

Evaluation report:

## **Response to Natural Disaster**

Transversal evaluation of seven OCG interventions in 2007



Benoit Porte, June 2008

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## 1. EXECUTIVE SUMMARY

*OCG response to natural disaster shows some good logistic output, while generally outcomes are far below what was planned and needed. The evaluation concludes that with the current structure in place very little improvement can be made.*

**OCG intervened after 5 natural disaster events in 2007, spending a total amount of 1.589.064 CHF.** Average cost per benefit was 10 CHF. An additional two assessments were conducted without intervention.

**The MSF-CH presence was relevant in all cases.** Looking at existing needs and high numbers of potential beneficiaries the need and space for MSF was obvious. Teams made great efforts to search for the most vulnerable targets. Coping mechanisms have been well considered in the assessment processes. The explicit mentioning of MSF's assistance to victims of natural disaster in the Charta affirms the relevance in light of the organisational mandate.

**MSF-CH intervened exclusively in the second response phase (relief assistance).** Phases of search and rescue, rehabilitation, mitigation or preparedness were not treated. In order to be active and effective in an emergency phase one would need to be present and prepared in the phase before. At this stage, the OCG response capacity is linked only to the phase of relief assistance.

**Assessment types were generally not adapted to the indented response.** Rapid assessments were done for all interventions. However, 6 out of 7 assessments were also conducted as damage assessments, which are only justified if they are followed by a relief or rehabilitation / recovery phase. However, in none of these cases such a response was even indented. Several assessments were done rather late, at the end of an emergency phase. Such could only underline post emergency needs, and consequently led to no action at all.

**Teams identified real and most urgent needs, but excluded any "a-typical" type of problems.** Specific needs, which would have required action that is not absolutely linked to the emergency phase, were systematically not considered in the assessment process, i.e. wells cleaning, boreholes installations, mental health or mid term health structure support. Identification of food needs in MSF-CH seems exclusively linked to malnutrition and therefore is too often put aside.

**Poor timeliness was a main factor reducing effectiveness.** Rapid assessments happened on average 15 days after the event. Only one intervention in Kenya managed to assess on Day 3 and start response on Day 5 after impact. Poor timeliness of assessments has delayed most responses. The main reasons for such were the lack of preparedness in general and the lack of reactivity from MSF-CH teams in country. Internal delays in decision-making lines were an additional factor. Interventions generally suffered from a lack of specific experience in natural disaster management at field and Geneva level.

**MSF-CH commonly tended to over estimate their response capacity.** Targeting was overambitious, which naturally reduced the impact of the response. Assessments (and interventions) repeatedly defined their target population very wide, with a lack of prioritization of proposed activities, consequently response was scattered and coverage low. On average, MSF-CH targeted 21% of the total population affected and out of this reached 11% for NFI, 5% for medical and 4% for water and sanitation activities. This also demonstrates the very wide working space, and in fact the necessity to coordinate action with other agencies.

**Potential workspace in natural disaster response is left to others in order to avoid heavy coordination.** Some disputes with other actors were caused by the reluctance of MSF-CH to coordinate, and resulted in implementation problems. Nevertheless, many interventions very clearly benefited from coordination in terms of shared logistics and supplies.

**Regional logistic platform (SUKA) provided efficient logistic support and so, partially, compensated for poor Emergency preparedness.** Emergency preparedness stocks did not exist in any of the countries affected, except for Sudan. However, the MSF-CH logistic supply capacity showed to be very efficient. Particularly where SUKA was involved, its logistic capacity has counter balanced lack of emergency preparedness in countries. Today there is no organised alert system for natural disaster in MSF-CH.

**Non-food items (NFI) are predominantly needed, but interventions not necessarily prepared.** Out of five emergency responses, all assessments showed heavy needs for NFI, and all the responses included NFI distributions. Looking at the overall target population, 55% of potential beneficiaries were reached with NFI activities (compared to 24% and 21% with medical and water and sanitation activities respectively). However, in none of the cases NFI were pre-positioned (except partially in SUKA) or logistically planned as a heavy constraint. MSF-CHs NFI response capacity has shown clear limits.

**Length of response was too short to attain significant impact.** The average time of MSF-CH response was 27 days, with the absolutely shortest duration of 7 days in Mexico. Such short intervention frequently did not allow objectives to be reached and decreased chances to reach excluded beneficiaries.

**No policy results in unclear criteria for intervention and exit.** Criteria for intervention and exit are set on an “ad hoc” basis. There were many different triggers for intervention; unclear criteria seem to be one factor for delay. Exit criteria appear to be primarily driven by a pre-defined duration of the intervention. All this seems to result from the fact that no policy on natural disaster response exists.

**Conflicting positions and common trends on natural disaster response in the MSF movement.** While sections differ in their approach to intervention, each section seems to be searching for a better answer to natural disaster response. There is a clear willingness to coordinate better and particularly share resources such as regional platforms.

**Improvements are needed on OCG level; real changes and true impact are only achievable with joint forces on movement level.** The evaluator proposes a series of recommendations to MSF-CH, but provides also considerations for the movement. MSF may consider the following packages of measures, which are elaborated in detail in the report:

1. Define a natural disaster policy
2. Invest in emergency preparedness
3. Improve internal alert system, program launching and monitoring
4. Respect standards in the assessment process
5. Respect standards operational response
6. Refine needs identification process
7. Standardise and regionalise logistics
8. Develop specific human resource capacities
9. Standardise reporting
10. Improve co-ordination
11. Implement a set up for natural disaster response

In order to significantly increase the achievements of the MSF movement in natural disaster response, the evaluator proposes:

1. Share regional platforms and develop multiple competencies
2. Use a Standardised natural disaster training module
3. Build disaster management information system
4. Consider an International natural disaster coordination
5. Define a common policy for natural disaster intervention

## 2. Introduction

While this evaluation on natural disaster response was conducted, two major disasters occurred (cyclone in Myanmar and earthquake in China). Although for both cases the MSF response could not be included in the evaluation, it nevertheless confronted the evaluation team in real-time with the challenges and limitations MSF faces today in such situations.

This evaluation was initiated in order to provide facts for a revision of the OCG policy towards response to natural disaster and the strategies applied in such a response. The detailed Terms of Reference can be found in Annex 1.

### 2.1 *Evaluation process and methodologies*

The evaluation process was managed by the Vienna evaluation unit, with two evaluators hired for it. The evaluation lasted from the beginning of March to end of May 2008.

The evaluation started with a real-time review of an intervention in response to floods in Zambeze, Mozambique (conducted by Valery Gilbos). The second and main phase was a desk-review of all interventions and exploratory missions following flood emergencies during 2007 (conducted by Benoit Porte). The review included interventions in Dadaab/Kenya, Ayod/Sudan, Gambella/Ethiopia, Villahermosa/Mexico, Zambeze/Mozambique (in 2007, the 2008 response in the same area was evaluated on the field), Togo and Ghana. Key features and outcomes of all the interventions were analysed and compared. Interviews with key people involved in those interventions were conducted. Lastly, a rapid review of policy-, review-, and evaluation documents from all MSF sections was conducted. Phone interviews took place with key people from all the OCs. A list of all interviews is provided in Annex 2.

This report concentrates on the findings of the review of current practice. Findings of the Mozambique real-time evaluation are documented in a separate report, and a summary is provided in Chapter 4.

The concepts used as references in the evaluation process are detailed in the introduction of this report. Chapter 3 summarizes all findings by the main criteria used in the evaluation, i.e. relevance, appropriateness and effectiveness / efficiency. Each section ends with a conclusion. Chapter 4 summarizes the current position of response to natural disaster in the different sections of the MSF movement. Recommendations are drawn at the end of the report (Chapter 5). Although this evaluation was commissioned by MSF-CH, it was imperative to address issues concerning the movement, as it is only at this level that significant progress can be made.

### 2.2 *Natural disasters: Some background information*

The evaluator has used existing concepts and frameworks as a reference in the evaluation process. Below disaster types and health issues, phases in natural disaster preparedness and response, as well as assessment phases are briefly outlined<sup>1</sup>. Additional information on typical adverse effects and potential needs can be found in Annex 2.

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<sup>1</sup> Partially taken from internal documents of IFRC and UN.

## 2.2.1 Disaster types and health issues

Whatever the cause of the disaster, many of the effects are common, in terms of loss of personal resources and shelter, disruption to (or displacement away from) services, exposure to environmental health risk, loss of life (to a greater or lesser extent) and personal stress. Appropriate responses clearly need to take account of the prevailing situation. Therefore an assessment of ongoing hazards (including secondary hazards), and an understanding of security and livelihoods is required. These need to be specific to the context and to the type of disaster.

Emergency health response must plan for both the short-term and long-term health effects and risks caused by disasters. In the immediate aftermath of major disasters, this response must emphasize the management of mass casualties including search, rescue and first aid, transport to health facilities, triage, and evacuation. After this, emergency health response will need to address the water, sanitation, and nutrition needs of the affected population, as well as monitoring and controlling the spread of epidemics and communicable diseases.

Emergency health programs must recognize the link between health and proper water, sanitation, food, and shelter. Sufficient access to safe water, good sanitation, food, and shelter prevents people from falling sick, and should in principle be initiated before starting purely curative health programs. For example, of all basic human needs, water has the greatest impact for survival.

The table (see Table 1) below shows that there is a relationship between the type of disaster and its effect on health. This is particularly true when considering the injuries caused by the immediate impact of a disaster: e.g. earthquakes regularly cause many injuries requiring medical care, while floods cause relatively few.

**Table 1: Short-term effects of major natural disasters**

Effect	Earthquakes*	Flash Floods**	Slow Flooding***	Landslides and Mud-flows/ Debris Flow
Deaths	Many	Many	Few	Few
Severe injuries requiring extensive Care	Overwhelming	Few	Few	Few
Increased risk of communicable diseases	Potential risk following all major disasters (probability rising with overcrowding and deteriorating sanitation)			
Food Scarcity	Rare (may occur due to factors other than food shortage)	Common	Common	Common (when populations are displaced)
Major population movements	Rare (may occur in heavily damaged urban areas)	Common	Common	Common

**\*Earthquakes:** Studies show that the ratio of dead to injured caused by the initial earthquake shock is approximately 1 (death) for every 3 (injuries). This ration of dead to injured decreases as the distance from the epicentre increases. Secondary disasters such as fires, and landslides, may occur after the earthquake shocks and increase the number of casualties requiring medical attention. The broad pattern of injury caused by earthquakes will be: Mass number of people with minor cuts and bruises, a smaller group suffering from simple fractures, and another group suffering from serious multiple fractures or internal injuries requiring surgery and other intensive treatment.

**\*\*Flash Floods:** Flash floods may cause much death but leave relatively few severely injured. In flash floods, deaths may also result from drowning and are commonest among the members of the population who are physically weakest.

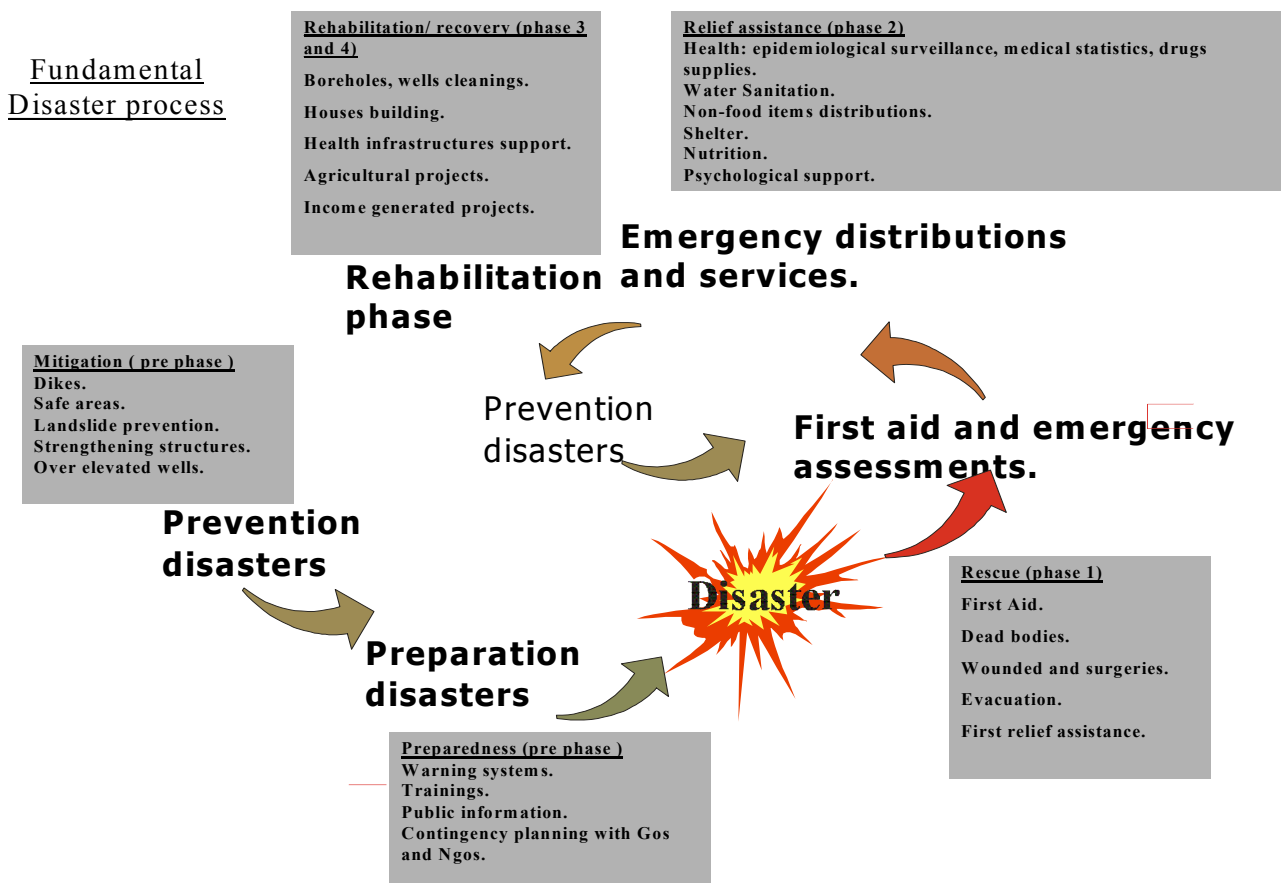
**\*\*\*Slow Flooding:** Slow flooding causes limited immediate morbidity and mortality.

Though all disasters are unique, there are still similarities between disasters, which, if recognized, can optimize the management of health relief, and use of resources. From the table, we can surmise the following two points.

- i) Some effects are potential rather than an inevitable threat to health. For example, population movement and other environmental changes may lead to increased risk of disease transmission, although epidemics generally do not result from disasters.
- ii) The actual and potential health risks after disaster do not all occur at the same time. Instead, they tend to arise at different times and to vary in importance within a disaster-affected area. Thus, casualties occur mainly at the time and place of impact and require immediate medical care, while the risks of increased disease transmission take longer to develop and are greatest where there is crowding and poor standards of sanitation.

## 2.2.2 Phases in natural disaster preparedness and response

Figure 1: Disaster process and phases of response





## 2.2.3 Assessment phases

### - Early notification

In the first few hours and days of a disaster, decisive action is necessary. In sudden onset disasters, a preliminary “early notification” should be completed as soon as possible after the disaster occurrence—preferably within the first 10 hours after a disaster. This early notification alerts about the disaster and approximates extent and location of the damage.

### - Situation assessment

The early notification is followed by a more intensive detailed disaster situation report, usually within the first 12 - 36 hours after the disaster occurrence. This report will provide more details about the disaster: the damage, urgent needs and priorities, and actual response measures being taken.

### - Emergency needs assessment (rapid and damage)

Between 36 and 72 hours after disaster impact, as more complete information is known, there should be a rapid assessment, looking at the what and how much. A detailed (damage) assessment of specific damages, resources, response mechanisms and needs within the different sectors follows between Day 4<sup>th</sup> and 15<sup>th</sup>: water supply, health and nutrition, food, household needs, shelter, infrastructure and communications, etc. This will be a detailed assessment of sector specific damages and needs and should attempt to identify and forecast sectoral needs in the next 7 day- 6 weeks, and 6 weeks – 3 months. If it appears that the emergency will be extended from weeks into months, then the assessment should help define specific interventions for up to the next 3 months.

### - Ongoing monitoring and assessment (recovery and vulnerability capacity assessment)

Additional assessments should be planned, 3 months after the disaster occurrence. Newly evolving circumstances, local efforts and capacities and official response measures all will affect the status of the emergency situation and needs. It is important to monitor the situation and the evolving needs over time to gauge whether additional or longer-term assistance will be required.

**Table 2: Assessment process**

<b>Rolling-Assessment Approach</b>						
<b>Disaster Event</b>	<b>Time after disaster impact</b>					
	<b>First 10 hours</b>	<b>12-36 hours (&amp; then, as needed)</b>	<b>48-72 hours</b>	<b>7-15 days</b>	<b>30-60 days</b>	<b>3 months</b>
<b>X</b>						
<b>Assessment type</b>	Early notification	Situation assessment report	More detailed emergency needs assessment	Ongoing monitoring of situation and needs		
<b>Information needs</b>	<b>Alert headquarters</b> <input type="checkbox"/> Disaster type, date <input type="checkbox"/> # casualties <input type="checkbox"/> # properties damaged	<b>More details:</b> <input type="checkbox"/> Disaster magnitude <input type="checkbox"/> Geographic area affected <input type="checkbox"/> Local response <input type="checkbox"/> Infrastructural damage <input type="checkbox"/> Main problems & priority need areas	<b>Assessment team:</b> <input type="checkbox"/> Detailed assessment of needs and resources <input type="checkbox"/> Define intervention for up to 6 weeks- 3 months	<b>Continued monitoring and assessment:</b> <input type="checkbox"/> ongoing situation, response and needs <input type="checkbox"/> Changes in status and needs <input type="checkbox"/> Need for longer-term assistance (after 3 months) <input type="checkbox"/> Plan of action for assistance to continue past 3 months		

### 3. Findings from the OCG interventions

Findings are presented following the main evaluation criteria and questions, i.e. Relevance, Appropriateness and Effectiveness / Efficiency. In each chapter the respective findings are briefly described for each of the interventions, followed by conclusions on each criterion at the end.

#### 3.1 Relevance

Relevance in this evaluation is defined as the question whether or not beneficiaries' needs were covered by MSF, and whether MSF was the right organisation to do so (among all the others). As a basis for the debate on what role MSF should play in natural disaster we refer to the MSF-Charta:

*“MSF provides assistance to populations in distress, to victims of natural and man-made disasters and to victims of armed conflict.”*

Relevance was looked at in terms of i) nature of needs assessment (and activities proposed), ii) coping mechanism of the population (and assessment of such), iii) criteria for intervention, and iv) the presence of other actors.

##### 3.1.1 Needs identification

###### Sudan:

The needs assessment looked at the most vulnerable populations in depth. Basic findings provided by OCHA were counterchecked by the team. They could approach the population affected by floods despite difficult access. The assessment was precise and acute and targeted a number of 6'000 people. All potential threats were studied: health status and medical facilities, vaccination, water supply and sanitary measures, food supply, shelter and NFI, curative care, control and prevention of outbreaks. All sectors were badly affected by floods in this geographical zone (4 bomas), and very few partners were operational on the ground.

Malaria, ARI and watery diarrhoea were the most common diseases identified in the area. The last measles vaccination campaign had been done 9 months before. No safe drinking water, no boreholes and no sanitary measures were available. Tukuls were mostly destroyed, forcing people to either leave their villages to stay with relatives or to sleep homeless in order to protect their cattle. Most crops were destroyed and under water, and no food stocks were available.

The assessment team emphasised prevention (of major pathologies such as ARI); they proposed the following actions: CHV training for safe drinking water and chlorination, provision of curative care and surveillance through 3 mobile clinics, measles vaccination, nutritional screening in the area, supply with medical kits for one health centre and NFI distribution (blankets, soap, jerrycans, plastic sheeting, bed mats, cooking sets and buckets).

The needs identification seems totally accurate. Less so the proposals drawn and response initiated following the assessment: despite the Malaria prevalence no mosquito nets were part of the NFI package (they were initially proposed, but not part of the supplies provided by UNICEF). Water was a clear need in the mid-term for the population, who stayed in places to protect their animals (activities such as boreholes could have been implemented). With no food distribution planned, nutritional screening has to be considered a very insufficient measure (able to detect only once malnutrition would manifest itself), considering the known food insecurity that existed for a long period of time.

## Ethiopia:

The rapid assessment targeted a population of 53'000 people affected by floods in 40 rural locations along the Baro river, 46'000 had stayed in their villages, 7'000 were displaced in centralized collective centres. The assessment based its analysis on the number of houses destroyed, number of deaths, dead animals, plants destroyed and people displaced. Knowing the logistic difficulties for scattered areas, the team concentrated its efforts unsuccessfully on the search of beneficiaries' location and on the sectoral needs. The "how much" in this rapid assessment seems to have been too rapidly answered, while the "what" was treated as a secondary target.

Since the families had lost animals and their livestock, and since most crops and stored foods had been destroyed also, the team emphasized its report on the food security situation. However, food being already implemented by DPPSO and WFP, the conclusion of the assessment was that Government and media were over exaggerating the humanitarian situation in order to hide from an alarming humanitarian situation elsewhere. The report also concluded that population were coping as they always do on recurrent floods.

A second assessment was launched a few days later (as the first one was considered inappropriate by the MSF Coordination) in order to rework the original data of population numbers and to reconsider the needs. It was acknowledged that coping mechanisms such as elevation of tukuls were not efficient and 50% of the houses had been destroyed. No unusual disease incidence had been reported so far. Food was still an issue, and heavy lobbying for quick distribution from WFP and the DPPSO was decided. NFI such as jerrycans, blankets, mosquito nets and plastic sheeting were considered to be distributed.

Considering the state of deterioration of the habitat, non-food items distributions were perfectly adequate. A medical and nutritional surveillance was also proposed at first (quite wisely) and then paradoxically cancelled, because water levels were decreasing rapidly, and food was provided by other partners.

