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The Victimhood of Communities Induced by Infrastructure Projects in Zimbabwe: Case of Tokwe-Mukosi

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Abstract:

In the conventional economic paradigm, societal change through development projects will always take place, and 'talk' on whether the change is positive or negative will certainly tag along. This paper is the product of observations and focus group discussions conducted with the residents of flood victims holding camps in Zimbabwe. A participatory approach was engaged to solicit the honest opinions and feedback of the community regarding a dam construction project that displaced them from their ancestral lands and has arguably left their living standards worse off. In the discussion of victimhood induced by infrastructure projects, the author asks a pertinent question of do people matter more than projects do. The paper reveals that the Tokwe-Mukosi Dam construction was not wholesomely embraced by the community adjacent to the construction site. It is this aspect of having the project continued without community's 'blessings' that attracts a question on whether the government and its contractors valued the envisaged dam over community's welfare. In posing the rhetorical question, do people really matter? The paper discusses if policies are supporting the developers interests at the expense of communities that are being affected by development? The paper proposes how development should be incorporated in policies to ensure that developmental projects are approved by both the community and developers.

Keywords: development, disaster, hazards, risk, capital infrastructure, community

1. Introduction

Infrastructure development projects, whether it is building roads, construction of dams, power stations or in whatever form they take, involve a process of spatial change that affects people's lives. Communities in development zones may perceive potential capital projects as having the capacity to improve their quality of life. This perception is often driven by an inherent hope for a better future. In some cases, these projects are outrightly rejected based on a negative perception. Massive infrastructure construction projects, introduced to trigger development, have in some cases led to fatalities, adverse livelihood changes, and community economic setbacks.

The Tokwe-Mukosi Dam was constructed to boost the agricultural industry in Zimbabwe through increase in irrigation in the Masvingo Province (ZINWA, 2015). The idea of the dam was birthed in 1955 but main construction of the dam began in 2011 (Gumindoga, 2014). Although an Environmental Impact Assessment (EIA) was conducted before the construction of the Tokwe-Mukosi dam, there are no records of public participation on the Tokwe-Mukosi EIA and the output from the EIA was not shared with the community for their feedback. The EIA report is held by the Ministry of Environmental affairs and was not presented to the public for approval and/or amendment. The construction of the dam thus began without the community aware of the environmental, economic and or disaster risks that the development could bring.

1.1. Background and Overview

Investment in infrastructure and capital projects, according to Xoliswa (2017) is an essential component in ensuring and/or enabling GDP growth as well as a diversified economy. In this, there has to be provision of basic services such as water, education and healthcare. A report on infrastructure by Deloitte (2016) states that "as a continent, and worryingly so, Africa has made little progress in terms of access to water in the last decade". The report suggests that this may be because many African governments have not been able to match the speed of increased water access with the rate of population growth. Research shows that some countries such as Cape Verde, Kenya, Malawi, Namibia, Uganda and Zambia have improved citizens' access to water but in Botswana, Madagascar, Mozambique and Senegal the proportion of people without regular access to clean water has increased (Deloitte, 2016).

The World Bank predicts that water scarcity, exacerbated by climate change, may spur migration, ignite conflict and cost some global regions up to the equivalent of 6% of their GDP (The World Bank, 2016). Given Africa's relatively lower level investment capabilities Deloitte (2016) suggest that the potential of water crises is acute as demand for clean water could potentially outstrip supply by as much as 40%. With this in mind governments in general, the Zimbabwean Government in particular saw the need of increasing water supply by building the largest inland dam in the country (Construction Review, 2017). The report by Deloitte (2016) maintains that

financial returns in water infrastructure are the lowest of all the infrastructure asset classes and are sometimes even negative. The water sector is subject to high initial capital costs, significant maintenance and often only a gradual scaling up of capacity. The result is that the water sector is often neglected by government and funders alike and when it is done there may be insufficient funds to see the completion of infrastructure in time (Deloitte, 2016). The need may be there but the financing of the project may be limited or non-existent. As water is a human right, neither government nor the private sector want to be seen to be profiting from water therefore they cannot then call for communities to pay for water infrastructure. Water infrastructure and provision then becomes politically charged and may the not involve the community (Earle et al, 2005).

As the costs of building new water infrastructure increase, together with the higher cost of operating and maintaining existing water infrastructure, funding for required investments in the sector become more difficult (Deloitte, 2016). This may be what the Zimbabwean government was facing as the Tokwe-Mukosi dam construction was sometimes stopped due to financial constraints (Newsday, 2016). Before the completion of the dam in the period January to March 2014, Masvingo province experienced uncharacteristic above normal heavy rainfall. The rainfall in this area according to Farai et al (2000) is erratic and minimal averaging about 400mm per year. The area received above average rainfall of up to 850mm (Gumindoga, 2014). With such rainfall, water levels in the Tugwi and Mukosi Rivers rose to 'dangerous levels' threatening many families around the basin (Matonho, 2014). The persistent heavy rains led to an increase in the reservoir water, putting pressure on the dam wall whose sluice gates could not be opened as the dam was still under construction leading to its partial collapse on 4 February 2014. Floods were experienced upstream due to rising reservoir water levels and downstream due to the breached dam wall affecting hundreds of households (Tarisyai, 2015). This marked the beginning of a catastrophe whose impact, the Tokwe-Mukosi inhabitants continue to shoulder to this day. Many households according to Mudzingwa (2015) lost their crops, livestock, homes as well as their livelihoods.

