

# **COMOROS FLASH FLOODS**

## **Joint Assessment Report**

01-04 May 2012

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[Assessment results \(by villages and Island\)](#)

## 1. AFFECTED REGIONS

From 20 to 25 April 2012, unprecedented continuous heavy rains hit the whole territory of the Union of the Comoros, causing flash floods on the country's three islands: Grande Comore, Anjouan and Moheli.

On 25 April 2012, "National Disaster" was declared by the Comoros Interior Ministry to respond to the flash floods, and a government request for international assistance was made. Earlier, before declaring the "National Disaster", the Comoros Government and UN Agencies in the Comoros had conducted damage assessments.

On 30 April 2012, a UN Disaster Assessment and Coordination (UNDAC) team arrived in the country at the request of the UN Resident Coordinator in the Union of the Comoros, to assist the Government through the UN Resident Coordinator and the UN Country Team (UNCT).

Lastly, to have a better understanding of the situation and the needs, a Government-led joint assessment by COSEP (Comoros Centre for Relief and Civil Defence Operations), UNDAC, UN Agencies and the Comoros Red Crescent, was conducted from 01 to 04 May 2012 on the three islands.

This report outlines the key findings of the assessment and puts forward sector-specific and general recommendations for implementation by stakeholders.

## 2. ASSESSMENT OBJECTIVE

To assess the impacts of the flash floods in the Comoros so as to get a better understanding of the needs and impacts as a platform for a targeted response.

## 3. OVERVIEW

Three teams, comprised of experts from the Comoros Government, the UNDAC, UN Agencies and the Comoros Red Crescent, conducted rapid assessments from 01 to 04 May 2012 in affected regions.

In addition to administering a questionnaire, the teams also held meetings with the islands' respective regional administration authorities to get more information from various services. However, the information provided was not accurate. Therefore, the teams sent to the three regions (Islands) had to conduct further assessments by interviewing affected communities and local authorities.

At national level, the Government a month ago had put in place a Directorate of Civil Protection that supervises COSEP (Comoros Centre for Relief and Civil Defence Operations). Regional COSEPs – known as "CROSEPs" - have been established in each region: on Grande Comore, Anjouan and Moheli islands, with the level of coordination, capacity and response varying from one region to another. Contingency plans for various scenarios and sectors had been developed at national level but they have not been used as reference documents.

The teams visited **65 identified villages/towns on the three islands**: 17 in Grande Comore, 26 in Anjouan and 22 in Moheli.

## 4. AFFECTED POPULATION

### ***Directly affected people***

At national level, as per data received on 04 May, the total number of *directly* affected people in the whole country is 64,987 (9% of the population of the three islands)

At island level, the statistics are as follows:

*Grande Comore*: 17,232 people out of 374,034 (that is 4% of the Grande Comore population)

*Anjouan*: 30,163 people out of 300,676 (that is 10% of the Anjouan population)

*Moheli*: 17,592 people out of 50,437 (that is 35% of the Moheli population)

### ***Indirectly affected people***

Regarding those *indirectly* affected by the floods, they are all on Grande Comore island, all affected by lack of water supply. Their number is 80,000 in the capital, Moroni, and 3,900 in Mitsoudje.

All the above figures on population affected – directly and indirectly – have been compiled from the rapid assessments conducted and from COSEP reports.

The term “affected” refers to any person whose way of living was affected in one way or another. The following groups of people were identified as “affected”:

- People whose houses are inundated with flood water or mud or destroyed by the rockfall.
- People whose fields are inundated and their crops destroyed, even if their houses are still habitable.
- People who are living with host families.
- School children and staff who can no longer go to their schools because the schools are either inundated or at risk of collapsing or they cannot be accessed.
- School children who are continuing learning in other facilities.

## **5. CURRENT RESPONSE**

The situation on the three Comoros islands stabilised quickly after the five days of continuous rain which caused the flash floods. It is to be noted that in these five days, the country experienced its entire normal annual rainfall.

