiative is established for these issues. One of the purposes of the Delta initiative is *"to provide a dynamic and comprehensive approach to planning, developing, and implementing solutions to address problems related to poverty, education, health care, economic development and jobs, housing, and culture problems of the Delta region in Louisiana"* (Law RS 3:333, 2011).

According to Law (RS 3:333, 2011), The Rural Entrepreneurship Program Center and the United States Department of Agriculture collaborate. They support the establishment and sustainability of new rural businesses. This program also provides *"educational presentations for producers, opportunities for long-term sustainable economic stability and growth for agriculture"* region. The center work with the Louisiana Housing Corporation and other public and private institutions. All institutions work to find out the parishes' housing needs and identify available resources and incentives to match those needs.

A subcommittee is established under the responsibility of the State Unified Command Group (UGC) for developing long-term recovery planning for damaged regions and offering some opportunities that will reach sustainability (Law RS 29:725.6, 2018).

#### **Sustainability and Environment**

There are six different laws regarding sustainability and environmental issues. The laws are listed in Table 2.

**Table 2.** Laws Related with Sustainability and Environmental Issues

<b>Number</b>	<b>Law</b>	<b>Description</b>
1	RS 3:333	Delta Development Initiative
2	RS 30:961	Cooperative endeavor agreements; withdrawal of surface water; intent
3	RS	Defintions

	38:3097.2	
4	RS 38:3097.3	Commissioner of conservation; powers and duties
5	RS 9:1104	Riparian owners, use of surface water; fees prohibited; legislative finding and intent
6	RS 56:638.3	Purposes

The first law listed in Table 2 is about The Delta Development Initiative centre. This centre shall plan, develop, and implement components of the Delta initiative. These components shall include, or the legislature may suggest, natural resource and environmental management. The Delta initiative centre is responsible for providing for the protection, conservation, and presentation of the environment, heritage, and natural resources of the Delta region and for ensuring the sustainability of development (Law RS 3:333, 2011).

The second listed law is also state sustainability and environmental issues (RS 30:961, 2021). This law is about water management. The main focal point of Law is "balancing *environmental and ecological impacts with the economic and social benefits*". It is crucial that to protect the natural resources of the state and to consider the potential and effects of sustainability, the government should ensure all cooperative endeavour agreements to withdraw running surface water. This should be done to maintain sustainability and environmental and ecological balance. If the running surface water is for use outside the boundaries of Louisiana, the approval of the House Committee and the Senate Committee on Natural Resources is required.

Thirdly, some definitions are stated in Law (RS 38:3097.2, 2012). One of them is about sustainability. According to Law (RS 38:3097.2), sustainability means "*the development and use of groundwater that can be maintained for the present and future time without causing some environmental, economic, social, or health situations.*" There are also some powers and duties explained for the commissioner of conservation for sustainable water management.

Accordingly, to prevent damaging saltwater movement or water level decline and loss of sustainability, to practice good management to prevent adverse impacts on the sustainability of the aquifer and existing wells (Law RS 38:3097.3, 2012).

According to The Legislature of Louisiana, waters used in agricultural or aquacultural pursuits are not consumed. The public purpose is the protection and conservation of the water. Because the Law states that water protects and benefits the health, safety, and welfare of the public as a resource (Law RS 9:1104, 2010).

A sustainable fishery is scientifically monitored and actively managed to conserve fish and their environment and support the communities and economies that depend upon these resources. Law (RS 56:638.3, 2014) is about providing sustainability principles. The principles are commercial and recreational fishing, fish management plans, supporting ecosystems, preventing overfishing, and ensuring sustainability.

### **Sustainability and Disaster Management**

The Federal Emergency Management Agency (FEMA) is the lead organization in USA's disaster management issues. FEMA has 10 regional offices located across the USA. FEMA's mission is helping people before, during and after disasters, with the help of its core values and goals to achieve its mission. FEMA's capstone doctrine is written in a document. FEMA promotes unity of purpose, guides professional judgment, and enables FEMA to fulfill its responsibilities. The document explains FEMA's doctrine with the following titles: "Who We



Are”, “Why We Are Here”, “What We Face”, “What We Do” and “How We Do It” (FEMA, 2022).

