

**THE UNITED NATIONS CHILDREN'S FUND – UNICEF  
TANZANIA**

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**EMERGENCY COMMUNICATION STRATEGY FOR  
DISASTER PRONE AREAS IN TANZANIA**

**DRAFT**

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## PART I: BACKGROUND AND CONTEXT OF THE STRATEGY

### 1.1 Introduction

UNICEF through UNDP 2011-2015 is supporting the Disaster Management Departments in the Prime Minister's Office (Mainland) and Second Vice President's Office (Zanzibar) to ensure that there is coherent communication during emergencies for communities early action. The majority of emergency incidents occur at local level. Therefore improving emergency communications-specifically for operability, interoperability and continuity of communications cannot be accomplished by the government alone. This therefore necessitates the need to work through the National and Sub National Platforms in the Disaster Management Departments of the Prime Minister's Office (Mainland) and Second Vice Presidents Office (Zanzibar) using a stakeholder driven approach to develop an emergency communication strategy that includes representatives from the government ministries, agencies and departments, local governments, NGO's, UN agencies, Private sector, Media and the community.

Insufficient communication on emergencies contributes to communities' late response for early action that might have spared many lives and livelihoods. Communication about emergency risks and vulnerabilities at community level (the point closest to the emergency impact), is a critical component of helping individuals to prepare for, respond to, and recover from emergencies.

### 1.2 Risk communication

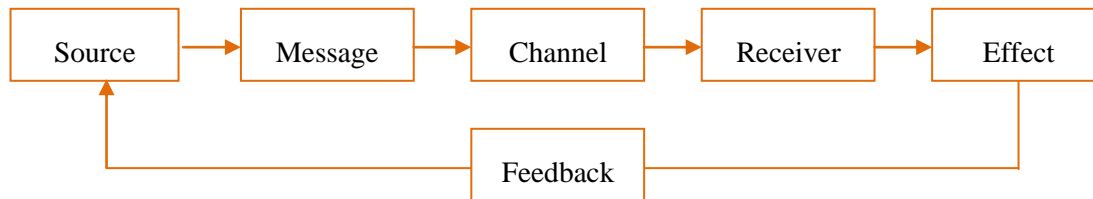
Risk communication is defined as an interactive process of exchange of information and opinion among individuals, groups and institutions describing the nature or consequences of a risk and vulnerabilities, by providing information on how to prepare for, protect against, respond to or recover from the risk. In addition, risk communication specifically includes actionable information. Risk communication can be analyzed in terms of who (Source) says what (Message), via what medium (Channel), to whom (Receiver), and directed at what kind of change (Effect)<sup>1</sup>. Figure 1 below depicts a classical persuasion model which summarizes risk

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<sup>1</sup> Lindell, M. K. & Perry, R. W. (2004). *Communicating Environmental Risk in Multiethnic Communities*. London, UK: Sage Publishing Inc.

communication processes.

- i) **Sources:** are perceived primarily in terms of expertise and trustworthiness, but also by other characteristics such as status, likeability and attractiveness. Trustworthiness refers to a source's willingness and ability to provide accurate information and take actions that protect the receiver without seeking hidden advantage for him or herself.



**Figure 1:** The Classical Persuasion Model (Source: Lindell & Perry (2004))

- i) **Messages:** messages vary in content especially on information about a hazard, its impact characteristics (e.g., magnitude, location, and time of impact), potential personal consequences (e.g., likelihood of casualties, property damage, and social disruption), alternative protective actions (e.g., evacuation, sheltering in-place), and the attributes of those protective actions (e.g., efficacy; safety; cost; and requirements for time and effort, knowledge and skill, tools and equipment, and cooperation from others). In addition, messages also vary in terms of their style (clarity, forcefulness, and speed of delivery, use of figurative or humorous language), inclusions and omissions (whether or not to include one's own weak arguments, address opponents' arguments, or to rely on implicit or explicit conclusions), ordering of message content, and amount of message material.
- ii) **Channel:** the communication channels available for use by emergency managers include print media such as newspapers, magazines, and brochures; electronic media such as television, radio, telephone, and the Internet; and face-to-face interaction through personal conversations and public meetings. The distinctions among these information channels are important because they differ in the ways they accommodate the information processing activities of receivers. For example, orally presented information is ephemeral and will be lost unless otherwise recorded, whereas written information inherently provides a record that can be examined at a later time. Moreover, many types of risk

information can be presented in either verbal (words), numeric (numbers), or graphic (pictures) format. Sometimes one mode of presentation is more effective for a particular type of information; for example, charts generally are more effective than tables of numbers in conveying trends. However, there are individual differences among receivers, so some presentation modes are more effective for some people but not others. For example, some people can understand verbal descriptions much more readily than graphs of data, whereas the reverse is true for others.

iii) **Receivers:** receivers differ in many aspects, but the most important of these are psychological characteristics that have direct effects on the communication process. For example, receivers differ in their perceptions of source credibility, access to communication channels, prior beliefs about hazards and protective actions, ability to understand and remember message content, and access to resources needed to implement protective action. The effects of a message on a receiver include attention, comprehension, acceptance, retention, and behavioural change.

iv) **Feedback:** is an important component of the communication model because some attempts are unidirectional, whereas others are interactive. Unidirectional communications are appealing to many risk communicators because they appear to be less time consuming and sometimes this actually is the case. Frequently, however, interactive communication is needed for receivers to indicate they have not comprehended the message that was sent or to explain that the message sent by the source did not satisfy their information needs.