The Government, with support from the Comoros Red Crescent and UN Agencies, is responding to the flood emergency. Food and Non Food Items (NFIs) have been distributed in most of the affected areas but there are still some areas that are in need. However, even in the areas where food has been distributed, there are reports that it is not enough. Also, there are still gaps in the following key sectors: health; water, sanitation and hygiene; food, essential non-food items; education; protection; and logistics.

The Government has dispatched mobile teams to provide basic health care to isolated communities.

The Comoros Ministry of Education conducted an assessment on the impact of the floods on education facilities and learning, but the results of the assessment are yet to be released.

UNICEF is supporting government efforts to repair a major water pumping station at Vouvouni which supplies 80,000 people in Moroni and surrounding areas. UNICEF also supports repairs to a second water pumping station at Mitsoudje which supplies 3,900 people and the local health centre. And WFP has flown in 25 metric tons of high energy biscuits to cover nutrition needs.

## **6. KEY ISSUES IDENTIFIED**

WATSAN & hygiene, food & non-food Items, logistics, health, and Agriculture/Livelihoods are the top five priority sectors identified in the villages surveyed as indicated above.

Sector needs on each site visited were ranked as high, medium or low, with the categories defined as follows:

- High: Severe situation - urgent intervention required
- Medium: Situation of concern or lack of data / unreliable data - further assessment and/or surveillance required
- Low: Relatively normal situation or local population able to cope with crisis - no further action required

### ***Water, Sanitation and Hygiene***

WATSAN is the very highly ranked in the three islands given that all latrines in the affected villages visited by the joint assessment teams were flooded and waste floating around. All affected villages do not have running water as well as the water system was flooded and pipes washed away.

Another issue is that water pumping stations are dependent on electricity supply, yet the situation in the power stations is serious. Half of the generator sets no longer function. Lack of maintenance, spare parts and managerial competence will cause a complete failure in the short term, affecting the supply of 443 cubic metres of water an hour by the TP5 water pumping station.

#### *Health*

Health is very highly ranked in Grande Comore, given that some areas in Grande Comore are not accessible, so are 51% of health outreach centres. This high ranking could be attributed to the fact that health facilities were not well stocked with essential medicines and supplies and the displaced population within the cut-off areas have to search for health care in nearby health facilities. It could also be attributed to another factor: that one district health centre situated in the south east of Grande Comore, which serves about 79,000 people (Bambao and Hambu), currently has neither running water nor electricity.

Even though the floods pose limited immediate health risk to the population, the current failure in urban water supply in the Grande Comore towns of Moroni and Mitsoudje does represent a significant risk, especially as the country has experienced four water-borne epidemics since 1980. The water supply should be brought back into operation without delay.

#### *Food*

Although food has been distributed in most sites, there are reports of it being inadequate. The Government distributes food emergency kits per family and the food is expected to last for a month. The family size is not taken into consideration and, as such, big families are at a disadvantage. The current programme does target only displaced families living with friends and relatives.

#### *Infrastructure*

Sections of the road damaged by the floods require fords to allow the passage of water during the rainy season. This is a more suitable and less expensive solution than bridge construction.

#### *Livelihoods*

Livelihoods on Anjouan Island are predominantly farming. Reports from the assessed villages indicate a substantial negative impact. The results of an extensive assessment on the impacts on the agricultural sector are expected in the coming days. Agricultural production will probably recover quickly but food security is too dependent on remittances from the diaspora abroad. And with the country's large population growth, agricultural production will be increasingly important. Support for the agricultural sector will be required.

#### *Education*

Education is ranked low priority despite the fact that the ongoing school year ends soon and the status of some schools can impact on performance. An in-depth sector assessment needs to be carried out. According to the Education Cluster, a total of 25 out of 40 government schools on the three islands have been affected.

### **Conclusion**

The floods were an acute exacerbation of a chronic problem - underdevelopment. Many other countries would have managed but, in the Comoros, five days of exceptionally heavy rainfall was enough to tip nearly 8% of the population into crisis.

It may be that with 60% of the population working abroad, the country lacks the leadership and managerial capacity required to cope in a crisis. Civil protection in the Comoros requires mentorship and twinning arrangements with its neighbour, Madagascar. Also, to maintain critical infrastructure, some technical support agreements need to be put concluded.