## Mexico:

The rapid assessment team has implemented a peripheral strategy concentrating its efforts on two specific zones (Frontera and Nacajuca) of the most affected region (Tabasco) and the border with the Chiapas region. MSF-CH anticipated a massive humanitarian response at the epicentre of the crisis (Villahermosa), as this was already initiated by the authorities<sup>2</sup>. Teams separated in order to ensure a complete coverage of the targeted zones. In Chiapas, food (due to crops destruction) and hygiene kits (demanded by beneficiaries) were immediately identified as most acute needs. Collective centres were providing food. Water supply and access to health had been partly disrupted by the disaster, but were kept functional<sup>3</sup>. In Anahuac, trucks supplied water already and health centres that were not flooded compensated for closed health centres. Coping mechanisms were strong and private sheltering was systematically implemented.

Hygiene kits and jerrycans were being identified as the most acute needs in this region. The teams proposed medical surveillance through mobile clinics, water trucking and supply of water bottles, which was not directly complying with the priority of needs they had identified.

In Frontera, coping mechanisms were less effective, population tended to stay in their flooded houses, as they feared looting. The local authorities distributed food and water, but this was the area, most affected and isolated by floods. Lack of medicines, significant numbers of ARI and skin diseases were reported. Potable water was not accessible, as all wells and latrines were flooded.

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<sup>2</sup> On large scale disaster in such context of high reactivity and acute needs to apprehend, the assessment exercise is extremely difficult.

<sup>3</sup> This is a typical observation in this kind of disaster in such context.

In summary, the most acute needs were strongly identified for this phase of the emergency, but the target population chosen was overambitious.<sup>4</sup> The needs that were identified and addressed by MSF can be considered adequate in general. However the implementation of the mobile clinic in Nacajuca was not necessarily based on needs whereas the need for hygiene kits would have applied for Chiapas also. The fact that MSF decided to disengage after 7 days left important and identified needs uncovered; especially water (well cleaning) and sanitation in Frontera region. Mental health support was never addressed in the reports, although known to be a common (but marginalised) need in large-scale disasters.

### **Mozambique:**

The assessment team covered Zambezia province, more specifically 2 districts: Mopeia and Chinde. Morrumbala district was added to the assessment due to its relatively good accessibility and high number of scattered IDP populations. The target population included 24 camps altogether for a population of 48'200 people. In total, 6 camps representing around 13'500 people were visited during assessment in Mopeia district (Zona verde, 24 de Julho, Niamere, Niacatundo, Braz and Nowere). The team did not assess the camps of Chinde and Morrumbala but targeted them anyway. The team could not use a helicopter for its assessments, which complicated its task substantially. 3 camps out of 6 had one MoH health post with long walking distances (2 or 3 hours) from health referral point, in Zona verde and 24 of Julho, there were a few minutes walking distances between their health post and the health referral point. In Calangano, there was no health post in the camp. It was remarked that no epidemics had been notified so far in any camps. Sheltering was installed partly with Red Cross tents in one camp, for the others it was local materials, plastic sheeting were missing. For water, only a water pump was installed in one camp; for the other camps, populations used the river waters. 15 latrines were present in 24 of Julho, 6 latrines in Zona verde camp; elsewhere a few latrines were under construction without being numbered. During assessment, food became an issue, 2 camps had had small quantities given by the authorities, and elsewhere no food distributions had been implemented. Besides, in no camp, NFI had been distributed.

After the assessment general medical surveillance, a supply of basic health kits, general water supply, sanitation activities and a general NFI distribution was proposed. Concerning food needs, it was proposed to monitor the supply provided by other actors (following previous lobbying to WFP). No other food security assessment was considered.

The assessment correctly identified most urgent needs in the camps that were visited. The targeting was too ambitious and did not take into consideration all logistic constraints and internal capacities. In the implementation of sanitation activities, socio-cultural issues were not taken into consideration, which led to serious problems with the use of latrines. It was also said that further assessments would take place to cover remaining camps and adjust the response; however they only took place partially. This was a consequence of the very wide targeting which finally resulted in only very scattered measures.

### **Kenya:**

Expatriates from an exploratory mission at the border of Somalia were asked for assistance when heavy flooding hit two refugee camps (Ifo and Dagahaley camps) and a third (Hagadera) that was also slightly affected. These places had been, before the floods, already assessed by MSF-CH. The flood response team ended up in a particular situation, evaluating the damages on camps already assessed by the previous team and managed since long by other humanitarian partners. This allowed them to understand the pre-crisis situation of the affected population.

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<sup>4</sup> Paradoxically, on large-scale disaster in considered developed context with massive response, the targeted populations and means have to be extremely acute and précised.

50'000 people from both Ifo and Dagahaley camp were planned to be moved by UNHCR to Hagadera camp with only an extra space available for 15'000 people. An extra humanitarian effort from MSF-CH was at this point pertinent as long as partners asked for it. It seems that if MSF-CH was welcomed informally to help, it was not formulated officially (despite e-mail correspondence with UNHCR), leaving space for misunderstandings. Indeed as the water decreased rapidly and with Hagadera camp population reluctant for a massive influx of newcomers, it was decided by UNHCR that humanitarian aid would stick to the actual camps with its original partners (GTZ and Care). The MSF-CH assessment team had to revise urgently its plan, as the medical and water sanitation on the three camps was already managed by long-term actors (UNHCR for coordination, GTZ for health and Care for water/sanitation). A full charter had been deployed by MSF-CH (without the final findings of the rapid assessment). As needs in the camps were covered by others, it was finally used to distribute NFI to peripheral villages.

Needs identification in this particular case was not the main difficulty since it happened on closed settings under heavy monitoring of humanitarian partners. The assessment team had rightly apprehended the most urgent needs.

### **Togo:**

The assessment team had started its investigations nearly a month after the considered impact. Two regions had been particularly affected (Maritime and Savanne). The team evidently arrived in a phase of recovery where these floods had aggravated chronic humanitarian needs, while MSF was actually expecting emergency relief needs. On the medical field, the team assessed a satisfying access to health structures, no unusual incidence rates, but noticed weaknesses in the epidemic surveillance. In the Maritime zone, the team found high numbers of malnutrition cases in the local hospital and no particular nutritional care. In the same zone, the water and sanitation situation was considered alarming, such as polluted wells and non-accessible water sources. In terms of shelter, coping mechanisms had been efficient in both regions, communities had organized themselves profiting from a high spirit of solidarity. Humanitarian agencies, particularly the Red Cross and UNICEF, had already distributed NFI. A second exploratory mission based on nutrition was conducted a few months later and concluded there was no need for MSF to intervene, however the situation should be monitored.

The team effectively detected the needs corresponding to the phase in which they were intervening (recovery); however they did not trigger any operation. Food was clearly identified as a need, and the e-desk would have supported blanket feeding; however the e-team decided against such. MSF also decided against a water related intervention (needs for wells cleaning, elevated boreholes or temporary bladders were seen in Maritime).

### **Ghana:**

Timing for this assessment was similar to the one in Togo. It took place in the area of West Mamprusi commonly known as the "Overseas" area due to its isolation.

As in Togo the team concluded for non-emergency relief needs, a satisfying health situation, and post emergency needs in water. However it triggered a food distribution since many food stocks of the relief agencies were being kept and blocked at district level, local authorities having their own agenda. MSF finally cancelled this planned response due to release of the existing stocks, however the initiative was appreciated.

### Box 1: Example of Bangladesh

The case of Bangladesh crisis has not been studied in detail; however it is a good example of current coordination inside the movement. From interviews, the following information was gathered:

MSF-H, present in country since a long time, had planned to disengage at the time of the crisis. However, their presence in country gave them the legitimacy to be the MSF lead agency. Needs were not obvious from the MSF-H assessment. MSF-CH had just intervened in Mexico two weeks earlier. Based on these two facts, MSF-CH decided not to intervene in Bangladesh, also knowing that other sections were acting. Three intervention zones were mapped and shared between three operational sections: MSF-B; MSF-F and MSF-H. The most affected zone was where MSF-F intervened; therefore they deployed a full scheme operation, focusing on medical activities. MSF-B, besides a regular medical surveillance, carried out substantial action in NFI response. Both sections concluded a satisfactory response, each of them fulfilling their criteria of intervention.

Two issues can be debated following this intervention:

First the position of a regular mission in country and secondly the decision on how much capacity, hence how many sections are needed. A mission in country per definition has a different interpretation of a natural disaster than one would have from the outside. The mission itself is disrupted and will have a conscious or unconscious interest to portray a lesser impact. On the other hand the value of a mission in country is of course its existing knowledge on the context, its added value to start activities during the phase 1 “search and rescue phase” and the potential ability to “open doors”.

Neither the argument that other sections are already present on site, nor the fact that a section has just intervened elsewhere, do seem valid criteria for non-intervention, considering the scope of a crisis like Bangladesh. The challenge for the movement is possibly the co-ordination and how to dispatch resources and competencies meaningfully to all the affected zones.

### 3.1.2 Coping mechanisms

Here the evaluation looked at how the MSF-CH assessments defined and integrated local populations own responses.

**Sudan:** Populations normally left their flooded area to live with relatives, however many stayed to protect their animals.

**Ethiopia:** Populations usually elevated their houses and put their goods in higher places, but it did not work in this particular case, many had to retreat in collective centres.

**Mexico:** Population immediately gathered in private shelters or community centres. Community leaders were ready to monitor the incoming aid.

**Mozambique:** Populations who are used to flooding (and gradually learned from the previous floods) determined safe areas in advance.

**Kenya:** Population did not expect the floods; no particular coping mechanisms were in place.

**Togo/Ghana:** Population had stocked their goods in high and safe areas, but also stayed themselves with friends and relatives.

**Coping mechanisms** were always taken into consideration in rapid assessments. They became criteria of intervention when they did not exist or could not be efficient enough such as Kenya, Sudan and Ethiopia. In other cases such as for some sites in Mozambique and particularly Mexico, specifically when the crisis is sudden, coping mechanisms have their limited effects even though populations are used to the climatic phenomenon. They modify some aspects of the intervention, but do not prevent from an intervention.

### 3.1.3 Criteria of intervention:

What were the main factors for MSF-CH to trigger the assessment processes?

**Sudan:** MSF-CH was present in country and media influenced them to do an assessment.

**Ethiopia:** present in country; coping mechanisms were considered as inefficient by the team.

**Mexico:** It was a sudden and media crisis with a high numbers of IDPs. MSF-CH had a particular interest since a new office had just been opened in the country.

**Mozambique:** MSF-CH was present in country, large presence of IDPs (MSF-CH target population), and cholera was considered a risk due to a long history of cholera epidemics.

**Kenya:** MSF-CH was present in country, the sudden character of the crisis and the vulnerability of the refugees triggered the intervention.

**Togo/Ghana:** International aid had been asked by the Government, press coverage influenced the decision to do an assessment.

The interventions were mostly motivated by the presence in the country at the moment of the event. Media played an important role in the triggering of the 2 crises of non MSF-CH presence.

### 3.1.4 The presence of others:

Here the evaluation assessed how MSF-CH integrated information about the presence of others in its assessment, and how co-ordination happened.

#### **Sudan:**

- COSV and SWIDAP provided 5 CHWs at disposal of MSF-CH.
- OCHA in its coordination role allowed MSF-CH a helicopter ride for assessment.
- PACT ensured MSF-CH all logistic sheltering and storage.
- Carter Centre ensured MSF-CH all logistic transportation.
- UNICEF provided MSF-CH all the non-food items for its distributions.
- MSF-F/MEDAIR targeted other flooded regions.

#### **Ethiopia:**

- WFP ensured food stocks at disposal of the DPPSO and eventually of other partners. No other partners were in the region.

#### **Mexico:**

- Health Authorities coordinated in general; public services globally were extremely reactive.

Mexican RC was operational particularly in NFI distributions. It facilitated customs procedures for MSF-CH imported items. Good coordination based on a geographical approach, but MSF-CH did not manage to use a helicopter for assessment. MSF-CH decided to disengage, when they realized that many other actors were arriving.

#### **Mozambique:**

- DPS/INGC and the Mozambican RC provided efficient rescue operations.
- DPS had sufficient medical material supplies.
- UNICEF implemented WatSan, nutrition and NFI distributions in 4 camps.
- SCF implemented food and NFI distributions.
- IFRC/MRC: NFI and water distributions on 2 camps.

All the operational actors were encountering the same logistical difficulties as MSF-CH did. The fact that MSF-CH criticised UNICEF's delays in water trucking and nutritional screening (and similarly IFRC/CVM) had a negative effect on the relationship with others.

The feeling was that the MSF team was free to act and cover gaps if they felt they had the logistic means. Sharing information with partners for activities on common sites became difficult. Unlike IFRC, MSF-CH could not use the UN helicopter for implementation of NFI distributions in scattered areas. Globally, a fairly good coordination was established with authorities.

### **Kenya:**

- HCR was in charge of the general coordination of the three camps.
- GTZ was in charge of health and was operational as a long-term partner in this project. Similarly Care was in charge of logistic, water and sanitation in the camps.
- District and regional MoH were involved.

The MSF-CH team managed to integrate in the existing and operational system in place and worked under an imposed sectoral coordination of other actors, orchestrated by UNHCR. Clearly, the team did not feel comfortable in such a scheme. The co-operation with those actors was severely affected, after MSF had written a confidential (later internally considered an "unfortunate") report to UNHCR, communicating, what they considered a failure of GTZ. UNHCR immediately redirected the info to GTZ. This story clearly did not contribute to the essential/desired trust between implementing partners.

### **Togo and Ghana:**

In the particular cases of Togo and Ghana, the late assessment by MSF-CH the non-interventions implied fewer pressures from other actors in the coordination process. In both countries the following agencies were present:

- UNDAC: coordination
- UNICEF: health and water sanitation
- IFRC/RC: NFI distributions

In Togo WFP and Caritas implemented food distributions

In Ghana WFP implemented food distributions; in some districts part of the stock for distribution were released by WFP and authorities after MSF lobbying. World Vision implemented WatSan. Globally good coordination was implemented.



## ***Conclusions on relevance***

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The MSF-CH presence was relevant in all cases for the existing needs and high numbers of potential beneficiaries. Particularly where MSF-CH had a mission in place, such as in intermediary crises (with little or no media coverage and few other actors in Sudan and Ethiopia), MSF-CH has concretely created a difference. MSF-CH mainly identified real and most urgent needs of the beneficiaries in their rapid assessment. Such were done for the 7 crises (Sudan, Ethiopia, Mexico, Mozambique, Kenya, Togo and Ghana) answered to the essential questions: What (beneficiaries needed) and how much (items needed to import) immediately.

In most assessments, potential food needs were looked at by screening for malnutrition. This is ignoring the fact that population at an early stage would be facing food insecurity, but might not yet have developed malnutrition. Identification of food needs in MSF-CH seems very much linked to malnutrition and therefore too often put aside.

Specific needs, which would have required action that is not absolutely linked to the emergency phase, were systematically not considered in the assessment process, i.e. wells cleaning, boreholes installations, mental health or mid term health structure support. Several assessments were however done rather late, hence at the end of an emergency phase. Such could only underline post emergency needs, consequently led to no action at all.

Assessments were repeatedly setting their population target very wide, with a lack of prioritization of proposed activities, consequently response was scattered and coverage low. On slow impact disasters such as Sudan, Ethiopia and Mozambique, the teams made great efforts to search for the most vulnerable targets, despite of the scattered areas and lack of information. Such detailed damage assessments are particularly pertinent in slow impact disasters in open settings.

The targeting strategy was very appropriately designed in sudden impact disasters such as Mexico and Kenya, where MSF-CH targeted the periphery of the crises in order to avoid duplication with others. On the other hand in large-scale open settings (Mexico, Mozambique and Ethiopia), MSF-CH assessments tended to over estimate their response capacity and targeting was overambitious, reducing naturally the impact of the response. On large-scale disasters such as Mexico and Mozambique (or Bangladesh), despite high levels of uncovered needs, MSF-CH had difficulties to find its place. Reasons being the high number of partners, the good self-coping capacities of local populations and authorities, and the internal problematic to adapt itself to different needs than the traditional ones.

Criteria for intervention in natural disaster today seem to be set on an “ad hoc” basis. It is obvious that there were many different triggers for intervention; partially these unclear criteria seem to be a factor causing delay in response. This is clearly a reflection of the fact that no policy on natural disaster response exists in the OCG.

Coping mechanisms have been well observed and integrated in the assessment processes. In the case of Ethiopia (first assessment) they were used as an argument for non-intervention, and as an argument for disengagement in the case of Mexico. In both cases these appears more as an “alibi” than an evident reason.

The presence of other implementing humanitarian organisations had a significant impact on the assessment processes and outcomes of MSF-CH. A tendency in MSF-CH seems to be to avoid heavy co-ordination mechanisms and to give up their potential space if too many other actors are around.

## 3.2 Appropriateness

In order to judge the appropriateness of different interventions, the evaluation looked at i) implementation strategies versus the identified needs and ii) methodologies used for assessment, iii) analysis of intervention phases and iv) reasons for disengagement.

### 3.2.1 Implementation strategies

#### Sudan:

Objective set were to train CHV on providing safe drinking water. Medically, 3 mobile clinics were planned in 3 different locations; in addition medical kits for one health centre, measles vaccination in 4 districts and nutritional screening. From all the objectives only medical surveillance could be implemented through CHWs, otherwise the teams could not reach the intended places. The tractor, which was planned to transport goods ended up stuck in the mud and the operation had to be cancelled. NFI distribution planned in 4 districts (1'208 families) were implemented through mobilising the population to come themselves to the central city of Ayod.

The logistic requirements have been underestimated, the team losing lots of time to import the tractor that was finally inefficient on the ground delaying all the operation and leading to a cancellation of most objectives.

#### Ethiopia:

Medical objectives were to implement medical and nutritional surveillance for the target population. The action was finally not implemented based on the argument that food distributions had been done rapidly and water level had decreased in a few hours. NFI distribution planned for 6'105 families were implemented only for 4'017 families after the target number was revised in a second assessment.

The first assessment process in this case of slow impact disaster in open setting was inappropriate, with insufficient time and did not obtain the required data. For the second assessment the argument to cancel activities once water levels decreased is questionable as this does not resolve the water pollution and consequent threat of health problems and epidemics.

#### Mexico:

Objectives to supply water in 2 districts were finally implemented in 1 district. The plan for basic health care in 2 districts was finally implemented with mobile clinics in these districts. Hygiene kits and jerrycans planned for 4'000 families in 2 districts were implemented for 1'400 families.

Assessments findings of MSF-CH were rapidly taken in charge by local actors. Despite the high level of needs, negotiation of work space did either not happen or was not successful. The team seemed to have difficulties prioritising its targets, which was delaying response in a particularly competing environment. The regional bureau of Mexico showed very good reactivity and effectiveness, but such a response was not in its Terms of Reference.

#### Mozambique:

Objectives related to water, medical activities and NFI distributions implied direct involvement in 14 sites and monitoring on 10 sites. Finally 4 sites benefited from water supply, latrines were built in 5 sites, and health surveillance was implemented in 9 sites. NFI distributions were implemented in 4 sites for 6'669 families (8'473 families planned).

Planned activities had been too wide and unrealistic. The initial strategy did not integrate a clear logistic plan for access to all sites; no intermediary bases between the sites and field team base in Mopeia had been installed. Other partners had finally to compensate for the needs that MSF-CH could only partially cover (Chinde, Nzanza and Morrumbala).

### **Kenya:**

Latrine construction and full water supply in 2 camps were done under Care coordination. The plan for a full clinic in one camp was changed into mobile clinics, implemented under GTZ coordination, cholera sites were implemented. NFI distributions planned in 3 camps for 4'000 families ended up to take place in 6 peripheral villages for 1'506 families.

The Lead agency (UNHCR) decided to support its long-term partners on immediate implementation despite those showed little reactivity. MSF-CH could only implement under heavy coordination of reluctant partners, who were sceptical of MSF critical attitude and usual short term perspective. The supplies delivered through the full charter forced the team to change priorities and distribute the NFI available.

### **Ghana:**

Objectives of food distributions on 2 affected zones were finally cancelled due to successful lobbying with WFP and local authorities, who released food stocks at district levels.

As for Togo, the Ghana crises assessment was tailored to another phase (recovery), while there was no willingness to implement anything other than emergency relief.

## **3.2.2 Methodologies of rapid/damage assessment**

The reference used here was that rapid assessments have to be done in the first 72 hours and have to last a maximum of 48 hours. This should lead to a response starting latest on the 7<sup>th</sup> day after the impact, and introduce the immediate response phase (first six weeks). Data collection and evaluation of logistic constraints may be very basic and incomplete as long as a relief operation is triggered in order to answer most urgent needs of beneficiaries in the early phase of assistance.

If most rapid assessments were late (5 out of 7), reducing the needs response window, also the principle of rapid assessments was not always standardized. Only in Kenya, MSF-CH has triggered an operational response after their rapid assessment within the recommended timeframe (a maximum of 6 days). In Mexico, the rapid assessment teams had difficulties to decide on places most in need, and were overwhelmed by the rapidity of other's response. In Mozambique, logistical issues on site have slightly delayed the response.

Sudan and Ethiopia were slow impact crises, where rapid assessment needed to be much more detailed than normal (logistic access difficult). Reports in both cases were very imprecise, which delayed decisions at higher level.

6 out of 7 rapid assessments (what and how much) included a sectoral assessment (where, who, why, what and how much). Three rapid assessments have led to no response at all: Togo and Ghana mainly because all needs were addressed by others in the emergency phase, since assessments were extremely late. In Bangladesh, the rapid assessment was done by another section concluding that there was no space for MSF-CH to intervene.

### 3.2.3 Phases of intervention

The Togo and Ghana teams, due to their late arrivals, assessed needs corresponding to a post emergency phase since all emergency relief needs had been implemented already by partners. This underlined the problem of a team assessing needs in a specific phase (recovery) thinking they assess another phase (emergency), and the frustration that can emerge from it.

6 out of 7 assessments have been conducted as sectoral or damage assessments, while they were intended to be rapid assessments.<sup>5</sup> Out of these 6 sectoral assessments, none implied a complementary relief operation or rehabilitation, recovery phase.

As stated coherently during interviews, MSF-CH emergency teams were not intending to implement a recovery phase either at origin (Sudan, Ethiopia, Mexico, Mozambique and Kenya) or after assessments (Togo and Ghana). Most arguments were that this is not part of the MSF mandate. The case of Togo and Ghana were exceptional, as the e-desk was willing to implement a post emergency action, however the assessment team clearly denied the utility of such. It seems mainly a problem of semantics between needs considered as chronically urgent and the ones considered as post urgent. These needs are eventually the same, i.e. food security, health structures support, psychological support, water in emergencies, violence, etc.