The classical persuasion model makes it clear that risk communication is an activity with relatively clearly defined parameters regarding source, message, channel, and intended effect. In most cases, the source is an authority, the message describes a hazard, and the intended effect is a change in receivers' behaviour. However, receiver characteristics have very important influences on each of the stages in the communication process. For example, the effect of a given information source is determined by receivers' perceptions of that source. Also the effect of a given message is determined by receivers' willingness to attend to and his/her ability to comprehend and retain the information. Moreover the effect of a given channel is determined by

receivers' access to and preference for that channel and the amount of feedback depends upon receivers' willingness and ability to provide it.

### **1.3 Overall objective of the emergency communication strategy**

The main purpose of this communication strategy is to ensure that there is a clear information flow on the various phases in an emergency situation (e.g., before, during and after an event). This communication strategy focuses on three major emergency areas which are floods, drought and Cholera outbreak. Development of this strategy has been based on the baseline information that was collected from four Districts in mainland Tanzania and two districts in Zanzibar. The two districts in Zanzibar are: Micheweni District in Pemba (drought) and Magharibi District in Unguja (floods). The four districts in mainland Tanzania are: Kilosa District in Morogoro and Kinondoni District in Dar es Salaam (floods); Longido District in Arusha (drought); and Handeni District in Tanga (Cholera outbreak). Although the communication strategy is based on the facts and figures from only six districts, its preparation has mapped the whole terrain of the country where such kind of emergency may occur.

### **1.4 Approach in developing the emergency communication strategy**

The development process of this emergency communication strategy involved various interrelated activities that include:

- i) Conducting a baseline survey to identify and map the emergency communication information flow of each district (Longido, Handeni, Kilosa, Micheweni, Kinondoni, and Magharibi);
- ii) Working with the National and Sub-National Platforms in the Disaster Management Departments of the Prime Minister's office (Mainland) and Second Vice President's Office (Zanzibar) to monitor and report on communication access and flow of information during emergencies;
- iii) Developing and implementing an action plan to improve and monitor emergency communication and response;
- iv) Designing an emergency communication tool kit to address three emergencies which are floods, drought and cholera outbreak ready for printing and use.

### **1.5 Management and coordination mechanism for implementation**

The success of implementation of any emergency communication strategy depends not only on the quality of the message but also on the effectiveness of the coordination and implementation plan. To ensure effective implementation of the strategy, there is a need to develop an implementation plan and to identify key players who will participate in the implementation process. To address the critical needs of strong management and coordination, DMD-PMO and DMD-SVPO shall establish a mechanism to ensure that: 1) the strategy is responsive to emergencies and major disasters, 2) there is coordination between technical and communication personnel and other key stakeholders regarding key messages, and 3) there is a media training for key technical and communications spokespersons, and 4) implementation of the strategy involves all key stakeholders at all levels of the government. The strategy will be implemented by DMD-PMO and DMD-SVPO, Government agencies and Line ministries, disaster management committees at all levels, NGOs and CBOs, private sectors and the media.

### **1.6 Performance, monitoring and evaluation**

The monitoring and evaluation plan will look at the areas of comprehensive formative research in order to establish a baseline, regular and continuous monitoring of the implementation of the communication strategy activities and the achievement of the behavioural objectives. In addition, monitoring and evaluation will determine the results (change in behaviour or in terms of improved practices as prescribed in the messages) and the impact of these practices on reducing risk or in mitigating the impact of hazard. The monitoring and evaluation plan will include effective indicators to measure and track the communication efforts that would contribute to behavioural changes.

The overall responsibility of monitoring and evaluation will be of the DMD-PMO and DMD-SVPO. These units will work in close collaboration with the disaster management committees, line ministries and other key stakeholders to ensure implementation of monitoring and evaluation plan.



## **PART II: BASELINE SURVEY INFORMATION**

### **2.1. Kinondoni District in Dar es Salaam Region – Floods**

#### **2.1.1 Hazards, risk and vulnerability**

The findings show that floods are a serious problem in Kinondoni District. More than 80% of the households interviewed in Kinondoni District were affected by floods. For example, the hardest hit areas by the December, 2011 floods included Suna and Makuti B in Magomeni ward, Mkunguni A, Mkunguni B and Hanna-Nassif, in Hanna-Nassif ward.

About 63% of households interviewed reported that poor solid wastes management especially the habit of dumping solid waste in storm water drainage channels is one of the main causes of floods in Kinondoni District. The findings also indicate that more than 60% of the households interviewed believe that encroachment and illegal construction of houses in flood prone areas such as Msimbazi and Ng'ombe River valleys cause floods in Kinondoni.

