

## PRESENTATION OF THE ASSESSMENT OF LOSS AND DAMAGE IN THE CASE OF THE KALEHE NATURAL DISASTER IN SOUTH KIVU. IN DR CONGO



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This report is made in accordance with Article 8 of the Paris Agreement dealing with loss and damage and is the focus of the UNFCCC's Warsaw International Mechanism (WIM).

The MIW was created to deal with loss and damage caused by climate.

Disasters have always disrupted human life: there's either too much water or not enough, the earth shakes, volcanoes erupt in Eastern DRC and elsewhere, it's either too hot or too cold.... Today, we are witnessing a general warming of the planet's climate and an increase in these disasters, which raise the question: are they really "natural"?

Natural disasters can take the form of earthquakes, volcanic eruptions, tsunamis, earthquakes, floods, storms, tropical cyclones, thunderstorms, etc.... Although natural disasters are caused by meteorological, seismic or other factors beyond man's control, their toll is heavily dependent on the human factor.

## **Introducing KALEHE**

The territory of KALEHE is one of eight that make up the province of South Kivu. It is located in the north of the province and forms the boundary between North and South Kivu. It has a population of between 450,000 and 850,000.

The territory of Kalehe, in particular the chiefdom of BUHAVU in the Groupement de MBINGA Sud, recently suffered a natural disaster following heavy rainfall, which caused the rivers (LWANO and NYAMUKUBI) to overflow their banks and dumped mud and stones on Thursday May 4-5, 2023 in two health zones: BUSHUSHU (2 villages affected) and NYAMUKUBI (4 villages affected). The community of NYAMUKUBI was more exposed and had to be moved elsewhere.

Official figures put the death toll at 438, with over 5,000 missing and thousands affected.

More than 1,425 households were affected and 425 homes destroyed in BUSHUSHU, while several homes were affected and destroyed in NYAMUKUBI; 600 people were injured. The official balance sheet is as follows:

Shelters: over 700 houses completely destroyed, one health post destroyed, three local churches destroyed.

According to several discussions I had with witnesses to the disaster, it is difficult to establish an exact toll, as the tragedy occurred on a market day in Nyamukubi, and many of the victims did not live in the area. They had come from faraway places to take part in the weekly market held on the shores of the lake, which unfortunately became the final resting place of many victims, swallowed up by the waters of nearby rivers.

Road infrastructure: National road N°5 from Bukavu to Bushushu includes segments such as Luzira, bushushu, nyabibwe, kiniezire, mokelele and minova, which are cut in several places. Numerous bridges have been destroyed in the MBINGA Sud, MBINGA Nord and BUZI clusters.

Food: food security is essential to survival. Unfortunately, several fields have been destroyed, as well as animal and household food stocks, farm stores and other facilities. NYAMUKUBI has collapsed as a result of the disaster.

Hospitals are overwhelmed and there is not enough assistance for those affected. Some local organizations, such as:

AFEDEM, "Appuis aux Femmes Démunies et Enfants Marginalisés" and many other organizations are on the ground to collect data and provide the first medical and food kits. But coordination is still lacking.

A mission comprising members of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) has already been on the ground since the month of the disaster to reinforce the assessment of the situation, in particular to update statistical data, and to support the coordination of ongoing and planned activities (for the authorities and humanitarian actors). As part of my research into the losses and damage caused by the hazards of climate change, I organized a mission from May 7 to 20, 2023 to urgently assess the needs of households affected by the disaster. This was set up immediately to determine the extent of the damage suffered by each household and to propose appropriate solutions. The results of this mission are detailed in this report, with different recommendations depending on the sectors or areas of intervention.