The Tokwe-Mukosi Dam is located at the confluence of the Tokwe (Tugwi) and Mukosi Rivers in Chivi district, Masvingo province, Zimbabwe. The dam is 75km south of the city of Masvingo. The location of the area is shown in Figure 1;

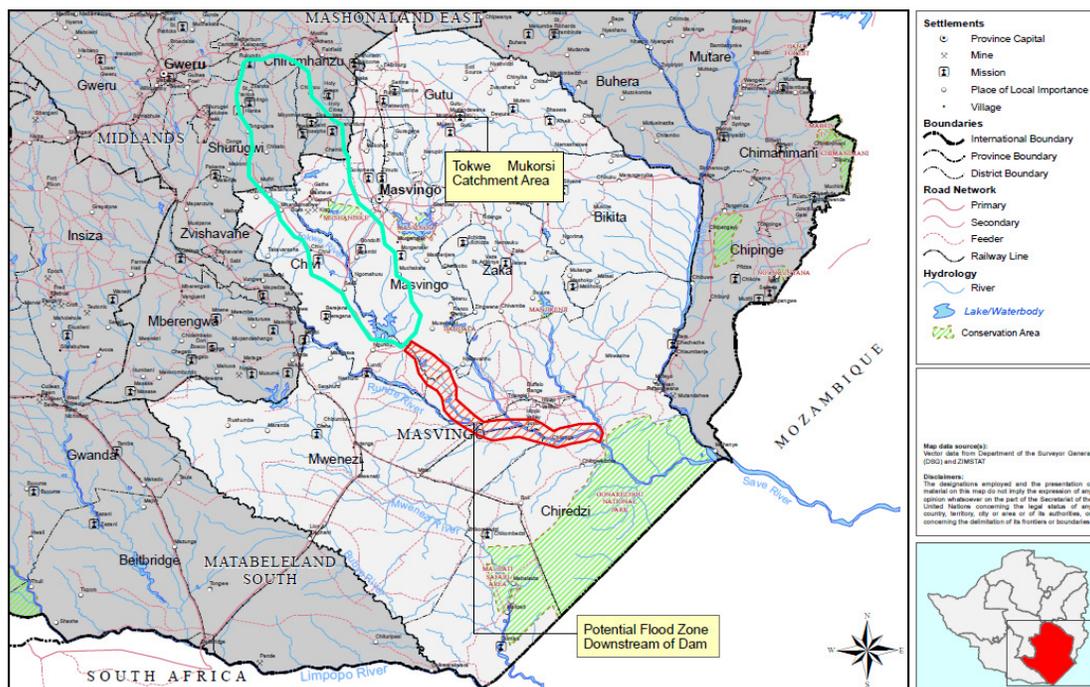


Figure 1: Masvingo Province Map – Showing Tokwe-Mukosi Dam Catchment and Flood Risk Area
Source: <http://reliefweb.int/map/>

The 2014 Tokwe-Mukosi floods caught the nation by surprise as it affected hundreds of people in Chivi, an area where 'meteorological drought and not floods are the most frequently experienced natural hazard' (Chineka, 2016). The community could not cope with the floods and they are still not coping as others have not been able to return to their homes and "re-start" their lives. The floods resulted in people being displaced from their homes, losing their property, livestock and sources of income making them vulnerable (International Confederation of the Red Cross, 2017). On 9 February 2014, the Zimbabwe Government declared the Tokwe-Mukosi flood a national disaster and appealed for US\$20 million for humanitarian assistance and relocation of those affected (Human Rights Watch, 2015).

According to The Human Rights Watch (2015), households displaced by the Tokwe-Mukosi flood have been exposed to economic risks due to dismantled livelihoods. Some of the displaced flood victims were moved to Chingwizi Camp. This was to be a transit camp where more than 3,000 families (about 20,000 people) from Chivi were to be housed before they were moved to permanent homes (International Confederation of the Red Cross, 2017). The Human Rights Watch (2015) described the Chingwizi Camp residents as "homeless, landless and destitute" as they had lost almost everything they owned. This suggests that there has been an increase in poverty levels due to lost livelihoods.

1.2. Theoretical Framework

Programming theory states that between good intentions and great results lies a program theory. The same can be applied to development projects, that between good intentions and great results lies a project design. Figure 2 shows a typical project implementation process that demonstrates good practice to guide project delivery. It shows project components that have to be conducted simultaneously According to Gibson et al (2008) the planning to implement phase facilitates implementation of the project delivery and finance strategy by aligning project practices with organizational strategy. As this happens it is important to plan and execute knowledge management of the project from the preparatory phase through the contract execution phase. This process facilitates acceptance among stakeholders (e.g., public, elected officers, industry providers, utilities, local agencies, etc.). Acceptance among organizational staff is also promoted through organizational learning which is pursued by collecting, verifying, storing, and disseminating lessons learned on the implementation effort. To ensure that all plans are implemented it is important to develop plan to assess accomplishment of the project delivery strategy and effectiveness of knowledge management from the preparatory phase all the way through the contract execution phase. This process promotes continuous improvement by providing internal and external benchmarking, and providing feedback on implementation progress to organizational decision makers.