About 46% of the households interviewed in Kinondoni District reported that their household assets were severely damaged by the December 2011 floods. During the field visit in Magomeni and Hanna-Nassif wards it was observed that several houses were destroyed. Also 45% of the households interviewed indicated that some of the infrastructure such as roads and bridges were severely damaged.

#### **2.1.2 Population at risk, knowledge, awareness and perceptions**

It has been reported that during flood events the most affected population groups are children, women, the elderly and the disabled because of their mobility impairment especially during evacuation. Also, during field visits, it was observed that most households are aware of the problem of floods in their areas because, floods occur almost every year in these areas. Over 78% of the households interviewed are aware of their vulnerability to floods. It was also reported that several researches have been conducted in these areas, resulting into significant increase in awareness on the problem of floods.

### **2.1.3 Behaviour and cultural practices**

During the field visits it was observed that most households in Kinondoni have the habit of dumping solid wastes in the storm water drainage which increases the risk of floods in the area. Also, sand mining has been reported as another practice that amplifies the problem of flooding in some areas in Kinondoni District. It was also observed that most people in the wards have the habit of encroaching and constructing houses in the flood prone areas e.g., Msimbazi river valley.

### **2.1.4 Coping strategies**

Most people in Kinondoni District raise foundations of their houses and toilets (pit latrines) as ways to cope with floods. The findings show that about 57% of the households interviewed in Kinondoni District raise their foundations and toilets as coping strategy. Some other methods which households use as coping strategy include evacuation from their houses during floods and live with their relatives and friends located in areas free from floods. Other methods used to cope with floods include constructing steps at the doors and the use of sand bags in order to prevent flood waters from getting into the houses.

### **2.1.5 Communication messages, information sources and channels**

Households in Kinondoni District receive different types of information before, during and after floods. Such information includes flood warnings, information on cleaning of drainage channels and proper solid waste disposal, floods awareness through public meetings, workshops and seminars.

The main sources of information on floods in Kinondoni District are Tanzania Meteorological Agency (TMA), Disaster Management Department (DMD) in the Prime Minister's Office, government officials such as the Dar es Salaam Regional Commissioner, District Commissioner, District Administrative Secretary and Ward Executive Officers, and Mtaa leaders.

Regarding communication channels, more than 80% of the respondents in Kinondoni District have telephones and radios, and more than 50 % own televisions and have access to newspapers. Very few households have access to internet, email, and fax services.

## **2.2. Kilosa District in Morogoro Region – Floods**

### **2.2.1 Hazard, risk and vulnerability**

Kilosa Township is susceptible to floods due to Mkondoa River which divides the township into two parts. The causes of floods in Kilosa Township are deforestation, river siltation and climate change. Out of 350 households which were interviewed, about 73% of the households indicated that river siltation is the major cause of floods in Kilosa, while 33% and 25% of the households surveyed, indicated deforestation and climate change as the major cause of floods, respectively.

The most devastated flood events in Kilosa District were those of 1997/98 and 2009/10. The 1997/98 flood event was due to El Niño rainfall, which caused destruction of farms, crops and settlements surrounding Mkondoa River. The 2009/10 flood event was not caused by rainfall that occurred in Kilosa but it was caused by heavy downpours in Kongwa and Mpwapwa in Dodoma region which caused Mkondoa River to burst its banks and inundate the Kilosa Township, forcing thousands of residents from their homes.

The 2009/10 flood event in Kilosa Township caused many damages including destruction of houses especially in Mbumi and Kasiki wards. It also destroyed many villages, farms and crops and infrastructure such as roads, bridges and railway lines.

### **2.2.2 Population at risk, knowledge, awareness and perceptions**

The findings show that during the 2009/10 flood event the most affected population groups in Kilosa were children, women, the elderly and the disabled.

The findings indicate that frequent occurrence of floods in Kilosa has increased public awareness on floods. The findings show that over 66% of the households interviewed are aware of the floods in Kilosa. Currently there are various government projects taking place in Kilosa to address the problems of floods. Such projects include TASAF which is involved in improving infrastructure and drainage systems and Tanzania Peoples Defence Forces (TPDF) which is engaged in construction of embankment along Mkondoa River as a flood mitigation measure. These projects also have increased public awareness on floods in the community.

### **2.2.3 Behaviour and cultural practice**

Poor farming practices such as cultivation on the river banks and overgrazing are some of the farming practices that contribute to flooding in Kilosa District. Farming activities along the river

banks cause soil erosion which leads to siltation of the Mkondoa River. During fieldwork, it was reported that siltation of Mkondoa River is one of the contributing factors of floods in Kilosa.

#### **2.2.4 Coping strategies**

Planting of water reed (*Matete*) along the Mkondoa River is one of the coping strategies that people in Kilosa District use to mitigate the impacts of floods on the area. Another coping strategy is to evacuate to higher ground particularly *Uzunguni* area. The embankment along Mkondoa River is used as a mitigation measure.

