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Issue



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# ESTABLISHING INTEGRATION FOR DISASTER PREPAREDNESS INSTITUTIONS

**Abstract**: Employing a quantitative that utilized descriptive research method, adapted the research questionnaire of the Community Based Risk Reduction Household questionnaire for Residents and Local Government Self-Assessment Tool for Disaster Resilience for Local Government Officials. This study establishes integration for disaster preparedness institutions.

As results, the extent level of adaptation, Hazard Map for both respondents have a total weighted mean of 3.3 described as "Strongly Agree". Second, the Evacuation Map have a total result of 3.0 or verbal description of "Agree". Lastly, the Resource Map based on respondents' answers has a total weighted mean of 3.1 or "Agree". In the extent level of awareness, the overall weighted mean was 3.0 or described as "Agree". Moreover, the study showed no significant relationship among respondents based on their perception towards the 3 in 1 map for disaster preparedness.

Hence, the output of the study conducts the Scheme of Implementation Training Plan.

**Key words**: Institutionalizing Integration, Disaster Preparedness, institutions, Training Plan, Public Administration.

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## **Introduction Rationale of the Study**

Preventing disasters was now greatly aided with scientific tools such as hazard maps, these were necessary for controlling land use including house in hazard potential areas by flood, sediment and landslide, it was recommended that hazard maps were based on National Mapping and Resource Information Authority topographic map with the scales of 1/50,000 or 1/10,000. The Philippine topographic map was at scale of 1:250,000 it was produced with the information from the different agencies. The hazard map development for earthquakes has two types that were being recommended; first one was Seismic Hazard Map and defined as a map of physical hazard excluding the potential damages for the whole country. The second one was the Seismic microzonation Map with the scale of 1:10,000 or larger for

the use of highly urbanized areas like Metro Manila. The evacuation plan and resource map for Metro Manila, Philippines includes the five sites that will serve as evacuation emergency field hospitals in case of major earthquake. According to Metropolitan Manila Development Agency (MMDA) these locations were considered secure and can be assessed easily by rescue teams who can provide relief goods and medical response in case of emergency. For volcanic hazard mapping, the agency Philippine Institute of Volcanology and Seismology has already compiled a hazard map for the six active volcanoes at a scale of 1:50,000. The potential hazard area for lahar and flooding was indicated by the fire zones in the map. These maps have already been disseminated to the relevant agencies for necessary evacuation planning. These maps consider the local site



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conditions like soil, landslide and liquefaction potential to modify the macro map.

The Philippines as an archipelago was highly exposed to natural hazards because of its geographical location. The country was located along within the Pacific Ring of Fire; as such the country was experiencing to multiple recurrences of natural hazards as such typhoons, earthquakes, floods and landslides. The researchers have seen different lapses in the national and local government in handling calamities situation, giving information to the public where the location was located for evacuation center. This situation created risks for the public safety in the community. The Philippine Risk Profile for Natural Disasters was also reflected in 2011 Global Assessment Report that the country places third out of 173 countries and ranked 3 with 27.98 risk percentage as to exposure to hazards. In Cebu City, eighty-eight ships sunk at the harbor during the Typhoon Ruping, of the 88 ships that sunk at least 12 were passenger ship and at least 3 were navy ships. This was the fourth highest total ever observed by a tropical cyclone. Approximately 60% of all buildings were demolished and 28 people perished. Throughout the Cebu Province, 40 fatalities reported and 90% of all wooden homes were damaged and destroyed. At least 60% of the country's total land area which was nearly 300,000 square kilometers, vulnerable to natural hazards.

The Mines and Geosciences Bureau 7 has warned anew of landslides and flooding, eighty barangays was at most risk of ground failure and floods were identified in geohazard maps in detailed of 1:50,000 scale. The five barangays in Toledo City composed of Tungkay, Pangamihan, Bagakay, Loay and Don Andres Soriano were most risk. Among these five barangay, the Barangay Don Andres Soriano was almost near with the researchers' locale of the study. Hence, there was an urgent need for the adaptation of 3 in 1 Map for Disaster Preparedness at Barangay Media Once, Toledo City, Cebu in order to propose an action plan for the Academic Year 2021-2022.

