Community Impact from Covid-19: Making use of existing community structures to ensure effective disaster management.

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Abstract

The effects of Covid-19 have encouraged innovation and modification of set disaster management interventions. This article highlights the weaknesses in the existing Zimbabwean disaster management system and proposes a better method that contributes to the Sustainable Development Goals. Using experience and literature the author proposes a community based disaster management method that utilises existing community structures in Zimbabwe. The method builds on these existing community structures and maintains the social fabric of the communities. The proposed method is for the people by the people and is inclusive of all diverse communities.

Keywords

Covid19 — Community based — Disaster Management — Zimbabwe

Contents

1. Landscape Review

The Covid-19 pandemic has highlighted the tremendous impact and usefulness of technology in society nowadays. Globally, technological tools have played a pivotal role in the dissemination of information, permitting the continuation of some services and the amelioration of the potential outright loss of several jobs as some people were able to remotely work online. In addition, the fast communication channels provided by technology allowed for mass distribution of relevant information on the novel Covid-19 pandemic such as how the virus is transmitted, preventive messaging, symptoms and hot spot areas which was important in managing the infection rates in several countries. In developed countries, a high proportion of the population was able to transition to the digital way of conducting business, accessing critical services like shopping and attending online schooling. However, in resource limited regions such as sub-Saharan Africa, the transition to the "digital world" has been more difficult to achieve due to the lack of sufficient technological infrastructure to support access to digital preventative messaging, participating in online learning for students and remote or virtual work. Digital inclusion is hampered by lack of financial resources, limited access to enabling gadgets, supporting infrastructure and a lack of prior exposure to technology in a large proportion of the population. For example, In Zimbabwe, at the emergence of the Covid-19 threat, a strict national lockdown was instituted by the government which mandated for the majority of the population to remain indoors with the exception of individuals working within healthcare, security services and food retail services referred to as essential services. This move necessitated the need for people to transition to a digital way of conducting business including undertaking formal education online resulting in serious exclusion issues for most people in both rural and urban setting. It is common knowledge

that the excluded are usually the most vulnerable members of the community including children and the elderly. Consequently affecting some of the Sustainable Development Goals (SDGs) adopted by United Nations General Assembly to ensure that all nations and all people are included in achieving SDGs and no one is left behind (Kelman, 2017). This inspired the need for better disaster management strategy in Zimbabwe which would encourage disaster risk reduction and ultimately address the SDGS. The ideal situation is to have define committees within the community that are specifically for disaster management purposes. These committees have to be knowledgeable on early warning signs, weather patterns, news, equipped with necessary equipment to handle response and management of disaster effects and able to communicate with the communities and the local government officials. There has to be a clear communication network for dealing with any disaster, people have to be aware of who to contact when disasters happen. The communities have to be also educated on disasters and be educated on what to do. However, in reality this is not the case. The following sections will highlight the current situation.

1.1 Management of Disasters in Zimbabwe.

The frequency and the intensity of disasters in Zimbabwe have increased in the recent years, which the country experiencing disasters such as floods, drought, cholera outbreaks and cyclones. These disasters have led to the deaths of many and have worsened the state of the economy. These disasters usually affect the vulnerable in the society the most and increase poverty in the country (Dube, 2018). Although the Zimbabwean government has managed to the disaster in various ways, the methods are usually ineffective. In Zimbabwe, disaster management is done by the Civil Protection Unit (CPU) which is employed by the government. The CPU is responsible for the coordination of all response efforts towards disasters such as mobilisation of resources, dissemination of disaster related information and coordinating the training of civil protection offers. The CPU does not take part in the formulation of policies this is done by the Cabinet and the Ministry responsible for Local Government and Urban Development, the CPU falls under this ministry. In Zimbabwe, there is a hierarchy followed when managing disasters which known as the Civil Protection System. When a disaster happens, the Parliament which is at the top of the hierarchy is responsible for setting the appropriate laws for manag-