### 3.2.4. Exit strategies and disengagement

Responses in Sudan and Ethiopia were considered as punctual interventions. Mexico intervention disengaged rapidly based on the argument of good coping capacities and multiple other actors. In Mozambique, the Government initiated post emergency phase resettlement process had started. MSF activities had been implemented as planned and no more acute medical needs were seen. In Kenya, a hand over to long terms partners was quickly implemented. In this closed setting, which is monitored by partners, the exit strategy seemed appropriate.

Overall exit strategies seem to be rather unclear, with a certain level of discomfort on the matter. In most cases there is no explicit rational explanation on the reasons to disengage; exit seemed an automatic measure after the first round of activities had been implemented. Reports do not indicate that retreat was the only or best option, since post emergency needs were systematically not considered in the different responses. In only 2 out of 7 interventions (Kenya and Mexico) basic health surveillance data (as potential outcome indicators) were available at all.

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<sup>5</sup> Damage assessments include all specific needs in depth targeting places and populations they are to envisage a second operation either following and complementing the first emergency phase (4 days – 6 weeks) and/or introducing a secondary phase of recovery/rehabilitation (3 months – a year).

## ***Conclusions on appropriateness***

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Appropriateness of assessments was compromised for various reasons. In some cases because the target area (for assessment and intervention) was set too wide and therefore unrealistic. Access problems and logistic challenges were frequently underestimated. Repeatedly the assessments were tailored to another phase of the emergency.

Methodology and timing of (a standard) crisis response was not respected but for Kenya<sup>6</sup>. Sectoral assessments introducing a rehabilitation phase (where required) or complementing the initial phase of the rapid assessment have been implemented without making sure that immediate response is launched.

MSF-CH favoured a geographical approach more than a sectoral approach in all cases but Kenya. A sectoral approach in the case of Kenya challenged the coordination aspect, but geographical approach in all the other cases, easier in terms of coordination, challenged the organizational and logistical constraints of the MSF-CH institution. A geographical approach supposes that the organization has the necessary human and material resources to target all beneficiaries' needs on a specific zone.

Out of 5 emergency responses, all assessments showed heavy needs for NFI, and all the responses included NFI distributions. However in none of the cases NFI were pre-positioned (except partially in SUKA) or logistically planned as a heavy constraint (during assessment). MSF-CHs NFI response capacity has shown clear limits, leading to dependence on other (Sudan, Mexico) or logistically at stake (Kenya, Mozambique and Ethiopia).

Following rapid assessments in seven crises 15 sectoral activities were proposed, out of these only three were factually implemented (NFI in Sudan, health in Mexico, water in Kenya). Reasons being that either objectives planned in the assessments were too ambitious, unrealistic, or that the implementation of these activities was too challenging internally in terms of organization and resources. The target population was factually only reached in Sudan, because targeting had been extremely accurate.

None of the 6 damage assessments undertaken led to a secondary phase of needs response, irrespective of whether it belonged to the end of the emergency phase or to the beginning of the recovery phase. This puts in question the purpose of MSF-CH to undertake such assessments if mid-term engagement is not seen as part of the MSF mandate.

MSF-CH intervened exclusively in the first part of the relief assistance phase for all the crises studied. Phases of search and rescue, of rehabilitation, of mitigation, of preparedness were not treated. At this stage, our response capacity for natural disasters is linked only to an intervention on the phase of relief assistance.

The average time of MSF-CH response was, on the sample of 5 crises, 27 days, with the absolutely shortest duration of 7 days in Mexico. It frequently did not allow objectives to be reached. It also decreased chances to reach excluded beneficiaries and compromised reliability of MSF for other partners<sup>7</sup>.

Exit criteria and - strategies in natural disaster response seem generally unclear and appear to be driven by a predefined duration of the intervention.

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<sup>6</sup> Rapid assessment (within 3 days, assessing "what and how much") - response launched (latest on the 7th day, lasting a maximum of 6 weeks, up to 3 months) - damage assessment (between 4<sup>th</sup> and 15<sup>th</sup> day, assessing "where, why, who, what and how much") - secondary response (from 6 weeks to 3 months, or 3 months to 1 year).

<sup>7</sup> The standardized length of response in international agencies for the phase of relief is from 6 weeks to 12 weeks

### 3.3 Effectiveness

In order to evaluate effectiveness of natural disaster response, four issues were examined: i) the timeliness of assessment and intervention, ii) the emergency preparedness and logistic capacity, iii) Human resource capacity and the iv) measurable output and outcome of interventions.

#### 3.3.1 Timeliness:

##### **Minimum Standards:**

Rapid Assessment: day 1-3

Intervention: day 7

Lapse of time between Rapid assessment and Intervention: 6 days

##### **Sudan:**

Rapid Assessment: day 38

Intervention: day 53

Lapse of time between Rapid assessment and Intervention: 15 days

##### **Ethiopia:**

Rapid Assessment: day 5

Intervention: day 18

Lapse of time between Rapid assessment and Intervention: 13 days

##### **Mexico:**

Rapid Assessment: day 3

Intervention: day 10

Lapse of time between Rapid assessment and Intervention: 7 days

##### **Mozambique:**

Rapid Assessment: day 12

Intervention: day 20

Lapse of time between Rapid assessment and Intervention: 8 days

##### **Kenya:**

Rapid Assessment: day 3

Intervention: day 5

Lapse of time between Rapid assessment and Intervention: 2 days

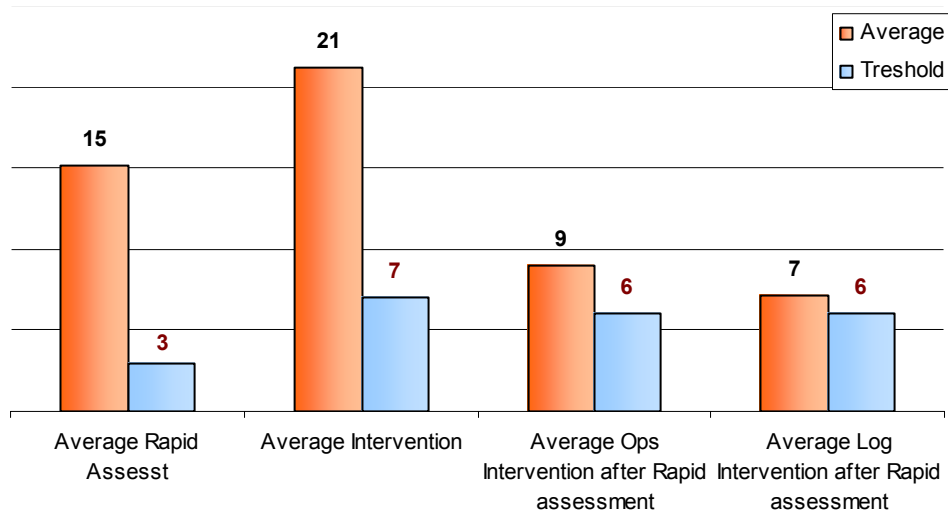
##### **- Togo:**

Rapid Assessment: day 25

##### **- Ghana:**

Rapid Assessment: day 20



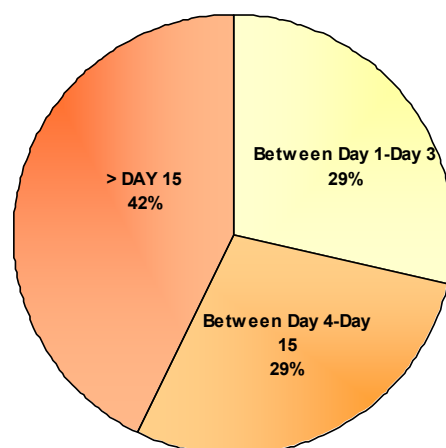
**Graph 1: Average timeliness of assessments and interventions (in 5 countries)**

### - Timing of the rapid assessment launching

Timeliness is one of the most essential aspects of the crisis management in natural disasters in order to address most urgent needs. Only Mexico and Kenya implemented their rapid assessments within 3 days after impact. Mexico had a reactive regional bureau and Kenya had a mission already present in country. However the presence or non-presence in a country was not the only criterion for timeliness: Mozambique, Sudan and Ethiopia also present in country were late on their rapid assessment schedule. The delay of rapid assessment implementation has a direct effect on the response launching; only Kenya could launch its response within the recommended time of 7 days after impact. In Sudan, the MSF-CH mission has shown poor reactivity (5 weeks late). They team was concentrated on its normal programs and not aware of the flood crises surrounding them. The desk officer in Geneva informed them, himself alerted by press releases. In Ethiopia, the rapid assessment was slightly late (day 5). The mission was aware, but did not maximize its presence in country. At the same time in these slow impact crises it is clear that it is more difficult to apprehend the difference between usual rains and natural disaster event and the assessments required need more detail, hence time.

The response in Mozambique (2007) was triggered on day 12 after impact, the MSF coordination in country themselves were stating their lack of reactivity. In Togo and Ghana, MSF-CH had no missions present; the rapid assessment was launched 3 weeks after impact in Ghana and 4 weeks after impact in Togo. The delays were reportedly due to slow decision making in the headquarter, and unclear criteria of intervention.

**Graph 2:**  
**Rapid Assessment timing**  
 (Standard < day 3)

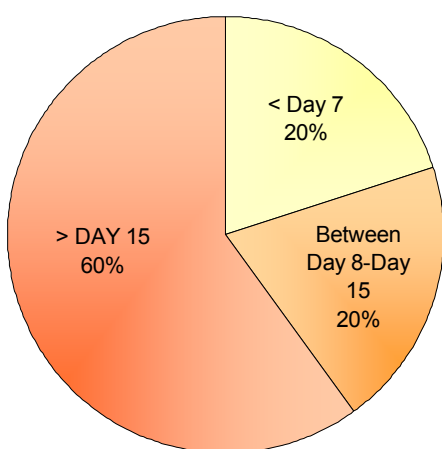




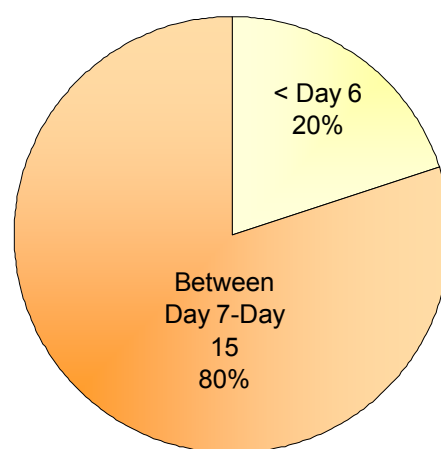
### - Timing of the emergency response launching

As mentioned above, the emergency response launching was satisfying only for Kenya, which happened on day 5 after impact. For Mexico (day 10), the in-time rapid assessment delayed the response because of priority issues, hesitating on where needs were the most acute. For Mozambique (3 weeks), Sudan (7 weeks), Ethiopia (3 weeks), the late rapid assessments and the logistic strategy concerning accessibility to sites were the main explanations of failure. For Togo and Ghana, the late rapid assessments led to no response at all, all needs being covered in the first part of the relief phase.

**Graph 3:**  
Intervention response timing  
(Standard < day 7)



**Graph 4:**  
Response timing after rapid assessment  
(Standard < day 6)



### 3.3.2 Emergency preparedness and Logistic capacity

#### Sudan:

A small medical (kit cholera) emergency preparedness stock was used from Juba, NFI were locally available and a truck was sent from Kampala (SUKA).

On day 45 after impact, 7 days after rapid assessment started, UNICEF and MSF supplies from Juba arrived on site.

On day 71 after impact, 33 days after rapid assessment started the truck from SUKA arrived on site.

#### Ethiopia:

Non-food items were locally bought in Addis with some delays as funding could not be approved immediately due to signature processes in Geneva (key people being away at the time)

On day 23 after impact, 18 days after rapid assessment started, the first purchase was on the field. (Local purchases were done on the 14<sup>th</sup>, 15<sup>th</sup>, 22<sup>nd</sup> and 23<sup>rd</sup> day after rapid assessment started).

### **Mexico:**

An emergency preparedness stock of WatSan items was brought from Costa Rica and Guatemala. NFI were received locally and regular flights from Bordeaux were used particularly for mosquito nets. There was little knowledge of the regional market. Material arrived on site:

On day 8 after impact, 4 days after rapid assessment started, by truck from Guatemala.

On day 10 and 15 after impact, 7 and 12 days after rapid assessment started, by regular flight from Bordeaux.

### **Mozambique:**

There was no emergency preparedness stock in country and the logistic department was challenged since there was little knowledge of the regional market (South Africa). 75% of the goods were the non-food items bought by SUKA and brought from Nairobi, 25% were water and sanitation items imported from Bordeaux platform. 4 full charters were used for the global operation. Material arrived:

On day 17 after impact, 5 days after rapid assessment started, from Bordeaux.

On day 21 after impact, 9 days after rapid assessment started, from Nairobi.

On day 34 after impact, 22 days after rapid assessment started, from Nairobi.

On day 38 after impact, 26 days after rapid assessment started, from Nairobi.

### **Kenya:**

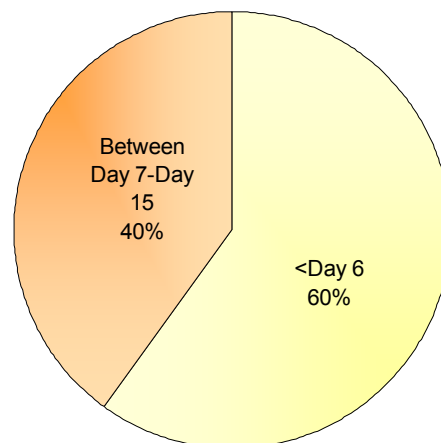
There was also no emergency preparedness stock in country; one full charter was deployed from Bordeaux platform with MSF water sanitation kits and NFI. Some NFI were also bought in Nairobi and sent by trucks.

On day 5 after impact, 2 days after rapid assessment starts, the full charter was on site, the rest came by trucks from Nairobi on day 23 since plans with UNHCR had changed.

### **Togo/Ghana:**

Since there were no missions in country, no emergency preparedness stocks were pre-positioned and there was little knowledge of the local or regional market.

**Graph 5:**  
Logistic Response  
timing after rapid  
assessment



Of 7 interventions, 6 had no Emergency preparedness stocks in country (Mozambique, Ethiopia, Kenya, Mexico, Togo and Ghana). Three of those (Mozambique, Ethiopia and Kenya) had regular missions in country. Only for 1 crisis (Sudan), a small Emergency preparedness pre-positioned stock was used with medical items. An additional supply of NFI by truck was done by SUKA. Mexico used left over NFI and water sanitation items from Costa Rica and Guatemala, some were sent through a regular flight from Bordeaux.

For Kenya and Mozambique one full charter of water sanitation kits was also sent from Bordeaux. All NFI were either bought locally (Ethiopia), regionally (Mozambique, Kenya, Sudan) and/or were locally obtained from partners (Sudan, Mexico).

Emergency preparedness with pre-positioned stocks in countries of MSF-CH presence was not up to face any of the disasters neither with medical supplies nor with NFI. However, e-desk logistic has been quite efficient in answering to orders following rapid assessments. Response capacity from rapid assessment demands to materials sending has shown efficiency particularly when e-desk logistic was involved. It is important to mention that these crises happened while the SUKA platform tried to have a definite operational capacity (see background on SUKA in Box 1) .

## **Box 2: SUKA – example of a logistic platform**

SUKA (short for Supply Kampala) was created to reduce the transport costs for the South Sudan missions of MSF-CH. Local purchases and road transports allowed substantial cost reductions. This platform was mainly designated to supply regular, but large projects in the area such as Congo, Uganda, and South Sudan. At the time, there were no policies of preventive storage. Missions ordered and SUKA bought and sent. Since 2006, the platform evolved toward a regional E-prep specifically on the demand of the e-desk. Initially asked to stock remaining material from various missions, SUKA progressively started to create an emergency stock ready for emergency responses.

Based on the fact that missions' E-prep stock management had been unsuccessful (no follow up of stocks, used for other purposes, etc.), a regional E-prep could answer demands rapidly and do scales economy, saving money at the same time.

SUKA is a bi-cephalic structure, 80% of the material is based in the MSF-CH stock in Kampala with a general manager and one logistic coordinator. It stocks 2 vaccination kits, 2 cholera kits, Basic Kits 1000 and 10 000, water and sanitation supplies for 25'000 persons per day, NFI for 1'000 families (incl. plastic sheeting, jerrycans, blankets, hygiene kits and mosquito nets)

20% of the material purchased remains in Nairobi in custom stocks of suppliers; one logistic coordinator is based there. NFI for 1000 families are exclusively stocked in Nairobi.

SUKA operates with a team of 12 people (expatriate and local) and costs around 400'000 CHF per year. SUKA seems to efficiently operate in its first action range, which is East Africa. Costs, lead time and suppliers choices are their up most in the Nairobi area. Its efficiency declines when it reaches the second action range Central Africa and Austral Africa and it is reduced to obsolete for the third range, which is continental or beyond.

SUKA's existence as an entity today depends on the volume of regular MSF-CH activities in its surrounding. The risk for it is that it may be considered obsolete when the number of MSF-CH missions declines in this specific area (as it happened to a comparable and successful Project in Costa Rica).

There would obviously be a lot of potential for SUKA as a regional platform beyond purely logistic functions and available to the MSF movement. This would clearly increase MSFs efficiency and response capacities, particularly for natural disaster.

### 3.3.3 Human Resources:

Human resources at their highest during these emergencies:

#### **Sudan:**

- 1 Medical coordinator
- 1 Assistant Medical coordinator
- 1 Logistic coordinator
- 1 Assistant logistician (tractor)

#### **Ethiopia:**

- 1 Logistic coordinator
- 1 Assistant logistician
- 3 Translators.
- 2 Registrars.
- 15 Daily workers for distributions
- 2 Community health worker

#### **Mozambique:**

- 1 Emergency coordinator
- 1 Field coordinator
- 2 WatSan
- 1 Relief person
- 3 Logisticians
- 1 Nurse
- 25 National staff

#### **Mexico:**

- 3 Medical coordinators
- 3 Nurses
- 5 Logistic coordinators
- 1 Communication coordinator

#### **Kenya:**

- 1 Coordinator
- 1 Medical coordinator
- 2 Nurses
- 1 Clinical officer
- 1 Administrator
- 1 WatSan
- 1 Relief person
- 2 Logisticians

#### **Togo:**

- 2 E-coordinators

#### **Ghana:**

- 2 Medical E-Coordinators
- 2 Log E-Coordinators

The fact that field teams were inexperienced in natural disaster management (particularly the case in Sudan, Ethiopia and Mozambique) was stated as a main reason for the lack of reactivity. For Togo, the assessment team seems to have been inflexible to a non-expected situation, where they found other than classical emergency needs.

Most human resources have reached field operations on very disparate ways depending of the availability at Geneva level and who was on the field at the moment of disaster. These individuals were then covering gaps based on the urgent priorities and not necessarily in a strategic manner. The emergency pool is seen more as an addition of individual competencies than as an entity fully autonomous in a particular sector of activity.

### 3.3.4 Decision making lines

A rapid decision making line for deployments of rapid assessments after a natural disaster, particularly in countries where MSF-CH is not present, is not effective at Geneva level. The case of Togo and Ghana illustrated this weakness, which clearly compromised the response.

For Mexico, Mozambique and Togo, field teams were reluctant to follow the e-desk instruction, which questions the decision making lines in emergencies.

Mexico may have been a particularly illustrative example: the e-desk had difficulties to manage the constant changes of the assessment team's strategy, which was implying heavy logistic issues. It recommended the assessment team to prioritize and focus its action on specific and realistic targets. Besides, the team leader had not been appointed officially as such, leaving a space of misunderstandings in the line management between field team, coordination and e-desk. On e-desk level, several people were involved in communication and decision making and no focal point was

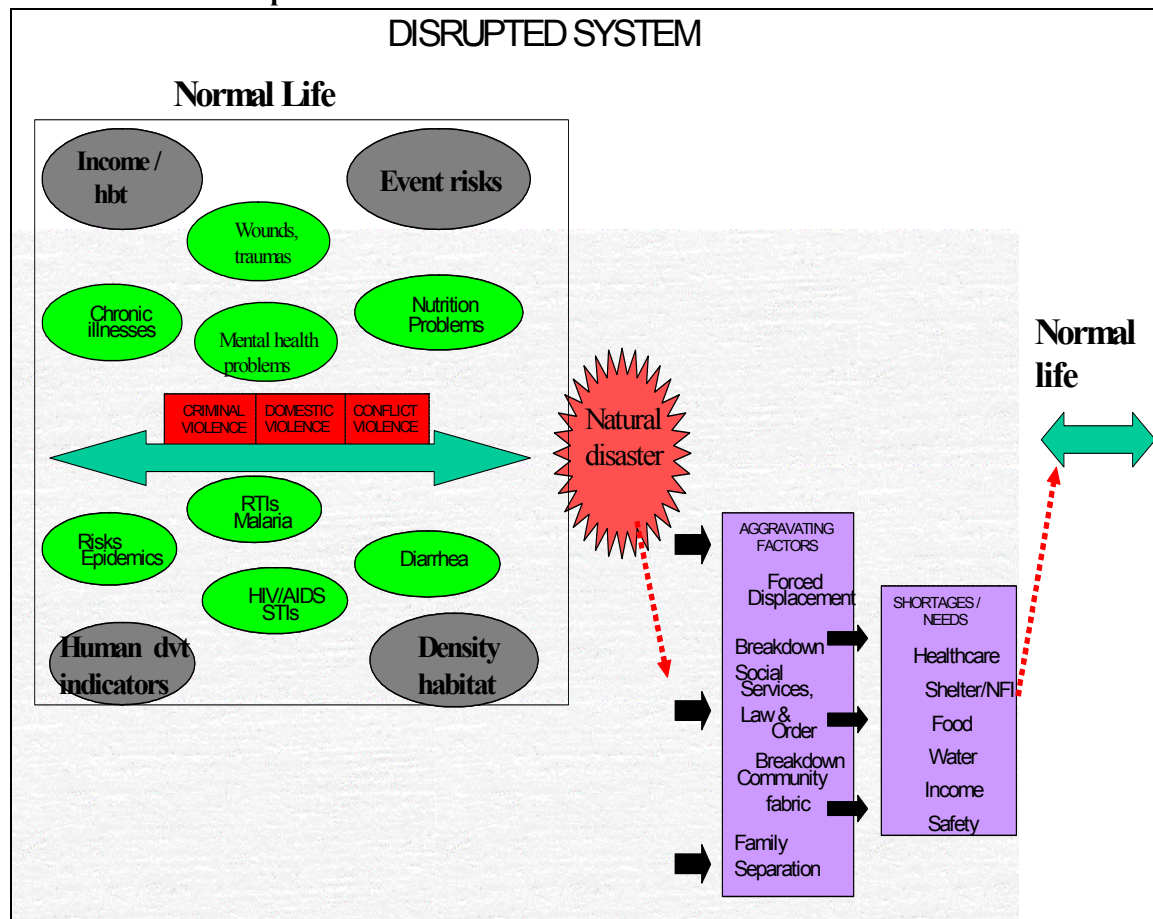
designated. In Mozambique, the e-desk tried to alert the assessment team on the problem of logistical access to the sites. In Togo, the assessment team concluded rapidly that the emergency was over and no needs were to be found, despite of the e-desk recommendation for a deeper analysis. Problems and delays in communication and decision-making implied delays in response at field level.