## **Theoretical Background**

This study was anchored on both legal basis and theories.

The legal basis were Republic Act No. 10121 (2010) also known as "An act strengthening the Philippine Disaster Risk Reduction and Management System, providing for the National Disaster Risk Reduction and Management Framework and institutionalizing the National Disaster Risk Reduction and Management Plan, appropriating funds therefor and for other purposes." Adapt and implement a coherent, comprehensive, integrated, efficient and responsive disaster risk reduction program incorporated in the development plan at various levels of government adhering to the principles of good governance such as transparency

and accountability within the context of poverty alleviation and environmental protection.

Republic Act No. 10821 "An act mandating the provision of emergency relief and protection for children before, during, and after disasters and other emergency situations." The Act was guided by the principles of survival and development, child participation, and consistency with the United Nations.

Disaster Risk Reduction and the minimum standards for children in humanitarian action. This Act sets the State of the Philippines responsible to establish and implement a comprehensive strategic program of action to provide children, pregnant and lactating mothers affected by disaster and other emergency situations with the utmost support and assistance necessary for their immediate recovery and protection.

The 18<sup>th</sup> congress of the Republic of the Philippines in their First Regular Session introduced the Senate Bill no.205 which an act creating the Department of Disaster Resilience, defining its powers and functions, and appropriating funds, this act shall be known as the "Disaster Resilience Act of 2019". The state recognized that the country was vulnerable to natural hazards, and there was an urgent need to establish a focused, streamlined, independent, empowered, capacities, full time and a specialized agency on disaster risk reduction and management such as emergency response which was national in scope and civilian in character.

The effect of lack of implementation of Disaster Management in the country, it resulted to massive incidents of injuries and deaths, according to Philippine Statistics Authority, the highest number of deaths was recorded in 2013 at 7,056 this was the year when Typhoon Yolanda hit the country in November and a 7.2 magnitude affected Bohol in October. After the year 2013, it was followed by 2011 in December. The Philippines recorded a total of 12,097 deaths from 2010 to 2019 due to extreme events and disasters. The slow response for emergency relief in the Typhoon Yolanda were running high among survivors desperate for relief aid three days after the disaster, the buildings and trees were flattened in the street which resulted that the authorities were struggling to assess the full extent of damage. The survivors in some areas do not have access to food, water or an ability to communicate to the authorities, the Philippine Red Cross office has been damaged which forces the staff to relocate temporarily. One hospital has been functioning during tremendous event in Tacloban and with no power the hospital can only offer basic first aid. However, according to the International Organization for Migration Data there were 415 evacuation centers that were unusable due to the damage and in need of repair, and 166 have been fully destroyed and will have to be rebuilt. Only 53 of the 634 of pre-Yolanda evacuation centers were identified



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by the government could be used in the event of another natural disaster. Due to the shortage of viability of evacuation centers the coordinators were needed to identify alternative evacuation centers for the survivors.

The Emergency Management Theory by Federal Emergency Management Agency in 1979 it protects communities by coordinating and integrating all activities necessary to build, sustain, and improved the capability to mitigate against, prepare for, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other man-made disasters. This theory was applied in this study since it protected the communities and prepared the citizens in any disaster risk in their area. The principle of emergency management theory was based on four phases: Mitigation, Preparedness, Response and Recovery.

The Theory of Planned Behavior was proposed by Icek Ajzen in 1985, it was started as the Theory of Reasoned Action in 1980 to predict an individual's intention to engage in a behavior at a specific time and place. The theory of Planned Behavior suggests that people were more likely to intend to enact certain behaviors when people feel that they can enact them successfully. In Disaster preparedness, almost in the community were prepared in first aide, firefighting, search and rescue, and afforded with the necessary tools and materials with several drills carried out in all communities.