ing disasters in Zimbabwe. The President is next on the hierarchy and has the powers to declare the state of the disaster. After the President is the Cabinet whose responsibility for put in place the policies for carrying out the disaster management plans and activities. The Local Government and Urban Development ministry coordinates all the disaster risk reduction activities (refer to Figure 1). The implementation of these activities is done by different ministries, government departments, United Nations agencies and NGOs (Dube, 2017).The Zimbabwean disaster management system has many weakness such as delay in response. Unlike other countries like Afghanistan, the Philippians, Japan which have stand alone departments of disaster management, Zimbabwe does not have a stand alone ministry responsible for disasters which causes delays in response and not effective long term. The system ends at district level and does not take into account the residents, the Zimbabwean system for disaster management follows a top-down approach which inconsiderate of the community members and is usually not effective in all communities (Dube, 2017). The Zimbabwe disaster management system is only effective when there is a disaster and nothing happens in between like educating communities prone to disasters. Communities in the Tsholotsho district, Matebeleland North of Zimbabwe are prone to floods, floods occur in that district every year. However, the people still build their houses close to dams with poor materials and there are no effective strategies that have been implemented to assist the community and educate the community (Dube et al., 2018). The weaknesses of the disaster management and response system in Zimbabwe were evident when Cyclone Idai hit Zimbabwe in 2019. The government sent out early warning signs through media and other government agencies which was ineffective, however, the government did not consider certain factors such as:

- In sub-Saharan African communities, crucial information is delivered by word-of-mouth by a senior member of the community such as the village chief during a formal meeting and this includes government decisions which are often relayed to the community members in this manner. The government could have made use of the traditional structures that already exist to relay the message.

- Connectivity barriers – the majority of the Zimbabwean population lives in rural areas which are sparsely populated throughout the country with

erratic broadband internet connectivity along with poor television and radio signal access. Further on, some areas are in secluded places which are far from the town centre.

- Educational barriers - people were not educated on how severe this cyclone is, most people were reluctant to relocate because of experience with previous cyclones.

Although the government failed to respond effectively, the community intervened and worked together to mitigate the effects of the disaster. The community members from different communities collectively worked together to address different problems caused by the disaster. This act saved many people within the district. Men and women all worked together in ensuring everyone in need was assisted. Owners of shops organised food, some women took care of the children, some people went looking for missing people. The communities donated clothes to the survivors and ensured they were well cared for. Church members consoled those whose relatives had gone missing. It was a joint effort by both women and men, the young and the old. Even after the disaster had happened some members of the community accommodated those that had lost their homes (Chanza et al., 2020). The local response was advantageous to both the communities and the government. The locals manage to mitigate the effects of the disaster and the government made use of the already existing structures created by the local actors to provide aid (Chanza et al., 2020). The use of local communities in response to Cyclone Idai should inspire the government to set up a community based disaster management (CBDM) as a formal disaster management strategy for communities prone to disasters. To make use of both the top-down approach and bottom-up approach to reduce disaster risk. Making use of both approaches has proved to be effective in many countries and decreases delays in response (Chanza et al., 2020).

1.2 Community Based Disaster Management.

Many researchers have proven the effectiveness of community based disaster management (CBDM), CBDM considers the top-down (Government to the people) approach and the bottom-down (people to the government) approach simultaneously and has been used in many countries (Pandey and Okazaki, 2005). It is known to build disaster resilient communities by empowering the communities. Pandey and Okazaki (2005) suggests that

the disaster management programs set by external agencies that are employed to minimize damages caused by disasters fail to be sustainable at local level after the completion of the project. Sustainability is an important to preserve the disaster management efforts. The communities' participation is essential to ensure sustainable disaster management. The communities' involvement is encouraged by partnership, participation, empowerment and ownership by the local people. The communities should be given the opportunity to be involved in both the pre-disaster mitigation plans and the post disaster response and recovery process (Shaw and Okazaki, 2004). The communities should be able to work along side government officials and other external agencies in all processes such as risk assessment, mitigation planning, capacity building, participation in implementation and development of system for monitoring which ensures their stake. This gives communities a sense of ownership which encourages participation, engagement and long term commitment. The partnership between the government, external agencies and the communities is also advantageous to all parties involved. The government and external agencies can make use of the structures organised by the communities to provide the necessary aid and also this reduces delay in response. Further on, people are more eager to participate when they know they have been involved from the initial stage. The communities need to be empowered by disaster education and awareness, and supplying them with necessary resources (Pandey and Okazaki, 2005).