### 3.3.5 Output/Outcomes

Measuring the real impact of these interventions would require clear measures before the event, to be able to compare data between what would be considered a normal situation in a specific context and the situation after a destabilizing event (see Figure 2: The pre-event situation would then be a referral point to reach again during crisis response in order to know when to disengage. Besides, in order to measure the impact of MSF-CH, data would need to be measured before and after the implementation of action.

Morbidity, mortality, U5MR, attendance rates were not specified before any of these crises and only in Kenya, a situation analysis was available before MSF-CH implementation and after.

Figure 2: Process of disruption



One could theoretically assume that actions implemented, such as NFI distributions and WatSan activities had a preventive impact on emerging epidemics, and that medical surveillance could measure this (assumed) preventive impact. There are however no medical data from the interventions studies, except consultation figures for Kenya and Mexico (see Graph 10). For WatSan activities, outcome data are available for Mexico, Mozambique and Kenya that can be compared to standard indicators.

## - General quantitative output

Output can be quantitatively measured in terms of number of beneficiaries reached through MSF actions compared to the number of beneficiaries targeted and affected.

- Average population targeted / population affected
- Average population reached / population affected
- Measuring MSF-CH coverage versus global coverage.
- Average population reached / population targeted.
- Measuring MSF-CH effectiveness.

### Sudan:

Population affected: 6'000 people

Population targeted: 6'000 people

Population reached: 6'000 people with NFI and medical activities

Medical output: Epidemic surveillance covering 6'000 people (no medical data).

NFI output: Distributions were implemented for 1'208 families  
 -à 2'416 blankets, soaps and jerrycans 20ltrs  
 -à 1'208 plastic sheets, bed mats, cooking sets and buckets

### Ethiopia:

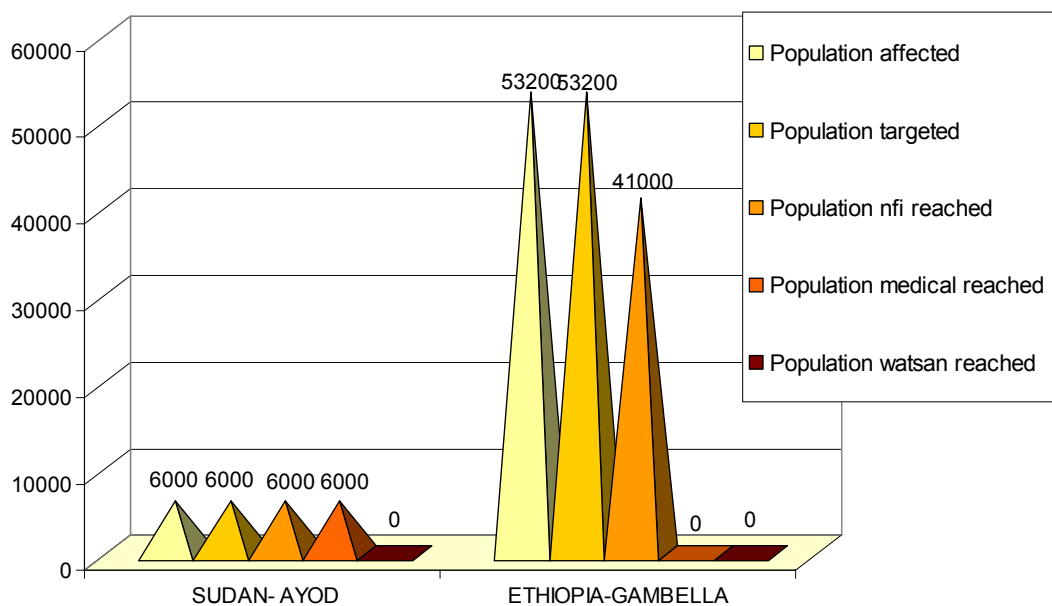
Population affected: 53'200 people

Population targeted: 53'200 people

Population reached: 41'000 people with NFI

NFI output: Distributions were implemented for 4'017 families in 2 districts.  
 - à 4'100 jerrycans 20ltrs and plastic sheets  
 - 7'200 blankets  
 - 2'000 kg Soap,  
 - 8'200 mosquito nets  
 - 157'500 water tablets

**Graph 6:**  
Population affected,  
targeted and reached  
Sudan / Ethiopia



**Mexico:**

Population affected: 385'000 people

Population targeted: 32'400 people

Population reached: 7'000 with NFI, 15'000 with medical and 3'965 with WatSan activities

Medical output: Epidemic surveillance was done and targeting 15'000 people.

- 216 consultations targeting 12'795 people
- Weekly attendance rate: 1,04

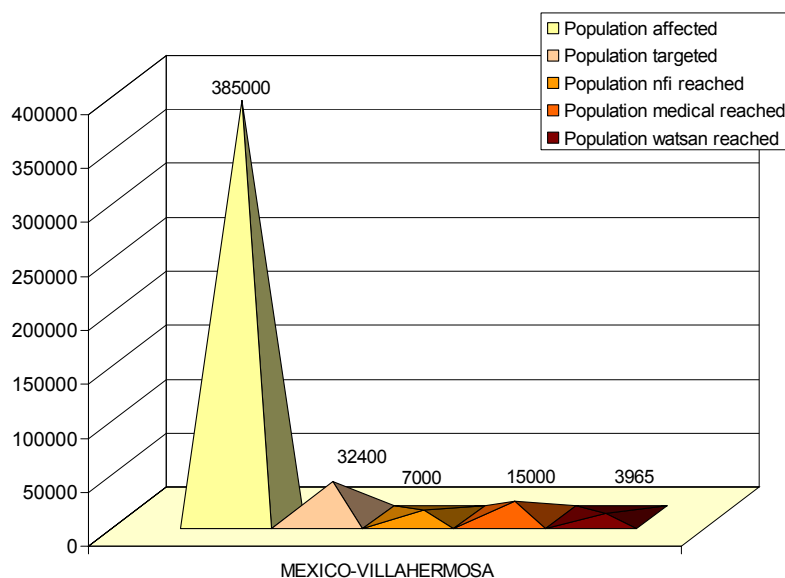
WatSan output: 30'000 litres distributed in 1 district targeting 3'965 people on 1 day.

- 7,57 ltr/day/pers

NFI output: Distributions were implemented for 1'400 families in 2 districts.

- 1'400 hygiene kits
- 400 kitchen kits
- 120 matelas
- 1'000 blankets
- 6'000 mosquito nets

**Graph 7**  
Population affected,  
targeted and reached  
Mexico

**Mozambique:**

Population affected: 107'500 people

Population targeted: 48'200 people

Population reached: 20'300 with NFI, 7'000 with medical and 19'833 with WatSan activities

Medical output: Epidemic surveillance done in 9 health centres for 7'000 people

- No specific data of consultations.
- Donation of 7 basic health care kits

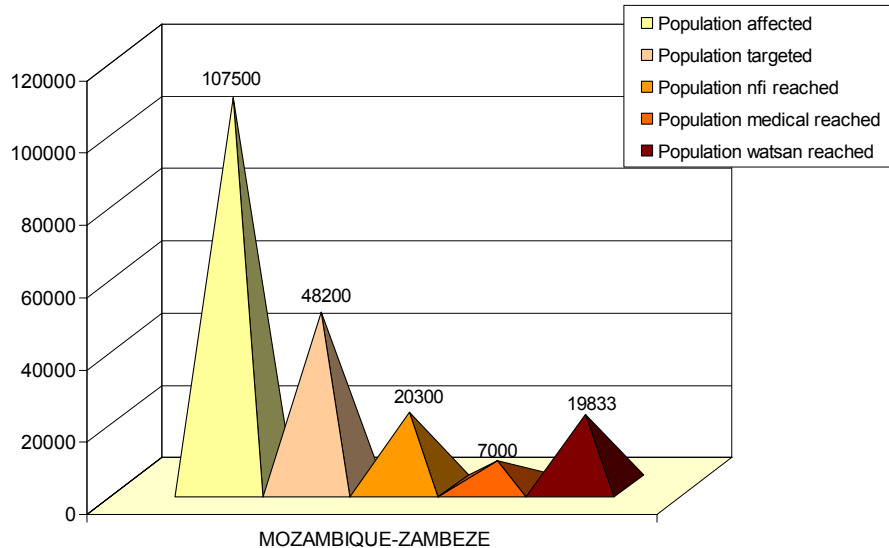
WatSan output: 142'500 litres per day distributed on 4 sites targeting 13'127 people

- 10,8 ltrs/pers/day
- 99 latrines built on 5 sites targeting 19'833 people

NFI output: Distributions were implemented for 6'669 families on 4 sites

- à 6'669 rolls of plastic sheeting and kg of soap
- à 13'338 jerrycans 20ltrs, mosquito nets and blankets

**Graph 8:  
Population affected,  
targeted and reached  
Mozambique**



**Kenya:**

Population affected: 91'000 people

Population targeted: 20'000 people

Population reached: 12'000 with NFI, 10'000 with medical and 8'660 with WatSan activities

Medical output: Epidemic surveillance was done and targeting 10'000 people

- CMR -0,103
- 869 consultations targeting 10'000 people.
- Weekly attendance rate under 5 years 3,8; over 5 years 1,8
- 3 cholera camps were set up

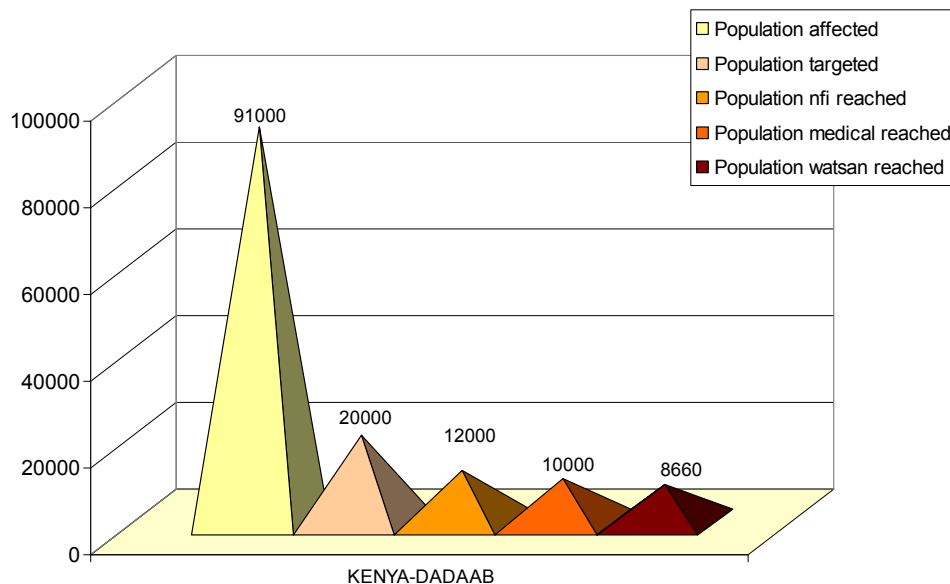
WatSan output: 40 latrines achieved and targeting 6'042 people

-390 m3 distributed, targeting 8'660 people for 8 days, 5,63 ltr/d/pers.

NFI output: Distributions were implemented for 1'506 families in 6 villages

- 100,4 rolls of plastic sheeting
- 2'978 mosquito nets
- 1'060 litres of diesel
- 11'500 bags of ORS

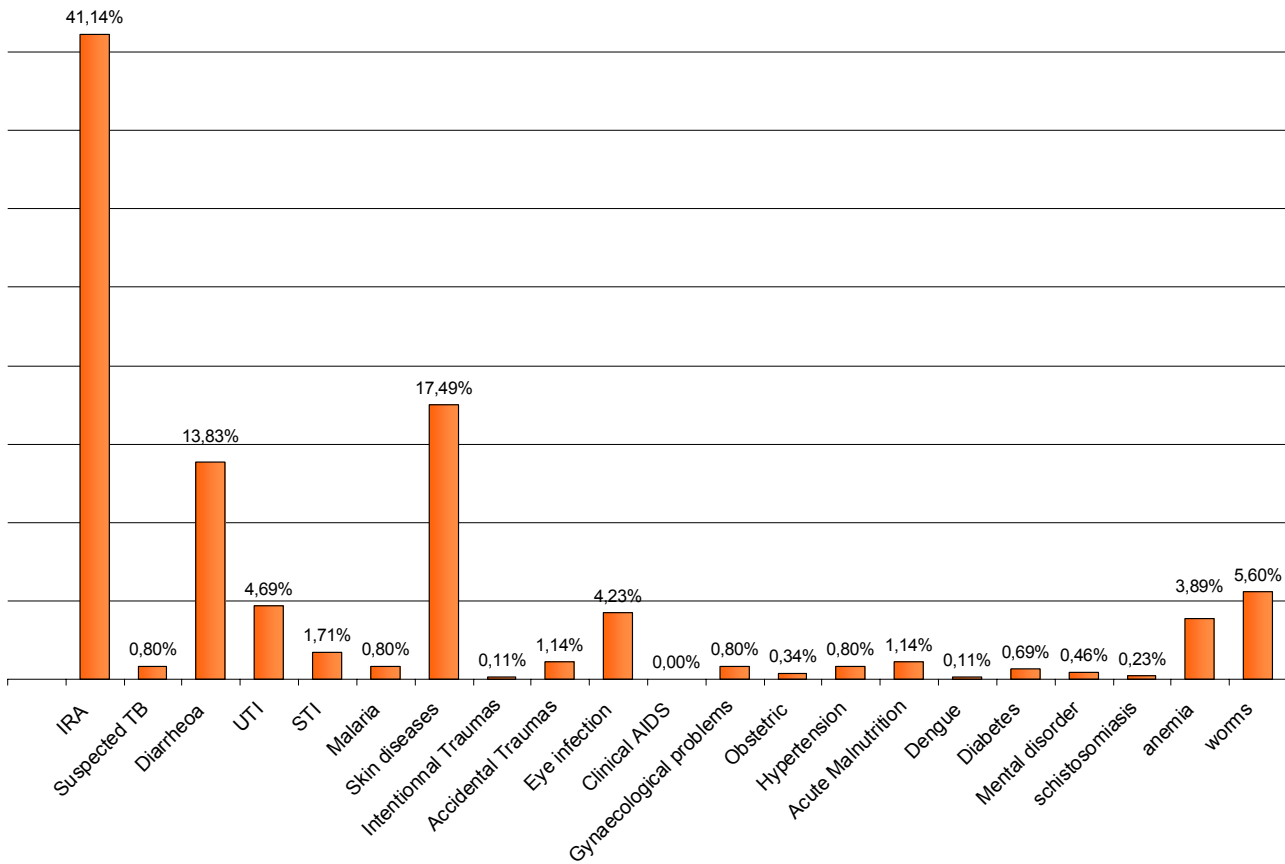
**Graph 9:  
Population affected,  
targeted and reached  
Kenya**





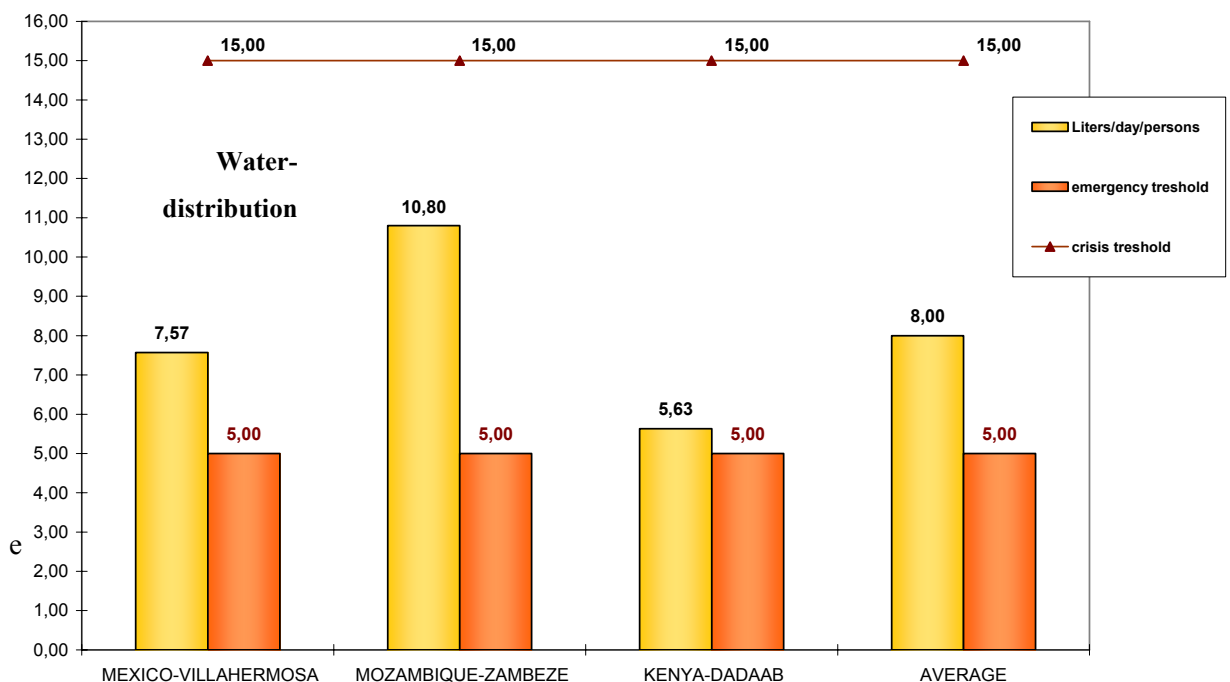
**- General Health findings**

**Graph 10: Average health findings: MSF-CH activities in Kenya and Mexico**



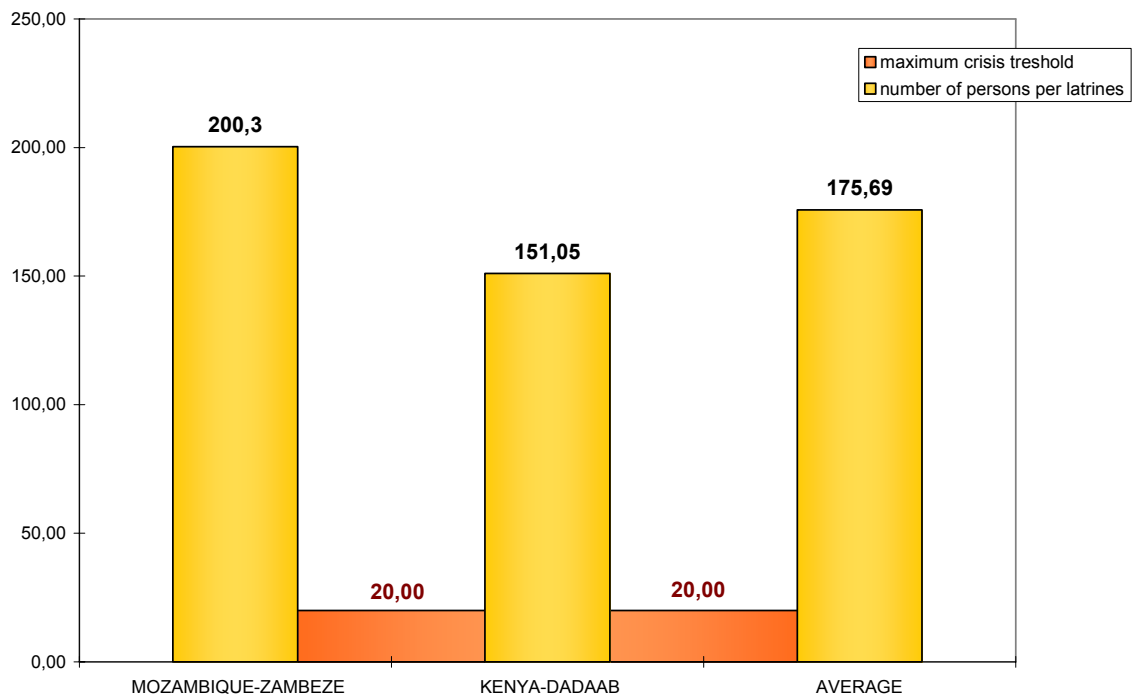
Findings (see Graph above) confirm the typical picture, where acute respiratory tract infections, diarrhoea and skin diseases are the most common pathologies observed after natural disaster. Cholera, malaria, malnutrition and measles as most feared were in these cases contained. Medical and nutritional surveillance are permanently necessary to avoid potential threats of such epidemics. However for Ethiopia, no surveillance was implemented, in Sudan and Mozambique, no data was collected from the surveillance teams.

**Graph 11: Average output on water supply, MSF-CH activities in Kenya, Mexico, and Mozambique)**



The critical threshold representing the emergency quantity of 5 litres per day and per person for surviving was always reached, but the standardized international targeted threshold quantity of 15 litres per day and per person for living in crisis time has never been implemented.