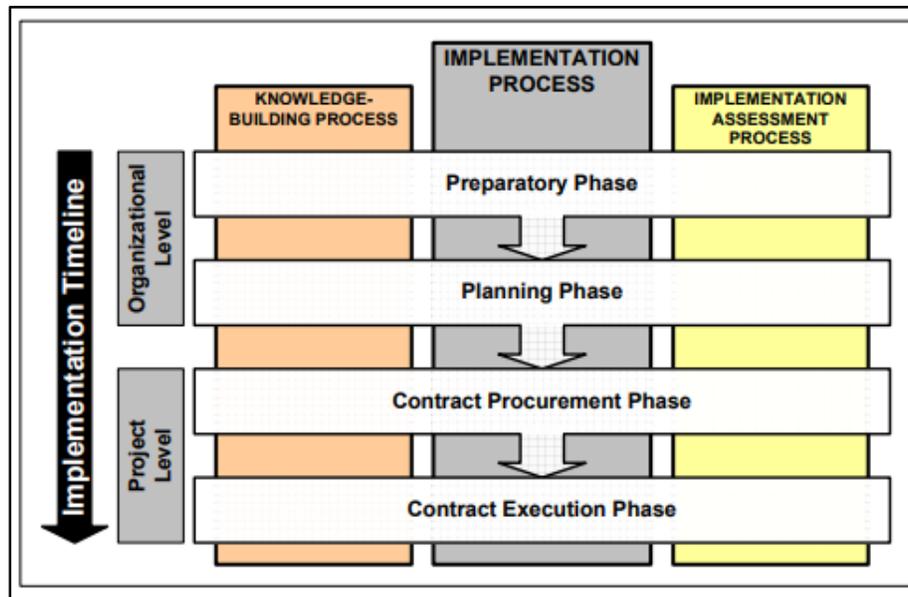


Figure 2: Ideal typical project implementation process

Source: <http://web.mit.edu/sis07/www/gibson.pdf>

A focus on project delivery, budget control and managing project lead times in many cases become the main focus on developers while they trivialise the impact of projects on people living within the vicinity of construction sites. This may increase disaster risks as the communities do not know how to reduce risk in line with development and may not know how to get out of harm's way.

2. Literature Review

Development has many definitions one of which is to make something better than it was. Service-Aware Operating System (SOAS) from the University of London (2017) states that development can be defined as bringing about social change that allows people to achieve their human potential. SOAS (2017) maintains that development is a political term as it has a range of meanings that depend on the context in which the term is used. Political definition of development may be brought out as it is a term that can be used to reflect and justify a variety of different agendas held by different people or organisations. Development may be a political process as it raises questions about who has the power to do what, to whom (World Economic Forum, 2013). Development according to SAOS (2017) can not only be about the interactions between human groups but also involves the natural environment. Development changes the environment and/or converts natural resources into cultural resources for example, the extraction of crude oil and refining it to be used in areas such as transportation has been termed by Thetford (2013) as turning crude oil to "the stuff we use". The crude oil example shows or means that development is an increase in the size or pace of the economy such that more products and services are produced and communities may enjoy a higher standard of living (Wiley.com, 2014).

Democracy and public participation can go hand in hand. There are two main forms of democracy that is representative and participatory (Breakfast et al, 2015). Representative democracy is where people elect representatives to make decisions on their behalf. There can be the selection of local government councillors who are elected directly by residents to represent their interests in the local council. There is then participatory democracy, where people make all decisions themselves. Every community that may be affected by any development is able to be involved in the decision-making process and there are no representatives who can decide on their behalf (Breakfast et al, 2015). This allows all community members to have a voice in decision making but it can only be possible in small communities or organisations where everyone can meet to discuss and decide an issue. To make democracy meaningful, communities have to be in touch with the work of their council. Participation is important to make sure that government and/or

developers address the needs of communities in the most appropriate way. Participation helps to build an informed community which has a sense of ownership of projects and/or resources within their community.

Development in communities may mean renewal and/or revival of the community. There can be long-term benefits that includes job creation, community empowerment, economic benefits that may increase community resilience, environmental restoration and many other benefits that can enhance the quality of life of communities (SMARTE.org, 2010). The developmental benefits can be overlooked if the community is not able to participate and or contribute to development in their own neighbourhoods. Public participation allows generation of new ideas that the developers may not have thought of. It can bring out issues like community needs and what will benefit the community. SMARTE.org (2010) states that community members may have special issues or concerns that, if incorporated before project commencement, may assist in reducing the risk of EIAs results being challenged. In Tanzania the African Fishing Company Ltd (AFC), a subsidiary of Tannol Holding Ltd. of Korea, intended to develop a prawn farm covering about 6,000ha of surface water, with grow out ponds on 10 000ha of land. The proposed location of the prawn farm was within the Rufiji delta and the downstream end of the flood plain (Katima, 2003). Many livelihoods depend on the Rufiji River delta as it is the largest block of mangrove forest on the eastern African coast. The EIA review-team and the public hearing in the Rufiji delta project concluded that the EIA report was highly biased in favour of the developers and the project was rejected (Katima, 2003). The Rufiji delta project brings out the fact that communities have concerns and/or ideas that should be incorporated into developmental projects before they begin.

In South Africa, findings from the Gauteng E-Toll study by Khanyile (2015) indicate that public participation before the implementation of the project lacked credibility as there were insufficient inputs from business, political and civil society. Public participation on E-Tolls was according to Khanyile (2015) a legislative compliance rather than a consultative tool. Because of not solving public participation issues before the initiation of the project the E-Toll project continues to have problems from the public. SMARTE.org (2010) states that community involvement is important, since without community buy-in, a project may never get off the ground or will not be accepted once it is completed.