CBDM is a useful approach which has been employed in many countries prone to disasters like Japan, Afghanistan and the Philippians. The government of Zimbabwe can also adopt this approach and make use of the existing community structure to implement the method. In Zimbabwe, there are traditional structures that exist that can be utilised for disaster management purposes to ensure a clear line of communication for disaster related issues. Within every district there is district administrator who chairs the development and administrative meetings at district level. Each district is divided into wards and each ward is represented by a ward councillor at district level. The wards consist of six or more villages and each village consist of 35 households or more. The ward councillor represents the ward at district level and is also part of the rural local authority. The rural local authority consists of the ward council, headmen and village heads (refer to Figure 2). The headmen are the leaders of the ward and report to the

relevant chiefs. Each village has a village head known as a *sobhuku*, the village head has a village development committee that is responsible for development planning and implementation. The village head reports to the relevant headman (Chigwata, 2016). The traditional leaders work closely with the people and are aware of the community needs. Also, the traditional leaders are respected in the communities, thus, making use of these structure would be beneficial.

The proposed method for this project builds on existing methods like CBDM which has been used in other countries and implemented informally in Zimbabwe for Cyclone Idai. The aim of the method is to use existing local structures. Thus, all that has to be done is to formalize, define the roles, institute a team of locals to assist the committee members and equip them with appropriate training and equipment such as telephones.

2. Project Description

In Zimbabwe, every community has a leader that represents the community and these leaders usually have a committee they work with and they trusted by their subjects hence tapping on this structure would be critical where access to technology is limited. The plan is to create a disaster management teams within the community that would work with the community leaders. The team will be local residents and these local residents will be trained and equipped for managing any disaster. The team will be supplied with at least a phone which will enable them to access information from the government and disseminate the information to the people. This phone can also be used as a hot line for emergencies within the community. In the event that something happens the team will inform the council ward and work on ways to relay the message to the people. The local disaster management team would be provided with internet access in place where this is possible. These teams can also train the communities on what do when a disaster happens which would strengthen community preparedness and awareness.

This proposed method is a community based response management, it is inclusive of all people and it is championed by trusted community members that speak the same language, have the same cultural values. Using these local structures is advantageous because the locals would be respectful of the culture and know how best to relay the message based on their context. The locals know the language and know the people in the community, thus, this will be "for them by them". The leader would be able to package the information appropriately and in line with who the audience is. Thus, this allows for creativity and empowerment of the community members. A budget can be set aside for these teams from the national treasury to support tooling and retooling on regular basis. The government officials or sponsors can do follow ups and since everything would be recorded on predetermined basis. In Zimbabwe, reaction teams exist which are usual people from other areas and not locals and are usually active when a disaster strike but a permanent local disaster management team is ideal as sudden disaster happen without enough or no notice hence having such a team is crucial as front line and first responders. Further on, it would empower the locals through employment opportunities, educate locals on preparedness and expose the locals to technology and ensures inclusion of all sectors of the community.

2.1 Phase 1: Initial Stage.
To commence this initiative, it is important to know who the stakeholders are in any community, this is known as a stakeholder analysis. To follow protocol as set by the government officials at district level and the traditional leaders. This initiative is not creating a parallel system however it builds on existing structures. Thus to begin the process, all political and traditional structures should be respected. The traditional leaders are respected in these communities thus their involvement in the project is vital for the success of the project. These stakeholders can be one of the major roadblocks preventing the project's success. Interpersonal skills would be needed to convince the stakeholders to participate. The director of the project must gain knowledge about the different stakeholders such as their responsibilities within the community and their interests. The value of the project and the value of their participation should be clearly presented to the stakeholders. Further on, the stakeholders should be assured that the project would not interfere with their way of doing things and other existing developments within the communities. The project's purpose is to compliment what already exists thus the culture, religions and political standings should be maintained. Additionally, the stakeholders will be informed of the importance of ensuring equal participation of all genders. That this initiative is meant to contribute to the sustainable development goals which should be addressed by all official. The stakeholders' participation would ensure majority of the community's participation.