In any case, many of the flooding problems are caused by too many people living in the wrong place - on unsuitable land prone to flooding - and in houses not built to withstand flooding. If all houses were built with raised foundations (like traditional Comoros houses), they would not be flooded.

Finally, the country's exceptional population growth will increase the pressure to find safe places to build houses. This is a subject that needs to be addressed by the Government.

## 7. SECTOR FINDINGS GAPS/ANALYSIS AND RECOMMENDATIONS

Below is a detailed outline of the key findings, gaps/analysis, and recommendations per sector.

7.1. SHELTER and NON-FOOD ITEMS	
Findings	<ul style="list-style-type: none"> <li>• In a small number of villages, several houses destroyed</li> <li>• In all regions, there are areas with homesteads completely flooded by water or mud.</li> <li>• There are people leaving with host families</li> <li>• Most displaced people hosted by relatives are short of NFIs (blankets, mattresses, etc.)</li> <li>• Each host family accommodates an average of 8 people</li> <li>• Shortage of electricity as power plant flooded</li> <li>• Anjouan: 17 houses destroyed and four identified as severely damaged.</li> <li>• Grande Comore: some villagers suffer loss of NFIs</li> </ul>
Gaps	<ul style="list-style-type: none"> <li>• Extra rooms in host families</li> <li>• NFIs</li> </ul>
Recommendations	<ul style="list-style-type: none"> <li>• Provide tarpaulins to enable host families to increase number of rooms</li> <li>• Provide NFIs to displaced people/families</li> </ul>

7.2. FOOD and NUTRITION	
Findings	<ul style="list-style-type: none"> <li>• Government distributed 20 tons of food to 4,500 people in Anjouan's most affected areas.</li> <li>• Most of displaced people do not have food</li> <li>• Food has been provided in most villages but there are reports that it is not enough</li> <li>• Currently food is distributed per HH regardless of the number of people that make up a HH</li> <li>• Food distribution has been limited to rice, sugar, canned vegetable and cooking oil. There is need to broaden food distribution and give priority to Anjouan and Moheli islands.</li> <li>• Some affected people claim they have not received food assistance, in particularly farmers who lost their crops</li> </ul>
Gaps	<ul style="list-style-type: none"> <li>• Food (short and long term)</li> <li>• Beneficiary targeting and warehouse management</li> <li>• Food for children under the age of 5</li> </ul>
Recommendations	<p>WFP will bring in 25 Tons of High Energy Biscuits (HEB) from its pre-positioned stock in Dubai. Even though the consignment will help WFP assist temporarily displaced people, the following recommendations are issued:</p> <p><b>Anjouan</b></p> <ul style="list-style-type: none"> <li>• In the short term, provide food supply to most affected population. This would target 9,600 people (35% of a population of 19,194) in the island's affected villages.</li> <li>• Immediately deliver HEB biscuits to seriously affected people in Ngadzale, Salimani, Outsa, Ouzini, Vouani and Vassi.</li> <li>• Consider HH size when distributing food</li> <li>• Look into urgent need for food in areas identified as having no or inadequate food</li> <li>• Need to provide COSEP with: (1) information on location of villages visited in the three regions; (2) figures on number of people requiring aid to help in planning and distribution of food</li> <li>• Provide food supplements to children under the age of 5</li> </ul>