Before any development a community assessment is fundamental to the understanding of the community's needs and problems. SMARTE.org (2010) states that community assessment answers some basic questions on who the community is, where they live and work, who would mostly be impacted by development in the community and what the community's vision is for that project? To answer such questions developers thus have to know the community's social, cultural and economic history which may then open up dialogue with the community as a whole. If a development project is large and will benefit the country as a whole, Tokwe-Mukosi dam will increase agricultural production and increase sugar exports, then the community closest to the project should be considered as having more of a stake and interest in it than others located farther away. Community assessment will ensure that, though the development may benefit the country as a whole the people closest to the project will themselves have direct benefit from the project.

Enabling community members to contribute to developmental plans makes communities better understand the projects and the community is most likely to support a project they had input in, thus creating a sustainable project (Nelson Mandela bay Government, 2017). Public participation is important before development commences. With public participation developers are able to identify overlooked local knowledge, such as a site's history, past land uses and associated contaminants (SMARTE.org, 2010). Communities may have special issues or concerns that, if incorporated into a project at the onset, may help to reduce the likelihood of challenges to risk assessment results and/or developmental plans (Community Tool Kit, 2015). According to International Capital Market Association (ICMA) (2003) community participation improves information flow, enhances community understanding of local government and/or developers, fosters collaboration, minimizes conflicts and may promote environmental justice. Developers should view members of the community as equal partners in the dialogue that takes place during developmental projects (SMARTE.org, 2010). Community members need to understand the details of a project to evaluate its importance, costs, and benefits. Failure to adequately inform and involve the public can cause significant delays as a result of public reluctance or outright opposition to the project (Community Tool Kit, 2015). Public or community participation should not necessarily mean everybody but should refer to community members and/or the public with an interest in the decision of the development or those that will be directly affected by the development (Bonnemann, 2008). In this the community should be involved in decision making and/or problem solving.

It is important that developers share the projects technical aspects and priorities to gain community buy-in or acceptance of the project (community Tool Kit, 2015). Communication on the projects should start before the project is implemented and should continue throughout the duration of the project. If communities and all stakeholders are well informed and understand the project's goals, they are more likely to support the project more than communities that are kept in the dark or given only small amounts of information which are sometimes out of context (Nelson Mandela Bay Government, 2017). Communication according SMARTE.org (2010) can be done through public meetings, workshops and seminars, local media announcements, open houses, the city's website (if present), informative project display in publicly accessible places like libraries and/or post offices, fact sheets and flyers, or the government or developer's web site. It is important to note, that smaller and rural communities' access to the web is not always a given.

Local media if given room can have an important role in communicating with the public. Corcoran (2007) takes of a two-way process in communication health messages. This process can also be used by developers in their communication with the community. Communication between developers and the public should be a two-way process and the media can facilitate a direct exchange with the public. Direct exchange allows community concerns and misconceptions to be addressed effectively. It is important for developers to seek community concerns and vision of the project and to then incorporate them into the project goals. Developers will then be able to explain to the community why, when and where their specific concern may be addressed. This gives the community a sense of ownership of the project. SMARTE.org (2010) states that while passive communication, like websites and media announcements are

important aspects of communication; they are no substitute for direct exchange communication. In order for communication with communities to be effective it should therefore involve both passive and active communication.

The Federal government (USA) in its Federal Grant and Cooperative Agreement Act, passed in 1977, set out guidelines in which no funds are granted for projects that do not benefit or involve the public (United States Government, 2017). This makes it a stumbling block for entities/communities seeking federal grant funding. To ensure that funds are obtained in time, developers quickly involve communities in development projects. Developers as stated by SMARTE.org (2010) either see community involvement as a minor nuisance or the developers do not know how to engage the community therefore they live them out. Whatever the reason for not engaging the community SMARTE.org (2010) maintains that not engaging with the public has disastrous consequences for example there can be delays in construction which can result in loss of money, filing of law suits, disgruntled citizens, negative comments to the media and/or most importantly non-acceptance of the development project altogether. This again brings out the importance of community involvement which can and should be based on information and dialogue. An informed community can be part of the decision-making process, which then leads to successful developmental projects that have minimal disaster risks.

Bonnemann (2008) talks of the code of conduct of The International Association of Public Participation (IAP) in which the core values define the expectations and aspirations of the public participation process. The code of conduct is aimed at guiding developers in enhancing the integrity of public participation and to hold those responsible for public participation accountable for these principles. The code of conduct is to support and make decisions that incorporate the interests and concerns of all affected individuals. The code asks for trust and credibility for the process among all participants. The code of conduct calls for disclosure of all relevant information that will enable the public to understand the development process and thus make informed decisions. There should be fair and equal access to the public participation in order to give the community an opportunity to influence decisions.

3. Methodology

This paper is the product of observations and focus group discussions conducted with the residents of the Chingwizi holding camp. A participatory approach was engaged to solicit the honest opinions and feedback of the community. The research design chosen for this study is both descriptive and exploratory. The research took both a qualitative and quantitative approach. Sampling was used. The researcher and three assistants interviewed respondents and completed a questionnaire for each which was retained for analysis and record preservation. Documents and literature on the 2014 Tokwe-Mukosi flood and other related literature were reviewed. Key informant interviews were done. Focus groups discussions from Chingwizi and Tokwe-Mukosi also took place.