**Graph 12: Average sanitation findings (number of people per latrine built)  
MSF-CH activities in Kenya and Mozambique**



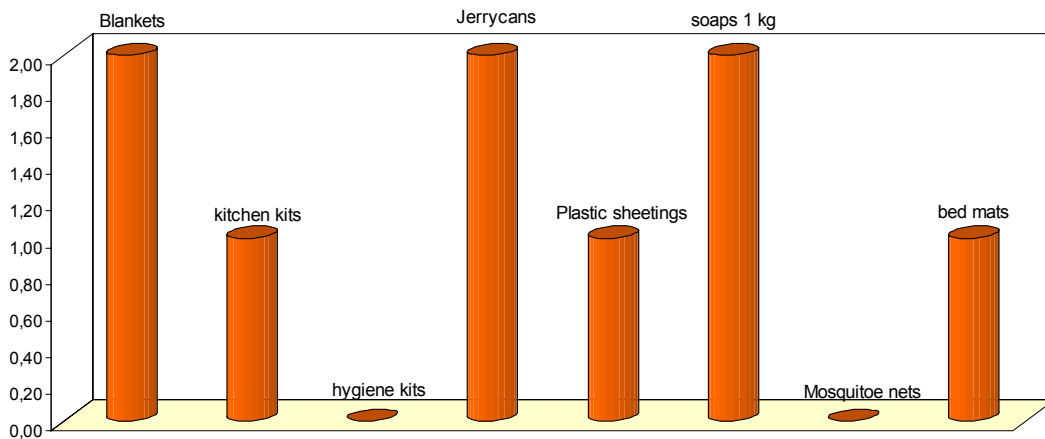
In Mozambique, latrine constructions were stopped, because populations did not use them for cultural reasons. No Hygiene education accompanied the project. It explains the high ratio (200) that should have been a maximum of 50 persons per latrine. In Kenya, a controversy existed on the number of people in each new site of the camps; MSF-CH believing numbers were underestimated. MSF-CH had to integrate its latrine construction in the overall camp management. The international threshold of 20 persons per latrine was not reached in any of the interventions.

#### - Average NFI output in the MSF-CH interventions

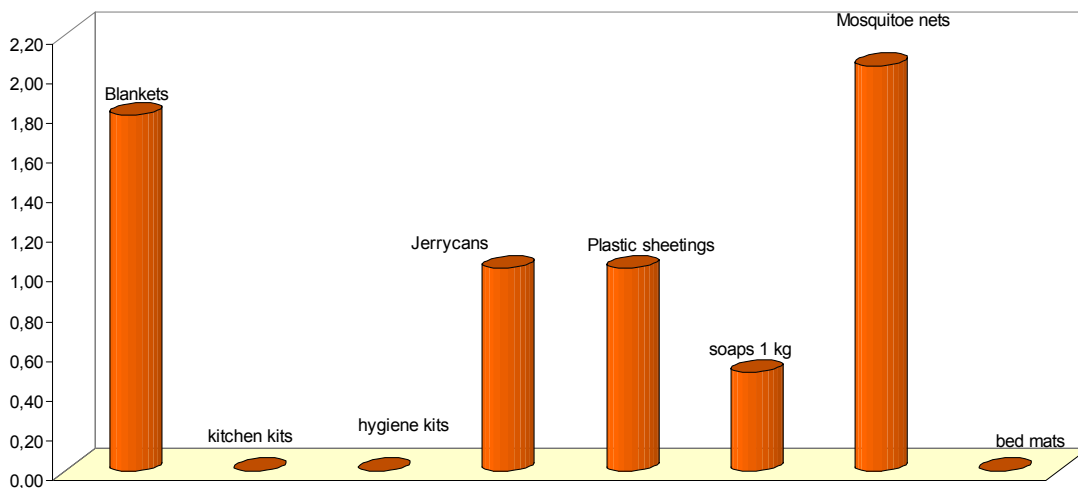
Though specific needs for NFI are considered in each crisis, there are the following international standards for the usual items, which we refer to in this analysis:

- 2 blankets per family
- 1 kitchen set per family
- 2 jerrycans of 20ltrs per family
- 250g of soap per person
- 1 hygiene kit per family
- 1 plastic sheeting of 24m<sup>2</sup> per family
- 2 mosquitoes nets per family
- 1 bed mat per person or a large one for one family

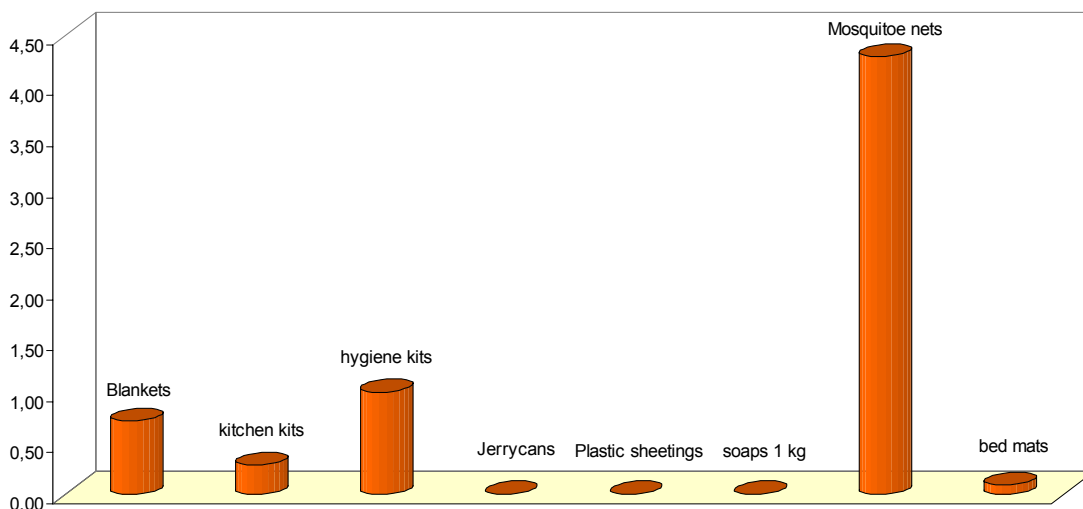
**Graph 13:**  
NFI distribution  
per family  
Ayod, Sudan



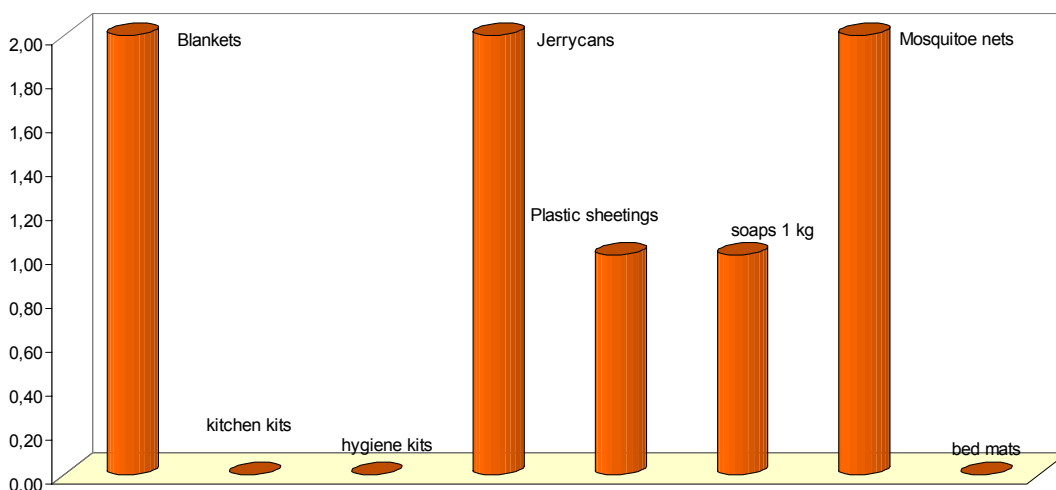
**Graph 14:**  
NFI distribution  
per family  
Gambella, Ethiopia



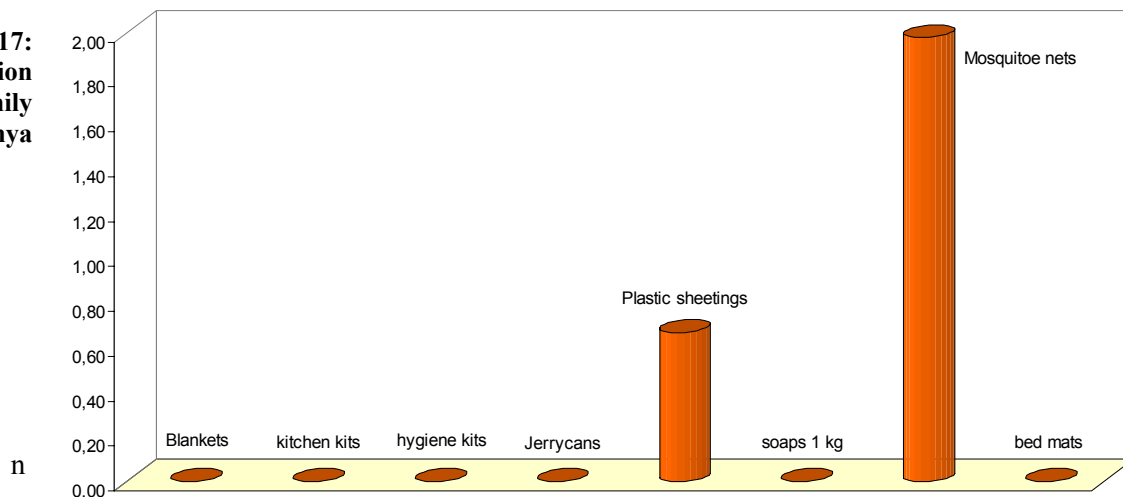
**Graph 15:**  
NFI distribution  
per family  
Villaherm., Mexico



**Graph 16:**  
NFI distribution  
per family  
Zamb., Mozambique

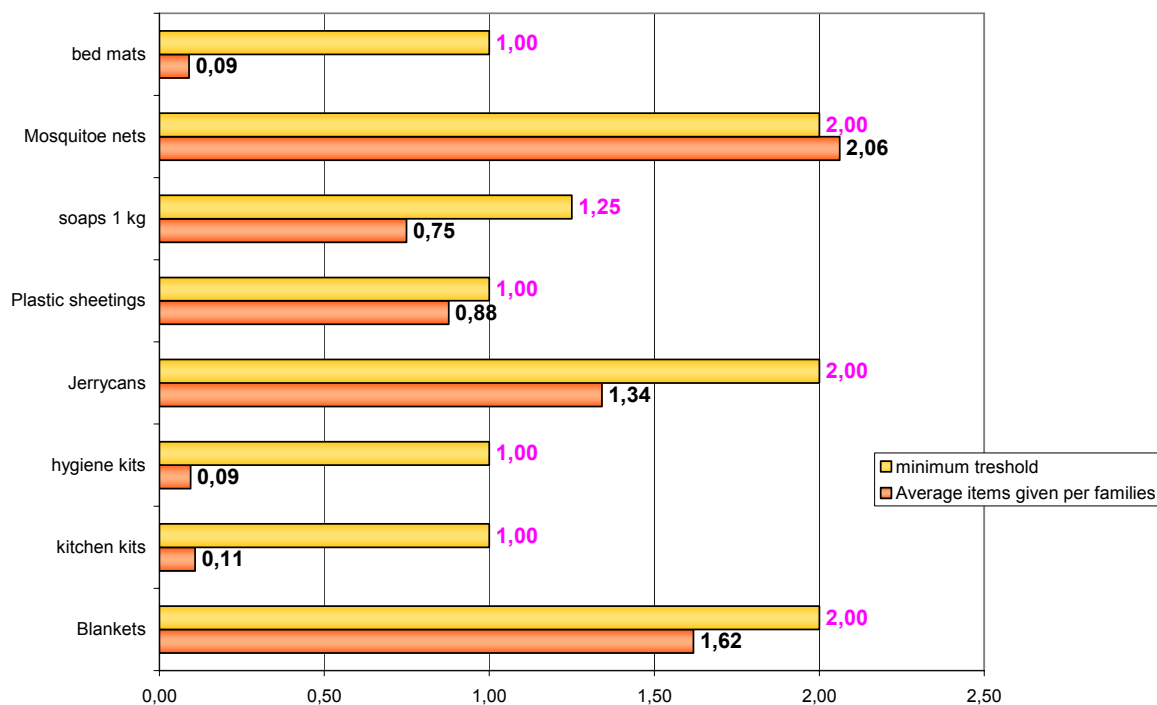


**Graph 17:**  
NFI distribution  
per family  
Dadaab, Kenya



Sudan and Mozambique MSF-CHs relief responses have respected international standards. The usual requirements were not met in Mexico for blankets and kitchen sets, in Kenya for plastic sheeting, in Ethiopia for jerrycans and soaps.

**Graph 18:**  
Average number of  
items received per  
family in the 5  
interventions

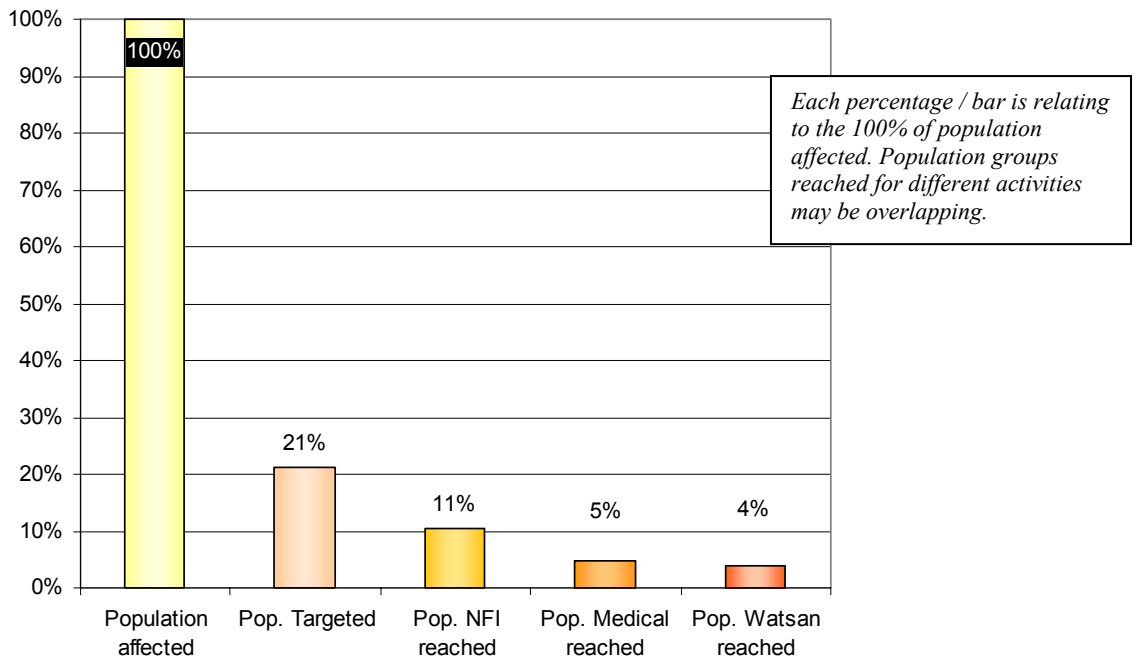


The above graph (18) shows that only one of the interventions fulfilled the international requirements, although NFI needs are not the same in each crisis. What can be observed is the average amount of items used in this sample of crises. It shows that blankets, jerrycans and mosquito nets were the most demanded items.

**Coverage achieved by MSF-CHs activities**

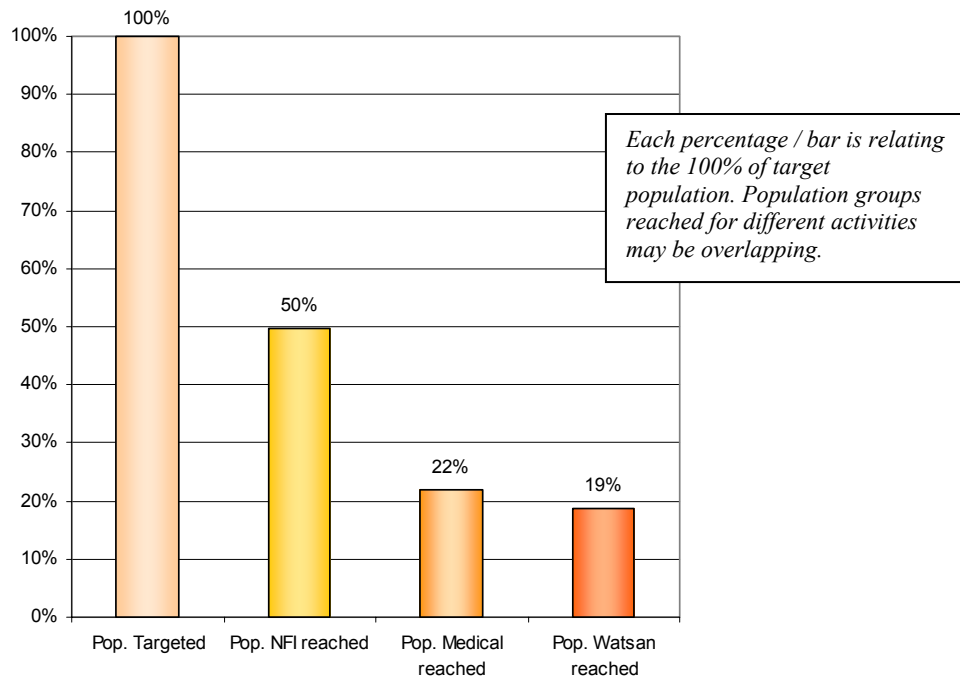
On average, the population targeted by MSF-CH in the initial assessment compared to the total population affected is 21%. This appears overambitious considering the typical nature of such events happening on large geographical scales and affecting massive population numbers. It is rare that one single organization could target almost one fourth of large-scale massive influx. In the cases of Sudan and Ethiopia MSF-CH targeted all the affected population; these were specific regions affected by slow impact disasters and no data is actually available for neighbouring areas.

**Graph 19:**  
Average output,  
population reached  
versus affected



MSF-CH reached, on average, the following proportions of the total population affected: 4% for Water and sanitation, 5% for medical activities<sup>8</sup> and 11% for NFI. This demonstrates the size of the actual work space, hence the need for multiple actors in natural disaster.

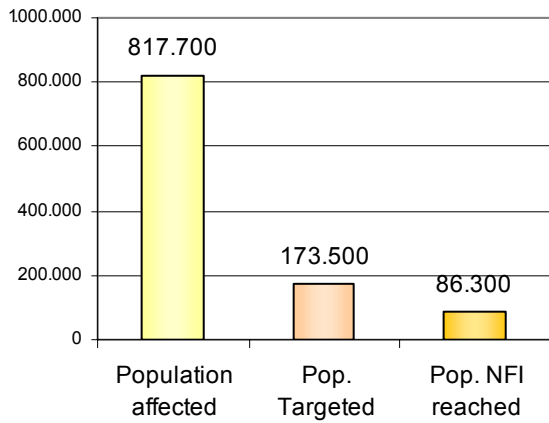
**Graph 20:**  
Average output,  
Percentage of population  
reached versus targeted



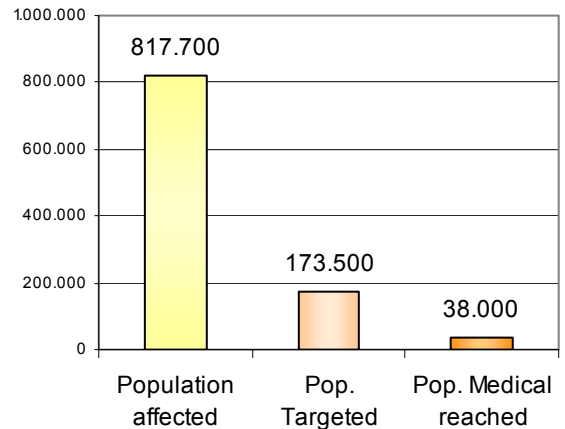
On average, MSF-CH reached 19% of their target population for water and sanitation, 22% for medical activities and 50% for NFI. Reasons for not reaching the targets set were methodological problems in the assessments, overestimation of logistic and HR capacities, logistic difficulties in accessing the beneficiaries, co-ordination problems with other actors. In Sudan the logistic trap was exceptionally overcome by asking beneficiaries to come to the aid centres.

<sup>8</sup> Medical coverage means the total population factually covered through surveillance or curative activities.

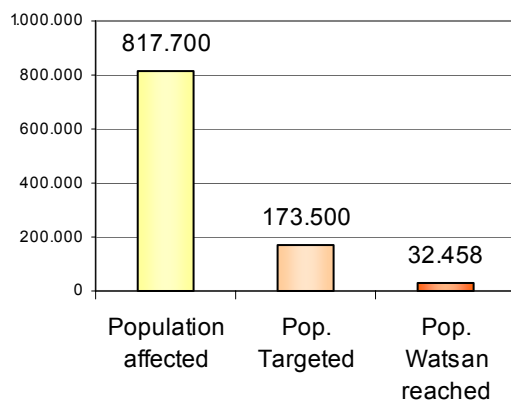
**Graph 21: Output NFI\***



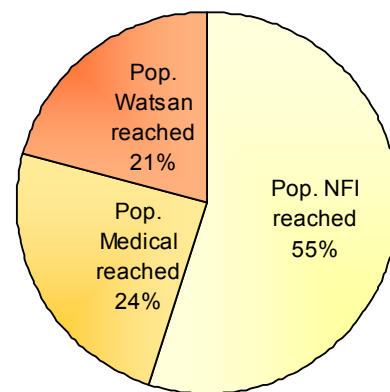
**Graph 22: Output Med\***



**Graph 23: Output WatSan\***



**Graph 24: Sectoral Output\***



Looking at the total number of beneficiaries and the respective services they benefited from, the following proportions apply: 55% of the MSF-CH beneficiaries were reached with NFI, 24% with medical activities and 24% with water and sanitation activities (on average in all the five interventions studied). It shows the central role of NFI in natural disaster response no matter of its typology. Clearly this ratio can change, depending on the nature of the disaster.

