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# **Disaster Resiliency Intervention Program for Children and Youth**

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### Abstract

Disaster resiliency programs remain the bottleneck with children and youth in a very high flood susceptibility areas of Panabo City, Davao del Norte Province. This research aims to determine the concepts of disaster resiliency, and designing an intervention program for the mentioned vulnerable groups. Employing descriptive qualitative case study methodology as such focus group discussion and key informant interviews were performed, narrative analysis used grounded theory matrix and discussions were supported with the review of related literature. The informants revealed that disaster resiliency concept is strengthening participative governance through capacity development of knowledge, skills and attitude towards a disaster resilient community. Consequently, framework were drawn and intervention design as well using the modified logical framework approach detailing the comprehensive program for children and youth disaster resiliency with recommendations.

Keywords: Disaster Resiliency Concept, Intervention Program, Children and Youth

### **Introduction:**

## Rationale

Very high risk exposure of flood susceptibility reach more than 60% population comprises children and youth in the hazard map of Panabo City of Davao Del Norte Province according to the Mines Geosciences and Bureau Region XI, 2017 including families belong to low level of income. Accordingly, there are many areas found with possible of severe erosion of at least 3,231.5 hectares and 16,736.5 metric tons in the mentioned city. Despite the yearly allocated budget of the City Disaster Risk Reduction and Management Council of Panabo to millions of pesos, still the vulnerable affected population's remains at high risk.

Worse in the closer look of the mentioned hazard map, the very high susceptibility flood are the barangay Cagangohan, J.P Laurel, San Pedro and Sto Niño including boys and girls, and other vulnerable groups living in the area through the Panabo city population, (2016). Hence, the researcher urgently conducted the study on disaster resiliency intervention program with children and youth an action research.

### **Objectives of the study:**

- 1. To determine the concepts of disaster resiliency of children and youth.
- 2. To design an intervention program on disaster resiliency for children and youth.

# **Statement of the problem**

- 1. What is the concept of disaster resiliency by the informants? Why
- 2. What program intervention needed for a disaster resiliency community?

# Theoretical Background:

The study anchored to Hyogo framework in Action, (2015) states that "ensuring disaster resiliency is a national and local priority with a strong institutional basis for implementation is a priority for actions to develop and to strengthen the institutions, the mechanisms and capabilities." and supported by the SENDAI framework 2015-2030 states that empowerment, non-discriminative, inclusive policies and practices with children and youth indicates disaster resiliency at the ground level.

# Methodology

## Research design

The method used a descriptive research study employing qualitative case study classification based on the nature of attributes of the informants according to the type of their attributes, in-order to explain the context of the phenomenon Reston, E. Introduction to Statistics. Specifically, case study has Further, the study used Focus Group Discussion and scanning of secondary data to determine the disaster resiliency intervention with children and youth.

## Locale of the study

The study is focused to the disaster resiliency intervention program with children and youth in the selected highly food susceptible area which are Barangay Sto Nino, Cagangohan, JP Laurel and San Pedro of Panabo City Davao del Norte province according to the hazard map of the Mines Geosciences and Bureau region XI.

# Research instrument

The researcher employed open ended guide questions to allow the informants express their views on their own words and understanding in drawing the concepts, follow up questions were raised to deepen and objectify the answers. While, the questionnaire has been presented with the different experts as such chairman of the Barangay Disaster Risk Reduction and Management Committee, Disaster Risk Reduction and Management (DRRM) Coordinator of Department of Education, principal, adviser of the students' government, and parents as well.

# Informants and participants selection

Purposive sampling technique has been used. Sometime early summer month of 2018. The researcher sent the enumerators to hand over the communication for the participants' selection with the letter of courtesy both from the office of the Department of Education division office of Panabo, Principal of the school, parents and to the Chairman of the Barangay Disaster Risk Reduction and Management Committee as well.

