Building Community Resilience Capacity beyond Humanitarian Response of Flood Victims in IDP Camps in Gatumba Zone, Burundi

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Abstract: The study set out to examine the contribution of Humanitarian response of flood victims to building community resilience capacity. Descriptive and correlational research designs were used and a mixed method was opted for. The sample size of 105 subjects was employed and both primary and secondary sources were used. The results indicate that the overall level of Humanitarian nature of response is moderate (Mean= 2.72); and the overall level of Resilience capacity is low (Mean= 2.48). The coefficient of determination (R^2=0.018) shows that education, food and shelter, and wash and health explain 1.8% of the variability of resilience capacity.

Keywords: Resilience, Community resilience, Community building, Humanitarian Response.

Introduction

Most of the times, on the next day after disaster occurrence humanitarian actors quickly intervene by providing the same assistance package regardless the basic needs of the beneficiaries and our study sought to understand the impact of this immediate assistance. Resilience being defined as the ability of an individual, a community or a country to cope with, adapt and quickly recover from the impact of a disaster, violence or conflict.

On the list of most natural frequent hazards, floods come on the first place. The level of damages caused by floods increases and the function of existing measures does not provide acceptable protection (Batica and Gourbesville, 2016). Organizations that constitute the international humanitarian system are already implementing programmes that build resilience. Most do not recognise the dichotomy between humanitarian and development functions. Although the humanitarian system should not be the primary channel for resilience building activities, it plays a crucial role based on its comparative advantage. Its primary functions in building resilience should be: emergency preparedness, early actions and early recovery approaches. Wherever possible, activities for strengthening resilience should be nationally led and supported through development system and funding channels.

However, in certain situations, where the government is very weak, humanitarian system can take the lead to carry out activities in planning, coordinating and financing the programmes that help build resilience (OCHA resilience paper, October 2017).

In Burundi, Gatumba, a small outskirt entity of Bujumbura city lying along Rusizi River experienced heavy rains and water flooding from hills compelled more than 10,000 people to flee their homes. The people of Gatumba normally live on agriculture and fishing in Rusizi River and Lake Tanganyika. Indeed, fields of several crops including beans, corn and tubers have been under water since April 19 and there is no longer any hope of harvest. Consequently, households that were living on small businesses and had already been affected by the reduction in traffic at the border with the DRC, went bankrupt. The repeated destruction of the means of survival and adaptation of households in Gatumba ended up destroying all the resilience capacities of this community.

During the World Humanitarian Summit (WHS) in 2016, UN Secretary-General Ban Ki Moon advocated for linking the humanitarian sector's work to the UN's 2030 Agenda for Sustainable Development Goals, as well as urging development actors to address root-causes to humanitarian need:

> *"Humanitarian actors need to move beyond repeatedly carrying out short-term interventions year after year towards contributing to the achievement of longer-term development results. Development actors will need to plan and act with greater urgency to tackle people's vulnerability, inequality and risk as they pursue the Sustainable Development Goals" (Ban, 2016: 32).*

Attention was thus rekindled to "Linking Relief, Rehabilitation and Development" (LRRD), a heavily debated topic over the last three decades. Interlinked with these debates, we also find re-evaluations of humanitarian and development actors' role and the functioning of their mandates. Humanitarian organisations have been deemed as being in a critical state of crises due to lacking adaptability to modern world contexts (ODI, 2016).

All the United Nations agencies with their partners, grouped by sectors, have been alongside the authorities and the population to come to the aid of the disaster victims. After the distributions made by the government part, a plan for distributing assistance in the WASH, Shelter / NFI, Protection (GBV) and food sectors was already planned for the Kinyinya II. These plans are to be adapted to new needs. Affected populations are concerned about their survival after the shock suffered. The availability of state actors, in particular the National Platform for the coordination of assessments and first responses in favour of disaster victims as well as the provincial authorities have been very active in the rescue and aid coordination activities. The area remains difficult to access in the districts / hills of Gatumba where the waters continue to rise and it is highly likely that the affected population will depend on humanitarian aid until the harvest of the agricultural season. The purpose of this study was to examine the contribution of humanitarian response to Floods victims in Gatumba zone in Burundi in order to promote community capacity resilience throughout population, social and environmental spheres.