#### **2.2.5 Communication messages, information sources and channels**

The flood related messages that households in Kilosa receive include flood awareness and control of environmental degradation such as planting trees, practicing sustainable agriculture, livestock keeping and fishing. Sources of information on floods in Kilosa District are government officials such as DED and WEOs, village and sub-ward leaders and religious leaders. However, the main and most trusted source of information is the government.

Most households receive information on floods from radios and mobile phones and few from Televisions. Over 70% of the households own Radio and mobile phones and 32% of the households have access to Television while about 18% of the households have access to daily news papers. Availability of community radio (Kilosa Community Radio) facilitates sharing of information among households as the radio reaches more people.

### **2.3. Handeni District in Tanga Region – Cholera outbreak**

#### **2.3.1 Hazards, risk and vulnerability**

Cholera is a diarrheal disease transmitted by water or food that has been contaminated by human faeces. Common sources of water in Handeni in the surveyed wards are surface water and shallow wells which are prone to contamination. Cholera is common in both rural and urban areas of Handeni District. Poor hygiene, poor sanitation and lack of toilet facilities are the main causes of cholera outbreak.

While about 40% of the respondents have indicated that the main cause of cholera outbreaks is poor solid waste management, 20% of the respondents mentioned floods as the cause of cholera outbreaks.

Majority of people in Handeni use contaminated water from shallow wells without boiling. Also the risk of cholera outbreaks is increased by lack of toilet facilities. Most people in Handeni District do not use toilets; instead they use backyard or bush as toilets.

### **2.3.2 Population at risk, knowledge, awareness and perceptions**

Women, children, the elderly and the disabled are the most vulnerable population groups in Handeni District. Cholera outbreaks in Handeni occur frequently throughout the year. Educational programs and campaigns currently being conducted raise public awareness on how to prevent the households from cholera outbreaks and as a result, people are aware of the causes and how the disease is transmitted. People in Handeni believe that everybody can be affected by cholera and it is an act of God.

### **2.3.3 Behaviour and cultural practice**

Most people in Handeni District do not use toilets. This practice increases the risk of cholera outbreak because of poor sanitation. The majority of people especially men do not share toilets with their daughters or daughters-in law. This practice also increases risk of occurrence of cholera outbreak in the District.

### **2.3.4 Coping strategies**

Cholera outbreaks occur frequently in Handeni District, and as a result, people have developed some coping strategies to fight against the disease. Such strategies include establishment of cholera treatment centres in every ward and harvesting rain water. Preventive measures include boiling drinking water, washing hands before and after eating and after using toilets.

### **2.3.5 Communication messages, information sources and channels**

Messages that are communicated to people in Handeni District to fight against cholera include educational messages such as boiling drinking water, washing hands before and after eating, use of toilets and improvement of hygiene and sanitation and, improvement of solid waste disposal around. The main source of information regarding cholera outbreak in Handeni District is the Ministry of health through its public health care committees at the District, ward and village levels.

Radios (e.g., Abudi, Imani FM, TBC Taifa and BBC Swahili), televisions and newspapers are the main channels used in communicating cholera outbreak information in Handeni. More than

70% of the households interviewed own radios while 38% own telephones and have access to daily news papers which are also used as communication channels.

## **2.4 Longido District in Arusha Region – Floods**

### **2.4.1 Hazard, risk and vulnerability**

The findings indicate that the impact of drought is very severe in Longido District particularly on livestock keeping in which most of the people are engaged. It was reported that the most severe drought events occurred in 1963, 1974, 1995/96, 2005, 2008, 2009 and 2011.

Lack of rainfall was reported to be the main cause of drought in Longido District. The findings also suggest that climate change, deforestation and overgrazing do contribute to droughts in the District. About 57% of the household interviewed indicated that climate change and deforestation are the main contributing factors to droughts in the District while 17% indicated overgrazing.

About 96% of the households interviewed said that the major drought impact in Longido is shortage of water for both human beings and animals, 68% loss of animals, 67% famine, 20% animal diseases outbreak, and 16% crop damage. The findings also show that drought has severely affected the agricultural sector (farming) and pasture for livestock.

### **2.4.2 Population at risk, knowledge, awareness and perceptions**

Women, children, the elderly and the disabled were reported as the most vulnerable population groups to drought impacts in Longido District. During drought events normally men travel far away to search for pasture and water for the livestock leaving behind their families without food.

More than 96% of the households interviewed indicated that they are aware of the drought impacts in the District. Recurring spell of droughts in the District has made people aware of the impact of drought and how to cope with it. The Government intervenes by providing emergency supplies for human requirements following the occurrence of drought spells. Meanwhile, the Government is compensating in kind those who lost their livestock during 2008 and 2009. In addition, the government has been providing educational programmes aimed at creating public awareness on and, how to deal with the occurrence of droughts in Longido District.

### **2.4.3 Behaviour and cultural practice**

The findings show that keeping large numbers of animals and cutting down trees are common practices that also exacerbate the occurrence of droughts in Longido District. Movement of herds in search of pasture is another common practice that contributes to environmental degradation which in turn causes drought.