The selected	participants	were the	following;
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	On the Key Informant Interview with the student leaders from the Department of Education					
Age	Sex	Location / address	Organization - position			
12	Female	Sto. Nino Elementary School,	Student Pupil Government – President			
		Barangay Sto Nino				
11	Female	Gleciero L. Dondoy, Central Elementary	Student Pupil Government - Vice President			
		School, Barangay Cagangohan				
11	Male	National High School of J.P laurel	Student Pupil Government - President			
	On the Focus Group Discussion with the out of school youth of the Barangay:					
19	Female	Barangay San Pedro	Not applicable			
20	Male	Barangay Cagangohan	Not applicable			
21	female	Barangay JP Laurel	Not applicable			
24	Male	Barangay San Vicente	Not applicable			

However, the researcher affirms the commitment to credibility, transferability, dependability, and conformability particularly applying audit trails (Fenton and Mazuwelics, 2008). Researcher adhered to the protocols of informed consent ensuring right of participants to withdraw at any time, understanding on the purpose data collection process, confidentiality, knowledge on known risks, expected benefits. (Creswell (1998)

#### **Data collection**

The data collection method used interviews and review of related literatures. Nonprobability sampling procedure such as purposive or judgmental sampling because the researcher selected the informants according to the expertise of the purpose of the study. After the protocol of courtesy from the Department of Education Panabo District level and the Principal of the school, the researcher appointed and oriented a pool of facilitators and cofacilitators who were tasked to administer the open ended guide questions to conduct the data collection of the study. Then, the pool of facilitator and co facilitator in a simultaneous schedule conducted the data collection.

Also, the study used focus group discussion and key informant interview, with a written approval of the informants, related materials such as audio recorder, pen, and paper for recording were prepared with respect to confidentiality of the identity of the informants.

To describe the actual administration of the open ended guide question were the following:

- The facilitator and co-facilitator attended orientation on the administration of the questionnaire, methods about how to handle the focus group discussion, key informant interview and other needed procedure on data collection. In fact, actual focus group discussion and key informant interview was simulated in order to internalize the procedure of the study.
- 2. On site, the facilitator and co facilitator explains the rationale and purpose of the study, after they get to know each other. and
- 3. The facilitator explain the activity with translation in order to have a better grasp of understanding of the subject matter.
- 4. The facilitator discussed the step by step process on how to get the data through focus group discussion and key informant interview.
- 5. In response, the participants and informants were invited to illustrate or draw the concepts of disaster resiliency and consequently write the explanation in the plain paper so that the participants will be able to build up the answers and explain literately.
- 6. While, the co-facilitator help the documentation, the main facilitator queued by asking on who will volunteer to do first show and start to narrate the output of the activity during for the focus group discussion.
- 7. One after the other, the facilitator throw follow up questions in between of the narration of the participants and informants.
  - a. For the part of the student pupil organization informants, the challenged was on the translation of the concepts but because the mentioned informants are student

- leader of their organization. So, the data collection was made smooth and possible.
- b. For the part of the out of the school youth informants, the challenged was the translation on lay man's term, although it consumes longer time but when it was being done the data collected were very fulfilling and meaningful.

# Data analysis procedures

After the collection, correct transcription and translation of all data from the key informant interview and focus group discussion were made. Grounded theory matrix analysis used to analyze the theoretical concepts. Glasserian, (1995). While, secondary data such as the review of related literature were maximized also. Given, (2008) stated that secondary data documents (SDDs) are highly used in the qualitative study and heavily depends on historical related literature. In addition, the recently popular qualitative methods such as narrative analysis were frequently suitable for social scientific and literary analysis. This is to ensure the avoidance of data distortion.



# Results and discussion using the grounded theory approach

There are three informant children in which two are female and one male, age range from 11 to 12 years old, a key student leader of the student pupil government from the different Primary Department of Education namely Elementary School of Barangay Sto Nino, Gleciero L. Dondoy of Central Elementary school of Barangay Cagangohan, and Barangay J.P Laurel with high flood susceptibility among other barangay of Panabo City.