\* Figures represent the total output of 5 interventions

### 3.3.6 Cost-effectiveness

Costs are calculated by benefit rather than by beneficiary, as one person was usually covered by more than one activity (NFI, WatSan, etc.), and it is not possible to say how many individuals benefited from one or more activity. The diversity of activities (medical surveillance included, at a low cost) done during implementation increases substantially the number of benefits. Costs have been relatively low, 4 crises responses benefited from an MSF-CH mission present in country, which reduced the over all cost. The high number of beneficiaries reached (a usual pattern in natural disaster) also contributes to reducing costs.

The highest cost/benefit was reached in Mozambique due to the deployment of 4 full charters. Even there the cost per beneficiary reached only 18,75. The short duration of assessment and response is a main factor for the low costs (2 weeks for Kenya, 2 weeks for Mexico and 3 weeks for Ethiopia).

Project Code	2007	CHF
KE120	Floods Dadaab	100'246
MZ145	Floods Zambeze	883'789
GH100	Explo Ghana floods	32'278
TG100	Explo Togo floods	19'547
MX110	Floods Villahermosa	213'251
ET141	Floods Gambella	233'946
SD136	Floods Ayod	157'832

Cost efficiency CHF/activity	Total benefits	General operational costs in CHF	Cost per benefit
<b>Sudan Ayod</b>	12'000	157'832	13.15
<b>Ethiopia Gambella</b>	41'000	233'946	5.71
<b>Mexico Villahermosa</b>	25'965	213'251	8.21
<b>Mozambique Zambeze</b>	47'133	883'789	18.75
<b>Kenya Dadaab</b>	30'660	100'246	3.27
<b>Total / Average</b>	<b>156'758</b>	<b>1'589'064</b>	<b>10.14</b>

### 3.3.7 Coordination

In terms of MSF-CHs coordination with local authorities and other partners, different feedback has emerged. In countries where MSF-CH was already present, coordination was particularly positive (Sudan, Ethiopia, and Mozambique). Previous relationships with local authorities and other partners, hence focal points already knowing each other and trust existing facilitated co-ordination enormously in difficult periods of crisis response.

MSF-CH tendency is to go for a geographical approach (i.e. covering all needs in a particular area), which helps to avoid complicated systems of coordination as well as the risk of duplication. This reflects also MSF-CHs reluctance to coordinate with others or to integrate in wider systems. Difficulties emerged in the one case, where MSF-CH had to accept a sectoral approach with many actors working on the same site with different activities, usually interdependent on each other. Besides Kenya with GTZ, this happened on a few common sites in Mozambique with UNICEF.

In some particular cases, MSF-CH also positioned itself as a monitoring force, which by default created strong tensions with others, who consequently preferred not to have MSF-CH present at all.

In the case of Mexico, MSF-CH being the first international actor in place created certain complicity with local authorities. They shared assessments on very practical bases. The rapid disengagement of MSF-CH after only 7 days (based on the perception there were too many actors) has been described earlier. This seems to reflect a certain reluctance to intervene in a large-scale disaster in a country with self-coping capacities, implicating a heavy coordination.

In average, population reached by MSF-CH represents from 4% (water and sanitation), 5% (medical) and 11% (non food items) of the affected populations. Such shows the wideness of working space for other actors in such crises. Although current mechanisms of coordination may be a supplementary constraint in terms of time and energy spent in the field, it was proven that MSF-CH benefited from them more (shared logistics and donation of essential items) than it suffered (reduced space of work). For natural disaster response, a non-coordination policy may prevent from acting, because duplications are high risks. The system auto regulates itself and tends to reject non-coordinated actors. A higher involvement in these current mechanisms in specific situations is the only way to create the necessary space of work to have a full impact on targets.

When MSF-CH integrates a crisis response, it may take the leadership in the medical sector, as it is its nature, but an important role of coordination (including respect and tolerance toward others) goes with it. Otherwise, it may target a geographical zone and fulfil all needs of the chosen zone, but then it challenges its logistic and human resources. Usually, it is a hybrid situation challenging both aspects.



## ***Conclusion on effectiveness***

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A majority of the objectives set for the different interventions were not reached, which implies that effectiveness of interventions has to be considered poor. Interventions suffered from a lack of specific experience in natural disaster management at field and Geneva level.

Timeliness was a main factor reducing effectiveness. Rapid assessments happened on average 15 days after the event, while they are expected to happen within 3 days. Poor timeliness of assessments has delayed most responses. The main reason for reduced timeliness was the lack of reactivity from MSF-CH teams that were already present in the countries where disasters happened. Today there is no organised alert system for natural disaster in MSF-CH.

Emergency preparedness stocks did not exist in any of the countries affected, except for Sudan. However the MSF-CH logistic supply capacity showed to be very efficient. Where SUKA was involved, its logistic capacity has counter balanced lack of emergency preparedness in countries.

The absence of any baseline information on vulnerability and capacity in countries at risk before disasters meant there was no referral point to assess stabilization of a system and/or impact of interventions.

The experience confirms that in order to be active and effective in an emergency phase it is imminent for an organization to be present and prepared in the phase before.

On average MSF-CH targeted 21% and reached on average 11% for NFI, 5% for medical and 4% for WatSan activities of the total population affected. Clearly the MSF-CH targeting for assessment and intervention was too ambitious, frequently leading to scattered, hence less efficient activities. This also demonstrates the very wide working space, and in fact the necessity to co-ordinate action with other agencies.

Common quality standards on water and sanitation were not met in interventions. NFI distributions had a global satisfactory output quantitatively in terms of the items given per family. However, only 50% of the target population were reached with NFI activities, while 22% and 19% were reached with medical and WatSan activities respectively. In NFI activities blankets, jerrycans and mosquito nets appeared to be the items mostly needed, directly related to main health issues. From the entire population reached, 55% benefited from NFI activities, 24% from medical activities and 21% from WatSan activities.

Cost per beneficiary has been low with an average spending of 10 CHF/benefit; in cases where an MSF-CH mission was already present in country, cost was particularly reduced. Factors reducing efficiency were the non-anticipation of logistic access problems and the poor adaptation to coordination mechanisms.

Quality of reporting varied a lot between interventions. The majority of reports did not give clear output indicators. It is particularly striking that there are almost no medical data (surveillance) available. Only 2 out of 5 crises reported any medical data at all. Consequently reports provide little rationale for exit reasons.

## 4. Findings from the Mozambique real-time evaluation

Findings and recommendations have been detailed in a separate report by the field evaluator<sup>9</sup>. As his approach was different from the overall evaluation, a summary of findings is presented separately in this chapter:

- **MSF-Maputo launched a ‘limited flood response’ on 11 January 2008**, based on the E-Prep conditions that (1) local authorities had called for external support (3 Jan) and that (2) IDP sites reportedly held some 2’000 to 5’000 persons.
- **Most appraisals were conducted by expert staff that gave actionable detail.** Initial or ‘rapid’ assessments involved INGC<sup>10</sup>-Caia informing where to go look for IDP’s, MSF using cars, boats, bicycles or feet to reach IDP concentrations, MSF noting access, sanitation and living conditions to varying levels of detail, MSF questioning local leaders and health volunteers on local situation and needs, plus MSF assessors exchanging ideas on recommendations for each site visited. A medical (‘damage’) assessment later focused on epidemic risk, on malnutrition and on health facilities within 10km from those IDP sites.
- **Displaced persons have learned how (uncomfortably) to make do.** If no aid came to rescue, people simply said they would know how to survive. Against thirst, they are used to drink untreated water from the river or from shallow wells next to it. When it rains, people sleep rough under a tree with banana leaves for cover. Nagging hunger is stilled with water lilies, green mangoes or wild greens and hopefully some fish caught from the river. If catches are good, people barter fish against corn, rice or manioc from hillside landowners. Day work on hillside plots feeds a family for 2 to 3 days. Households would not normally own sheets, jerrycans or bednets and people know that living next to the Zambezi will flood their homestead. But poverty leaves little choice and floods bring new aid items. Still, forced to cope on their own children, pregnant women and the elderly especially risk serious weakening.
- **Biomedical needs were mostly noted, but IDP’s ordinary or vulnerable needs were left unheard.** Health needs such as safe water/containers, soap, sheeting and bednets were correctly diagnosed. MSF’s Non-Food Items could not quote food, but neither did it list fishing nets, cooking pots, blankets, plates or spoons (nor e.g. salt, matches, napkins). The medical justification for soap, bednets or latrine sheets was lost to households whose apparently more pressing needs were overlooked, e.g. for washing powder, fishing nets and (more) tarpaulins. Forced in situ to rely on official registers MSF skipped an unknown number of orphans, single mothers or elders (who can’t build a hut and get listed) and lost track of several of its HIV/AIDS patients.
- **E-Prep’08 gained much on arrival-, much less on completion-dates.** It cured quite a few Proj’07 delays: defined strategies for various disasters, spelled out emergency respond tasks, referenced a pool of (ex-)MSF experts, checked and upgraded E-Stocks, divided labour with MSF-B and listed diverse partners’ contact details. This effort allowed MSF to react 7 days faster than in’ 07 and its boats to rescue 596 people. MSF assessed early, trucked first water at D+3w, screened and consulted first at D+4w and treated several remote sites around D+2m. In between it tried and seemingly won to contain cholera along the Zambezi River. MSF was often praised for speedy logistics and WatSan provision despite internal complaints about gaps and

<sup>9</sup> Gilbos, Valery; “MSF-CH response to floods in Zambezia, Mozambique 2008”

<sup>10</sup> Instituto Nacional de Gestão Das Calamidades, the official disaster response institute

defects. But stop-start planning and poor supply lines cramped its delivery and completion rates throughout.

- **Acute reactivity builds on regular in-country staff adjusting to newcomers.** E-Prep'08 pre-identified who should be ready to survey sinister zones. The in-country program furnished an emergency team that made it ahead of others to find '07-employed staff still available in the field. But MSF-Mopeia thought the Emergency expat Coordinator had "*arrived 10 days late*". Basic interaction problems figured as well e.g.: "*Communication was an issue all throughout the intervention. Horizontally and vertically, interlocutors were well defined but personal preferences, language skills and already erroneous routines took preference before the organigram*". Gathered information then stayed confined within just a subset of the team, causing mistakes or confusion.
- **Without MSF, relief would have lagged but not lacked.** MSF came first with WatSan, coincided with INGC on symbolic food handouts and with SCF<sup>11</sup> on starter sheet donations; it later helped SCF and IRD to pick up project speed. But state health services were at hand well before MSF, while also the Spanish Red Cross operated in the district hospital. To UNICEF MSF stood out for its reactivity, logistics, and WatSan. But like MSF, in-country SCF and IRD's flood response entailed adding protection against epidemics, hunger, and rain to their long-term goals. All three NGO's drew on the same UNICEF supplies to do this. With a mandate for children's rights and education, SCF also supported CHW's while IRD focused on female income generation but brought WatSan and NFI to vulnerable persons. IMC arrived quite late with a brief to train CHW's, support health posts with drugs, and boost disease surveillance.
- **A more cooperative and Mozambican MSF gradually moved to less official sites.** In reaction to '07 difficulties, MSF-Moz'08 decided more to cooperate with its partners. An emergency relief agreement was signed with MSF-B and there was far closer coordination with INGC and district officials. MSF respected all government end-of-mission transfer steps. It kept '*minimum distance*' with the UN Cluster: MSF attended meetings, shared stores, or vehicles and distributed other NGO's NFI. A daily meeting was held with agencies present in variable Health Post tents. '07 government pressure also got to tilt the '08 national / expat ratio in favour of local MSF leaders. For the '08 floods, MSF focused on reaching the bigger more accessible 'core' IDP settlements first. To do so it worked there with the other NGO's until it left. But MSF soon also sought and treated sites where other agents were not (yet). These sites kept on being found, ever more needing handovers to incoming NGO's as MSF's time horizon continued shrinking.
- **More appropriate and realistic goals result from longer gathered data or better fitting NFI.** MSF wanted to prevent epidemics, respond to malnutrition, provide basic WatSan, target NFI donations, and cater to remote sites. Slightly over half of these proved appropriate or realistic enough. But e.g. preventing rather than containing malaria, providing rather than monitoring sanitation or targeting rather than blanketing donations required more varied data and NFI. Curbing epidemic threats was rightfully the top concern: for malaria NFI restrictions on 07-IDP bednets were eased and for diarrhoea clean water volumes raised. In '08 cholera missed Mopeia probably due to swift containment measures along the frontier river. For abandoned health posts, MSF lobbied, trained, assisted, and restocked nurses. Too, up to 30% of mobile clinic (MC) patients were not IDP's.
- **Typical obstacles slowed MSF's response to changing localized needs.** Poor quality monitoring lost WatSan one month before realizing it pumped too little water in core camps. Poor record handling or NGO departure but more so IDP-number trafficking derailed good NFI ordering. Frustration with IDP figures stalled MSF-NFI and WFP-food donations. Supply lines proved too narrow or short i.e. for clean water but also for sheeting, bednets and drugs. There

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<sup>11</sup> Save the Children Fund – International Relief & Development – International Medical Corps - Community Health Workers

were clashes of culture notably on the use of pit latrines or mosquito nets. There were clashes of interest with agencies over best WatSan inputs or with government over unofficial site assistance. Re local politics, at least INGC tried for equity by allocating areas and items amongst NGO's. But in early March MSF faced the ethical dilemma of whether or not to overrule official prohibition on bednets to unofficial Chipanga (IRD later took over). Since MSF normally went and did as it pleased, only its self-chosen time horizon precluded new relief opportunities.

- **MSF'08 reached 2 in 3 people of its intended population:** of 75'000 people affected in the MSF-CH Province, 80% were targeted and 53% (40'000) reached. MSF aimed daily to supply five litre of safe water per person. Disregarding unmonitored sites visited early March, MSF arguably failed to do this in just one suburban camp (which it belatedly corrected). Bednet coverage in established MSF sites was adequate or more than adequate. Every family of five on average got one sheet or tarpaulin. Even so the UN Cluster appears to have given out twice as many bednets and thrice as many sheets.
- **MSF'08 health outcomes and impact were clearly beneficial.** INGC used MSF boats to rescue 569 persons; MSF stores, vehicles, material and staff helped provide NFI or clean water for other agencies; MSF lobbied and secured safe water, some food and health clinics to unassisted sites; MSF medics on average saw 94% of expected illness episodes; MSF successfully decontaminated and followed-up on one cholera death and thus probably blocked cholera progression into rural Zambezia. MSF statistics saw low intestine and falling airway disease in three riverside and of malaria in two suburban camps. But several of its HIV/AIDS patients strayed from view and people used soap, bednets and WC walls for non-medical purposes. With families hiding mortality and without baseline statistics, perhaps MSF failed to name as such the (typically 4 to 6w delayed) post-flood malaria outbreaks in Nzanza or Chipanga.
- **Despite a long prepared exit with an extension option, MSF left some hoping for more.** When MSF left, overall health indicators appeared back to normal, partners were taking over, and health structures returned to function. Maputo insisted not to close down in a rush and *"if needed and according to WatSan handover planning, the timeframe can be extended"*. UNICEF commented: *"This year we are 95% positive about MSF, they're bloody professional, fastest on the ground, have all the logistics, boats, telecom gadgets - we really think MSF should run the logistics cluster! [...] But in 2008 MSF leaves too early, all our partners must now think how to compensate for its loss!"*

## 5. MSF wide practices in natural disaster response

### 5.1 Floods: MSF-History and previous lessons learned

The various sections intervened in 17 flood events during 2007:

1. Mozambique (Feb 2007): OCB, OCG
2. Kenya (Aug 2007): OCBA
3. South Sudan (Aug 2007): OCP, OCA, OCG
4. Ethiopia (Aug 07): OCBA, OCG
5. Ghana (Aug 07): OCG
6. Togo (Aug 07): OCG
7. Mauritania (Aug 2007): OCB
8. Uganda (Sept 2007): OCA
9. Liberia (Aug 2007): OCB
10. India (July 2007): OCBA
11. Pakistan (June 2007): OCB, OCA
12. Nepal (June 2007): OCA
13. Bangladesh Monsoon floods: OCA
14. Bangladesh Cyclone (Nov 2007): OCA/OCB/OCP
15. Indonesia, Aceh (Jan 07) Jakarta (Feb 2007): OCB
16. Mexico (Oct 2007): OCG (some French HR incorporated)
17. Haiti (Nov 2007): OCA, OCB

All the MSF sections wrote a number of documents about natural disasters in the last few years and many learning experiences have been shared on ad hoc basis. In order to integrate the most recent reflections in our analysis, here are a few excerpts of MSF-Bs evaluation of floods in 2007 (see Box below).

#### **Box 3: Synthesis of MSF-B evaluation on their response to floods, 2007**

Over the last decade, flooding has increased. The average annual impact is 9000 people killed and 115 million people affected (crops, houses etc.). The average mortality has decreased, likely due to preventative work (mitigation). 96% of people affected by floods are in Asia and climate changes increase floods in severity and amount. Flood events can take many forms.

Slow-onset riverine floods, rapid-onset flash floods, accumulation of rainwater in poorly drained areas, coastal floods caused by tidal and wave extremes. We often include windstorm events into floods. The speed of onset floodwaters is a key factor (Houses destroyed - IDPs). High media attention exists for nearly all floods (some only get an initial attention therefore funds are not fully available to other actors).

In terms of medical impact, the risk of infectious diseases is specific to the context:

- The local coping mechanisms are likely to be better where flooding is recurrent
- Endemicity of specific pathogens before the disaster
- The impact of the disaster on water and sanitation systems
- The availability of shelter
- The congregating of displaced people
- The functionality of the surviving health infrastructure and availability of healthcare services
- The rapidity, extent, and sustainability of the response

For water borne diseases, in many contexts the major risk factor for outbreaks is the contamination of drinking water. Diarrhoea is the major cause of illness. There is some evidence that floods added to the cause of Cholera epidemics (must be endemic). Hepatitis A occurred in Khartoum 1988 and in Vietnam 1999. Leptospirosis transmitted by urine from animals has been linked to various epidemics after floods.

For Malaria, the risk of outbreaks is possible. In an epidemic prone area, there is time for preventive measures, such as indoor residual spraying and distribution of insecticide-treated nets. The relationship with dengue and floods is less established or likely.

In general, deaths and injuries mostly occur in flood onset; however, there are few severe injuries except for windstorms. Risk for outbreaks is associated primarily with displacement; there is not much evidence that Tetanus is common. An increased risk of respiratory tract infections exists (exposure) as well as skin diseases in areas without sufficient sanitation. Snakebites possibly increase when there are changes in habitat. Mental health consequences “have not been fully addressed”

Obtaining relevant surveillance information is challenging because of the destruction of the public health infrastructure, the lack of pre-disaster base leading to difficulties differentiating epidemic and the balance made on accuracy compared to a timely intervention. A good surveillance can be used as a tool for advocacy towards other actors and more long-term programs

Coordination with local actors is very tricky in some areas and other agencies are likely to be there before us. In many countries, INGO use local NGOs to implement and have local network also for longer term purposes with a “full humanitarian package” services. Many actors are present in most floods, often with longer-term programs than MSF.

Many assessments did not result in any intervention, not much has been documented, but the main reasons are: other actors’ presence, lack of IDPs, no obvious medical needs, and discrepancy between official estimates.

MSF concentrates its efforts usually on medical surveillance and implementation of activities happens more in remote and inaccessible areas, where few other actors are. Most interventions involved assistance to displaced and operation timing depends on how long people were displaced. Direct medical assistance has been relatively limited, nearly all concentrated on surveillance in different ways. Mobile clinics were primarily seen as a surveillance tool with limited impact. However, in some cases, they have been seen as positive, when there were few other actors and a weak MoH. They covered gaps in the health system when needed and were considered relevant.

## 5.2 Position of MSF-Sections on natural disaster response

In order to highlight the section's differences and common points, the evaluator has decided to present the "original tone" as stated during interviews (with HQ people responsible for operations, logistic or emergency response). Each section had the same questions conducted in the same chronology of themes.

### MSF-H:

*"When we are in country, we respond to natural disaster with relief within 48h, only if there are medical needs. If we react intersectionally, one section should take the lead.*

*If no MSF-section is in country, natural disaster is not for us, we cannot respond fast enough on new ground.*

*About criteria, whether or (not) to go, 'CNN emergency' is not a good reason, unless there are many affected. Or we may want to go for strategic reasons, use the natural disaster as a foot in the door. Extent of (health) infrastructure damage is a triggering factor, Government responsiveness or defensiveness also is, but an Official Call is not a factor. Huge influx of INGOs rob MSF of added value, it becomes superfluous.*

*We target the core concentration or do nothing at all (only if there is Cholera do we go into the periphery). We target the excluded and least valued risk groups. We do Mobile Clinics plus a bit of WatSan and of NFI (follow SoP). Our regular sets have bed nets, sheets and jerry cans; exceptional sets also have soap, tooth care, towels, cooking sets, blankets and strong tents. If we stay less than 2 months, we avoid worrying about mid- or longer-term effects. We will try and stay in conflict zones.*

*Before acting, you must assess, if there are many local or INGO's; never just arrive and donate, ensure first that NFI are appropriate and will be used as promised. If MSF- H is in country, E-prep must be good enough to sustain 6 weeks of response, do not focus on external charters, and buy what is readily available around you.*

*We might enhance our impact by leading or collaborating with other agencies; coordinating this would require a designated authority.*

*We want to focus on conflict zones, where our independence carries added value and on groups that are wilfully excluded for ethnic, political, or religious reasons.*

*We now do another round of E-prep Guidelines to better respond beyond the obvious epidemics or natural Disasters and prescribe each of our country HQ's to have scenario's, strategies and packages to sustain 6 weeks of kick-started emergency response."*

### MSF-B:

*"When we are in country, we always respond to earthquakes and mostly to flash floods. We prefer not to respond to other types of floods in countries with regular flooding and good local capacity. If no MSF-section is in country, we cannot get surgeons there within 48h, the locals are faster. We may still want to go, even if we do not get there within 24h and do surgery.*

*Local reactivity and security are factors, but a Government Call or a conflict zone is not; Local NGO's presence is, but many INGO's presence is not a factor to consider. We go where the needs are (remote, inaccessible areas with few other agents is a good strategy), we track non-immune IDP's, moving into an endemic zone (rural=urban). We do Mobile Clinics (track needs, opinions, epidemics) to treat, prevent, vaccinate. Also other needs are considered: NFI, mental health (earthquake, cyclone, and flash floods), water sanitation (bladders, well cleaning), shelter (just sheets or transitional housing), perhaps follow-up HIV/TB, diabetes, HTA.*

*If people have not lost everything, we must justify medically (bed net, soap, wash powder, dignity items); if they lost everything, we add at once (but hard to do so within 10 days) hygiene kits,*

blankets and clothes. We must always include the host population with NFI; health education is always crucial (how to use bed net, chlorination, soap and tooth care). Normally we stay for 2 months, but we should fear thus to miss post-flood epidemics and malnutrition (4-6 weeks delay); if we want to prolong, we create a new project, not with E-Desk.