2.2 Phase 2: Project Directions.

The involvement of the stakeholders (traditional leaders and political leaders) creates a formal structure which can now be utilized as a pathway for the project. All community members are knowledgeable on the issues that impact the community such as disasters. The pathway would be used to create a space where communities are able express the issues that impact them, to gain insight on what their views are on particular issues. Further on, when it comes to the issues of disaster, the communities all have different coping mechanisms this is why the communities are still surviving. For example, the Tsholotsho district in Zimbabwe has floods almost every year however the people in that community are still living there and surviving. When Cyclone Idai hit the Chimanimani district, the community was able to respond independent of the government aid. Thus, all communities have coping mechanisms that seem to be working. The plan is to make use of these existing coping mechanisms, to improve them , build on them so that they become more sustainable, modernize them and lastly bring other mechanisms that can compliment the already existing mechanisms. This pathway is reasonable because its intent is to address community felt and expressed needs. Thus, it will be in sync with what the communities are facing based on community consultations which are already an existing practice for other reasons. The proposed pathway is respectful of the community's social fabric as it follows the correct path ways of addressing community related issues like working with the traditional leaders. Further on, since the idea is community based, the culture and language used within the community will be maintained. The pathway is realistic because it will not interfere with the community's way of living, it is in sync with how the community lives and with their resources. Additionally, the pathway opens doors for empowerment and development of the community, all communities want to be capacitated with knowledge and technology especially young people. This pathway will be used to carry out the proposed project.

The project will be summarised in a logical and hierarchical manner in the following levels (refer to table 1):

1. Define the success of the project with the community members and the stakeholders. What would they want to achieve with this project? This project is for them by them, they have full ownership of how it goes and what they want to see happening.

2. Identifying the inputs to the project. The inputs are the enablers of the project activities.

3. Identifying the key activities that need to be done for the project. These are activities that need to be done by inputs.

4. Identifying the key outputs. The outcomes or results obtained from the activities.

5. From the outcomes what changes can be observed in the community? This is know as impact.

Level $(2-5)$ will be measured by certain indicators which will determine the progress towards the impact. These indicators used to measure how the activities are being done, to measure the attainment of the project outputs and to measure the impact of the project in the community (refer table to 2). This will give us a way to gauge if the project is being implemented correctly and if the final product is what is expected. The indicators will be used to create a monitoring and evaluation framework through data collection of certain variables (refer to Figure 3). This data will be collected by the teams responsible for data collection and sent to the project manager for monitoring purposes during implementation. Finally, at the end there will be evaluation at the end of implementation. The monitoring process gives a clear picture of how well the project is going and to observe what changes need to be made.

	Examples
Inputs	Traditional Leaders, Funding, Phones, Community members
Activities	Talking to traditional leaders, Setting up meeting with the community, Setting up committees and teams, Training of teams and communities, Distribution of information
Outcomes	People trained, Meetings done, Information distributed in local languages, People educated.

Table 1. Examples for each level.

2.3 Phase 3: Partnerships.

For this project to be a success different partnerships need to be made. Partnerships with valued members of the community such as school teachers and spiritual

leader would be beneficial to the project. For Covid-19 the teacher and spiritual leaders played a vital role in the dissemination of Covid-19 related information. Communities in Zimbabwe respect teachers and spiritual leaders and take to heart what they say. The teachers can also help in educating the children and other community members about disasters. These spiritual leaders and the community educators can be used as other possible pathways because they work close with the communities. Another partnership that can be considered is a partnership with universities and colleges. The universities can carry out their research studies, the university students doing disaster management related courses can volunteering for practical experience. A partnership with mobile service providers would helpful with regards to the phones. Finally, donors will be need for funding to fuel the project. Thus, a partnership with donors that have an interest in funding disaster risk reduction projects.

3. Narrative

As a member of these communities, I have been impacted by some of the issues that the project will address. Through observations and experience I have seen the potential these communities have. They achieve a lot with the limited resources they have, thus, if well capacitated and supported the outcomes would be desirable. The experienced gained from being a member of the community and the insight obtained from literature and research around the topic inspired the idea. The idea was also fueled by the how the Zimbabwean government reacted to the Covid-19 situation, the strategies used were ineffective and exclusive of majority of the community. This idea is important because it meant to strengthen existing structures within communities by giving the communities ownership through involving them in all the process related to the disaster. The project idea is meant to address currently existing problems in Zimbabwe such as delays in response when a disaster occurs. Capacitating the communities with resources that enable them to respond to effects of the disaster independent of government officials would reduce disaster risk and also reduce delays in response. The project proposes a better disaster management strategy which does not destabilise the existing community structures however enhances the structures. Simultaneously, embraces the existing leadership structures, cultural practises, religions, political standings and the community's way of living. The

idea is beneficial for the community as they are the primary stakeholders and recipients of the direct impact of the disaster. By respecting the leadership structures, cultures, religion and language, the project allows for diverse communities to participate. The main intent is to embrace the communities as they are and just use existing structures. Further on, the language barrier is not an issue in the proposed project because the main administrators are the community members thus this proposed project is inclusive of all age groups and individuals get to participate sufficient understanding of what they are signing up for. As mentioned before, a monitoring and evaluation plan will be used assess if the project is on track. Table 2 shows example of indicators that will be used to measure the progress of the project at each level. Another method that will be implemented will be asking the community to give feedback on what they think of the project so far. These two methods will be used to make modification in the monitoring process during implementation.