The grounded theory matrix used for transcriptions, translation, codes, saturation of data, and theoretical statement

	Informants	Transcripts	Translation	Codes	Code category	Saturation	<b>Theoretical Statements</b>	Concepts
Children	12, female, Student Pupil Government member, Sto. Nino Elementary School, Brgy Sto Nino	kami sa akong pamilya kay naghinlo sa palibot para ma sulbad ang problema sa among barangay	In order to solve the problem in our village, we in our family help clean our surroundings.	Camaraderie is the solution	Camaraderie is the solution	Unity of the community	take initiatives, vigilant	
Children	11, female, VP- Student Pupil Government, Gleciero L. Dondoy, Central Elementary School, Brgy Cagangohan	ang disaster resiliency ay pagahon sa isang kalamidad o pangyayaring sumira sa isang lugar. Tulad ng pagtulong- tulongan ng isang barangay upang mabalik sa dating ganda at kalinisan ang	Disaster resiliency is building back better from the devastation in a community. The same with helping each other in the whole village in- order to clean the surroundings. And the village	Building back better  Camaraderie is the solution  Government accountability	Camaraderie is the solution Self help Taking initiative and being vigilant	Self-help, taking initiatives and always vigilant	and unite the community for disaster risk reduction	Participative governance and leadership triggers development
		kanilang lugar. At ang mga opsyal ng mga barangay ay maging maagap sa pagtugon sa pangangailangan ng mga nasasakupan.	officials should discharge promptly their duty according to the needs of their constituents	Response the needs	Stop cutting trees	Increase the level		of knowledge, skills and attitude towards
Children	J.P laurel, 11, male, President- Student Pupil Government	kung mag baha kay puniton ang mga basura pagka human kay tabangan ang nag lisud sa pagka human kay mang hinlo og palibot	Right after the flood happened we will immediately pick up the pieces of the wasted garbage. First we will help those victims in high risk and followed by cleaning our surroundings.	Quick response self help Cleaning the surroundings Rescue the people	Waste management Cleaning the surroundings Educate the children Educate the uneducated	of education for a responsible and healthy environment	nd disaster risk reduction	Community readiness for disaster resiliency
				Victims in high risk	Quick response	Readiness to risk reduction	Skills development	

Another, there are four informants from the out of school youth, two male and two female, age range from 19 to 24 years old, coming from the urbanized component barangay namely Barangay Cagangohan, J.P Laurel, San Pedro, and San Vicente which categories having with high flood susceptibility among the other area of Panabo City.

The grounded theory matrix used for transcriptions, translation, codes, saturation of data, and theoretical statement