### **ASSESSMENT OBJECTIVES:**

The overall objective of this assessment mission in the health zones of Kalehe was to identify the level of vulnerability of the community, displaced persons and host families, and to determine the type of intervention adapted to their needs following natural disasters. More specifically, it aimed to:

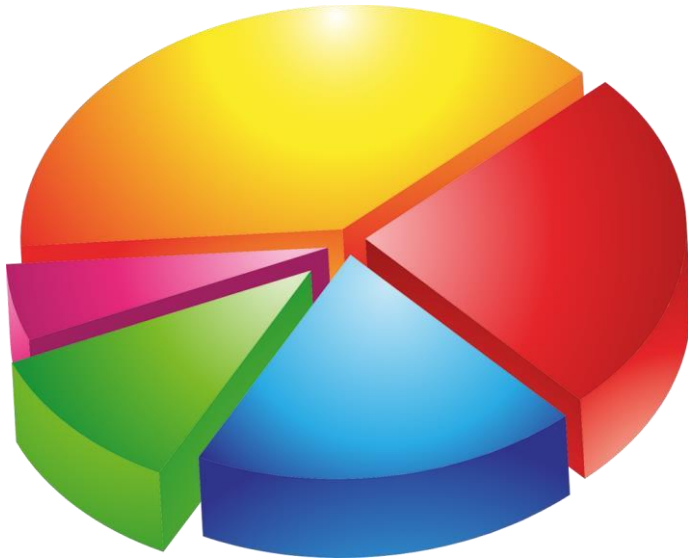
- Assess the level of vulnerability and exposure of households to protection-related incidents.
- Analyze the area's security context and identify the humanitarian threats facing local populations.
- Analyze the socio-economic situation of the local population.
- Assess the coping mechanisms and capacity to meet the basic needs of households affected by natural disasters.
- Assess coping mechanisms and the ability to meet the basic needs of households affected by natural disasters.
- Understand the level of access to basic services: medical care, food, children's education, markets, etc.
- Investigate the current situation of schools in terms of access, learning environment, and teaching, educational staff and community participation.
- Assess gaps in humanitarian assistance and priority needs by specific and priority humanitarian sectors, including protection, SECAL, WASH, Shelter - AME livelihoods, Education in Emergencies Health and Nutrition.

### **METHODOLOGICAL APPROACHES USED:**

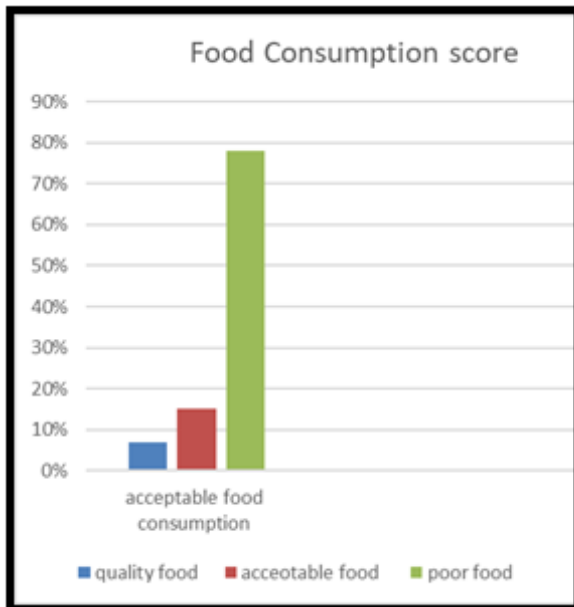
The evaluation was carried out using three main approaches: qualitative, quantitative and review/documentation.

- Quantitative approach: A representative sample of households was selected on the basis of a randomized systematic survey. A total of 102 households were visited in the Bushushu and Nyamukubi health areas, and interviews were conducted with household heads and available adult household members.
- Qualitative approach: focus group discussions (FGD) were conducted with community members on the basis of convenience sampling on the one hand, and targeted key informant interviews (KII) on the other.