The concept of Humanitarian response entails actions aimed at addressing the needs of people affected by humanitarian crises arising from natural disasters, armed conflicts or social exclusion (Nzeyimana, 2015). An approach that focuses on strengthening the community resilience and households can increase the impact of humanitarian assistance (OCHA report, 2017). The study conducted in Sub-Saharan Africa show that the most affected by natural disasters are rural households whose livelihood is heavily dependent on traditional rained agriculture. Then Rainfall plays a major role in determining agricultural production and hence the economic and social wellbeing of rural communities. And the responses may have adverse long-term impacts on households' ability to have sustainable access to food as well as the environment.

Humanitarian actors' assistance would be more consistent if based on programming approach aimed at responding to emergency needs through food assistance, clean water, provision of safely managed hygiene and sanitation services, emergency medical care, and shelter (UNICEF report, 2020). The principles 2 and Good Practice of Humanitarian Donorship (GHD, 2003) add to the definition of humanitarian action prevention and preparedness for the occurrence of situations of man-made crises and natural disasters. This entails working before crises to strengthen capacities of communities, civil society organizations and government structures to prevent crises and increase their readiness to mitigate impacts of crises when they occur as well as recover from their aftermath. Local actors are well placed to deliver humanitarian assistance but can also contribute to protection by monitoring and reporting abuses and training to enhance the protective environment.

The UN Terminology Database defines capacity building as a process by which individuals, groups, organizations, institutions and countries develop, enhance and organize their systems, resources and knowledge, all reflected in their abilities, individually and collectively, to perform functions, solve problems and achieve objectives (Beatrice Pouligny, 2009). For many writers (Ian Smillie, 2001; Monica Kathina Juma and Astri Suhrke, 2002; Abby Stoddard, 2004; Beatrice Pouligny, 2009; Francois Audet, 2011; Mary Anderson, et al., 2012), humanitarian capacity building goes beyond a mere transfer of skills to respond to immediate and urgent needs. It involves strengthening existing institutional capacities among state -institutions and civil society structures. It aims to foster local knowledge of crises drivers and communities' own coping mechanisms. It seeks to build longer-term prevention, preparedness, response and resilience capacities especially in case of protracted conflicts and complex emergencies that require long term engagement so as to enable recovery and reconstruction of crisis-affected communities. In his Paper presented at the Annual Conference of the Australian Association for Research in Education (Brisbane, Queensland, Australia, December 1-5, 2002), McGinty, Sue, show that schools are central to community development and are best suited to provide a learning community that can build the whole community's capacity to address educational disadvantage.

Resilience describes how well a system is able to adapt positively when faced with adversity and cope with abnormal or unexpected threats without changing beyond recognition (Gibson and Tarrant, 2010; Fitzpatrick, 2016). Resilience consists of the amount of change a system can undergo and still retain essentially the same structure, function, identity, and feedbacks on function and structure, it is the degree to which a system is capable of self-organization (and reorganize after disturbance), and the degree to which a system expresses capacity for learning and adaptation (Quinlan, 2003). According to United Nations (2018), community resilience can be understood as the capacity for communities to adapt, survive, and thrive in the face of shocks and stressors. This is enabled by both the physical and social infrastructure in the built environment to facilitate the ability to bounce back stronger than before. The United Nations Strategy of Disaster Risk Reduction (UNISDR) gives definition of resilience as 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 through the preservation and restoration of its essential basic structures and functions through risk management.

Blair and Mabee (2020), on the other hand, give the definition of Community resilience like the sustained ability of a community to use available resources (energy, communication, transportation, food, etc.) to respond

to, withstand, and recover from adverse situations (e.g. economic collapse to global catastrophic risks). This allows for the adaptation and growth of a community after disaster strikes. Communities that are resilient are able to minimize any disaster, making the return to normal life as effortless as possible. By implementing a community resilience plan, a community can come together and overcome any disaster, while rebuilding physically and economically.

Aldrich & Meyer (2015) explore how participatory communication may contribute to community resilience and use characteristics of social capital as concrete indicators. Community resilience can be understood as the capacity of a community to respond to a disaster and resume their lives. Ride & Bretherton (2011) show how communities respond to natural disasters and how outsiders contribute positively or negatively to their response, promoting debate on the role of aid and the media in times of crisis.

Strong connections within a community and between different communities within a society serve as good foundations for community responses in the face of shocks and stressors. For example, during times of crisis, recovery efforts can tap on these existing connections and channel aid towards segments of the society who need it most, such as the aged and vulnerable (Kiyota, Yasuhiro, Margaret & Aldrich, 2015). Concerning Nemeth and Olivier (2017), a resilient society is the capacity of a community to deal with a major crisis by adapting and growing while minimizing causalities and preserving a fair quality of life for all its citizens and maintaining its core values and identity.