Info	rmants	Transcripts	Translation	Codes	Code category	Saturation	Sub statements	Theoretical concept
	19,	mga katawhan nga delikado ang mga nahitabo gabali ang mga puno, balay, labaw sa tanan landslide habang para	In a phone area to disaster wherein trees down, houses damaged, and worse landslide happened. In order to help in our small way we should not throw our garbage anywhere, not to cut trees and clean our surroundings by picking up our own waste in order to eliminate the high flood.	Waste management	Stop cutting trees to avoid calamities	enhancing	Increase Knowledge developme nt against	
	female,	makatabang ta gamay aron way baha kaayo ta patakag labay sa basura ug dili pamutlon ang mga punoan para		Stop cutting trees	Cleanliness			
Youth	single,	makatabang sa pagbaha para dili na mabahaan ug usab ug		Cleanliness	Stop Cutting trees	education for a responsible		
	brgy San Pedro	ang mga basura hiposon		Eliminate high flood	Stop Cutting trees	logging		
	24,	ang disaster ay isang kalamidad tulad ng landslide, tsunami,	In order to stop the flooding we	Quick response against flooding	Educate the children		disaster risk and	
Youth	Male, Single, brgy San Vicente	baha at iba pa, disaster o kalamidad naghihirap ang mga tao. Para hindi na bumaha dapat itapun natin ang basura sa tamang lalagyan at dapat maging alertu tayo sa baha	should disposed our garbage in a proper way and let us always be alert in terms of flood	Waste management	Educate the uneducated	Less education will have high vulnerability of risk	climate change de	Capacity development on knowledge, skills and attitude for
	20,	kapag may bagyong dumating sa ating bansa dapat tayong	If there is a storm, we should evacuate to the place wherein it is safe for us to stay. To avoid the	Safe evacuation and planning	Educate the children			
Youth	Male, Single,	magsilikas sa masligtas na lugar para hindi tayo mapahamak at walang mamamatay. Dapat di tayo magputol ng punong		Stop cutting trees to avoid calamities	Educate the uneducated			
	brgy Cagango han	kahoy para walang bagyong darating at di tayo mag tapon ng basura sa kong saan saan na pweding ikapahamak sa ating lahat.	calamities, we should not cut down trees and avoid throwing garbage anywhere.	Waste management	Taking initiative and being vigilant	talrina	Change of	disaster risk and climate
		na di inaasahan na kaylan man ay darating, ito ay isang kalamidad na kahit hindi natin inaasahan na mangyari. Ito ay isang pangyayari na magdudulot sa atin ng masama o	We will put our garbage into its proper disposal, let us not put our waste anywhere and let us stop	Waste management	Taking initiative and being vigilant	taking initiative and vigilant against disaster	Change of attitude against disaster risk	change
		magdudulot ng pagkasira ng ating mga panghanap buhay. Ang solusyon para hindi na maulit ang mga pangyayari, ito emale, ay dapat iwasan natin ang pagtatapon ng basura kahit saan	cutting trees. We shall educate the children and those uneducated for example whenever you witness	Stop cutting trees	Eliminate high flood			
Youth	21, female, single,			Educate the children	Quick response against flooding			
20411	brgy JP Laurel ar pagputor ing inga kanoy o puno. dapat pagsaoman ang mga bata na walang ka alam-alam example nag karoon ng puno sa inyo dapat alam mo na ang gagawin at dapat gawin	cutting of trees so you would be able to know already what the proper way to do is.	Educate the uneducated	Safe evacuation and planning	Readiness to disaster risk	skills developme nt for disaster risk reduction		
			Taking initiative and being vigilant	Save our environment				

Informants	Theoretical concepts	<b>Combined concepts</b>
Children	Participative governance and leadership	Disaster resiliency through a
	triggers the development of knowledge, skills	participative governance will
	and attitude towards Community readiness on	develop the capacity of
	disaster risk reduction and management.	children and youth by
Youth	The capacity development on knowledge,	increasing their knowledge,
	skills and attitude of the community will make	skills and attitude.
	the citizens resilient against disaster risk and	
	climate change.	

## **Discussion:**

Generally, the informants revealed the concept of disaster resiliency that is a "strengthening participative governance will develop the capacity of children and youth by increasing their knowledge, skills and attitude."

Speaking of participative governance, however, the provincial disaster risk reduction and management council admitted weaknesses and challenges such as the absence of multi-year local disaster risk reduction and management plan integrated in local development initiatives in almost all local government units, lack of political will, unstable peace and order situation contributes far from a disaster resilient community with children and youth. PDRRMC plan, (2017).

Nevertheless, the local situation the Philippine government, according to the commission on audit assessment of the local government units for disaster risk reduction and management in the Philippines shows stated that there is a lack of capacity and technical expertise, lack of awareness of the Republic Act 10121 and the non-compliance to its provisions, lack of coordination and communication among disaster risk reduction and management stakeholders, and the patronage politics these puts the vulnerable groups in disadvantage position to disaster risk reduction. COA report assessment 2015.

Meanwhile, discrimination of children for enabling environment, bad score for best interest, lacking behind on participation, and worse is lowest budget available for children is a great concern all over the world that makes the Philippines being the number forty-fifth (45<sup>th</sup>) in rank in the Kids rights index, (2018). While, top five (5) among other nations in the climate risk index, (2011) and ranked second (2<sup>nd</sup>) in the world risk index, (2016) being the highest exposure to natural hazards among the 171 countries.