4. Presentation and Discussion of Findings

4.1. Education Status and Access Information

The study revealed that most respondents (51%) had secondary school education while 39% indicated that they had primary school education and those without any formal schooling were 10%. None of the respondent had tertiary education. The level of education within a community determines the livelihoods that the community can pursue and thereby the income that they have. Lack of education is considered a 'barrier' not only to pursuing livelihoods that will give them more income but also constrains, according to Cutter (2006) a person's ability to understand warning information and access to information". Lack of education especially in rural areas, has led to a digital divide in which the uneducated poor cannot access information through the media platforms that are being used to communicate to communities (Sikhakhane et al 2005). Communication infrastructure and its use have thus been limited. Developers such as Salini Impregilo the contractors for the Tokwe-Mukosi dam have a website where they talk of the funding, date of commencement of dam construction as well as the type of dam that they were to construct. This would be available to those who have access to and know the use of the internet. Lack of education means public participation may involve communities that are not directly affected by the development project, while those directly affected are left out.

4.2. Poverty and Access to Information

In the Chingwizi community Ninety-two percent (92%) of the respondents are unemployed, 45% of which are women. Only 1% is formally employed and 7% are self-employed. With 86% of the Chingwizi households having no person working and most of these households having seven or more members, poverty in the community is brought out. Eighty-five percent (85%) of households indicated that they did not have any monthly income and no household earned above US\$201 per month. The lack of access to economic resources limits the Chingwizi community to access information and consequently the active involvement in project decision making. To compound this exclusion woman, the elderly, uneducated or illiterate and/or unemployed find themselves excluded from lines of communication. The poor in Tokwe-Mukosi were excluded from public participation through a lack of access to project developers.

4.3. Dam Construction Awareness

The study revealed that 91% of respondents knew about the construction of the dam through word of mouth and by seeing the builders at work. This may indicate that the government and the developers did not themselves inform the Tokwe-Mukosi community about the dam construction but it was just "talk" among community members themselves. Word of mouth for major projects such as the Tokwe-Mukosi dam construction gives limited information and not much about exposure to hazards or risks. Lack of information can be a source and/or cause of vulnerability in a community as people would not know of any risks that surround them. The community gained awareness of the dam construction through a variety of means as shown in Figure 1

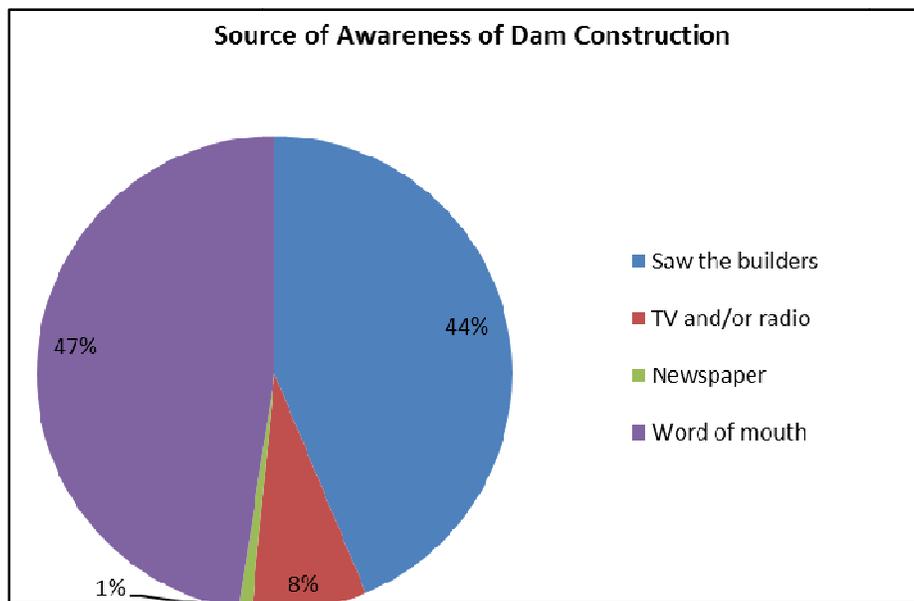


Figure 3: Source of Awareness of Dam Construction

4.4. Community Participation during the Tokwe-Mukosi Dam construction

Public participation according to Bonnemann (2008) is a process in which organizations, developers or any other institutions that may be involved in projects that affect the public in one way or another, consults with any interested or affected individuals, organizations, government entities and/or all citizens of an area or country as a whole before making a decision. Public participation should be a two-way communication process that is able to achieve decisions that will be accepted by both developer and the public. This then prevents, minimizes and/or avoids before during and/or when the project has already been completed. Public participation as stated by Bonnemann (2008) can sometimes be termed “public involvement,” “community involvement,” or “stakeholder involvement”.

Having 91% knowing of dam construction through word of mouth and seeing the builders starting construction questions the handling of the Environmental Impact Assessment (EIA). The Government of Zimbabwe Environmental Management Act 13 of 2002 amended by Act 5 of 2004 states that an EIA should include public participation. With public participation in an EIA, communities where any development is to take place would know of developmental projects before their commencement. Communities would, through the EIA know of the environmental, human health impact and/or the destruction or disruption of the social, historical and/or the cultural fabric that the project may impact on the community.

In the key informant interviews all four key informants indicated that an Environmental Impact Assessment (EIA) had been conducted before the construction of the Tokwe-Mukosi dam. One of the key informants emphasised that although an EIA was conducted, in his opinion, the EIA was poorly done. All participants agree that the final EIA document produced was not provided to the community for acceptance or objections to the environmental and other impacts the project might cause. EIAs according to Jeri (2017) are development strategies that must take into consideration the concerns of affected communities to avoid future legal lawsuits. The construction of the Tokwe-Mukosi dam went on without the consent of the community. The government and the developers did not act according to the law which required them to go back to the public with the EIA and present it for public comment. All that the government and the developers wanted was to go on with the construction of the dam without community involvement. It seems that it did not matter what the communities had to say about the impact of the dam on their lives.