The legal basis and the theories serves as a pillar for the researchers study to be able to have the adaptation of 3 in 1 map in Barangay Media Once, Toledo City, Cebu in order to asses an action plan for emergency preparedness in the community.

## Research Design

This study was based on quantitative that utilized descriptive research method. The researchers adapted the research questionnaire of the Community Based Risk Reduction Household questionnaire for Residents and Local Government Self-Assessment Tool for Disaster Resilience for the respondents of Local Government Officials that will be used to collect the data from the respondents in conducting the survey. The data's retrieved was collated, tabulated, analysed and interpreted.

### **Research Respondents**

The respondents of this study were the Residents and Local Government Officials of Barangay Media Once. Specifically, there were 90 Residents in each sitios were randomly chosen: twenty (20) people from Sitio Baud, twenty-five (25) from Sitio Lower, twenty (20) from Sitio Pandong-Bato, and twenty-five (25) from Sitio Upper and 10 respondents for Local Government Officials. Table 1 on the next page reflected the distribution of respondents. The illustration presented the two categories, residents and

local government officials. Category of residents totalled to 90 or 90 percent of the total population. Further, there were 10 or 10 percent of the local government officials for the previously mentioned category.

Therefore, the respondents gathered totalled to an overall population of 100 or equivalent to 100 percent.

#### Literatures

The Republic Act No. 10121 also known as an act strengthening the Philippine Disaster Risk Reduction and Management System, providing for the National Disaster Risk Reduction and Management Framework and Institutionalizing the National Disaster Risk Reduction and Management Plan, appropriating funds thereof and for other purposes. The RA No. 10121 was also known as the "Philippine Disaster Risk Reduction and Management Act of 2010" one of its goals was to strengthen the disaster risk reduction and management system, the need for national disaster risk reduction and management of which the approach was "holistic, comprehensive, integrated, and proactive in lessening the socioeconomic and environmental impacts of disasters including climate change with the involvement and participation of all sectors and all stakeholders concerned at all levels (RA 10121, Section 2 (d)). The Republic Act was originally filed as House Bill No. 6341 in the 16th Congress by Rep. Arlene Bag-ao, Rep. Isidro Ungab and this representation enhanced or improved the Republic Act N0.10121 or the Philippine Disaster Risk Reduction and Management Act of 2010.

Before the Republic Act No.10121 was approved according to Dir. Chito Castro of the Office of the Civil Defense, there was a hope for passing of the Disaster Risk Reduction and Management Act, this law was pro-active in giving importance to mitigation and preparedness measures. One of the bill's salient points was the immediate response and release of calamity funds to the local government unit so they can prepare for disaster mitigation and preparedness since the local government unit can accommodate 70 percent of the total calamity fund to risk-reduction measures and 30 percent to quick response. With this new law, the local government unit can address the emergencies and hazards by mitigating its effects and prepare the communities to respond through capacity building and share public information. Dir. Castro mentioned that with this new law the local government units can purchase better warning communication and early equipment's for search and rescue and conduct trainings for volunteer groups who would be the first responders during disaster. Both national and the local governments are responsible for disaster management, however the people were also accountable to do their own preparedness, mitigation and communication or