Nevertheless, an estimation of roughly one (1) billion children age 1-14 live in countries with high seismic risk which puts several hundreds of million children at risk while they are attending schools. In almost all countries around the world earthquake hazards exist, the proportion of children at risk is very high World Bank, (2008). It underscores that at least 50 to 60 percent people affected by disaster per year are children. Out of almost 200 million disaster victims 100 million were children emphasized on the assessment result UNICEF, (2011). While, the sustainable development goals number four and five states that ensuring disaster resiliency must be equitable, accessible and a gender sensitive especially to children and youth participation is face by many challenges from the bottom to top.

Resilience as defined by many references states that in the context of disaster risk, the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including the preservation and restoration of its essential basic structures and functions through risk management. UNISDR Terminology, (2017). Another, states that the ability of countries, communities and households to manage change, by maintaining or transforming living standards in the face of shocks or stresses – such as earthquakes, drought or violent conflict – without compromising their long-term prospects. DFID, (2011). Relatedly, capacity refers to all the strengths, attributes and resources available within a community, organization or society to manage and reduce disaster risks and strengthen resilience. UNISDR Terminology (2017). Lastly, the capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure' according to the Hyogo Framework of Action (UNISDR, 2005).

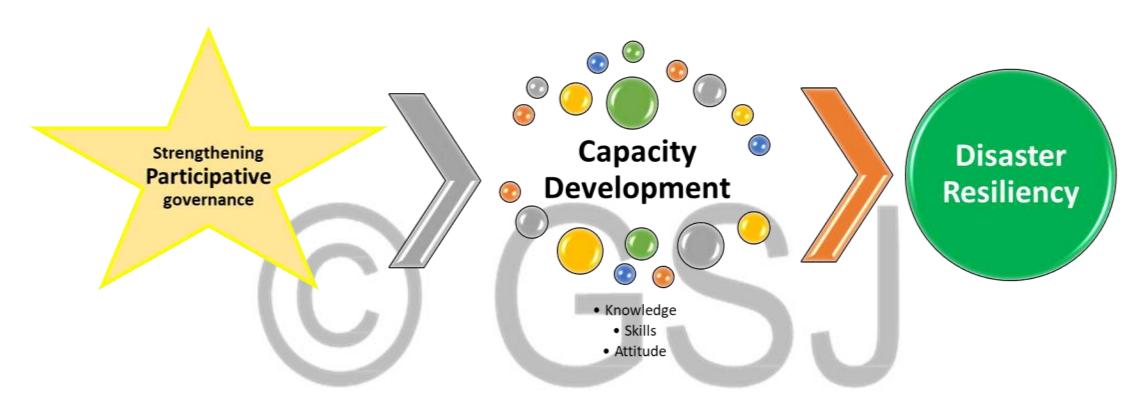
Supporting the mentioned concepts, children's participation in decision making through active involvement in their family and community will help realizing their full potentials and survive fast to any disaster according to Plan UK disaster risk reduction on theory of change. IRP, 2006 supports those developments' of children's capacity and favorable social environment with available resources and substantial understanding on their culture and context thus it triggers healthy development against disaster risk. Newman, 2004 concluded that resilient

children are those who resist adversity and manage to cope with uncertainly and are to recover successfully from trauma of disaster.

Reaffirmed, the theoretical framework of the study stated that ensuring disaster resiliency is a national and local priority with a strong institutional basis for implementation is a priority for actions to develop and to strengthen the institutions, the mechanisms and capabilities approaches empowerment, non-discriminative participation, inclusive and accessible with children and youth.



# The model for the Intervention program



The model illustrates that by providing space through capacity development with children and youth and strengthening participative local governance will significantly results a disaster resilient community.