### **2.4.4 Coping strategies**

The findings show that some of the coping strategies that people use to cope with droughts in Longido District are selling of animals (e.g., cattle, goats), constructing ponds to keep water for the animals, constructing shallow wells for domestic use and shifting herds of animals from the drought affected areas to other areas in search of pasture.

### **2.4.5 Communication messages, information sources and channels**

Findings indicate that people in Longido District receive drought related information on sustainable livestock keeping methods such as reducing the size of herds, construction of ponds and rain water harvesting for livestock and discourage movement of herds from one area to another. Other drought related messages provided to the people in Longido are practicing sustainable agriculture and environmental protection awareness.

It was reported that the Ministry of Agriculture, food security and cooperatives, the Ministry of livestock and fisheries development and TMA are the main sources of drought information for Longido District. Other sources of information for drought are government officials such as District agricultural officers.

The findings show that the main communication channels used in Longido are radios, mobile phones and public meetings organized by community leaders. The findings show that over 83% of the households interviewed in Longido own radios, more than 80% own telephones, and 13% own television sets. The findings also show that more than 32% of the households interviewed have access to daily news papers.

## **2.5 Micheweni District in Pemba – Droughts**

### **2.5.1 Hazard, risk and vulnerability**

The baseline survey shows that the extent of drought impact in Micheweni District is very severe. The District has been experiencing recurring droughts almost every year. The most severely and notable drought events were that of 1972 and 1974

The main cause of drought in Micheweni District is lack of rainfall which is attributed to environmental degradation activities such as deforestation, sand mining, quarry mining and stone bricks making. Shortage of rainfall in Micheweni affects farming activities such as cultivation of rice, banana, yams, cassava, maize and also, livestock keeping.

Droughts in Micheweni District cause acute food and water shortages and, extreme poverty. Severe shortage of water in Micheweni has led to outbreaks of cholera and dysentery. Also, children in Micheweni suffer severely from malnutrition because of shortage of food. Another contributing factor of perennial food shortage is that farming activities in Micheweni are mainly practiced by women because most men are engaged in fishing activities.

### **2.5.2 Population at risk, knowledge, awareness and perceptions**

The population groups which are most affected by impacts of drought are women, children and the disabled. For example, malnutrition has been a chronic problem to children in Micheweni and women spend most of the time looking for food to feed their families. Also, in Micheweni drought has severely affected agriculture, livestock, water, health and environmental sectors. According to the household interviews, about 96% of the respondents indicated that agricultural sector was severely affected by drought in Micheweni while, about 47% of the respondents indicated that the sector of livestock keeping was also affected.

About 98% of the respondents indicated that they are aware and have knowledge on the impacts of droughts on the area. The knowledge and awareness of droughts has been gained through repeatedly experiencing the hazard. Many people consider drought to be largely a natural event. Furthermore, the risk associated with drought in Micheweni is amplified by the District's topography and the arid nature of the area.



### **2.5.3 Behaviour and cultural practice**

There are some practices which contribute to droughts while others practices minimize the impact of the drought. Practices such as deforestation, sand mining, stone bricks making and quarry mining contribute to the impact of droughts in Micheweni District. The common practice that minimizes impact of droughts is planting trees (*mivinje*). However, people in Micheweni plant trees for the purpose of selling timber in order to earn money.

### **2.5.4 Coping strategies**

In order to cope with droughts in Micheweni, people engage in different activities such as cultivation of sea weeds, quarrying activities, stone bricks making, tree planting, fishing and small businesses. Most of the households in Micheweni are engaged in sea weeds farming which is not affected by drought. Another coping strategy is planting drought resistant crops such as sorghum, millet and cassava. More than 90% of the population in Micheweni practice agriculture. Some households practice small scale farming in their back yards. About 38% of households in Micheweni engage in fishing activities while 35% practice livestock keeping.

### **2.5.5 Communication messages, information sources and channels**

Households in Micheweni receive the following messages on droughts: planting trees, cultivating drought resistant crops such as millet and cassava, practicing modern and sustainable fishing methods, environmental protection education, warning messages on food shortage and information on drought predictions.

About 50% of the households in Micheweni District receive droughts related messages from the government. The main sources of information are DMD in the Second Vice President's Office, TMA, government officials such as District Commissioner, District Administrative Secretary, Shehia and religious leaders. Other sources of information are Shehia Disaster Management Committees.

The main communication channel in Micheweni is community radio (radio jamii) which is very famous. Other radios which are also accessible in Micheweni include Imani FM, Zenji FM, Nuru radio and Zanzibar Broadcasting Corporation (ZBC). About 59% of the households in Micheweni own radio sets, while 44% own mobile phones and only 2% own television sets. However, it was also reported that some households usually go to their neighbours to listen to radio messages.