<b>7.3. LOGISTICS, INFRASTRUCTURE and Telecommunications</b>	
Findings	<p><b>Moheli</b></p> <ul style="list-style-type: none"> <li>• One road heavily damaged by flooding in Bandar Salam</li> <li>• Many villages want dikes, channelling of water as protection against river and sea flooding</li> <li>• There had been no maintenance of infrastructure put in place decades ago.</li> </ul> <p><b>Anjouan</b></p> <ul style="list-style-type: none"> <li>• Road network damaged in many places</li> </ul> <p><b>Grande Comore</b></p> <ul style="list-style-type: none"> <li>• Two Moroni power stations in poor condition and are currently running at only 67% of capacity. Without urgent support, electricity supply is unlikely to continue more than 6 months.</li> <li>• Water supply dependent on electricity supply</li> <li>• No power supply in Bambao and Hambou</li> <li>• Damage to roads in most affected area. Damage on some sections directly attributable to floods (2,000 m in total need repaving)</li> <li>• Road network generally in very poor condition. Some broken sections have been breached by rivers that have left their river beds.</li> <li>• Damage to infrastructure: a health centre</li> <li>• Damage of roads - national road Vouvouni – junction Chouoini and Wandani</li> </ul> <p>Telecommunication</p> <ul style="list-style-type: none"> <li>• No back up and lack of capacity (financial) at the district level</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• It is likely that the power station restoration will take time and given that the country had experienced major epidemics, there is high risk of epidemic due to lack of hygiene.</li> <li>• As the rainfall season is not over yet, there is likelihood that additional rains and flood waters cut off more areas, making them difficult to access.</li> </ul>
Gaps	<ul style="list-style-type: none"> <li>• Communication to population</li> <li>• Equipment/machinery not made available</li> </ul>
Recommendations	<ul style="list-style-type: none"> <li>• Repair inaccessible roads quickly</li> <li>• Build fords along river-flooded routes, where necessary</li> </ul>

<b>7.4. WATER and SANITATION</b>	
Findings	<p><b>Moheli:</b></p> <p><i>Drinking water</i></p> <ul style="list-style-type: none"> <li>• Several villages say their water supply is in dire need of an upgrade, that the 25-year-old pipes are unreliable or leaking. More villages reported water soiled by mud or sand. Apparently this has been a permanent problem that worsens in rainy seasons.</li> <li>• Most of population use river as water source.</li> <li>• In most villages, latrines (if available) are either damaged or flooded, causing a sanitation problem.</li> </ul> <p><b>Anjouan</b></p> <ul style="list-style-type: none"> <li>• 15,705 people left without water.</li> <li>• In the area of Domoni, water-pipe supply for towns and villages such as Ngandzale, Salamani, Ouzini, Outsa and one sector of Domoni is broken for about 4.5 km.</li> <li>• In the area of Ngandzale, river is the only water source.</li> <li>• In the southern region of Sima in the city of Vouani, several neighborhoods are facing sanitation problems which can exacerbate health risk.</li> </ul> <p><b>Grande Comore</b></p> <ul style="list-style-type: none"> <li>• Water supply is broken down</li> <li>• Electricity supply (fuse) flooded</li> <li>• Affected regions do not have clean water and electricity</li> <li>• Latrines floods</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• High risk of water-borne diseases, including cholera</li> <li>• Safe waste disposal not given priority by communities and local authorities</li> <li>• Serious hygiene and health issues</li> </ul>

Gaps	•
Recommendations	<ul style="list-style-type: none"> <li>• Distribute water purification sachets and hygiene Kits to displaced families and areas without clean water</li> <li>• Provide hand-washing facilities at hospitals, schools and specific points in various villages</li> <li>• Supply water purification equipment to specific water distribution areas or water points</li> <li>• Promote hygiene</li> </ul> <p><b>Anjouan:</b></p> <ul style="list-style-type: none"> <li>• Provide WASH kits in the area of Ngandzalé (11,901 people)</li> <li>• Assessment of repairs to water supply</li> <li>• Distribution of WASH kits to the affected area of Vouani (1439 people)</li> <li>• Strengthen communication on safe drinking water (boiling drinking water) in communities without water.</li> <li>• Develop and share communication tools</li> <li>• Set the return of the program administrator for water and sanitation from UNICEF to assess the rehabilitation of damaged water supply systems in target communities.</li> <li>• Mobilize the sum of eighty Comorian francs (80 million KMF) for the rehabilitation of damaged water networks.</li> </ul>