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early warning of impending disaster to ensure one's survival and safety. In section 27 of RA 10121 it stated that 5 years from the effectivity of this Act, or as the need arises, the Congressional Oversight Committee shall conduct a Sunset Review, the term "Sunset Review" shall mean a systematic evaluation by the Committee of the accomplishments and impact of the act. However, the former National Disaster Risk Reduction and Management Council Executive Director Alexander Pama says during the Resilience Marketplace for Innovation forum on August 23 of 2018 that there was no review of Republic Act 10121 of the disaster management act of the Philippines took place in Congress, despite it was being mandated by law and the Congress did not call for a sunset review. Pama who served as NDRRMC Executive Director from 2014 to 2016, was responding to groups who asked for the outcome of the review of the law and what issues were found, Formal review of the RA 10121 should be carried out by the congressional oversight committee in 2015. In consultation with sectors and agencies, the committee was to assess the performance and organizational structure of implementing agencies included in the law. There was a consultation happened in NDRRMC, however when the 2016 national elections were underway when the time came for the formal review. The law did not fail in its objectives to develop a framework to strengthen the disaster management in the Philippines; the law was regarded as one of the standards in the world. Moreover, what was lacking was both at the policy level and implementing level of the Act. In Senate Resolution No.10, Sen. Panfilo M. Lacson said that it was time for the Congressional Oversight Committee on Philippine Disaster Risk Reduction Management Act of 2010 to find ways to improve the law and its implementation. During a public forum on disaster risk reduction and management (DRRM) that was being organized by the Philippine Institute for Development Studies (PIDS) local stakeholders revisited the implementation of the RA 1021. Dr. Sonny Domingo, who was a PIDS senior, assessed the strengths and weakness of the law's implementation. He made it clear that there were structural issues blocking the efficient execution of National Disaster Risk Reduction and Management Plan. One of the key issues they provide was the policy was needed "clear leadership" the said law does not empower the council with implementing functions. According to the authors, this failure of the government to clarify institutional authority has led the institutions involved in DRR to implement initiatives "with relative independence" from the National Disaster Risk Reduction and Management Plan (NDRRMP), the lack of coordination and harmonization weakens the implementation of the DRRM activities (Domingo, Olaguera, 2017).

Republic Act No. 10821 was an act mandating the provision of emergency relief and protection for

children before, during, and after disasters and other emergency situations, this act shall be known as the "Children Emergency Relief and Protection Act" was approved on May 18, 2016 by Benigno Aquino III, and was filed by Pia Cayetano. This act set the State to protect the fundamental rights of children before, during and after disasters and other emergency situations, responsible to establish and implement a comprehensive strategic program of action to provide children, pregnant and lactating mother affected by disaster and other emergency situations with the utmost support and assistance necessary for their immediate recovery and protection. The salient points in the Republic Act were the following: Establishment of transitional shelters for Orphaned, Separated, and Unaccompanied Children, Assurance for Immediate Delivery of Basic Necessities and Services, Delivery Health, Medical and Nutrition Services, Establishment of Child-Friendly Spaces, Promotion and conduct of child-responsive training programs for community and barangay levels, rescuers and other disaster responders and ensure the proper identification and establishment of safe evacuation centers to limit the use of schools and child development centers as evacuation centers during calamities and disasters. The Establishment of transitional shelters for Orphaned, Separated and Unaccompanied Children designed considerations like bathing cubicles and hand washing facilities specifically designed for children, it provides mother and child-friendly spaces where children can take part in child activities, it must have also maternal and newborn and infant care and rooms to protect, feed, provide personal care, and ensure the right to privacy. The existing transitional shelters should comply with the considerations (RA 10821, Sec.4 (b)). Assurance for Immediate Delivery of Basic Necessities and Services ensures the immediate response of services of basic necessities required by the affected children such as basic health services, food, water, nutrition, medicines, clothing, sanitary and hygiene kits and other emergency needs such as blankets, mosquito nets and flashlights, it gives priority to the specific health and nutrition needs of pregnant women, lactating mothers, newborn babies and children under five years old with special needs. (RA 10821, Sec.4 (c)). The Delivery of Health, Medical and Nutrition Services provide services in the areas that are declared under a state of calamity that includes psychosocial interventions for children in different stages of development (RA 10821, Sec.4)). The establishment of Child-friendly Spaces provides the necessary child care services and social protection of affected children together with the Local Government Unit and Department of Social Welfare and Development Agency (DSWD).