We do not do a full exploration first (try to do too well and you come too late), but we take a few hours (days), then start to donate basic/health supplies where are found needy people. We fill out the picture in a second more thorough round, even if we just then leave later! Never blindly send in a BRU-charter, but check off from our 30.000 scenario (regional platform) pack; locally adapted and purchased kits are good too.

When trying for sustainability, you reduce intervention speed (not mix short & longer term). We should avoid disrupting coping behaviour and should leave once 'life is back to normal' (but how to know that?).

Is the purpose of NFI to ensure survival, good health, or just comfort? We try to avoid slow floods because 1. needs are not severe, 2. locals are faster and better, 3. we hesitate too long (will recede, gets worse?), 4. recurrent flood response generates NFI tourism; but we do household surveys to find needy families.

We have developed sanitary "well being centres" and post-operative "nursing villages".

We hope perhaps local staff can conduct faster assessments. We always send a nephrologist to earthquakes (even where there is no MSF-B) to study improved treatment but also as an integrator between sections and partners. We wish for more regional decentralised E-Stock platforms, also integrating NFI in them."

## **MSF-F:**

"When we are in country, we always respond to floods within 24h. In intersection operation with a lead agency, we follow their floods policy and thread carefully! If no MSF-section is in country, we cannot be there within 72h, so we cannot hope to 'save lives'.

The country may interest us and we must consider state response, local NGO's, and INGO's. If there are few, we can go; If there are many, we may have to go anyway, but then it becomes too competitive and impossible to negotiate anything among colleagues! Seek out the remote and neglected, but try to remain concentrated. Do not think 'average intervention duration', but decide before 3months whether you want to stay; if so, to do what? If not, (try) wait until handover to government or others is possible.

Even when assessing, you should always give something (bad impression, if not!); do not waste time to go to all sites, just study natural disaster effects for a second in the margins. You cannot 'arrive too late' (each phase has its own needs) but the worst is to arrive into the wrong phase (e.g. storming in on day 4 with life saving equipment).NB: quaked lime houses suffocate everyone, but bricks or blocks mostly fracture bones. Objectives, ToR's, Log-frames ("are soooo UN!") hamper adaptability; instead you need constant dialogue between HQ E-Desk and the Field Team (plan just 2 days ahead). With natural disaster, key word is flexibility (there are no rules, each situation is unique), pragmatism & humility (main actors in any natural disaster are the survivors – we must respect that!). We have adopted the IFRC's (Italian) inflatable tents that allow comfortable aseptic orthopaedics even at night.

There would be economies of scale if MSF sections shared HR and logistics on E-prep platforms. We need true intersectional E-Teams, i.e. best available MSF experts to arrive together and harmonize their 'operational cultures'."



**MSF-E:**

*“When we are in country, the mission evaluates the situation and sees if they can manage an intervention. In this case, our ambition is to react in the first hours. If it is another MSF section present first, we contact the e-desk of this section in order to coordinate, we never send an exploratory mission straight. We wait for their evaluation...If there are no MSF missions in country at all, we face lots of problems particularly in terms of human resources availability.*

*Criteria of interventions are today subjective to e-desks, and they mostly depend on the human resources available. This is the main problem today for us...In terms of targeting, we do have the tendency like the other sections to target remote areas. But the main strategic point is our policy concerning NFI. We want to improve the quality of our NFI response for any intervention right from the start and be more reactive. For us, the “African mode” is obsolete; we have to develop the global shelter approach.*

*In terms of medical activities, we tend now to go from the usual mobile clinics in the countryside toward IPD implementations. Lengths of operations depend on many factors and resources; however, we are not interested to stay. We leave when people go back to their basic standards of normality. We do not want interventions lasting 6 months, and we are no longer being used to open countries through emergencies, as it could have been before. We want to keep fresh!!! We want to stay flexible and do pure emergencies.*

*In terms of E-prep stocks, we have two main goals: regional stocks for NFI and country E-prep stocks for water and sanitation, medical and logistic. A review of all mission stocks is systematically made, and we support all regular missions. We want to avoid the full cargo costs, if possible.*

*For future plans, we want to trigger emergencies from the field. We believe we are not able to take decisions from Europe; working from Europe is unrealistic, things have to be done at regional level. We have a better network, better links with missions and stronger local resources at this level. That is why we sent a team in Panama to study the implementation of a regional platform that will be competent for logistic supplying and for human resources pre-positioning. This strategy is based also on our first experience in East Africa with our Nairobi based team of 5 people. The experience of Costa Rica showed it was difficult to share anything between 5 sections, beside this office was not reactive enough and not strong enough for supply.*

## **Conclusion on current MSF practices**

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In every section, there are debates, differences, and contradictory currents on the MSF role in natural disaster response. However, some clear trends can be outlined.

MSF-H tends to favour its presence in a country to intervene or not in case of a natural disaster. Of course, things are not rigid, and they keep a space of decision if their added value is proven; but for them, MSF presence in country is a triggering factor.

MSF-F is more focusing on medical needs including their range of action, mostly in favour of curative medical action. Standardised First aid post, clinic and hospital units have been created. From medical needs, an intervention will be triggered with all consequential needs response related to the emergency (NFI, water, etc.). But medical needs are the triggering factor.

MSF-B has globally the most flexible and innovative approach incorporating NFI, water tools in its medical strategy in case of natural disaster, not reducing itself to a single presence in country or to a “stricto sensus” medical approach. The sudden character of impact is one definite criterion and represents a triggering factor.

MSF-E at this stage does not have specific triggering factors and itself will develop a strategy in the next few months based on an evaluation team pre-positioned in Central America. Until now, interventions were mainly depending on internal factors and desk profiles.

## 6. Recommendations

### 6.1 Recommendations for MSF-CH:

#### I. → Define a natural disaster policy

The OCG management shall validate general principles and areas of intervention with regard to natural disaster preparedness and response. Intervention and exit criteria need to be clarified in such a policy.

#### II. → Invest in Emergency preparedness

- All MSF-CH missions present in their respective countries establish a **vulnerability and capacity assessment in order to create a reliable database of indicators**. In case of a disaster, this will enable the emergency teams to measure the scale of the disrupted system, the impact of their emergency response and to envisage a coherent exit strategy. After the assessment, high risk areas must implement the following measures:
- A national **contingency plan** to be able to participate in a coordinated manner in the life saving search and rescue phase with the authorities; this also includes being part of the national warning systems.
- A medical emergency stock for surgery and disposal of dead bodies, controlled every 6 months by the emergency desk logistician.
- Mapping of available human resources and their competencies for a search and rescue phase.

#### III. → Improve internal alert system, program launching and monitoring

- At Geneva level, one person from e-desk should be designated and responsible to scan all media reports on natural disaster events on daily basis. This person would alert all MSF-CH missions and ensure their awareness and reactivity. In addition, s/he could also participate in all natural disaster management information cells of the other international agencies in Geneva area, integrating a network on the matter.
- In case of a natural disaster, the head of operations or his deputy will have to give authorization to launch a rapid assessment from Geneva or from the MSF-CH mission within a maximum of 2 days after impact. In case of their absence, a replacement must be appointed.
- For each crisis, one designated person from the e-desk should be in charge to exclusively monitor the team on the field, the other e-desk members having roles of advisers and counsellors, but avoiding direct communication with the field. On the field, one team leader must be clearly and officially appointed and a mode of real time reporting is to be established before field operations.
- For each crisis, a task force protocol should be defined (incl. meetings, strategy, information sharing, etc.).

#### IV. → Respect standards in the assessment process

- The rapid assessment has to be done within the three first days after impact. It will have to last a maximum of 48 hours, and will have to trigger a first emergency response (including what activities, what items and in what quantities). A second in-depth assessment must then be initiated lasting another 10 days to trigger a second response on target or other needs if necessary.
- This first assessment has to target wisely and prioritize activities (not everybody and doing everything). The assessment has to integrate and plan the logistic constraints of beneficiaries' access. Besides, it must also integrate the internal capacities in the proposed strategy.
- The second assessment must concentrate on excluded populations and more sustainable activities. As a rapid or a damage assessment done at the end of an emergency phase can only underline post emergency needs, MSF-CH must decide beforehand whether it desires to implement inside this particular phase.

## **V. → Respect standards in operational response**

- An immediate response has to be launched by MSF-CH teams in country during the life saving phase (the first seven days). If no teams are in country, the e-team has to directly implement the next phase.
- A first relief response must be triggered by the rapid assessment, with regional or international logistic and Geneva emergency teams, for the period from latest day 7 up to 6 weeks. A secondary relief response will be initiated, if necessary, by the damage assessment for the period from 6 weeks to 12 weeks.
- MSF-CH should base its intervention length on a minimum period of 3 months and eventually invest on a post emergency phase up to 6 months, if necessary. The presence of MSF-CH missions in country, particularly in a country with a high probability of recurrent events and a heavy vulnerability, could allow the institution to target these phases (if desired and if means were put toward these objectives). The longer term and more polyvalent involvement of MSF missions would also improve substantially its effectiveness in the relief phase, which is mostly targeted. Phases of preparedness and recovery would create a positive circle to apprehend the phases of rescue and to improve relief assistance. It would reassure our partners and local authorities, develop our material pre-positioning, increase our knowledge of coping mechanisms, and put constantly in alert our human resources for rapid assessments.

## **VI. → Refine needs identification process**

- A rapid assessment must absolutely be implemented before any action is taken.
- MSF-CH teams must be aware of the different phases, contexts, and needs cycles in natural disaster response in order to assess appropriately.
- Every assessment must include beneficiary's perception of needs and priorities.
- Food, mental health, water boreholes, cleaning wells, health structure support, and crops recovery should be more considered in the needs assessments after disasters. These needs in some cases are acute and even if considered long term, they are part of re-stabilization of the disrupted system by natural disaster.

## **VII. → Standardize and regionalize logistics**

- Regional pre-positioning of NFI, water and sanitation equipment and basic health care kits is to be continued through SUKA. First relief phases should be logistically triggered from SUKA.
- SUKA as a need response entity could incorporate in its strategy, besides regular supply of missions, standardized emergency preparedness stocks for natural disasters, epidemics, and conflicts. Missions would be a vector, but not the essence. It would integrate the notion of risk in its own existence beside the notion of support. SUKA could incorporate alert, networking, and training for the region. Opening this structure to all MSF missions in the area would multiply the number of missions benefiting from support and would result in substantial cost reductions for all sections.
- Finally, one big "SUKA" on a continental base would be less effective than three small regional "SUKAs". Bases in western and southern Africa would offer the same advantages as Nairobi does. Each region could be covered in its first action range with maximum efficiency. With an MSF international perspective use of SUKA, other regional bases should be studied closely with other MSF sections.
- Specific task kits have been defined (Cholera kit, Basic kit 10000, etc.), but they are not linked to operational structures (see Recommendation VIII. Human resources). A standardised package could be studied for the different types of medical clinics, water activities and relief operations.

## **VIII. → Develop specific human resource capacities**

- A natural disaster training module including rapid assessment methodologies, crisis management, stress management, intervention strategies, response tools, coordination mechanisms, reporting frames, etc. should be completed. This training module should be implemented for the front line MSF-CH members (all FC), e-pool members and to a few selected headquarter staff designated to be potentially deployed on natural disaster crisis management. For this module, natural disaster crisis managers well known in the sector would also be invited.

- Response teams could be trained and deployed as one entity based on multiple competencies and able to function in full autonomy toward a common operational objective. Such would avoid dependencies on local networks and human resources gaps. Standardized criteria regarding each activity could be established. Such standardization could also be applied for water/sanitation and relief teams. The objective is to constitute a highly specialised intervention package, in which human and material resources, as well as operational tasks are closely linked and standardized, and that is autonomously acting in the field.
- A pool of specialists (water and medical) for natural disaster interventions should be developed, hiring people on short-term, possibly under consultancy contracts. Such experts could be trained and deployed within the specific standardised service model.

## **IX. → Standardise reporting**

- Reports following a standardized format must be generated after each intervention. This would document the impact with qualitative and quantitative indicators, the chronogram of the intervention, the coherence of the exit strategy, the input of resources and resume the initial vulnerability indicators.
- The reporting issue must be highlighted in trainings, offering a standardized framework for all natural disaster emergencies.
- The emergency team leader should be accountable for this report and a lapse of time should be included in his contract for the accomplishment of the task under the supervision of the concerned desk officer.
- Lessons learned meetings with key actors are recommended after every intervention.

## **X. → Improve coordination**

- If MSF as a movement is to have a significant impact on natural disaster response, it will have to rationalize its intervention on massive disasters, doing intersectional operations and realizing economies of scale (even if attempts like Costa Rica have been unsuccessful before). An MSF intersection meeting should take place to tackle this issue deeply; MSF international could have a role to play in this process and MSF-CH could lobby for it.
- Networking with other humanitarian actors in natural disaster preparedness and response at Geneva must happen on regular basis in order to share and co-ordinate strategies and potentially resolve conflicts in implementation.
- On field level, MSF-CH should avoid to create tensions between partners and to risk closing for itself future doors of response. Natural disaster response demands a high degree of coordination; not only to avoid gaps and duplications, but also to increase synergies between partners to have the highest impact possible.

## **XI. → Implement set up for natural disaster response**

- In order to implement the measures proposed, a natural disaster referent could be integrated and work under the authority of the emergency desk. In addition a technical deputy could be integrated and work under the authority of the logistic department. Constituted as a binomial these referents would work on a transversal base. Four designated MSF-CH technical natural disaster focal points will work closely with the above under the authority of their respective departments (medical, water and sanitation, training, human resources). During emergencies, this pool of four referents could be deployed as a field assessment coordination team for major emergencies under the authority of the emergency desk in order to launch the emergency tools built during non-emergency times.

Table 3: Summary of OPERATIONAL RECOMMENDATIONS AT MSF-CH LEVEL

1	<b>Need for a natural disaster policy at MSF-CH level:</b> OCG shall validate general principles and areas of intervention regarding natural disaster preparedness & response.	1- Define natural disaster policy
2	<b>Vulnerability &amp; capacity</b> assessment in every country of MSF-CH presence	2- Invest in emergency preparedness
3	<b>Contingency planning with authorities</b> in each MSF-CH disaster prone mission	
4	Standardize <b>E-prep medical stocks</b> for phase 1 in MSF-CH missions	
5	<b>Human resource planning</b> for phase 1 in MSF-CH missions	
6	Natural disaster Gva <b>alert permanent duty officer</b>	3- Improve internal Alert system, program launching and monitoring
7	Launching <b>rapid assessment team</b> upon alert and <b>authorization process at Gva level</b>	
8	Appoint <b>natural disaster focal person</b> take the lead within e-desk	
9	<b>Task force protocols</b> for intervention preparation (meetings and strategy)	
10	<b>Timeliness standard of rapid assessment team</b>	4- Respect standards in the assessment process
11	Need for <b>prioritization</b> of action and targeting	
12	<b>Timeliness standard of 2nd assessment team</b>	
13	Consider excluded <b>targets and longer term assessment</b> before exit	
14	<b>Launch immediate response</b> in phase1	5- Respect standards in Operational Response.
15	<b>1st relief</b> triggered by <b>rapid assessment</b>	
16	<b>2nd relief</b> initiated by <b>damage assessment</b>	
17	Rule for <b>intervention duration</b> over the phases	
18	Only <b>rapid assessment triggers</b> relief phase	6- Refine Needs identification process.
19	MSF-CH HR <b>teams are aware</b> of phases, contexts, and needs cycles.	
20	Consider <b>food distribution, rehabilitation, reconstruction, recovery</b> actions	
21	Integrate <b>Beneficiaries ‘ perceptions</b> of needs	
22	SUKA <b>emergency triggering</b> to be developed	7- Standardize and regionalize logistics.
23	SUKA emergency <b>stocks pre-positioning standards to be developed</b>	
24	Need for <b>Operational modular set-up</b> (Human resource +equipment + training)	
25	Regional emergency <b>stocks pre-positioned in other regions</b>	
26	Need for <b>HR natural disaster training module</b>	8- Develop specific human resources capacities.
27	Shaping of natural disaster specialized <b>response team</b> (transversally recruited)	
28	Role of <b>external resources</b> in the recruitment process	
29	Need for a natural disaster <b>standard</b> reporting process	9- Standardize Reporting
30	<b>Reporting to be a focus</b> in the natural disaster training module	
31	<b>Role of team leader</b> in reporting and feedback, included in contract	
32	<b>Lessons learned</b> meetings with key actors after each major crisis	
33	<b>MSF Intersectional coordination mechanisms for a general MSF policy</b>	10- Improve coordination.
34	<b>Synergies</b> with other humanitarian key players at <b>Geneva level</b>	
35	Need to revise MSF-CH monitoring and coordination role <b>at field level</b>	
36	<b>Proposed set up</b> for MSF-CH	11- Implement set up for natural disaster response.

## **6.2 Considerations for the MSF movement:**

The evaluator recognizes that currently the international level (international office) has neither operational responsibility nor such a capacity. Nevertheless, it seems obvious that MSF can only achieve a significant impact in natural disaster response, if action is taken on movement and not only on individual sections level. Therefore, the evaluator proposes the following measures.

### **I. → Share regional platforms and develop multi-competencies**

Regional logistic implementations are already worked between all logistic departments. As mentioned in the report, the logistic concentration is one of the key issues for success on this topic. Economies of scale are essential for massive and multi-geographical responses.

Small regional platforms in countries with good supply options, close to crises but far enough to not be hit (e.g. Kenya, South Africa, Senegal for Africa, Panama for the Americas and Caribbean, Thailand or Malaysia for South East Asia, Indonesia and Micronesia) would constitute a real added value logistically for operation responses.

- Such platforms in MSF intersection cost sharing with non-food items, medical and water emergency kits E-prep stocks in equal quantities as SUKA, could launch immediate responses any where for any disasters, each of them being fully efficient on its first action range. Specialized units could also be constituted at international level as evoked in the MSF-CH propositions. Besides such platforms could also supply regular missions, using regional and local markets. MSF-CH SUKA, which is a good project today, supplies 3 essential missions, but it would supply 4 times more missions if it worked for the Movement. What prevents MSF-CH to build another platform in Johannesburg despite the proven logistic and financial advantages is low number of MSF-CH missions in the area. It would not be a problem if such platform targeted all MSF missions in the Austral Africa.
- Each section could build one platform based on a standardized cost, material, and human resources, at the disposal of all other sections. Alternatively, each platform could be in equal cost sharing and each managed by a different section. Management of each platform could change leadership every 2 years. The result would be that for the cost one section faces to run a platform they would have access to five platforms.
- The logistic issue is the first to be solved; however, such platforms could on a longer term also integrate new competencies such as an alert system, regional networking, training of expat and local staff, regional operational managers, etc.

### **II. → Use a Standardized natural disaster Training module:**

All MSF training units could realise a common training module in order to create a standardized know how for all operational centres. Beside the technical approach of natural crisis management, assessment methods, and operational responses, this module would integrate all different sections experiences and particular competencies in order for people trained to better understand and make use of the diversity in the MSF Movement. The objective would not be to erase differences, but to integrate them in a global strategy to maximize resources on field operations. Different Training modules levels could be implemented depending of the targeted public.

One module for what we could call MSF Operational managers focusing on strategy and management. One module for technical team members and FCs focusing on technical issues.

### **III. → Build disaster Management Information System:**

- An interactive web site regarding all MSF sections work on natural disaster preparedness and response that would gather a maximum of information worldwide at disposal of the whole Movement including missions.

- A natural disaster mapping daily updated with specialized institutes and research centres links for earthquakes, hurricanes, tsunamis, floods, famines, droughts, landslides, and volcanoes.
- All MSF section preparedness and response tools. (Technical tools, assessment tools, logistic platforms, reporting tools, etc.)
- Updated reports on operations from all missions' country per country.
- Training, presentations, studies made, etc.
- Such a project could be implemented together with specialised institutes.

#### **IV. → Define a common policy for natural disaster intervention:**

A natural disaster intervention policy should be examine in the future, many ways are possible, and could be discussed at international level, here are a few possibilities:

- Leaderships in natural disaster response should be clarified between sections<sup>12</sup>. Each MSF section could designate one highly qualified natural disaster operational manager. The five managers will take lead in case of natural disaster by turns for their section and will manage all the other sections teams.
- 
- Operational response in natural disaster crises could be co-ordinated in different ways, with each section specialising itself on:
  - One or several specific response areas: e.g. MSF-F for Basic health and mental health, MSF-CH for Shelter and NFI, MSF-B for water sanitation, MSF-H for food security, MSF-E for epidemic response.
  - Specific events: e.g. MSF-F for earthquakes, MSF-B for floods, MSF-H for Hurricanes, MSF-CH for famines and droughts, MSF-E for Tsunamis.
  - Specific phases: e.g. MSF-F for the search and rescue, MSF-B for the first relief assistance, MSF-H for the second relief phase, MSF-CH for the recovery and MSF Sp for mitigation.

It is clear that the 2 last examples could exclude at one point a section from responses, however, if each section specialized itself under standardized units on one or 2 response needs, a fair coordination of massive tools deployments based on assessment findings would be possible. As it was explained in the MSF-CH paragraph, only MSF missions in country could implement a Life saving phase (first aid and surgeries).

#### **V. → Consider International natural disaster coordination:**

A coordinator at MSF International level could be recruited. In the natural disaster field, the MSF synergies constitute the future in terms of information sharing, operational coordination, logistic concentration, and human resources competencies. This coordinator could be the link between the five Operational centres becoming an international focal point to build common tools and help to establish a coherent and well-balanced policy between sections. The coordinator would monitor the following problematic, lobby for action taken, and contribute to avoid tensions between sections.

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<sup>12</sup> In a country in war or peace, a natural disaster strikes; one MSF section is operational. It takes naturally the leadership of the relief operation for all Movement integrating all its intervention tools. Its Ops manager\* takes the leadership of the rapid assessment and of the crisis management.

