



## **AfriAlliance MOOC Final Assignment**

**Title : Drinking Water Safety and Security Planning After Tropical Cyclone Idai in Chimanimani ,Zimbabwe**

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### **Abstract**

Zimbabwe was hit by Tropical Cyclone (TC) Idai, which originated from a tropical depression that formed off the eastern coast of Mozambique on 14 March 2019. The combination of high winds and heavy rain in the districts of Chimanimani, Chipinge, Buhera, Nyanga, Makoni, Mutare Rural (Manicaland province), Bikita, Masvingo and Gutu (Masvingo province) The districts affected by the cyclone are experiencing the effects of an ongoing drought and the economic crises, thus their capacity to recover from the emergency has been severely compromised. This devastating effect of the cyclone calls for social innovation for the community to recover. As part of Cyclone Idai recovery efforts under Tsuru trust a local organisation proposes to support WASH activities in affected areas of Chimanimani district including restoration of boreholes which are mainly the Bush Pump-B Type, piped water schemes, protection of springs, and other ancillary infrastructure using build back better principles where appropriate. In addition to immediate restoration and rehabilitation of basic water services, the project will also be used to work with the communities to undertake risk assessments of their areas, identify community resources and needs assessments and ranking the same. This will be followed up with trainings and capacity building for implementation in the subsequent years.

### **Introduction and background**

The cyclone caused the destruction of infrastructure including water and sanitation facilities leading to an increased risk of disease outbreaks such as diarrhoea, typhoid and cholera. According to Zimbabwe's Rural WASH Information Management System (RWIMS), less than 50% of the communal water points in Chimanimani were fully functional or seasonal. The cyclone and floods exacerbated the functionality of these water points and limited people's access to safe water and adequate sanitation. The residents of Chimanimani district had a low level of access to safe water and sanitation services even prior to the cyclone. An estimated 270,000 people in total, including 129,600 children, were affected by flooding and other damages caused by the Cyclone. There is a need for support which, designed to mitigate the devastation left by cyclone Idai on the affected communities and lay the foundation for recovery and longer term resilience. Tsuru Trust is proposing to run a project that will target Chimanimani as the most affected district, with a focus on immediate recovery, livelihood support, and restoration of community Water and Sanitation infrastructure and social services. The project will take a multi-sectorial approach, which utilizes an integrated and holistic strategy by combining interventions across sectors, requiring active

coordination and planning across organizations and component into consideration social innovations and other indigenous knowledge to come up with a sustainable Water and Sanitation service delivery. In these write up focus shall be on the rehabilitation of boreholes which are mainly fitted with the B-Type Bush pump to draw water .In the Water access component the project proposes to focus mainly on rehabilitation of 10 water points as well upgrading of 5 wells in some of the 10 villages that were heavily affected by Tropical Cyclone

### **The Four Social Innovation dimensions (and the interactions between dimensions)**

#### **TECHNOLOGICAL SOLUTIONS**

The project proposes to rehabilitate water points and in the areas they are mainly boreholes which are fitted with a B-type Bush pump. The government district Water Technicians have been the only personnel capable of rehabilitation of these water points. The project seeks to promote well upgrading and then fit high yielding wells with a hand pump for easy drawing of water from the sources. It has been noted that open wells are prone to contamination. Well upgrading will be a solution in promoting water quality .The 10 Bush pump type B boreholes and 5 deep wells and their headworks will be rehabilitated following technical assessments to determine the scope of rehabilitation or upgrading needed.

The proposal is therefore to allow communities to select their preferred technologies during the planning stage. Although this may seem not to be practical considering the limited funds results of pre-feasibility studies may be used to select the most preferred technology before final rehabilitation exercise. Community participation is important as it influences sustainability as communities are sometimes given technologies that they cannot afford to maintain.

Given the global Covid-19 outbreak immediate support for enhanced health and hygiene awareness and advocacy in the cyclone affected areas are to be accommodated under the proposed intervention. The affected areas are prioritized under the Zimbabwe Humanitarian Response Plan (HRP) following Tropical Cyclone Idai and the ensuing drought and require immediate support to restore basic services providing justification for using the simplified PCA humanitarian project document. The activities foreseen in allows for the scoping of additional WASH improvements under a build-back-better concept using the drinking water safety and security (DWSSP) approach. This approach allows for community engagement in identifying and discussing threats to safe and secure drinking water within their areas and helping them to think what plans they could put in place to minimize and manage these threats. This would also involve operation and maintenance of these facilities and improvements that could be viewed necessary to make life better. It is within the concept of building back better that communities have to work on water supply recovery and infrastructure that could withstand any future shocks and stresses.

The Trust will support Operation and Maintenance of rural community water supply .In addition the organisation will largely promote the development of drinking water safety and security planning as (DWSSP) as technological solution to contribute to strengthening of community resilience. Due to limited capacity on DWSSP in Zimbabwe, Tsuro Trust will provide technical support to District Water and Sanitation Sub-committee DWSSC members through training with overall guidance provided by the National Water and Sanitation Sub-committee. The knowledge and skills will then be cascaded to community level to enable them to develop Drinking Water Safety and Security Plans targeting the water point committees including those receiving water from the piped water schemes that will be trained on water point management.