Materials and Methods

This study opted for descriptive and correlational research design and employed mixed methods. The designs were used in collecting information from floods victims about their opinion on the humanitarian response and resilience capacity. This study was carried out in Gatumba zone within KINYINYA II, SOBEL and MAFUBO Camps which have 2,977 families with an average of 5 persons per family. Beside that population in Gatumba camps, the total population affected by natural disaster is beyond 10,000 (MIRA, 2020). The sample size was 105 subjects and this was drawn based on Sekaran and Bougie (2010), who state that, if the population is above 10, 000, then a sample of 100 is adequate. Self-administered questionnaire and interview guide were used to collect both primary and secondary data. The collected data were analysed using Statistical Package for Social Sciences (SPSS) version 25.0 and content analysis was used to analyse qualitative data. Descriptive statistics and inferential statistics were employed. Under descriptive statistics, the mean and standard deviation were calculated while under inferential statistics, regression analysis was computed to draw the conclusion on the effect of Humanitarian response aspects on resilience capacity.

Results and Discussion

The results of the study were based on the level of Humanitarian response, status of resilience capacity, and the effect of the aspects of Humanitarian response (Food &Shelter, Wash & Health, and Education) on Resilience capacity. The results were presented in the tables below;

Table 1 Descriptive statistics of Humanitarian nature of response

Descriptive Statistics of Humanitarian Nature of Response		
	Mean	Std. Deviation
Food and Shelter		
Food is timely delivered by humanitarian actors to flood victims.	2.33	1.143
Shelter package is timely delivered by humanitarian actors to flood victims.	3.66	1.330
Food and Shelter package delivered by humanitarian actors to flood victims are sufficient.	1.89	1.274
Average	**2.62**	**1.249**
Wash and Health		
Wash kit are timely delivered by humanitarian actors to flood victims.	2.42	1.194
Medicines are timely delivered by humanitarian actors to flood victims.	2.93	1.509
Health professionals are timely available and supportive to affected communities.	2.55	1.507
Average	**2.63**	**1.403**
Education		
Transition classes are set up to keep continuous education.	2.36	1.183
Teachers are available.	3.87	1.213
School materials for children are sufficient.	2.51	1.621
Average	**2.91**	**1.339**
Pooled Average	**2.72**	**1.330**

Source: Primary data (2021)

Results on the descriptive statistics of the Humanitarian nature of response are presented in the table below using Likert scale (1932): Very Low level (1.00-1.79); Low level (1.80-2.59); Moderate (2.60-3.39); High level (3.40-4.19); very High level (4.20-5.00). The results indicate that all aspects of Humanitarian nature of response: Food and shelter (Mean=2.62), wash and health (Mean=2.63), education (Mean=2.91) are moderate. The results indicate that the overall level of Humanitarian nature of response is moderate (Mean= 2.72). With OECD (2017), humanitarian action is to save lives, alleviate suffering and maintain human dignity during and in the aftermath of man-made crises and natural disasters, as well as to prevent and strengthen preparedness for the occurrence of such situations.

Table 2 Descriptive statistics of Resilience capacity

Descriptive Statistics of Resilience Capacity		
	Mean	Std. Deviation
Population		
Housing is in good status.	2.32	1.271
Population has access to basic service.	2.97	1.517
Population in the area is very dense.	3.80	1.404
Average	**3.03**	**1.397**
Social		
Population has access to financial earnings.	2.00	1.155
Population in the area is educated.	1.74	.971
There is a community participation.	3.11	1.540
Average	**2.28**	**1.222**
Environmental		
The area is not exposed to hazard.	1.97	1.326
Utilities and Infrastructure are well planned.	2.10	1.440
Land is protected.	2.34	1.435
Average	**2.13**	**1.400**
Pooled Average	**2.48**	**1.339**

Source: Primary data (2021)

Results on the descriptive statistics of the Resilience capacity are presented in the table below using Likert scale (1932): Very Low level (1.00-1.79); Low level (1.80-2.59); Moderate (2.60-3.39); High level (3.40-4.19); very High level (4.20-5.00). The results indicate that Population (Mean=3.03) level is moderate, social (Mean=2.28) level is low, and environmental (Mean=2.13) level is also low. The results indicate that the overall level of Resilience capacity is low (Mean= 2.48). With Blair and Mabee (2020), community resilience allows for the adaptation and growth of a community after disaster strikes. Communities that are resilient are able to minimize any disaster, making the return to normal life as effortless as possible. By implementing a community resilience plan, a community can come together and overcome any disaster, while rebuilding physically and economically.