In a country in war or peace, a natural disaster strikes; many MSF sections are present. The section with the greatest volume of activities and/or the longest experience in the country takes the lead. Its Ops manager\* takes the leadership of the rapid assessment and of the crisis management.

In a country in war or peace, a natural disaster strikes; no MSF sections are present, leadership goes for turns to MSF International regulation through the available pool of Ops managers.

**Table 4: Summary of CONSIDERATIONS ON MOVEMENT LEVEL**

1	<b>5 regional platforms at disposal of the MSF Movement</b> , possibly 3 in Africa, 1 in America, 1 in Asia. E-prep for natural disaster and their consequences and supply function for regular missions	1- Develop shared regional logistic platforms for natural disaster E-prep
2	<b>Cost sharing, standardized E-prep stocks under operation authority</b> and rolling leadership. Could be extent to other functions (disaster management, training, networking)	
3	Module for natural disaster <b>operational managers</b>	2- Use a standardized International natural disaster-training module
4	Modules for technical implementations <b>and specialized units</b>	
5	<b>Interactive website common to all sections</b> and missions for natural disaster alerts, tools, reports, studies, trainings, presentations, etc.	3- Build a disaster management information system
6	In partnership with specialized institutes.	
7	<b>Leadership and rules:</b> meetings, potential agreements, ops managers designations	4- Define a common natural disaster policy at MSF international level
8	<b>Operational protocols:</b> specialized sections, specific natural disasters, and phase's competencies.	
9	A <b>natural disaster coordinator</b> at MSF International office	5- Consider an International natural disaster coordination
10	Establishing <b>common tools</b> for and with all sections	
11	Link between the 5 operational centres for a <b>natural disaster policy creation and implementation</b>	



## Abbreviations

APU	Amsterdam Procurement Unit
ARI	Acute Respiratory Tract Infections
CHW	Community Health Worker
CHV	Community Health Volunteer
COSV	Comitato de coordinamento Organizzazioni Servizio Volontario
CMR	Crude Mortality Rate
CVM	Cruz Vermelha de Mocambique
DPPSO	Ethiopian Disaster Preparedness Services
E-Coordinator	Emergency Coordinator
E-desk	Emergency desk
E-prep	Emergency Preparedness
FC	Field Coordinator
GTZ	German Society for Technical Cooperation
HQ	Head Quarter
IDPs	Internally Displaced People
INGC	Instituto Nacional de Gestao das calamidades
IFRC	International Federation of Red Cross
LCN	Logistic Centre Nairobi
MoH	Ministry of Health
MC	Mobile Clinic
MRC	Mozambique Red Cross
NatDis	Natural disaster
NFI	Non-food items
OC	Operational Centre
OCG/A/BA/P	OC Geneva / Amsterdam / Barcelona – Athens / Paris
OCHA	Office for the Coordination of Humanitarian Affairs (UN)
ORS	Oral Rehydration Salts
PACT	Association of local partners for peace in South Sudan
PHP	Pan Humanitarian Platform
RC	Red Cross (national)
RP	Responsible programme (manager)
RTI	Respiratory Tract Infections
SCF	Save the Children Fund
SoP	Standard operating Procedures
STI	Sexually Transmitted Infections
SUKA	Supply Kampala
SWIDAP	Sudan Women In Development And Peace
UNDAC	United Nations Disaster Assessment Coordination
UNHCR	United Nations High Commission for Refugees
UTI	Urinary Tract Infections
U5MR	Under-five Mortality Rate
WatSan	Water and Sanitation
WFP	World Food Program

## Annex 1: Terms of Reference



### TERMS OF REFERENCE Evaluation of MSF-CH RESPONSE to FLOODS / NATURAL DISASTER

<b>Commissioned by:</b>	<b>Bruno Jochum</b>
<b>Timeframe:</b>	<b>February – June 2008</b>
<b>TOR elaborated by:</b>	<b>Bruno Jochum, Hughes Robert, Guillaume Queyras, Laurent Ligozat, Sabine Kampmüller</b>
<b>Date:</b>	<b>13.03.2008</b>

#### I. CONTEXT

While being explicitly mentioned in the Charter of MSF, the response to natural disasters has always been a rather marginal activity of the organization. However in the recent years MSF has been involved in some major interventions in response to natural disasters (Tsunami, Pakistan earthquake etc.), often around our projects (Mozambique, Kenya, Niger, Mexico, etc). There are very different opinions internally about how far MSF should get involved in such interventions and how much added value we have versus other actors.

Currently OCG<sup>13</sup> is carrying out a study on the humanitarian effects of environmental change, aiming to get a better understanding for possible future needs that MSF may be faced with.

With the increased variability of climate, the intensity and frequency of natural disaster events could be changing and it questions the appropriateness of MSF's current response. The practices and techniques of MSF in response to natural disasters have indeed not evolved much over the past years.

A number of dilemmas are being observed in that respect:

Some actors are able to respond within 48 hours with a specific capacity for rescue (UN agencies, governmental structures like protection civil, Swiss disaster relief, etc.), and MSF is not always the first. During big natural disaster or in countries with some local/national capacities (e.g. Mexico) massive aid can be in place within a few days. MSF then experiences difficulties to find a medical added value.

The level of response is subject to the level of international media attention and the capacities of national organisations, therefore extremely variable from one context to another.

The usual process of intervention is to assess needs first and then take a decision on the intervention strategy. In natural disaster this can mean that valuable time is lost and the intervention comes too late to cover initial needs.

Often other actors are on the ground, ready to take action; but their response is delayed, which possibly leaves a critical gap in the immediate needs of people.

Floods often go back quickly, the displacement only lasts for a short period of time, and people have their own coping strategies. Hence the real (health) needs of people are often difficult to determine.

Epidemics are rare and occur only much later after the emergency phase (malaria...)

This evaluation is meant to review current practice in response to natural disaster and provide answers to critical questions.

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<sup>13</sup> OCG Operational Centre Geneva (MSF)

MSF-CH has responded to five emergencies caused by floods since December 2006. Dadaab (Kenya), Mozambique, Ayod in South Sudan, Mexico, Ghana and Togo (explo mission only). Currently, in January 2008, there are floods again in Mozambique and an intervention started.

## II. PURPOSE OF THE EVALUATION

The findings of this evaluation will provide facts for a revision of the MSF-CH position towards response to natural disaster and the strategies applied in such a response (i.e. whether and how to intervene in future emergencies caused by floods).

## III. SPECIFIC OBJECTIVES

- ⇒ Clarify the **relevance**<sup>14</sup> of MSF-CH response to floods in the initial and later stage of the event, in terms of its added value for the population considering their coping mechanisms and the assistance provided by other actors.
- ⇒ Assess the **appropriateness**<sup>15</sup> of the MSF-CH response to floods in terms of intervention strategies taken in the initial and later stages of the event.  
*Discuss relevance and appropriateness also in light of current policies and practices in the MSF movement.*
- ⇒ Establish the **timeliness of interventions**, particularly in regards to the immediate response and assess how this could be improved
- ⇒ Assess the **effectiveness / impact** of the MSF-CH interventions in terms of covering essential needs (Water & Sanitation, Shelter, Food, Health care) and disease prevention

## IV. KEY QUESTIONS

1. How relevant is the current MSF response to natural disaster?  
*Looking at the intervention in Mozambique and the interventions since December 2006*
  - a. Was the intervention strategy corresponding to identified needs?  
*Compare aims of intervention with implementation strategies*
  - b. What are the arguments for MSF strategies focusing on immediate response (rescue and traumatology within 48 hours), on the second stage after the disaster (emergency care for the survivors: Water & Sanitation, Shelter, Food, Epidemiological surveillance, etc.) or the third stage (recovery, shelters, mid-term health needs...).
  - c. How relevant is the systematically practiced assistance with non-food items, which requires high logistic means?
  - d. What was the response of others? How did co-ordination between MSF and other actors work?
  - e. What was the practical response of the government, and how was this taken into account by MSF?
2. What is the understanding about the imminent risk of epidemics inside and outside of MSF?  
*Review literature on health consequences after floods, review MSF experience in OCG and other sections (Interview key people).*
3. What were the critical issues MSF faced in flood interventions (during 2007 and in Mozambique 2008) and what checklist of criteria can be suggested before intervening?
4. How did people cope in the different flood situations and what can we conclude about coping mechanism for similar situations?

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<sup>14</sup> Relevance refers to whether the “real” and most urgent needs of the beneficiaries are addressed by MSF.

<sup>15</sup> Appropriateness refers to whether the „right“ strategies/approaches were chosen to address identified problems.

5. What possible impact did the MSF intervention have (looking at output / outcomes and the perception of beneficiaries)?
6. How far are missions prepared for Natural Disaster and what effect did Emergency preparedness have on the outcome of interventions?
  - a. How appropriate was the EPP in Mozambique (considering also previous experience)?
7. What are the main lessons learned and evaluations from other sections on floods and natural disasters?  
*Review critical reviews, previous evaluation exercises and current position on response to natural disasters.*
8. How timely were the interventions? What factors influenced timeliness?  
*Establish timelines for each of the interventions. Explain factors influencing timeliness in the different interventions.*
9. Were the resources (human and material/emergency stocks) mobilized by MSF appropriate and timely?
10. What were the political issues around flood response that affected people's livelihoods, particularly concerning questions of resettlement, and how were they taken into consideration by MSF?

## V. IMPLEMENTATION OF THE EVALUATION MISSION

This evaluation will happen in three parts:

First will be a real-time evaluation of the ongoing intervention in response to floods in Mozambique. The evaluation unit is immediately put in copy of all correspondence btw. HQ and field, and a field visit will take place before the end of the intervention (March 2008).

Secondly interventions and explo missions following flood emergencies during 2007 (Dadaab, Ayod/Sudan, Mexico, Mozambique, Togo, Ghana) will be analysed through a desk-review and key indicators / outcomes compared. Interviews with key people involved in those interventions will be conducted.

The third part (that may happen simultaneously) will consist of a review of policy and evaluations / critical reviews in other MSF sections. Existing documentation on the current position towards response to natural disaster will be summarized. A series of phone interviews (policies and technical issues) will take place with key people in the other OCs to better understand where the other MSF sections stand today and where they are heading to.

The evaluation starts Beginning of March and is planned to take 10 – 12 weeks.

### EXPECTED RESULTS

- ⇒ Debriefing after phase 1, real-time evaluation in Mozambique:
  - debriefing in the field (to field and co-ordination team)
  - debriefing to the desk
- ⇒ Presentation of findings and first conclusions to key people after phase 2 (mid of April)
- ⇒ Evaluation report, including short summary
- ⇒ Further presentations on request

Presentation and report to include:

- analysis of the current practice (timeliness, effectiveness, appropriateness), based on Mozambique evaluation and comparison of different responses
- arguments for and against different levels of engagement in flood response based on the evaluation findings and existing literature
- suggested criteria for decision making on future interventions
- Summary of current practice / future outlook in the movement
- Recommendations on how the response to natural disaster can be improved

## **Annex 2: List of Interview partners<sup>16</sup>**

### **MSF-CH**

1. Oifa BOURIACHI (Admin/finance e-desk)
2. Naoufel DRIDI (Logistic e-desk)
3. Helmi MEKAOUI (ARP Deputy e-desk)
4. Jean-Sebastien MATTE (RP Deputy e-desk)
5. Hugues ROBERT (RP e-desk)
6. Reveka PAPADOPOULOU (RP regular desk)
7. Andrei SLAVUCKIJ (RP regular desk)
8. Huub VERHAGEN (RP regular desk)
9. Regis GHESQUIER (Logistic SUKA)
10. Guillaume QUEYRAS (Logistic Mission)
11. Mathieu SOUPART (Logistic Transport)
12. Jean-Marc BIQUET (UREPH)
13. Michail FOTIADIS (Costa Rica Former Manager)
14. Laurent LIGOZAT (Deputy Director of Operations)
15. Bruno JOCHUM (Director of Operations)

### **MSF-F**

16. Malika SAIM (Deputy Director of Operations)
17. Marie-Noëlle RODRIGUE (RP e-desk)
18. Mego TERZIAN (RP Deputy e-desk)
19. Philippe Ribeiro (RP Deputy e-desk)

### **MSF-H**

20. Vincent HOEDT (RP e-desk)

### **MSF-B**

21. Martin DE SMET (Emergency unit coordinator)

### **MSF-E**

22. Enric SARRIAS (Logistic e-desk)

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<sup>16</sup> For the transversal evaluation, Interview partners from the Mozambique field evaluation can be found in the respective report.

## Annex 3: Typical adverse effects and potential needs in natural disaster

### Earthquakes

<b>Typical Effects</b>	<b>Adverse</b>	<ul style="list-style-type: none"> <li>• Physical damage—Damage or loss of structures or infrastructure. Fires, dam failures, landslides, flooding may occur.</li> <li>• Casualties—often high, particularly near epicentre, in highly populated areas or where buildings are not resistant.</li> <li>• Public health—Fracture injuries most widespread problem.</li> <li>• Water supply—severe problems likely due to damage to water systems, pollution of open wells and changes in water table.</li> <li>• Secondary threats due to flooding, contaminated water supply, or breakdown in sanitary conditions.</li> </ul>
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### Typical post disaster assistance needs

The immediate impact of an earthquake affects all sectors of the community. Local authorities should initially emphasize **search and rescue** assistance. Emergency medical assistance must be provided, especially during the first 72 hours. An **emergency situation and needs assessment** should be conducted during the first 36-72 hours. Finally, the survivors will require relief assistance such as food, water, and emergency shelter. Attention should be given to re-opening roads, re-establishing communications, contacting remote areas and conducting disaster assessments. At the end of the emergency period, long-term recovery needs to take priority.

### Floods

General Characteristics	<p>There are several types of floods:</p> <p>Flash floods—accelerated runoff, dam failure, break-up of ice jam</p> <p>River floods—Slow build-up, usually seasonal</p> <p>Coastal floods—Associated with storm surges, tsunami waves, tropical cyclones.</p>	
Typical Effects	Adverse	<ul style="list-style-type: none"> <li>• Physical Damage—Structures damaged by washing away, becoming inundated, collapsing, and impact of floating debris.</li> <li>• Casualties and public health—Deaths from drowning but few serious injuries. Possible outbreaks of malaria, diarrhoea and viral infections.</li> <li>• Water supplies—Contamination of wells and groundwater possible. Clean water may be unavailable.</li> <li>• Crops and food supplies—Harvests and food stocks may be lost due to inundation. Animals, farm tools and seeds may be lost.</li> <li>• Secondary threats due to landslides from saturated soils and debris flows. Damage greater in valleys than open areas.</li> </ul>

### Typical post disaster assistance needs

The initial response to flooding should include:

- Search and rescue
- Medical assistance
- Disaster assessment
- Short-term food and water provision
- Water purification
- Epidemiological surveillance
- Temporary shelter

## **Landslides**

General Characteristics      Landslides vary in types of movement (falls, slides, topples, lateral spreads, flows), and may be secondary effects of heavy storms and earthquakes. Landslides are more widespread than any other geological event.

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Typical Effects	Adverse	<ul style="list-style-type: none"> <li>• Physical damage—anything on top or in the path of landslide will suffer damage. Rubble may block roads, lines of communication or waterways. Indirect effects may include loss of productivity of agricultural or forest lands, flooding, reduced property values.</li> <li>• Casualties—Fatalities have occurred due to slope failure. Catastrophic debris flows and mudflows have killed many thousands.</li> </ul>
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### **Typical post disaster assistance needs**

Needs for the direct impact area of a landslide include search and rescue equipment and personnel, and possibly use of earth removal equipment. Emergency shelter may be required for those whose homes have been lost or damaged. Experts trained in landslide hazard evaluation should be consulted to determine whether slide conditions pose additional threat to rescuers or residents. If the landslide is related to an earthquake, or flood, assistance to the landslide-affected area will be part of the total disaster assistance effort.

## **Mud and debris flows (from hurricanes and tsunamis)**

General Characteristics      Mud and debris flows can arise as a result of heavy storms, abundant rains, breaks of mountain (usually glacial) lakes, or in hot weather as a result of intensive glacier melting. This is a process whereby considerable mud flows are carried out along the bottom of mountain valleys. Very often debris flows cut off rivers. When this occurs, a dam may form resulting in flooding upstream. A break in this dam, however, may cause flooding down the river stream.

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Typical Effects	Adverse	<ul style="list-style-type: none"> <li>• Physical damage—everything in the path of debris flows is usually destroyed, including roads, bridges, electric lines, and constructions. Often irrigation nets are destroyed and agricultural areas are covered with silt.</li> <li>• Casualties—People in the path of a mud flow may perish. In addition, people may be lost and injured as a result of secondary floods.</li> </ul>
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### **Typical post disaster assistance needs:**

In the direct impact area of mudslides, there may be a need for search and rescue of victims. In isolated locations there may be a need to use special equipment. Emergency shelter may be required for those whose homes have been lost or damaged. Secondary effects of mud flows, such as flooding, may require additional assistance measures.

## Annex 4: Proposed Set up at MSF-CH level

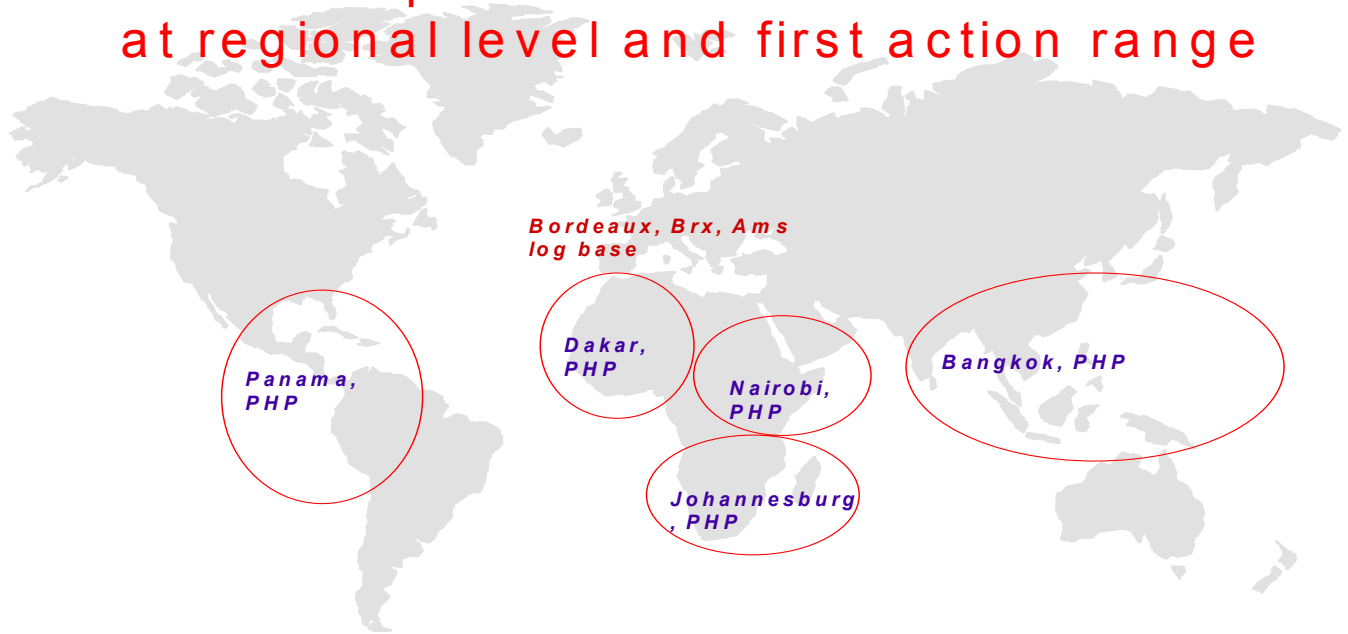
1	<p>A “Theme coordinator” for the set-up and animation of a dedicated inter-departmental structure (transversal CLUSTER). The cluster would be composed of : “natural disaster coordinator” + “technical” coordinator from logistic department + 1 NatDis focal person appointed by each concerned department (medical, water and sanitation, training, human resources)</p>	Proposed Cluster
2	<p>The transversal cluster will clarify the role of each department in NatDis crisis management. The cluster shall explain an analytical matrix analysis relating each type of hazard / each department’s action &amp; responsibility / each period of crisis / known typical needs.</p>	Cluster coordination
3	<p>The transversal cluster will adapt &amp; develop the OCG operational capacity with respect to the following principles:</p> <ul style="list-style-type: none"> <li>❑ Will be in charge of developing and managing an Alert system.</li> <li>❑ Will be in charge of networking for NatDis with other MSF sections and other humanitarian partners.</li> <li>❑ Will develop and favour the emergence of an MSF-CH natural Disaster policy with all departments.</li> <li>❑ Will Work with the MSF movement toward a converging natural disaster policy.</li> <li>❑ Will support implementation of Vulnerability Capacity Assessments in MSF-CH missions as well as local contingency planning and warning system with authorities.</li> <li>❑ In charge of the creation of a natural disaster training module with the training Unit.</li> <li>❑ Will launch recruitment process for specialized teams on short-term missions with the Human Resources department.</li> <li>❑ Will support constitution of emergency kits linked to resources. Mobile clinic, Basic health care clinic, First aid post, water sanitation units, relief units, etc. with the natural disaster technical focal points.</li> <li>❑ Will support the constitution of specialized teams with a standardized logistic, BHC, Relief, WatSan integrated with the natural disaster technical focal points.</li> </ul>	Emergency preparedness
4	<p>The specialized cluster is to fulfil and obey the following objectives and rules of functioning:</p> <ul style="list-style-type: none"> <li>❑ Focus its action on 3 main axes: alert watch and support for decision-making at HQ level. Rapid assessment / specific relief coordination at field level.</li> <li>❑ Very short period of warning (hence availability of trained personnel)</li> <li>❑ Commitment of short duration, maximum 15 to 21 days</li> <li>❑ Air &amp; sea portability of equipment according to international rules</li> <li>❑ Constant availability of resources (HR, financial, logistical, technical and medical)</li> </ul>	Emergency Response



**Annex 5: Pan Humanitarian Platforms - potential structures and approaches**

MSF

**Pan.Humanitarian.Platforms  
potential Structures  
at regional level and first action range**



MSF

**P.H.P Logistic approach**