In order for an EIA to be considered a success there has to be public participation, as the interested parties that may benefit from the project as well as any community that may be affected negatively are given opportunities to submit their comments on the impacts of the development on their lives. The public comments may then be used by developers to make changes, mitigate and/or totally avoid some impacts that their development may have on the community. By not providing the Tokwe-Mukosi dam EIA report to the community the project sponsors (ZINWA) did not give the community an opportunity to raise their concerns about the dam. This may suggest that both ZINWA and the developers went on with the construction of the dam without taking into consideration the concerns of the Tokwe-Mukosi community. If there had been some suggestions to minimise any negative impacts of the construction, no one except the community knew about it.

From the initiation of the dam construction, to flooding, and the relocation of Tokwe-Mukosi flood victims, the EIA has not yet been made a public document. A copy of the EIA remains at the offices of the Environmental Ministry in Masvingo town where access by the Chingwizi community is “mission impossible”. The lack of proper and complete public participation in the EIA proceedings may be an indication that the concerns and opinions of communities which are affected or will be affected by development does not matter to the developers. Without an opportunity to review the final EIA report, the Tokwe-Mukosi community living in the vicinity of the dam were living there without knowing of any risks that were surrounding them. Not providing interested and affected parties with a relevant EIA report deprives the affected community of their legal rights to accept or object to some of the impacts that may be as a result of any developmental project in their area.

There was no community participation in Tokwe-Mukosi as public participation according to Bonnemann (2008) should involve and include decision making. The community had no representation and they did not participate in decisions regarding the construction of the Tokwe-Mukosi dam. The community which was to be affected by the dam, negatively or positively had to have some 'say' in the development process. Community participation in Tokwe-Mukosi should have been a top-down, not bottom-up participation. This is so as the community participation could only have been possible if the project funders ZINWA, and the developers had been willing to 'initiate, lead and support a participation process from beginning to end' Bonnemann (2008).

4.5. Disaster Preparedness and Public Participation

The study revealed that the Chingwizi community was not prepared for the emergency. All respondents indicated that they were not prepared for the flood that came their way. Table 1 shows the reasons that were given by the respondents on why they were not prepared for another flood.

Reason for flood unpreparedness	%
No flood education	57%
Nowhere to go	4%
Will wait for government instructions	30%
Don't know	9%

Table 1: Reasons for Unpreparedness

ZINWA and the dam constructors did not educate the community on disaster risks, especially floods in the area. The lack of awareness can be traced back to the initiation of the project right until the dam walls gave in. Dam construction began without the community knowing that it was possible for their homes to flood, and if there was a flood what their response should be. The developers did not educate the community on flood risks and response. Disaster management in Zimbabwe is aligned to the Hyogo Framework of Action that calls for education as a way to reduce disaster risks (Prevention Web, 2017). The alignment to the Hyogo Framework puts a moral duty upon developers to educate local community on disaster risk reduction. The lack of DRR education made the community vulnerable to various hazard impacts. Several questions beg for a response when reviewing the conduct of the contractors. Could it be that the developers did not have time to educate the community so that disasters may be avoided or they did not care enough for the people to warn them of possible disasters? Is it possible that the construction of the dam was more important than DRR education giving the conclusion that development matters more than people?

4.6. Developers and Their Duty of Care

On the key informant interviews, informants indicated that the community was never informed on risks and/or opportunities that the dam would bring. Others indicated that the community was not told of any risks but were informed of the opportunities such as irrigation and recreation activities that the dam would provide. This may suggest that the Tokwe-Mukosi community lived in the vicinity of a dam being constructed, with an expectation of benefiting from the dam without the knowledge of flood risk in the area. The lack of knowledge of an impending danger makes people vulnerable to any form of risk that they may face. The owners of the dam construction project (ZINWA) may have wanted the project to continue without any 'hiccups' so they concentrated on telling the community the benefits of the projects without telling them of the flood risks or other risks that could have existed. What mattered more was the continuation and completion of the dam rather than the people who lived in the flood risk area.

In 2014, the near completion of the dam meant that if there were to be any significant rains the Tokwe (Tugwi) and Mukosi Rivers would fill up and with time the dam would start filling up with water. Some of the residents were still living within the dam fill-up area. If the developers were concerned about the community they should have informed them of the risk of flooding and thereby find ways of reducing the risk or avoiding the risk through relocation. Not knowing or not being informed about the flood risk or any risk, may have given the Tokwe-Mukosi community a sense that they were safe in their homes and would only move once the dam was complete and they had places to relocate to.

Key informants indicated that there were no emergency drills or plans for flooding in the area. The lack of emergency planning may suggest the lack of duty of care on the part of the developers. They did not plan on what to do if the community that was living in the vicinity of their development was affected by floods. According to the United States of America Occupational Safety and Health Administration (2017), this may assist in avoiding confusion, prevent injuries and/or fatalities and avoid property damage and/or loss. Communities in flood prone areas should be made aware of evacuation plans and procedures.

4.7. Early Warning Systems

To the question on whether or not a flood warning was given to the community, key informants gave conflicting views with some indicating that (Yes) it was given and others stating that there was no flood warning given. Of the respondents that said a flood warning was given to the community, they indicated that the community leaders were told to warn the people of the impending flood. Using community elders as a 'warning system' proved inefficient as the Tokwe-Mukosi community was 'caught unaware' by the 2014 floods. Floods are classified as rapid onset disasters where warning systems should be efficient, fast and reliable in order for affected communities to get out of harm's way. Culturally in Zimbabwe, if and when community leaders have a message for the community, they go through a lot of stages, one of which is to summon community members to their homestead, to relay the message. Such kind of messaging will not work in giving flood warnings as floods are a fast onset event.