The Philippine Statistics Authority reported that there were more than 30 million children in the Philippines that may be at risk to disaster to address



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the issue the International Federation of Red Cross launched a global research that focuses on the three main issues: system to protect unaccompanied, separated and orphaned children, children's access to education, and the participation of children in disaster risk management. The Philippines was chosen as one of five countries to conduct a case study because of its past experience in large-scale disasters and its advanced legal framework on child protection issues. The RA No 10821 requires concrete funding mechanisms for the mandatory activities in the community level. The funding gap was linked to the low of awareness and socialization of the importance provision of the law. The Republic Act No. 10821 was considered the first and only in the world that protects children during emergencies and disaster situations.

The 18th congress of the Republic of the Philippines in their First Regular Session introduced the Senate Bill no.205 which an act creating the Department of Disaster Resilience, defining its powers and functions, and appropriating funds, this act shall be known as the "Disaster Resilience Act of 2019". The Department shall be the principal government institution responsible for ensuring the safe, adaptive, and disaster-resilient communities, they shall integrate the crafting of implementation of comprehensive and strategic plans, programs, projects and activities to reduce the risk of all types of natural hazards and the effect of climate change. Its goal was to minimize the damage to property in close collaboration with all relevant stakeholders at the national and local levels, was originally filed by Christopher Lawrence T. Go. At the Senate hearing on disaster resilience and management Senator Lacson cited that there were certain issues should be addressed before the Senate can even consider coming up with a committee report creating a new department to address the disaster management. Lacson also stressed the need to shift to disaster response and management from reactive to proactive. During the hearing, Lacson questioned where the unspent disaster funds were in the past years. At the hearing, Senator Lacson stressed the importance of shifting from reactive to proactive in dealing with disasters. "Instead of being reactive during the disaster, prevention and mitigation was better so we can prevent the loss of lives. During disaster that's the only time we scramble". He state the importance of being proactive during disaster because along with the RA 10121 the law shifted the Department of Risk Reduction Management (DRRM) practices from reactive emergency and disaster response and management to proactive disaster risk reduction and management. The unspent disaster funds in past years were also being questioned by the Senator. Under the RA 10121, "unused local disaster funds will accrue to a special fund solely purpose for supporting disaster risk reduction and management activities of the LDRRMC's within the next five (5) years. Any such

amounts still not fully utilized after five (5) years shall revert back to the general fund and will be available for other social services to be identified by the local sanggunian (RA 10121, Sec. 21). Lacson cited information indicating that some of the funds went to flood control roads which was not involved in disaster. Moreover, with the creation of the new department, the Senator asks two tough questions: Was the creation of the department necessary? and Was it feasible? The house of representative on September 21 approved on third and final reading of the bill a total of 241 lawmakers voted yes while 7 said no and one abstained. The new department would be the primary agency responsible for "leading, organizing, and managing national effort to reduce disaster risk and prepare and respond to disasters, recover and rehabilitate and build forward better after the occurrence of disasters".

As of the theory, Emergency Management was institutionalized in 1979 with the creation of Federal Emergency Management Agency (FEMA). The concept of emergency management consists of three interrelated components (a) all types of hazards, (b) an emergency management partnership, (c) emergency life cycle. The first component which was the all types of Hazards, were common features of natural disaster and attacks, it suggests that many of the same management strategies can apply to all emergencies. The second component which was an emergency management partnership, were finding sources for disaster management which requires a partnership among all levels of the government and private sectors. This approach allows the disaster victims to contribute to emergency management solutions. The last component was an emergency life cycle that was matched by a series of management phases. These phases establish strategies to mitigate hazards, prepare for, respond to emergencies, and recover from the effects.