### **NEEDS ASSESSMENT BY SECTOR:**



### NO FOOD FOR SEVERAL DAYS



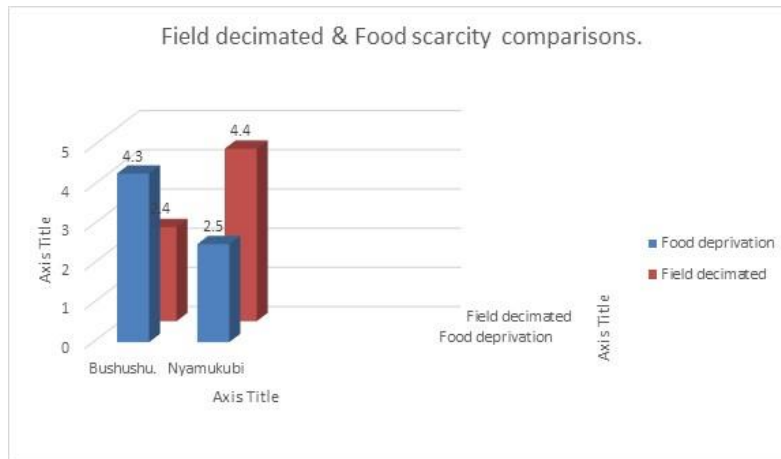
### Food security and livelihoods

#### Food consumption and coping mechanisms:

The assessment revealed that crisis-affected populations have poor access to food, both in terms of quantity and quality, as determined by the Food Consumption Score (FCS). Only 7% of respondents reported an acceptable food consumption score, 15% a borderline food consumption score and 78% of households visited a poor food consumption score. Almost all respondents (95%) indicated that their household was not currently consuming. The crisis reduced the frequency of daily meals in households by a third, with an average of one meal a day compared with three before the disaster. More than 705 households (76%) said they had gone several days without eating after the disaster. Nearly two-thirds of households visited in Bushushu (64%) were characterized by poor SCF, while in Nyamukubi, around one-third (32%) of households had poor SCF. According to a village chief in Bushushu, around 95% of the village's population are farmers. The remaining 5% live from small businesses and other jobs.

The natural disaster consumed all the fields that were still growing and not yet ready to be harvested.

### Comparing destroyed fields and food shortages



According to the same source, 344 fields were decimated in Nyamukubi and 257 in Bushushu. The same source added that 207 cows had been swept away by the floods, while the number of goats and sheep had yet to be counted. He added that the disaster had swept mills into the lake, 102 Mayan nets and 2 Mayan tri-net teams into the lake. The disaster has killed many people and affected many households and is likely to lead to widespread poverty in the community. Children will be particularly hard hit, as they are the most numerous in the village.

The assessment revealed that 92% of those surveyed are unable to meet their basic needs, 91% live below the poverty line, and 71% have lost relatives, jobs or livelihoods. Although these were the three main challenges cited, other concerns were also raised: no capital to start a business, no access to credit, lost or damaged farmland, etc. When asked about possible solutions, respondents responded as follows (multiple choice question): distribution of cash transfers (82%), training in alternative livelihoods (68%) and support for rebuilding lost livelihoods.

### EVALUATION RESULTS:

#### WATER, SANITATION AND HYGIENE

Water, hygiene and sanitation are among the needs most desired by those surveyed. According to key informants, the main water, hygiene and sanitation needs are drinking water at school, hygiene education and cleaning products. In Bushushu, the assessment revealed that both water supply systems were affected by the disaster. In fact, most of the standpipes are not supplied with running water, as the reservoirs have been damaged. At the Bushushu health center, for example, water is no longer flowing from the tap, and patients are having difficulty finding water for their daily use. According to the President of RECOPE and the Chairman of the Crisis Committee, the affected population uses water from rivers and lakes for domestic needs. Serious health problems linked to water-borne diseases are expected in the area as a result of this situation. The results of the survey showed that 100% of those questioned use the same river water that caused the damage. In the aftermath of the disaster, many host families are helping to house children who have been separated from their parents or guardians. Some are in Bushushu center, Ihusi and others in Nyabibwe. As of May 10, 2023, a total of 1,536 children, including 502 girls and 751 boys, are unaccompanied in Bushushu. It should also be noted that 4,437 children, 277 and 166 respectively, are missing/dead.