As a technological solution the Trust will formulate, implement and comply with Environmental and Social Management Plan (ESMP) .Tsuro Trust will work with the district and the communities in Chimanimani district to facilitate the development of environmental management plans around all the various water points. A survey will be undertaken to determine the needs and the actions to be undertaken after, which will be determined by the results from the surveys.

## **CAPACITY DEVELOPMENT**

Communities will be actively involved and supported in the rehabilitation process with capacity building for community-based management systems for operation and maintenance and drinking water safety and security planning during the lifecycle of the project. For sustainability of the project Village Pump minders will be trained so that they have local solutions to rehabilitate water points, 10 Village Pump Minders (VPMs) will be trained on water point operation and maintenance and tools will be kept at a centralized institution i.e. clinic or school and will only be accessed by VPMs during breakdowns. This will be strengthened with the resuscitation and training of 15 Water Point Committees (WPCs) on the day-to-day management of water points. WPCs are the highest water management institutions found at community level. Members of the committee are elected by the water point users, and they offer their services on voluntary basis. Thus, the key element of taking over responsibility in such a committee is commitment. Positions in a WPC are those of a chairperson, secretary, treasurer, two caretakers and two committee members. The diverse tasks performed by Water Point Committees have led to the proposal to their training to cover a number of topics which include organizational planning and financial management where issues of budgets and record keeping are taught. The committees shall be trained in leadership roles and responsibilities where conflict resolution is a key aspect. On the technical aspect, the committees shall be trained on simple Operation and Maintenance(O&M) of water of Water points. The Ministry of Health and Childcare will also be supported to undertake monthly water quality monitoring in the District through the provision of water quality test consumables. This shall be followed by training on household treatment of drinking water in the communities.

## **GOVERNANCE STRUCTURES**

The Government of Zimbabwe through the National Action Committee (NAC), Department of Water and Sanitation Coordination (DWSC) are very supportive of local solutions towards operation and maintenance of water points .They will be engaged to support in coordination, capacity building and monitoring of activities jointly with the Provincial Water and Sanitation Sub Committee (PWSSC) and the District Water and Sanitation Sub Committee (DWSSC)

At local level there project participants will be encouraged to work with the local water governance structures which are the Water point management committees (WPCS) .With a strong advocacy to gender mainstreaming women are encouraged to take decision making roles in these committees. The Zimbabwe administrative area in the communities is demarcated through wards and there are Ward Water and Sanitation Subcommittees (WWSC) that are to be revived or setup and subsequently trained to ensure that there is Drinking water safety and security in these wards. The District Water and Sanitation sub-committee be capacitated on Drinking Water Safety and Security planning so that they cascade the trainings to the Ward Water and Sanitation Subcommittee. The District Water and Sanitation Sub Committees (DWSSCs) shall be largely engaged to co-ordinate planning and assists in the management of rural water supply activities in a district. The committee consists of all relevant sector agencies represented in the district and representatives from NGOs which may be co-opted by the committee. The sub-committee is chaired by the District Development Fund Department and reports to the Provincial Water and Sanitation Sub-committee.

## **BUSINESS ROAD MAP**

In this Proposal Tsuru Trust recommends a business road map where Public partnerships are taken into consideration to promote Drinking Water Safety and security Planning

- A cluster approach to implementing rural water systems improves financial viability (vs. independent water stations) and thus can broaden the extent of private sector participation in promoting Drinking Water ,Safety and Security in the communities

- Zimbabwe's national water policy needs to clarify asset ownership regarding who owns what, and which types of PPPs are most practical as there a Tragedy of Commons crisis in managing rural water supply systems
- The sector should explore varied forms of partnership structures including Design-Build-Operate
- Government should immediately offer opportunities include applying management and service contracts to existing rural piped systems and using public funds for infrastructure investment as well as promoting management of water points by local people .
- National water policies need to accommodate the PPP policy, which was launched by the. This should be accompanied by a regulatory framework and an improved information flow about investment opportunities in rural areas and small towns.

## **Conclusion**

The project proposes to promote a drinking water safety and security in the communities through technological solutions, capacity development, improved governance structures and promoting a business model influencing the sustain nability of water supply systems. Tsuru Trust will use an evidence-based approach to help develop the plans by conducting an initial assessment of environmental and social issues. This incorporates identifying elements that impact implementation and potential negative effects on environment and social structures that emanate from program interventions. These factors will have implications on community participation and the success of the project. This may include reviewing the regulatory frameworks and policies that feed into environmental and social management planning. The provision of safe drinking water to residences will also improve health condition of the community and reduces burden of fetching water which disproportionately falls on female members of households. Positive impacts of WASH intervention can be obvious through the improved quantity and quality of safe drinking water, reduction in water related diseases such as diarrhoea, dysentery, cholera, typhoid and thereby minimizing the cost of healthcare in households, reduction in infant, child and maternal mortality and morbidity due to improved health and sanitation services, reduced distances to water points which will lead to gains in productive time for women and girls. However, where risks are noted including potential risks from natural hazards these will be embedded into the water safety and security planning component.

## **References**

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