## **2.6 Magharibi District in Unguja – Floods**

### **2.6.1 Hazard, risk and vulnerability**

The baseline survey indicates that floods hit most of the areas in Magharibi District in Unguja almost every year. In Magharibi District floods are mainly caused by uncontrolled urbanization, poor solid waste disposal and inadequate drainage systems. Over 55% of the respondents interviewed said that the main cause of floods in Magharibi District is uncontrolled urbanization, 46% indicated inadequate drainage systems and 25% indicated poor solid waste disposal as another main cause of floods in Magharibi.

The main impact of floods in Magharibi District include disease outbreaks of cholera, dysentery and malaria, loss of household assets, destruction of houses and infrastructure such as roads and bridges. The household interview shows that about 82% of the households in Magharibi have been affected by floods.

### **2.6.2 Population at risk, knowledge, awareness and perceptions**

During floods most affected population groups are women, children, the elderly and the disabled. These groups usually face difficulties during evacuation and even in receiving warning information.

More than 70% of the households interviewed are aware of the flood impact on their areas because, floods do occur almost every year.

### **2.6.3 Behaviour and cultural practice**

One of the common practices that contribute to floods in Magharibi District is invading and illegally constructing houses in flood prone areas. The practices of dumping of solid waste in and blocking of drainage channels contribute to the floods in the District.

### **2.6.4 Coping strategies**

People in Magharibi District raise foundations of their houses and use sand bags as strategies to cope with floods. They also sometimes vacate from the areas once informed of an imminent danger of floods. More than 50% of the households in Magharibi District raise foundation of the houses as coping strategy while 43% use sand bag as coping strategy.

### **2.6.5 Communication messages, information sources and channels**

Households in Magharibi District receive flood related information such as early warnings, improvement of solid waste disposal and discouraging people from encroaching and illegally constructing houses in flood prone areas.

The main sources of information on floods in Magharibi District are DMD, TMA, and government officials such as the Regional Commissioner, District Commissioner, District Administrative Secretary, Shehia and religious leaders. Over 68% of the households in Magharibi District reported that the main source of flood information is the government.

The main communication channels for Magharibi District are televisions, radio, newspapers, and mobile phones, internet (email and social networks e.g. face book, YouTube, and blogs). The household interviews show that more than 88% of the households in Magharibi District own radio sets and mobile phones and about 54% own television sets. In addition, the findings indicate that more than 46% of the households have access to daily newspapers and 11% have access to internet services.

## PART III: EMERGENCY SPECIFIC COMMUNICATION STRATEGY

### 3.1 Kinondoni District communication strategy on Floods

The emergency specific communication strategy for Kinondoni District on floods is presented based on the disaster phases (before, during and after), proposed action, current behaviour/practice, key messages, communication channels, advocate and the respective target audience (see Table 1).

**Table 1:** Communication strategy on floods for Kinondoni District, Dar es Salaam

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
Before	Provide flood early Warnings	People ignore flood warning messages	Lack of knowledge	Provide basic knowledge on floods	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,MEO., Religious leaders, Media	Local Community
	Stop encroaching and building in flood prone areas	People encroach, build and live in flood prone areas	Poverty and weak law enforcement	Prone flood areas are dangerous, protect yourself and your family; do not build	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice	DMD,RC,DC,DED,WEO,MEO Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
				and live in flood prone areas.	board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>		
	Stop sand mining in Msimbazi river	People engage in sand mining in Msimbazi river	Poverty and weak law enforcement	Protect your community from floods; do not engage on sand mining in Msimbazi river	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED,WEO, MEO Religious leaders, Media	Local Community
	Stop dumping solid waste in storm drainages	People haphazardly dump solid wastes in storm water drainages	Poverty and weak law enforcement	Keep your community clean; do not dump solid waste in drainage channels	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED,WEO, MEO, Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
<b>During</b>	Evacuate to safe high ground areas	People do not evacuate once given warnings	Low perception of flood risk	Flood kills, once you receive evacuation notification, quickly vacate.	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED,WEO, MEO, Religious leaders, Media	Local Community
<b>After</b>	Rebuild your home and re-establish your businesses	After disaster people depend solely on government assistance	Lack of flood insurance	Access small loans to rebuild your home and business; there is life even after flood disaster	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED,WEO, MEO, Religious leaders, Media	Local Community

### 3.2 Kilosa District communication strategy on Floods

The emergency specific communication strategy for Kilosa District on floods is presented based on the disaster phase (before, during and after), proposed action, current behaviour/practice, key messages, communication channels, advocate and the respective target audience (see Table 2).