These three concepts prepare not only the community for any attacks and sudden occurrence of any disaster risk; it also prepared the Local and National Government for the aftermath or effects of the disaster. The emergency management reduces the casualties of damage in life, and infrastructures. The principle of emergency management was based on four phases: Mitigation, Preparedness, Response and Recovery. The first phase was Mitigation or prevention for future emergencies and minimizing effects, annual hazard mitigation assessments that identifies those hazards those were most critical were need to be focus for the upcoming year, one example includes the building sea walls to protect from tidal waves. The mitigation activities take place before and after emergencies, it includes any activities that prevents an emergency or reduce the casualties of unavoidable emergencies. The second phase of Emergency Management was Preparedness which included of all planning,



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preparations, training made to save lives, to respond and rescue operations, and sharing information to prepare the communities from any disaster. Preparedness activities takes placed before an emergency, evacuation plans and stocking food and water were both example of disaster preparedness. The third phase was Response includes action taken to save lives and prevent further property damage in an emergency situation, it reduced the impact to the people and the environment. The response phase was putting the preparedness plan into action. In this phase the activities takes place during an emergency. The last phase was Recovery was an action taken to return to a normal or an even safer situation following to the supporting emergency-affected emergency, the reconstruction of communities in infrastructure and restoration. Financial assistance was part of the recovery were it helped pay for repair. The significance of the emergency management phases was that all communities were in at least one phase of emergency management.

Emergency Managers classify emergencies ad disasters by its size and its type and number of issues that need to be addressed; this classification involves minor emergencies, limited and potential emergencies and major disasters. Minor emergencies were emergencies that were not life-threatening but it required immediate care. One example of minor emergencies was residential fires and storm damages and the key issues of minor emergencies were the temporary accommodation for people and animals. The Limited and Potential Emergencies were unexpected emergency situations close to home include critical health conditions like localized flooding, hurricane warning, droughts, and tsunami warning. The key issues were temporary accommodation for people and animals, notice of evacuation, isolation area and disaster intelligence such as mapping of a plume zone. The last classification was the Major Disasters were catastrophic events like earthquakes, floods, hurricanes and landslides. In major disasters one of the issues that the emergency managers classify was the evacuation failures and the temporary evacuation for owners and animals. In emergency management, the local Government level makes plan and provide services to protect their citizens from the hazards that threaten their communities. This was done and used through the four phases of emergency management. In all level of the government, the local government was the most important at which they serve between the people, and the national government. The local government can identify hazards and can assess the potential risk in their community, they can determine the community capability to prevent, prepare, respond and recover from major emergencies. The local government can develop and coordinate preparedness plan and established early warning systems in the time of crisis. The local officials can educate their

constituents and provide training for their personnel for activating response plans and rescue operations. The local government plays a big role in giving information to their people in disaster preparedness in the community; this was to reduce the any casualties from any damage. The Emergency Management gave the basic knowledge on how to manage during emergency situations; it prepared all levels of the government to any damage for the after effect of the disaster.

The Theory of Planned Behavior (TPB) started as the Theory of Reasoned Action in 1980, the theory was proposed by Icek Ajzen in 1985 through his article "From intentions to action: A Theory of Planned Behavior". The Theory of Planned Behavior suggests that people were more likely to intend to enact certain behaviors when they feel that they can enact them successfully. Increased perceived behavioral control was a mix of two dimensions: Selfefficacy and Controllability. According to (Bandura, 1977, 1986, 1997) "Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments". It also refers to the level of difficulty that was required to perform the behavior. Controllability refers to the outside factors, and one's belief that they personally have control over the performance of the behavior. Intentions and behaviors were a function of three basic determinants: 1) attitude toward the behavior - that was the individual's positive or negative evaluation of performing the behavior, 2) subjective norm – the person's perception of social pressure to perform or not to perform the behavior, and 3) perceived behavioral control - the individual's perceived sense of self-efficacy or ability to perform the behavior, taking into account some of the real constraints that may exist (Ajzen, 2005). The Theory of Planned Behavior has been used to predict and explain a wide range of health behaviors and intentions including smoking, drinking, health services utilization, breastfeeding and substance use and rarely disaster management. In order to achieve behavioral achievement it depends on both motivation (intention) and ability (behavioral control). The Theory of Planned Behavior in Disaster Preparedness was a life protective behavior; the behavioral approached have taken center stage as a mean of it. Given the fact that disasters affect hundreds of thousands of people each year without notice, most people do not plan until disaster strikes. If the community were prepared for any disaster risk and respond to search and rescue operations and recover from the impact of the disasters, the behavior patterns of the communities will change in the emergence of disaster event because the perceived power and confidence of being able to control and perform their intentions can carry out behavior of aiding others and thus reducing the impact and the vulnerability level of the community and society. There were several