7.5. EDUCATION	
Findings	<ul style="list-style-type: none"> <li>• Exercise books and text books reportedly destroyed</li> <li>• Teaching material reportedly lost or damaged</li> <li>• Of 45 education institutions, including the university, have been affected, 20 seriously, 17 less seriously and 7 lightly.</li> <li>• 18,924 school children are waiting for class to resume effectively</li> <li>• Information from non-government education institutions still being processed</li> </ul> <p><b>Moheli</b></p> <ul style="list-style-type: none"> <li>• A primary school in Nioumachoi (S12.36,312 ; E 043.718,15) is inundated and flooded by mud and its roof leaking, with only 2 of 9 classrooms in use and 104 children prevented from attending class. Also, 2 of 10 classrooms are out of use in nearby high school.</li> <li>• School building in Mbaty not easily reachable. Pre-school children not able to attend.</li> </ul>
Analysis	•
Gaps	•
Recommendations	<ul style="list-style-type: none"> <li>• Plan school kit distribution (logistics and communication)</li> <li>• Rapidly resume quality education activities in affected areas</li> <li>• Continue ongoing sensitization visits by Education Ministry in the whole country</li> <li>• Train teachers and school principals on hygiene</li> <li>• Distribute school kits to children and teachers</li> <li>• Rapidly clean out and repair affected school buildings</li> <li>• Help pupils attend class in other schools (Vouvouni, Ngnoumadzaha, etc.)</li> <li>• Assess damage to infrastructure and equipment at affected schools (for risk reduction)</li> <li>• Rehabilitate damaged school infrastructure.</li> <li>• Facilitate for catch-up classes before end-year exams</li> <li>• Urgently establish child-friendly/ learners' study spaces at relocation sites</li> <li>• Identify, train community volunteers to help manage proposed child friendly/learners' study spaces.</li> </ul>

7.6. LIVELIHOODS	
Findings	<ul style="list-style-type: none"> <li>• Large losses of farmland and animals</li> <li>• Most villagers suffer from loss of livestock and severe damage to or complete loss of crops and fields</li> <li>• In every village visited, mostly all inhabitants were fully dependent on agriculture. Most villages estimated that 80-100% of the villagers had their fields damaged.</li> <li>• Affected crops: banana, cassava, coconut palms and rice. Most villages named food</li> </ul>



	<p>security as their number-one priority.</p> <ul style="list-style-type: none"> <li>• When asked whether there would be a crop that could be planted in the coming month to relaunch agriculture, most villagers mentioned banana as it was the right season.</li> <li>• Some villages reported veterinarian diseases like skin rash and conjunctivitis.</li> </ul> <p><b>Anjouan</b></p> <ul style="list-style-type: none"> <li>• Main food crops, which were already close to maturity, have been seriously damaged (up to 70%), i.e. cassava, sweet potato, taro, banana, breadfruit, market-farming crops.</li> <li>• Cash crops (clove, black pepper, ylang-ylang) have been also significantly impacted.</li> <li>• Most affected villages are Ngadzale, Salamani, Outsa, Ouzini, Vouani and Vassi where about 75-80 % of cultivated lands were destroyed.</li> <li>• Population of Ngadzale, Salimani, Outsa, Ouzini suffer heavy losses in livestock (70% of cattle, 10% of sheep, 10% of goats and 10% of poultry).</li> </ul> <p><b>Grande Comore</b></p> <ul style="list-style-type: none"> <li>• Significant damage to agricultural lands</li> <li>• 80% of food imported</li> <li>• Most of population get remittances from diaspora abroad</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• Poor harvest is expected, household food security is threatened</li> <li>• Shortage of inputs (seeds and plant cuttings) for next season</li> <li>• Negative impact on income from livestock</li> <li>• Negative impact on farmers' income</li> <li>• Destroyed or damaged fields and produces, death of livestock all threaten food security</li> </ul>
Gaps	•
Recommendations	<p><b>In the short term</b></p> <ul style="list-style-type: none"> <li>• Provide food relief to affected communities</li> <li>• Conduct detailed livelihood-based risk and vulnerability assessment and analysis</li> <li>• Anjouan: Provide seeds and plant cuttings (for cassava, sweet potato, taro, banana, market-farming crops) to affected farmers - as food crop cultivation can be relaunched in the affected regions.</li> <li>• Grande Comore: Conduct a sectoral assessment of the food security situation.</li> <li>• It is highly urgent to provide minimal subsistence to the flood victims who generally have lost their food stocks, by distributing food rations and supplying drinking water.</li> <li>• Ensure hygiene and sanitation for flood victims</li> <li>• Facilitate access to affected areas</li> <li>• Assist livestock farmers who have lost their livestock</li> <li>• Conduct an in-depth assessment of losses in harvest and agricultural lands</li> <li>• Conduct an in-depth assessment of losses in livestock (cattle, sheep, goats)</li> </ul> <p><b>In the medium term</b></p> <ul style="list-style-type: none"> <li>• Consider cash-value compensation for loss of livestock for agro-pastoralists – for whom livestock constitutes household saving.</li> <li>• Provide seeds of vegetable and food crops</li> <li>• Make agricultural tools/equipment and inputs available to affected families (buckets, wheelbarrows, pickaxes, hoes, fertilizers, plant protection products)</li> <li>• Extend the use of soil/plot hedging techniques (« <i>embocagement</i> ») by establishing forest and fruit tree nurseries in affected areas</li> <li>• Make composting a general practice</li> <li>• Extend the use of anti-erosion practices (tree planting, live hedges and terraced plots)</li> <li>• Redeploy agricultural extension staff or other skilled personnel to affected areas</li> <li>• Provide compensation to families who have lost their livestock</li> <li>• Ensure return to normal life</li> </ul> <p><b>In the long term</b></p> <ul style="list-style-type: none"> <li>• Consider conducting an in-depth food security and vulnerability assessment for a clear understanding of the situation in all the affected areas.</li> </ul>