On the other hand, the state Unified Command Group (UCG) is the strategic decision-making body for emergencies in the Louisiana state, established by the governor's executive order. The role of the group is to manage and coordinate emerging threats and hazards and emergency incident since September 2008 (Law RS 29:725.6, 2018). One of the roles and duties of this group is addressing immediate communication needs in cases of emergencies or disasters in the statewide plan and centralizing coordination among local, state, and federal governments and other agencies. UCG has subcommittees. The group and its subcommittees have members from the following units:

- a) *Community Development Office (disaster recovery unit),*
- b) *Homeland Security and Emergency Preparedness Office (for Governor)*
- c) *The Louisiana Sheriffs Association,*
- d) *The Louisiana Association of Chiefs of Police,*
- e) *The Louisiana Fire Chiefs Association,*
- f) *The Department of Public Safety and Corrections,*
- g) *Non-profit volunteer groups*

Its roles and duties are explained with disaster preparedness, disaster management, and recovery after disasters, such as developing long-term recovery planning, advising on opportunities that will achieve sustainability efforts within affected localities, and representing nonprofit disaster volunteer groups.

### **Sustainability and Hurricane Protection**

The fund established for the sustainability of coastal Louisiana is called Coastal Protection and Restoration Fund. Its purposes are about the integration and sustainability of the coastal protection of Louisiana. It promotes scientific, technical, and engineering advancements in projects and programs on the sustainability of coastal Louisiana. The federal revenues is be used in each fiscal year. One of the purposes is for hurricane protection or any damaged infrastructure. During the Fiscal Year of 2022, federal revenues received by the state for hurricane protection projects will be used to operate and maintain hurricane protection projects.

Another Law (RS 49:214.32, 2006) enacted by Louisiana State Legislature is titled "Intergovernmental coordination and consistency". According to this law; the governor ensures that the government has considered the sustainability of activities in the coastal zone and potential impacts from hurricanes and other natural disasters.

### **Sustainability and Flood Control**

One of the purposes of the fund which is established to integrate coastal protection is for Projects and programs promoting scientific, technical, and engineering advancements for the sustainability of coastal Louisiana. The Law (RS 49:214.5.4, 2020) consists of planning and implementation of modification projects developed by federal, state, or local governments on flood control, navigation, irrigation, or enhancement issues.

## **GENERAL EVALUATION**

It is important to find out policies come to the scene after disasters. After the analysis of sustainability laws related to disaster terms, the the general evaluation is needed for sustainability policies regarding such as housing, Environment, Disaster, Hurricane and flood recoveries. The following titles are about these policies.

### **Sustainability and Housing Policies**

In the state of Louisiana, because of the poverty rate and the depressed economy, housing is seen as one of the main problems. To solve this vital problem, Delta Development Initiative is established. The initiative's aim is stated in the Law (RS 3:333, 2011) as "to provide a dynamic and comprehensive approach to housing and other poverty problems."

A rural entrepreneurship program center is also established to work on solving housing problems. The center collaborates with the United States Department of Agriculture and works with the Louisiana Housing Corporation and identify the housing needs of the parishes (Law RS 3:333, 2011). It has a subcommittee under the responsibility of the State Unified Command Group (UCG) for achieving sustainability efforts within affected localities. One of the members of the subcommittee is the executive director of Louisiana Housing Corporation (Law RS 29:725.6, 2018).

### **Sustainability and Environment Policies**

In Louisiana, the Delta Development Initiative center is responsible for protecting and conserving the environment. The legislature suggests natural resource and environmental management (Law RS 3:333, 2011). Sustainability and environmental issues are also stated with water management in Law (RS 30:961, 2021). The main focal point is "*balancing of environmental and ecological impacts with the economic and social benefits*". The center protects the natural resources and maintains sustainability for the balance between environmental and ecological situations.