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limitations of the Theory of Planned Behavior in Disaster preparedness; first it was assumed that the person has acquired the opportunities and resources to be successful in performing the desired behavior regardless of the intention of the person. Second, other variables was not accountable that factors in the behavioral intention and motivation such as fear and threat. Third, considering the normative influences the environmental and economic factors that may influence a person's intention to perform a behavior is not accountable. Fourth, in result the behavior was a result of a linear decision making process and does not consider that it can change over time. The effective interventions to promote disaster preparedness require a thorough understanding of the factors that affects the performance and nonperformance of disaster preparedness behaviors. There were several studies that was being conducted on disaster preparedness, several factors affecting the preparedness includes the critical awareness, risk perception, preparedness perception, previous disaster experience, coping styles and available resources. This study was conducted in order to establish the concepts and theories to understanding preparedness for current disasters. The all-hazards and cross-cultural applicability of preparedness theory was discussed, as a need for a critical appraisal of preparedness, its predictors, and the nature and development of the preparedness process and its application in facilitating effective intervention strategies. Disaster response planning were the failure in strictly applying the law, the lack of public and staff education about disaster risks, poor urban planning, unstable security situation, citizen intervention, endowment of equipment, tools and infrastructure and lack of financial, Poor sector coordination, lack of an early- warning system, slow response, absence of trained dedicated search and rescue, and poor community empowerment were some of the factors, which have been contributing to poor response following disasters in the past. The Disaster was a disaster caused by nature, such as floods, volcanic eruption, earthquakes, tsunamis and landslide. Some disasters were on the edge of natural and non-natural famines, the chronic lack of food may be caused by a combination of natural and human factors two space-originating categories of natural disaster both of which rarely effect humans on the surface it was impossible to stop manage risk. The national Disaster Risk Reduction Plan was established to become the basis of programs and proposals to help make the communities be disaster resilient and has four areas of responsibility those were interlinked, supporting each one of these key priorities of National Disaster Risk Reduction Plan was disaster preparedness. It aimed to increase the level of awareness of the communities to the threats and impacts of all hazards and risk, to equip the community with necessary skills to cope with the

negative effects and to increase capacity of institutions.

# PROBLEMS ENCOUNTERED BY THE RESIDENTS AND LOCAL GOVERNMENT OFFICIALS

The problems encountered by the respondents were answered by the residents and local government officials.

Respondents of this study experienced some issues or challenges of the 3 in 1 map that serve as hindrance to conduct and accomplish on time. Moreover, the first problem was when the residents were not accommodated, based on the residents' response which weighted to a mean of 2.8 and described as "agree", which means that people have not been accommodated the same with the local government officials' response. Second problem was services were not equally distributed, from residents' response it has a weighted mean of 2.8 and "agree" by the people, while on the local government official it has 2.2 weighted mean and "disagree" as its verbal description, which means services given were not enough to all people because of lack of funding. As of the third question about lack of supply, has the weighted mean 3.0 described as "agree" by the residents, same with the local government official as they also "agree" with the weighted mean of 2.9. The question that corruption was present the answer of the residents was computed 3.0 which described as "agree", while the answer of local government official was "strongly agree" totaled to 3.2. For the fifth problem that residents cannot communicate easily, their response was "agree" with 2.8 weighted mean, same goes with the officials that they "agree" with 3.1. Lastly, the problem about the delayed rescue and retrieval operations, residents has 2.9 weighted mean, while official has a weighted mean of 2.6 and both of them "agree" for this part.