Having warnings given out is an essential part of DRR but to put this burden solely on the government may portray people who are living in disaster prone areas as passive and weak. This approach according to Hewitt (1997) can reduce people to being passive recipients, even 'victims' (Wisner, 2003). This is however not so, as according to Wisner et al (2003), in most instances everyone has some capacity for self-protection as well as group action. They state that the processes that generate "*vulnerability can be countered by people's capacities to resist, avoid, adapt to those processes, and to use their abilities for creating security, either before a disaster occurs or during its aftermath*". Communities should work together with developers and not be passive and wait to be told to "run" when they themselves are seeing an impending hazard.

4.8. Views of the Chingwizi Focus Group on Development

The views of the participants on the causes of flooding in Tokwe-Mukosi seem to suggest that ZINWA and the contractors valued dam construction above the community. All participants in the focus group agreed that the year 2014 had more rainfall than normal, which led to the flood. The participants indicated that they believe the existence of the dam caused the flooding disaster without which water could have flowed downstream and not have flooded homes which were upstream. A participant indicated that no one, including the ancestors wanted the dam to be constructed and fellow participants agreed with him as they recalled that every morning the contractors would come and find their wheel barrows and shovels missing. The participants agreed that the missing equipment gave credence to rumours that the ancestors of the land did not want the dam to be built. "This dam is trouble" one of the participants is quoted as saying, "It was trouble from day one and it caused this flood". If the community did not want the dam to be constructed how then did the project continue? This may suggest that the project was to continue regardless of what the community thought about the project. What mattered was the construction of the dam and not community sentiments.

Participants believe that the flood affected them in the way it did because of the local councillor and politicians who gave them conflicting statements. They concurred that the councillor informed them of the impending flood hazard and encouraged them to relocate their homes. However, they were not told where to move to. Politicians that visited the community informed them that they would be compensated for their houses before relocation to various farms around Masvingo. The group highlighted that some Human Rights organisations (unnamed) advised the community not to relocate before they were compensated. This was allegedly because the government was likely to renege on any compensation promises if they moved before being paid. All participants agreed that when the rains came they did not think that their homes would flood so they remained in their homes waiting for government compensation and to be told where they would go. There is no mention of ZINWA officials and/or the contractors' communicating with the community on flood risks and what was to happen to protect them. The contractors continued with the building of the dam while the community were being told conflicting statements by different groups. The project sponsors and the contractors may therefore have concentrated on dam construction and it did not matter whether the community was facing flood risks or not.

The focus group had a discussion on how they would want development in their areas to be handled. All participants agreed that the government should be clear and transparent on any developments that may be planned for the area. In being transparent, the community would be fully appraised of projects in their community and what the future government developmental plans are and how these impact them and their livelihoods. This is how the community wanted development to take place within their communities, but the way it was with the Tokwe-Mukosi construction was conflicting messages which made the community vulnerable to flood risk while development continued.

4.9. Views of the Zunga Focus Group on Development

The Zunga focus group comprised villagers who are still living in the vicinity of the dam. Members indicated that there has not been any awareness or education programmes on reducing flood risk after the 2014 disaster. In the discussions, it emerged that most people living in the Zunga area (Chivi at large) knew that a dam would be constructed since 1960. Most however, thought it was idle talk, until they saw the builders. This confirms the study finding through interviews with key informants, that there was no public participation in the EIA and no community ratification of the final EIA and recommendations.

All focus group members indicated that they were not at ease because rumours were circulating and local councillors were giving conflicting messages on what would happen to them. Their concerns relate to rumours of a possible expansion of the dam, building of recreational facilities and establishment of game reserves that will force them to be relocated especially those in the Gwamajoma area which is rumoured to be earmarked for game parks. All focus group members agreed that if they are to be relocated the government would order them to move "*within a day as they do not want us to know about anything*". This may suggest that there are other planned developments earmarked for the Tokwe-Mukosi area and if any EIAs are being done, there is no public participation.

The group expressed concerns about the rumours on planned developments which are similar to those which spread prior to the construction of the Tokwe-Mukosi dam. Lack of awareness on these rumoured planned developments and their potential resultant risks causes community anxiety. The remaining Tokwe-Mukosi community, due to lack of disaster information remains vulnerable to hazard impacts. Hearing of developments within communities as rumours that eventually become true suggests that developers may be concerned with their development rather than the community and the impact their development may have on that particular community. Development in such cases matter more than the people whose lives the development will impact, positively or negatively.

5. Policy Options and Recommendations

The constitution of Zimbabwe states that everyone has a right to live in an environment that is free of harm while Zimbabwe and developmental policies such as Environmental Impact Assessments (EIAs) (Environmental Management Act 13 (2002) Amended by

Act 5 of 2004) detect ways in which development should be done in the country (Government of Zimbabwe, 2004). This means that the Tokwe-Mukosi community had the right to participate and to contribute to any development that would affect the environment in which they live in. Finding out whether the community was involved in the developmental project in Tokwe-Mukosi may shed light on some aspects of the cause of the flood disaster. Taking a risk reduction approach may assist in mitigation against a similar recurrence of such an event in Tokwe-Mukosi and other areas facing dam constructions or other developments. Emphasis in the study is put on the analysis on community involvement in development and how their involvement can reduce disaster risk. The study on whether communities matter in development may assist in resilience building, vulnerability reduction and shed light on how developers can involve communities in developmental projects.