The intervention program design using the modified logical framework approach

Target groups	Objectives	Output-indicator	Activities
The local government unit: Sangguniang local government unit to respond to disaster events and community base youth local government unit to respond to disaster events and to effectively reduce risks		Number of people trained in disaster mitigation and prevention, preparedness, emergency response and recovery by sex and age group (adult male, female)	Disaster Preparedness Training: basic concepts of Disaster Risk Reduction and Management, early warning system, coordination in emergency, public awareness, coordination in emergencies, relief delivery operation, evacuation center – camp management
organization, and the Barangay Disaster Risk Reduction Committee	through programs of activities and resource mobilization for Disaster Risk Reduction.	Number of trainings conducted	Training on hazards, vulnerability and capacity analysis and local disaster risk reduction and management planning.
(BDRRMC)	Promoting participative	Number of people passing final exams or receiving certificates, by sex and age group	Community education: Actual conduct of Hazards and Vulnerability Capacity Assessment and DRRM Planning with pre-test and post-test exams
	governance	Percentage of people trained who retain skills and knowledge after two months by sex/age	Training on contingency planning and emergency operations management and post skills demonstration
		Percentage and number of barangay residents who know early warning signals and designated evacuation centers in their locality, and finish skills training on the related livelihood by sex and age group	Community education: Actual conduct of contingency planning, Training on Emergency Warning System, Training on Incident Command System, Training of Emergency Responders, Emergency Drills, Training on livelihood skills
	4	A number of hazard risk reduction plans, strategies, policies, for improving the capacity	Develop a policy/ordinance on a child friendly community base Disaster Risk Reduction and Management
The Student Pupil Government, Student Government Councils of Department of education, Supreme Student Government and other school based children	To enhance the preparedness of local schools on disaster events and their capacities to significantly contribute to awareness-raising on hazards and risks through local ordinances and project activities.	Number of hazard risk reduction plans, strategies, policies, disaster preparedness and contingency plans with gender sensitive developed are in place.	Develop a policy/ordinance on a child friendly community base Disaster Risk Reduction and Management : drafting of a regular organizational structures, plans and
			Develop a children and youth disaster resiliency strategic program (five years) Disaster Risk Reduction and Management plan
		Number of people participating in discussions regarding national risk reduction strategies as a result of the program, by sex and age group.	Orientation of student members of school governing councils (SGC) and youth civic organization on Disaster Risk Reduction and Climate Change and Adaptation
and youth organization		Local risk assessment, hazards data and vulnerability information is available within targeted areas.	Contingency planning: and a resolution adopting the contingency plan; School-based emergency drills
The local communities such as the children and	To increase the awareness and understanding of local populations (including elderly, parents and other peoples' organization), on hazards confronting their communities, and develop their capacities to participate in DRR activities.	Number of people participating in training, by sex and age group	Orient communities on Disaster Risk Reduction and Management and Climate Change and Adaptation (symposium)
youth peoples' organization		Percentage of people trained who retain skills and knowledge after two months by sex, age	Develop local champions on DRR and Climate Change and Adaptation
		Percentage of attendees at joint planning meetings who are from the local community by sex and age	Advocacy work of Disaster Risk Reduction champions
		Early warning system in targeted community is in place for all major hazards with appropriate outreach to communities	Installation of the Early Warning System devices
		Percentage of community members who received at least one early warning message from at least one source prior to a disaster occurring	Village signage - billboard tarps every corner and streets with an outdoor and indoor stickers

## **Recommendation:**

The researcher would like to recommend the following:

- 1. Strengthening participative governance of the local government units through advocating peoples' initiative lobbying local policies, ordinances and programs towards a disaster resiliency for children and youth
- 2. Supporting capacity development in terms of knowledge, skills and attitude with children and youth heading to disaster resiliency.
- 3. Strengthen local mechanisms and coordination's among the Disaster Risk Reduction and Management players such as the Office of Civil Defense (OCD), City Disaster Risk Reduction and Management Council (CDRRMC), Barangay Disaster Risk Reduction and Management Committee (BDRRMC), Department of Education (DepEd), Peoples and civic organization, and Sangguniang Kabataan ensuring enabling environment for children and youth.
- 4. Adopt the output of the research as a baseline study for a disaster resiliency of children and youth



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