<b>7.7. HEALTH</b>	
Findings	<ul style="list-style-type: none"> <li>• Risk of malaria and diarrheal diseases like cholera, typhoid, etc. because of unsafe water as well as stagnant water which makes disease vectors proliferate.</li> <li>• Mosquito nets destroyed</li> <li>• Pregnant women, children under 5 and seniors have low access to health centres</li> <li>• Child malnutrition due to food insecurity and disease</li> </ul> <p><b>Grande Comore</b></p> <ul style="list-style-type: none"> <li>• No major health problems reported; all health posts functioning as before the floods.</li> <li>• Health risks include possible contamination of drinking water, flooding of latrines, possible veterinary diseases.</li> </ul>
Analysis	•
Gaps	• No electricity or clean water at main district hospital
Recommendations	<ul style="list-style-type: none"> <li>• Carry out awareness campaigns on use of water (boiling or chlorinating)</li> <li>• Conduct awareness sessions for communities and strengthen epidemiological surveillance (field trips, weekly surveys, etc.)</li> <li>• Maintain continuity of care for children, pregnant women and seniors</li> <li>• Monitor the nutrition of children under the age of 5</li> <li>• Carry out epidemiological monitoring and (re)stock health stations</li> </ul>
<b>HEALTH</b>	
Findings	<ul style="list-style-type: none"> <li>• Health stations that were operating before the floods are still operating but with difficulty access.</li> <li>• Population do not like latrines built far away from their houses</li> <li>• Some health centres isolated due to landslides</li> <li>• Health facilities do not have enough medicines and delivery kits</li> <li>• Medical health post in place to serve the isolated population</li> <li>• In-Patients were discharged because of the floods</li> </ul>
Gaps	• Increased likelihood of diseases caused by contaminated water and insane environment (due to the latrines flooded in particularly when the rain stops and dust can harm population's health)
Recommendations	<ul style="list-style-type: none"> <li>• Local committee on DM should be asked to get involved in water supply problem at Mitsoudjé district health centre</li> <li>• Disinfecting all villages affected</li> </ul>

## **8. GENERAL RECOMMENDATIONS**

1. Regional COSEP, through their regional coordination mechanisms, have identified needs and gaps. The humanitarian community, when developing their projects, is encouraged to complement existing efforts to avoid duplication of activities.
2. Information flows between the Regional/Islands and national-level players needs to be improved and clearly articulated to avoid duplication of data collection efforts.
3. Key ministries – those of Agriculture, Health and Education - are collecting sector-specific information on the response at national level. It is suggested that the information be collated and analysed at one central level.
4. Data collection at regional level needs to be standardised so that all regions collect the same information. The gathered information should be centralised at the national level so that the same figures are used for planning and monitoring by different government departments and stakeholders.
5. A mechanism needs to be put in place to ensure that the Contingency plan is operationalized during an emergency. Most of the recommendations put forward and the concerns of specific sector coordination are articulated in the contingency plans.