Based on the research findings, the following policy options and recommendations may assist in improving both pre and post disaster management in Zimbabwe and other countries.

- Developmental projects funded by governments such as the Tokwe-Mukosi dam construction, should be tied to community involvement. Without implementing and documenting community involvement initiatives, no funds should be released for the commencement of the project

- Communities should be educated on the goals of projects. Education will assist communities to also contribute to a sustainable end product. Education should be communicated in an easy to understand manner. There can be the identification of stakeholders that can represent a diverse constituency. These can then educate the community in a way that they will understand. Education can be done using already existing social and cultural networks, such as schools, churches and civic organizations.

- Public access to information should be improved. This can be done through repositories of information on the project, such as libraries, town halls and or community centres. There can be active and extensive outreach programs in schools, public meetings, workshops, posters, advertisements in local papers, community newsletters and/or websites. The use of a variety of outreach methods may ensure that a large percentage of the community is reached. It may be important to enlist the help of elected officials to identify local resources that are helpful and easy to access, translate the scientific and technical results to community groups into laymen's terms so everybody understands what is going on, continually assess the effectiveness of the outreaches by frequently asking questions to communities on what they are learning about the project and/or what their understanding of the project is.

- Developers should be made accountable for the disasters that may be brought about by projects. In accountability, there can be an independent authority, for example, a Compliance Advisor Ombudsman can be appointed. If developers are made accountable they may then consider the concerns and complaints of project-affected people and address the concerns in a fair, objective, and constructive manner.

- Local media can play a huge roll in communicating with the public. With technological advancements, most companies communicate over the internet but some communities do not have access to the internet. Local media can have direct access to the public where concerns and misconceptions can be addressed through direct exchange communication. Both the community and the developers can use media to impart their vision and/or concerns. Information given to the media should be consistent. It is therefore ideal to have a specific person to deal with the media. If it is not possible to make this designation, all members of the project team should have an understanding about the developmental project, so that one clear message can be communicated to the public. Timely and frequent announcements of public meetings can be done through local media.

- Special attention should be paid to communities that may be affected by the developmental projects but have low income, low educational levels and/or any other issues that may hinder them from having information about the project. For such groups to have a meaningful influence in decision making it may be important that lengthy documents be summarized into fact sheets and then customized for community groups whose primary language is not English. The fact sheets on the projects can be customized to ensure cultural sensitivity. Information should be accessible to the community outside of public meetings where there will be a project point of contact, which will explain the project in a way the community understands. The point of contact should be someone who is sensitive and trained in dealing with cross-cultural exchanges at all formal or informal public meetings. This will assist communities to be part of developmental projects.

- There should be shared roles in developing agendas, setting of goals and planning of outreach meetings so that they become accessible and accommodating to most members of the community. Meeting locations should consider the handicapped, access to public transportation, childcare issues, language interpreters and work schedules. Involving local community leaders can be brought in order to set the agenda, venue, time and announcement for the meetings. This may foster a culture or an atmosphere of participation in the project processes.

- There should be locality development in which development considers the area under development as one 'common neighbourhood'. Locality development involves all community members. This then encourages and improves communication among diverse individuals and groups who would in some cases not interact with one another. The diverse population is brought together as the actions that they take are communal and the existing development becomes 'their own'. Locality development can assist in improving skills such as leadership skills within the community. Communities end up identifying local resources as their own and are able to use then to their advantage. Communities, through locality development become self-sufficient and are resilient and less vulnerable to disaster risks.

6. Conclusion

The research revealed that disasters can be brought about when capital projects profitability and efficiency considerations matter more than people. Dam constructions and dam failures are relatively common, but for the Tokwe-Mukosi flood disaster the political and economic aspects made the construction of the dam more important than the community that was to be affected by the development.

The pre-existing socio-economic conditions in Chingwizi played a major role in highlighting how vulnerable the community was and is. Living in poverty made the community vulnerable to the flood and now living in poverty in Chingwizi makes them more vulnerable to various hazards including food shortages which may lead to acute malnutrition. The community was dependent on agriculture which means their livelihoods were destroyed. With negligibly low incomes and low educational levels, the community is not able to pursue other livelihoods to generate sustainable income.

The decision or oversight of not engaging the Tokwe-Mukosi community in the full processes of EIA resulted in them not being aware of the risk they faced from the dam construction. Pre-disaster, the community was made vulnerable through lack of information on flood risks in the area. In the pre-disaster period, where education on disaster risk reduction should have been the focus; the community was left to construe their own versions of risks and potential benefits, adding to their unwarranted exposure to the flood hazard. The absence of early warning system and the community's oblivion to emergency plans highlights deficiencies in disaster management guidelines or policy enforcement that resulted in more households than necessary being impacted by the flood.

The flood victims are now living in a social, economic, political environment that makes them more vulnerable than they were in Tokwe-Mukosi. In the absence of a well-planned and well-implemented intervention to promote sustainable livelihoods, the vulnerability to hazards may become imbedded in the community such that it will not only affect the current generation but those to come. Disaster risk reduction revolves around public information and education; existence of efficient warning systems; disaster preparedness; mitigation and coping mechanisms. The lack of public participation pre-disaster may suggest that centring on development more than the concerns and ideas of communities may be an underlying cause of disaster. The Government of Zimbabwe was not adequately prepared for the 2014 Tokwe-Mukosi flood as it seems there was more focus on completion of the dam rather than the community which was to be affected by the construction of the dam. Development of the area, mattered more than the people.

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