This analyzed that respondents approved that they experienced challenges and such issues, this resulted to an overall weighted mean of 2.9 with a verbal description of "agree" means they encountered problems in relation to disaster preparedness at the barangay in connection to this research study.

### **Findings**

The research revealed the following findings as listed hereunder.

- 1. In the extent level of adaptation in relation to the 3 in 1 map for disaster preparedness as to Hazard Map, Evacuation Map and Resource Map, data showed the following:
- 1.1. It showed that adaptation of the hazard map in the area resulted to a total weighted mean of 3.1 or "agree" by the Residents. For the Local Government Officials it revealed that adaptation of the hazard map was "strongly agree" with a total weighted mean of



**ISRA** (India) = 6.317SIS (USA) = 0.912ICV (Poland) = 6.630**РИНЦ** (Russia) = **3.939** ISI (Dubai, UAE) = 1.582PIF (India) = 1.940IBI (India) **= 8.771** =4.260**GIF** (Australia) = 0.564ESJI (KZ) = 0.350**SJIF** (Morocco) = **7.184** OAJI (USA) = 1.500

- 3.4. Therefore, there is a need to follow the Hazard Map for the safety of the people.
- 1.2. In evacuation map, data revealed that adaptation in the area were "agree" by the Residents resulted to the weighted mean of 2.6. On the other hand, for the Local government Officials the adaptation of the evacuation map were "strongly agree" a total of weighted mean 3.3 in its response. Therefore, there is a need to follow the Evacuation Map so that people will be guided.
- 1.3. For its last component, it showed that resource map in the area were "agree" by the Residents or total weighted mean of 3.0. On the other hand, the Local Government Officials "agree" total of weighted mean 3.1. Therefore, there is a need to have the Resource Map in the area to be equipped.
- 2. In the extent level of awareness by the respondents groups, data showed that Residents "agree" with a weighted mean of 3.1 and aware of the proper and correct way of handling disaster situations and for the Local Government Officials it revealed that they "agree" weighted mean 2.8 and aware with their duties of work in relation to the disaster preparedness. Therefore, 3 in 1 map was needed and beneficial to adapt because it provides full awareness and guidance to all people in the community.
- 3. This study showed that there was no significant relationship among the respondent groups on their level of perception in relation to the 3 in 1 map disaster preparedness. Data revealed that both of the

respondent groups have different approaches in conducting the proposed action plan.

4. The problems encountered by both of the respondent groups have a weighted mean of 2.9 revealed that Residents "agree" with all the common problems that can be encountered during disaster and the Local Government Officials was 2.8 "agree" with some of the problem.

#### Conclusion

From the study, "agree" was the most evidently shown scale. In general, its occurrences along with those other scales were significant in terms of disaster preparedness and management.

The adaptation of the 3 in 1 Map for disaster preparedness was beneficial to the barangay to implement and does indeed the effective way to apply for disaster management, so that it will achieve the perfect information and standard for disaster preparedness and by that both Residents and Local Government Officials of Barangay Media Once will be fully aware, fully knowledgeable, and fully equipped when disasters happen.

Therefore, the proposed action plan was the 3 in 1 Map for Disaster Preparedness Plan was much recommended to this research study and it was beneficial to adapt to the community especially for the peoples' safety and preparedness, and through the conduct of the Scheme of Implementation Training Plan and the Matrix Plan for systematized ways.

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| ISRA (India)           | <b>= 6.317</b> | SIS (USA)    | = 0.912        | ICV (Poland) | = 6.630        |
|------------------------|----------------|--------------|----------------|--------------|----------------|
| ISI (Dubai, UAE)       | = 1.582        | РИНЦ (Russi  | ia) = 3.939    | PIF (India)  | = 1.940        |
| <b>GIF</b> (Australia) | <b>= 0.564</b> | ESJI (KZ)    | <b>= 8.771</b> | IBI (India)  | <b>= 4.260</b> |
| JIF                    | = 1.500        | SJIF (Morocc | (co) = 7.184   | OAJI (USA)   | = 0.350        |

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