The legislature has definitions of environmental policies in Law (RS 38:3097.2, 2012): The groundwater, sustainability, agricultural or aquacultural purpose, and sustainable fishery are four of them. Good management and sound science help to prevent damaging saltwater movement or water level decline and loss of sustainability in the state's aquifers (Law RS 38:3097.3, 2012).

### **Sustainability and Disaster Policies**

The state Unified Command Group (UCG) is the strategic decision-making body for emergencies in the state. The group aims to manage and coordinate emerging threats and hazards and emergency incident since 2008 (Law RS 29:725.6, 2018). Giving recommendations, preparing the annual report, addressing communication needs in cases of emergencies or disasters, and coordinating among multiple agencies and government units are some of its roles and duties.

### **Sustainability and Hurricane Recovery**

According to Law (RS 49:214.32, 2006) "*Intergovernmental coordination and consistency*", the sustainability of any activity in the coastal line has accounted for potential impacts from hurricanes and other natural disasters. In this law, it is referred to as Coastal Protection and Restoration Fund. This fund is established for integrated coastal protection. One of the purposes of the fund is about. The federal revenues will be used for the sustainability of coastal Louisiana each fiscal year for hurricane protection and engineering advancements. Beginning with Fiscal Year 2022, total federal revenues received for hurricane protection projects.

### **Sustainability and Flood Recovery**

One of the purposes of the Coastal Protection and Restoration Fund is about the sustainability of coastal Louisiana. The law consists of flood control projects planning and implemented by federal, state, or local government units (Law RS 49:214.5.4, 2020).

## CONCLUSION

In this study, an overview of sustainability laws and content analysis were carried out around the main focal points of laws. Laws with Sustainability are seen with Revised Statutes main body and are counted as 25. Sustainability Laws connected with disaster terms are 13 and placed in 7 different sub-titles. Final results are most commonly seen with the environment, housing, hurricane, disaster, and flood terms. On the other hand, the results are not related to typhoons, Earthquakes, and Climate changewith sustainability.

Some institutions such as Delta Development Initiative, Rural Entrepreneurship Program Center, State Unified Command Group (UCG), and their subcommittees are established to develop sustainable disaster policies. The institutions help carry out policies and provide a dynamic and comprehensive approach. They achieve sustainability efforts within localities and help protect water resources and the environment. They take a role as strategic decision-making bodies for emergencies in the state.

These institutions collaborate with central or federal ones. For example, the United States Department of Agriculture, Louisiana Housing Corporation, the Governor's Office of Homeland Security and Emergency Preparedness, and State Unified Command Group (UCG) identify the disaster recovery needs of the parishes. They submit recommendations to the legislature and prepare an annual report to the governor. The group re-prioritizes initiatives in the statewide plan to address immediate communication needs in emergencies or disasters and coordinates among local, state, and federal government units and multiple agencies.

Sustainability and environmental issues are also stated with water and environmental management. The main focal point of laws is to protect the natural resources and maintain sustainability and environmental and ecological balance. Funding and resource allocation for hurricane and flood recovery consists of using federal revenues for recovery and protection projects. Coastal Protection and Restoration Fund are established for engineering advancements for the sustainability of coastal Louisiana.

All of above, it is seen that disaster management with the light of “good governance” has a vital role. There are some principles to manage disasters. For delivering a successful disaster recovery management, including an understanding of the boundaries and interconnections of recovery within the broader disaster management framework of mitigation, preparedness, response and recovery, principles of disaster management should be followed studiously. Besides these, communication during and after disasters has shown to be most effective to overcome disaster period. Also psychosocial support is so important. Because people require their basic safety needs to be met before they can process distressing experiences at higher levels. Basic elements of psychosocial support underpin peoples’ core psychological needs following a traumatic event.

Considering that disasters will have serious effects on the state in the future, as they had in the past, it is recommended that future studies could be conducted on the survey analysis on beneficial effects of laws, difficulties in implementation, and implementation practices.

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