**Table 2:** Communication strategy on floods for Kilosa District, Morogoro

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
Before	Plant trees/vegetation cover along Mkondoa river	People cut trees along Mkondoa river	Poverty Weak law enforcement Lack of knowledge	Protect your community and your family from floods by planting trees and water reed( <i>matete</i> ) along river Mkondoa	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board, cinema, Internet, face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO CBO,NGO, Agricultural officers, Environmental officers, Religious leaders, Media	Local community
	Stop overgrazing along Mkondoa river	People graze along Mkondoa river Overstocking	Weak of law enforcement Lack of knowledge	Overgrazing along Mkondoa river causes soil erosion and siltation. Protect your community by stopping overgrazing because siltation	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO CBO,NGO, Agricultural officers, Environmental officers, Religious	Local community

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
				and soil erosion cause flood		leaders, Media	
	Stop poor farming along Mkondoa river	People cultivate along Mkondoa river	Poverty and Lack of knowledge	Flood kills, do not cultivate along Mkondoa river because farming increases flood risk in the area	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO CBO,NGO, Agricultural officers, Environmental officers, Religious leaders, Media	Local community
	Strengthen the river wall to protect Kilosa District from floods	People use the river wall as a road as a results the wall get damaged	Lack of knowledge	Protect yourself, protect your family, and protect your community from floods by protecting Mkondoa river wall.  Strengthen Mkondoa river wall by planting vegetation cover e.g., <i>Matete</i>	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO CBO,NGO, Agricultural officers, Environmental officers, Religious leaders, Media	Local community
<b>During</b>	Evacuate to safe high ground areas	People do not evacuate	Low perception of flood	Flood kills, once you receive evacuation	Radio, TV, News Papers, mobile phone Billboards,	DMD,RC, DC,DED,WEO ,	Local community



Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
	such as <i>uzunguni</i>	once given warnings	risk	notification quickly evacuate.	leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	VEO and Religious leaders, Media	
<b>After</b>	Rebuild your home and re-establish your businesses	After disaster people depend solely on government assistance	Poverty Lack of flood insurance	Access small loans to rebuild your home and business; there is life even after flood disaster	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i> ,	DMD,RC, DC,DED,WEO , VEO, Religious leaders, Media	Local community

### 3.3 Magharibi District communication strategy on Floods

The emergency specific communication strategy for Magharibi District on floods is presented based on the disaster phase (before, during and after), proposed action, current behaviour/practice, key messages, communication channels, advocate and the respective target audience (see Table 3).

**Table 3:** Communication strategy on floods for Magharibi District, Unguja

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
Before	Provide flood early Warnings	People ignore flood warning messages	Ignorance/lack of knowledge	Provide basic knowledge on floods	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leaders, Religious leaders, Media	Local Community
	Stop encroaching and building in flood prone areas	People encroach, build and live in flood prone areas	Poverty	Prone flood areas are dangerous, protect yourself and your family; do not live in flood prone areas.	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leaders, Town planners Environmenta l officers, Religious leaders, Media	Local Community
	Stop invading and	People invade and	Poverty and ignorance	Protect your community	Radio, TV, News Papers, mobile phone	DMD,RC, DC,	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
	building in natural drainage systems	construct houses on natural drainage systems		from floods; do not block the natural drainage systems by constructing houses.	Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	Shehia leader, Town planners Environmental officers, Religious leaders, Media	
	Stop dumping solid waste in drainage channels	People haphazardly dump solid wastes in storm water drainages	Poverty and Ignorance	Keep your community clean; do not dump solid waste in storm water drainage	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leaders, Religious leaders, Media	Local Community
During	Evacuate to safe high ground areas	People do not evacuate once given warnings	Low perception on flood risk	Flood kills, once you receive evacuation notification, quickly evacuate.	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leaders, Media, Religious leaders	Local Community
After	Rebuild your home and re-establish your	After disaster people depend	Poverty Lack of flood insurance	Access small scale loans to rebuild your	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures,	DMD,RC, DC, Shehia leaders Religious	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
	businesses	solely on government assistance		home and business; there is life even after flood disaster	Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	leaders, Media	

### 3.4 Handeni District communication strategy on Cholera outbreak

The emergency specific communication strategy for Handeni District on Cholera outbreak is presented based on the disaster phase (before, during and after), proposed action, current behaviour/practice, key messages, communication channels, advocate and the respective target audience (see Table 4).

**Table 4:** Communication strategy on Cholera outbreak for Handeni District, Tanga

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
Before	Provide cholera outbreak early Warnings	People ignore warning messages	Ignorance Lack of knowledge Cultural beliefs that it is a seasonal diseases	Provide knowledge on cholera outbreak	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board	DMD,RC, DC,DED, WEO,VEO, MoHSW, Religious leaders, Media	Local Community Students

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
					Internet face to face, traditional media e.g., the use of <i>folk-dances</i>		
	Provide clean and safe water	People use raw water from shallow wells	Lack of clean and safe water in the community	Boiling drinking water is one of the effective methods to protect your family from being effected by cholera	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Local Community  Students
	Improve sanitation	Some people do not use toilets as a result they contaminate water sources	Not a common practice in Handeni  Men do not share toilets with their daughter or daughter in laws	Protect those you love, poor hygiene spreads cholera	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Local Community  Students
During	Report cholera-	People do not	People think they	Early	Radio, TV, News	DMD,RC,	Local