The project aims to help approximately $(25-30)$ thousand people in ward. The project will help the people within the communities by building their capacity in disaster management and response to disaster, building their understanding and interpretation of early warning signs, educating them, empowering them with some form of technology, empowering the women in the community by ensuring equal gender representation in teams and committees, and hence reducing the effects of the disaster. The project has the potential to work in all of Africa because most African countries have similar community structures and value their culture, language and traditional leaders. However, for this project we will begin the project at ward level then progress sequential to district level then nationally depending on success levels. Wards prone to disasters like wards within the Tsholotsho district will be considered first.

This project will be a success because it uses a community based approach which has been proven to be effective in many communities (Pandey and Okazaki, 2005). The community based approach is known to encourage the community continuous participation and involvement through giving communities a chance to participate in decision making (Pandey and Okazaki, 2005). The project makes use of already existing structures which makes it plausible and sustainable. The stakeholder analysis done at the initial stage of the project ensures the political and traditional leadership interests are met. The project contributes to some of the Sus-

tainable Development goals such as no poverty (goal 1) gender equality (goal 5), quality education (goal 4) and sustainable cities and communities (goal 11). Further on, the project is inclusive of diverse communities, religions and cultures. All these are key ingredients for a successful project.

4. Conclusion

The government officials should consider integrating top-down approaches and bottom-up approaches so as to achieve effective interventions that are inclusive of all. All human being want to contribute to making the world better, thus, giving them an opportunity to be part of that change encourages them to participate fully and willingly. All communities have potential to grow, however, all they need is to be capacitated and given the space to contribute. If the Non-governmental and governmental organisations implement such spaces, the SDGs goals would be reached at a faster pace. Every human being has something to offer, all they need is a space to be able to do so, support and resources. Most communities in Africa appreciate all the aid obtained from different internal and external organisations, however, if these communities are empowered to think and work independently of the external agencies they would be happy. This would inspire innovation, development of communities, new ideas and growth. Creating self-sustainable and self-sufficient communities. Consequently, creating employment opportunities, improving the the state of the communities, empowering both men and women equally and creating disaster resilient communities which all contributes to the SDGs.
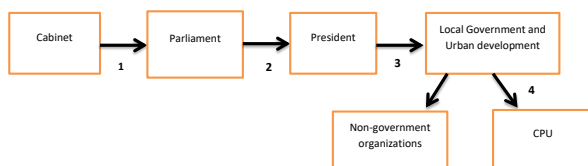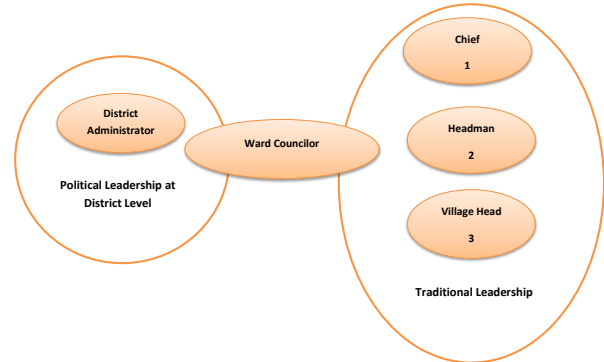
5. Attachments

Figure 2. Zimbabwean ward leadership overview.

Indicator	Example
1	How many people attend the meeting? How many are females? How many are males? How many participate in the meetings?
2	How many people have been trained? How many are females? How many are males? How many children, youth and adults
3	Number of distributed documents? In what language? How are they distributed? Are they being used?
4	How many schools have been reached? Participation levels?

Table 2. Examples of indicator variables.

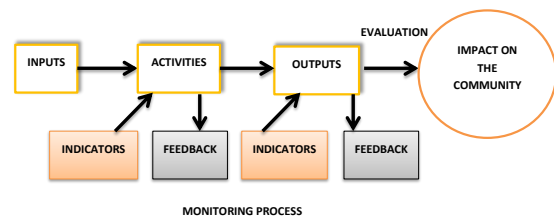**Figure 1.** Zimbabwe Disaster management system.

Figure 3. Monitoring and evaluation process.

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