**THE SHELTERS**



The evaluators visited the villages of BUSHUSHU and NYAMUKUBI, victims of the natural disaster. More than 1,325 houses were swept away in BUSHUSHU, affecting 6,151 people, 952 of whom are missing. Survivors are staying with host families, occupying schools and churches, while others have headed for neighboring villages (Kanyunyi, Lushebere, Nkwiro, Chiishova) and the center of Kalehe. In Nyamukubi, the number of houses affected is estimated at 4,500, many of which have completely disappeared. In addition, 5 churches were swept away. Nevertheless, some of those affected have decided to build makeshift shelters. These victims have expressed the need for urgent housing. Essential household items are needed. The markets of Bushushu, Nyabibwe, Nyamukubi and Ihusi are not supplied with basic necessities. They have difficulty accessing non-food items due to scarcity and high cost when products are available. To prepare their food, the victims use their host families' utensils and share the few pieces of cutlery among themselves.

## **MARKET ACCESS**

The fact that not all goods and marketable products are accessible at the Bushushu market indicates that it is no longer in operation. It has also been partially destroyed, making access impossible as 42 stores and 42 commercial buildings have been destroyed. On the other hand, nothing was left standing in the Nyamukubi market alone, which was in the middle of selling and buying goods and services, and was totally washed away. Stores and office buildings could not be saved either. The World Food Programme (WFP) warehouse was also destroyed by the flood.

### **Victims' preferences:**



### **Food for survivors**

In terms of their main needs, affected populations preferred relocation, housing, aid and funds, health support and 30% other types of assistance, according to survey respondents. It should be noted, however, that in light of the interviews that were conducted, it was clear from the respondents' statements that 92% of them indicated that there were no security risks associated with providing cash assistance to families in their respective communities, as against 8% who thought there would be risks, including theft, community conflict, embezzlement, fights, robbery, etc.

When asked which method of receiving information they preferred, 69% of respondents answered by megaphone, 21% by face-to-face communication and 10% by visuals.

### **RECOMMENDATIONS:**

#### **Food security and livelihoods**

- Provide immediate food aid to vulnerable households affected by the humanitarian crisis.
- Provide cash assistance to vulnerable households to enable them to meet specific and diverse needs, particularly in view of the impact on the livelihoods of affected populations. Water, Sanitation & Hygiene
- Set up chlorination sites and train chlorinators.
- Provide the necessary tools such as sprayers, chlorine, soap, hydroalcoholic gel, empty jerry cans, plastic buckets, plastic tables and chairs, parasols, plastic boots, aqua tablets.
- Make drinking water available and accessible; increase water supply in areas affected by natural disasters and in sites or areas hosting displaced people.
- Rehabilitate the water network destroyed by the landslide in the two health areas.

- Provide assistance in the form of NFI WASH (The Emergency Shelter/Non-Food Items) kits to vulnerable households to ensure both adequate water supply and storage.
- Provide dignified assistance and hygiene kits to displaced women and girls.
- Support vulnerable households, including host communities, to improve sanitation and latrine hygiene.
- Help vulnerable households, including host communities, to rehabilitate latrines.

## **II Health**

- Provide psychosocial support to populations in distress.
- Strengthen the medical capacity of health facilities to ensure appropriate care for displaced and repatriated families, particularly children.
- Provide primary health care to vulnerable families affected by the disaster.
- Consider relocating health and education centers.
- Relocate and build emergency schools.
- Provision of school kits for surviving pupils
- Furniture, equipment and teaching materials for schools Protection
- Support family reunification for unaccompanied children.
- Strengthen RECOPE's capacity to adequately monitor cases of child abuse and other protection violations.
- Provide psychosocial support to affected children and their caregivers.
- Provide a safe space where children can play and develop psychosocial skills.
- Initiate advocacy and proactive measures to resolve land conflicts in areas affected by lava flows.

## **III Shelters:**

- Advocacy with administrative authorities for the relocation of the affected population.
- Construction of emergency shelters
- Emergency distribution of NFI kits

### **SOLUTION PATH (How to prevent, mitigate and adapt)**

The fight against natural disasters involves prevention (zoning, safety standards, awareness-raising), the installation of warning systems (sirens, weather reports) and rescue and intervention during and after events (evacuation, medical care, psychological assistance, and reconstruction).