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
	like illness immediately to the nearest health facility	report cholera symptoms immediately to the nearest health facility	will recover on their own without treatment	reporting of cholera symptoms and treatment could save your life	Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Community Students
	Avoid visiting sick relatives and friends	People visit relatives and friends as part of normal life	This is part of normal life  Social contact becomes even more important in a crisis or emergency situation	This is an emergency, the best way to protect yourself and your family is to avoid unnecessary social contacts.	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Local Community Students
	Avoid shaking hands	Way of greeting people	Common practice	The best way to protect yourself and your family is to avoid shaking	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud	DMD,RC, DC,DED, WEO,VEO , MoHSW,, Religious leaders,	Local Community Students

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
				hands with other people  Wash your hand with soap after shaking hands with others.	speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	Media	
	Wash hands with soap after every contact with a sick person	People do not wash hands after contact with sick persons	Low perception of risk by contact with sick persons	Protect yourself and your family from cholera, wash your hands with soap and warm water	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Local Community  Students
After	Improve sanitation	People do not use toilets	Common practice	Always use toilets to avoid spread of cholera	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board	DMD,RC, DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Local Community  Students

Phase	Proposed Action	Current Behaviour/Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
					Internet face to face, traditional media e.g., the use of <i>folk-dances</i>		
	Improve hygiene	People do not boil drinking water	ignorance	Protect yourself, your family and your community from being infected by cholera; always boiling drinking water	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC,DED, WEO,VEO , MoHSW, Religious leaders, Media	Local Community Students

### 3.5 Micheweni District communication strategy on droughts

The emergency specific communication strategy for Micheweni District on droughts is presented based on the disaster phase (before, during and after), proposed action, current behaviour/practice, key messages, communication channels, advocate and the respective target audience (see Table 5).



**Table 5:** Communication strategy on droughts for Micheweni District, Pemba

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
Before and After	Provide drought early information	People ignore drought warning messages	Common practice	Provide knowledge on drought hazard	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leaders, agricultural officers, Media	Local Community
	Stop deforestation	People cut trees such as mangrove	Poverty Ignorance Lack of knowledge	Protect your community and your family from droughts by planting trees in your community	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-</i>	DMD,RC, DC, Shehia leader, Forest officers and Environmental officers, Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
	Stop sand mining and stone bricks making	People engage in sand mining and stone bricks making	Poverty	Protect your community from severe environmental degradation; do not engage on sand mining and stone bricks making  Avoid sand mining and stone bricks making to minimize drought impacts	<i>dances</i> Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leader, Forest officers and Environmental officers, Media ,Religious leaders	Local Community
During	Improve availability of food	Farming is mainly carry out by women	Common practice	To improve food availability in a family, both men and women should engage in farming activities  Plant drought	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional	DMD,RC, DC, Shehia leader, agricultural officers and Environmental officers, Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
				resistant crops to cope with drought impacts	media e.g., the use of <i>folk-dances</i>		
	Eliminate hunger and malnutrition	Children do not eat enough food with required nutrients	Common practice	Engage in farming to eliminate hunger and malnutrition in your family	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Shehia leader, agricultural officers and Environmental officers, Religious leaders, Media	Local Community
		People do not practice irrigation farming	Common practice	Harvest rain water, practice small scale irrigation farming to improve food availability and eliminate hunger in your family	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board Internet face to face, traditional	DMD,RC, DC, Shehia leader, agricultural officers and Environmental officers, Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
					media e.g., the use of <i>folk-dances</i>		

### 3.6 Longido District communication strategy on Droughts

The emergency specific communication strategy for Longido District on droughts is presented based on the disaster phase (before, during and after), proposed action, current behaviour/practice, key messages, communication channels, advocate and the respective target audience (see Table 6).

**Table 6:** Communication strategy on droughts for Longido District, Arusha

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
Before and After	Provide drought early information	People ignore drought warning messages	Common practice	Provide knowledge on droughts	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board, village meeting, Internet face to face,	DMD,RC, DC, Local community leaders, agricultural officers, Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
					traditional media e.g., the use of <i>folk-dances</i>		
	Stop deforestation	People cut trees for firewood and charcoal	Poverty	Protect your community and your family from droughts by planting trees in your community	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board, , village meeting, Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Local community leaders, Forest officers and Environmental officers, Religious leaders, Media	Local Community
	Stop overgrazing	People keep large of number of animals (overstocking)	Common practice  It is a prestige for a Maasai to keep large number of animals	Overgrazing causes land degradation, protect your community by stopping overgrazing.  Reduce the number of livestock in your family to minimize the	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board, , village meeting, Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Local community leaders, Forest officers and Environmental officers, Religious leaders, Media	Local Community

Phase	Proposed Action	Current Behaviour/ Practice	Reason for Current Behaviour/Practice	Key Messages	Channel	Advocate	Target Audience
				impacts of environmental degradation			
During	Improve availability of food	Very few people practice agriculture	Common practice	To improve food availability in a family, engage in farming activities by planting drought resistant crops.	Radio, TV, News Papers, mobile phone Billboards, leaflets/brochures, Poster, loud speakers, notice board, , village meeting, Internet face to face, traditional media e.g., the use of <i>folk-dances</i>	DMD,RC, DC, Local community leaders, Forest officers and Environmental officers, Religious leaders, Media	Local Community