Multiple Regression Analysis Results
A multiple regression analysis of the aspects of Humanitarian nature of response on Resilience capacity was computed. The results were presented in the table below:

Table 3 Regression results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.134[a]	.018	-.014	.474
a. Predictors: (Constant), Education, Food & Shelter, Wash &Health				

Source: Primary data (2021) computed

In this study, the R tests the predication of the model. A value of 0.134 (R=0.134) indicates a certain level of prediction. The coefficient of determination (R^2=0.018) shows that education, food and shelter, and wash and health explain 1.8% of the variability of resilience capacity. This meant that 98.2% is explained by other factors not considered in this model. According to Aldrich (2021), building resilience is not only about enhancing our infrastructure but strengthening our social capital. Dealing with disruptions not only requires

competent leadership and governance but also demands a whole-of-society approach, with citizens at the core as collaborators and partners in the solutioning process.

Table 4 Coefficients results

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2.383	.238		10.014	.000	1.910	2.856
Food & Shelter	-.015	.063	-.027	-.234	.816	-.140	.111
Wash &Health	.082	.066	.143	1.238	.219	-.049	.212
Education	-.025	.062	-.042	-.397	.692	-.148	.098
a. Dependent Variable: Resilience Capacity							

Source: Primary data (2021) computed

For this study, the general model equation to predict the resilience capacity in Gatumba is given: *$Y=2.383-0.015X_1+0.082X_2-0.025X_3$*

The regression model for this study shows that the resilience capacity of Gatumba becomes 2.383 units ($\beta_0=2.383$) as food and shelter, wash and health, and education are null. Thus, one unit of food and shelter increases the resilience capacity by -0.015 units ($\beta_1=-0.015$). Furthermore, an increase of one unit of wash and health increases the resilience capacity by 0.082 units ($\beta_2=0.082$). Thus, an increase of one unit of education increases the resilience capacity by -0.025 units ($\beta_3=-0.025$). Concerning Khoja, Schubert, and Joerin (2020), for a resilience strategy to be comprehensive, it must be created and implemented with the community, by the community. Individuals and communities that actively contribute and act in the face of shocks and stressors are assets to a city, because in times of crises, they will be more decisive and able to take up critical roles.

"In general, respondents noticed the timely delivery of needed support to help communities facing the floods, however given the lack of Initial assessment of basic needs, the intervieweess complained about the total inadequacy between the humanitarian supports compared to the community actual needs.

Most of humanitarian actors provide emergency kit based on sphere interventions standards. However, the perception from local administration is that this provision is very similar despite the nature of humanitarian actors which they consider as duplication of efforts. Local authorities suggest for example the necessity of giving Cash to floods victims to cover the basic needs.

Giving the Gatumba Location (10Km) in west suburb of Bujumbura, populated by hard working class with a density at estimated at 8 people per household, emergency kit provided are often under- estimated because official sources suggest otherwise.

According to local authorities, Gatumba population is aware of neither risks nor vulnerability of the location regarding disasters nor the recurrence. In addition, the same local authorities regret the complete disconnection or lack of collaboration from different actors around the issue aiming at building long lasting community resilience beside emergency response (Key informants)."

Conclusion and Recommendations

Given the findings of this study regarding the contribution of humanitarian response provided by various actors on the ground in building Gatumba community resilience, there is still need for Burundian Government and other key stakeholders working on disasters issues to shift the approach used during humanitarian response. Moreover, this response may include tools aimed at enhancing community resilience building. This leads us to formulate the following as key recommendations to both government and others humanitarian organizations:
  (i)   To conduct systematic Initial assessment wherever any kind of disasters occurs;
  (ii) To improve collaboration between humanitarian actors on the ground to avoid duplicated efforts;
  (iii) To integrate local authorities' views throughout the humanitarian response process;
  (iv) To prepare and carry out disaster awareness sessions to population;
  (v)   To increase collaboration of government services and other actors on resilience capacity building.

Authors' Declaration

We declare that this study is original research by our research team and we agree to publish it in the journal.

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