It is often said that to manage is to foresee, so the Congolese government must start by making the administration in charge of land use planning at local level effective and operational, the local meteorological service (METTELSAT), implementing reforestation projects for protection purposes in steeply sloping areas, carrying out land potential studies for proper zoning and/or land allocation at ETD level, and also raising awareness among the local population of the environmental issues we are currently facing. For disaster mitigation and adaptation, the government must align itself with the following three main objectives:



- a. Integrate disaster risk reduction into local and sustainable development policies and plans;
- b. Create and strengthen disaster resilience institutions, mechanisms and capacities; and;
- c. Systematically incorporate risk reduction considerations into the implementation of disaster relief planning, response and recovery programs.

A national observatory for disaster prevention and management should be set up and/or made operational to provide better information on risks and early warning systems, and to instill a culture of safety and resilience in the population. In areas with a very high risk index, we need to focus on strengthening the response capacities of local players and communities, through appropriate construction and related training, as well as pre-positioning stocks of shelters, water and hygiene items. Above all, draw up contingency plans for high-risk areas.

## **CONCLUSION AND RECOMMENDATIONS**

At COP 16, a program of work was launched to develop recommendations on "Approaches to address the loss and damage associated with the impacts of climate change", which were considered at COP 18.

Natural as well as environmental disasters are much more likely to be attributed to climate change and poor environmental management; this severely compromises the functioning and resilience of ecosystems, and in turn, their ability to provide ecosystem services for present and future generations. There is an urgent need to step up investment in climate adaptation in Africa.

In the 145 territories of the DRC, the government must prioritize the identification of the areas most at risk, in order to assess, upstream, the investments needed to improve risk prevention and management. Both Kalehe in South Kivu and Rubaya in Masisi, North Kivu, are areas at risk of flooding.

In the case of very high disaster risk, and in other as yet unidentified areas, there is a need for sensitive preventive measures, Environmental and Social Impact Assessments (ESIAs) prior to each project, and good budgeted contingency plans.

### **We therefore recommend:**

- To the Congolese government: to create a national and local disaster prevention and management service, to make the local land-use planning administration effective and, if necessary, to create and/or make operational a national coordination center for emergency operations, as well as to strengthen the capacity and equip the environmental, urban planning and housing services at local level;
- Civil society: to raise awareness of current environmental issues (climate change, natural disasters, biodiversity erosion, etc.) among local communities in disaster-prone areas;
- Scientists: to carry out studies to provide the general public with the necessary and appropriate tools for natural disaster prevention;
- To the private sector (international, governmental and UN organizations): to focus their financing on adaptation to climate change, as stated at COP 27, since the Loss and Damage Fund was created as part of the new financing arrangements for responding to loss and damage.

The Loss and Damage Facility was established to help countries particularly vulnerable to the impact of climate change to respond to its effects.

- We appeal to the population to use common sense, first of all not to build haphazardly and/or in areas at high risk of disaster (steep slopes, unsuitable soil, proximity to watercourses, etc.).

It was with these aims in mind that I made an assessment to reveal the major gaps in humanitarian assistance to affected households, calling for immediate and realistic interventions, as seen in the video below. Advocacy efforts to secure funding and continue to highlight the complex situation in Bushushu and Nyamukubi are imperative. I'm looking for kind-hearted partners who can help us donate funds to reforest all the hills and mountains overlooking KALEHE / BUSHUSHU AND NYAMUKUBI.

Finally In these times of general mobilization for other crises and natural disasters, it is essential that the Kalehe disasters are not forgotten. The DRC and its many crises deserve greater attention from the international community.



1 - <https://drive.google.com/file/d/1kVFOzJCMbmoFfcbh3UpR3RJ31DXwIjV9/view?usp=sharing>



• <https://drive.google.com/file/d/19M2Smru53j3jicNx25RXAzDq91VrPpHp/view?usp=sharing>

APPENDIX IMAGE :





The Red Cross agents were also very active.



## Very deplorable housing for claims



**End of Report**

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