6. A “lessons learnt” exercise needs to be undertaken after the current response and before the next rainfall season, to review the current response, in particular streamlining information flow and management.

## **9. ANNEX**

### **Details of the assessment results by village and Island**



Island	Region	Locality	Population	People							Material Damage														Other												
				Death			Injured			Affected	Displaced	Shelter		Classroom												Sanitation		Agricultural									
				Men	Women	Children	Men	Women	Children			Totally destroyed	Partially	Pre-primary		Primary		College		High school		University		Community		totally destroyed	partially	consumption	Cash crops	short							
										Part	Tot.			Part	Tot.	Part	Tot.	Part	Tot.	Part	Tot.	Part	Tot.														
Grande Comore	HAMBOU	Salimani	1,849	0	0	0	1	0	0	700	20	1	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Mitsoudjé	3,904	0	2	0	2	3	0	1,200	20	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Djoumoichango	2,443	0	0	0	13	7	0	800	12	0	13	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Banguoi	3,030	0	0	0	6	0	0	900	55	0	11	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Mdjezi	3,025	0	0	0	0	0	0	950	286	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Chouani	2,801	0	0	0	0	0	0	750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	BAMBAO	Vouvouni	4,416	0	0	0	0	0	0	2,256	500	0	0	0	0	0	6	4	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
		Nioumadzaha	3,456	0	0	1	50	0	0	1,566	86	11	333	4	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Mkazi	7,680	0	0	0	0	0	0	2,500	40	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Boeni	1,907	0	0	0	0	0	0	800	200	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
Mapvingoni	1,694	0	0	0	0	0	0	650	22	1	10	0	0	3	0	0	0	0	0	0	0	0	2	0
Mvouni	5,066	0	0	0	0	0	0	2,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Moindzaz	2,966	0	0	0	0	0	0	850	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0
Mazaza Djoumbé	416	0	0	0	0	0	0	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Seléa	1,778	0	0	0	0	0	0	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ndrouani	1,182	0	0	0	0	0	0	400	42	7	15	0	0	1	0	1	0	1	0	0	0	0	0	0
Daweni	399	0	0	0	0	0	0	140	35	4	2	0	0	0	0	0	0	0	0	0	0	0	2	0
<b>SUB-TOTAL</b>	<b>48,012</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>72</b>	<b>10</b>	<b>0</b>	<b>17,232</b>	<b>1,318</b>	<b>70</b>	<b>437</b>	<b>6</b>	<b>0</b>	<b>23</b>	<b>6</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>0</b>

Island	Region	Locality	Population	People								Material Damage														
				Death			Injured			Affected	Displaced	Shelter		Classroom												
				Men	Women	Children	Men	Women	Children			Totally destroyed	Partially	Pre-primary		Primary		College		High school		University		Community		
Anjouan	DOMONI	Domoni	12,681	0	0	0	0	0	0	3,804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Ndganzale	7,773	0	0	0	0	0	0	7,773	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Salamani	2,133	0	0	0	0	0	0	2,133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Ouzini	1,421	0	0	0	0	0	0	1,421	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Dutsa	574	0	0	0	0	0	0	574	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SIMA	Moya	10,511	0	0	0	0	0	0	1,617	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Pomoni	3,777	0	0	0	0	0	0	2,135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vouani	2,936	0	0	0	0	0	0	1,439	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vassi	1,210	0	0	0	0	0	0	399	27	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Marontroni	413	0	0	0	0	0	0	239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Dzindri	3,147	0	0	0	0	0	0	750	93	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Assimpao	1,445	0	0	0	0	0	0	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Marahare	1,637	0	0	0	0	0	0	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lingoni	5,474	0	0	0	0	0	0	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Koué		0	0	0	0	0	0	1,552	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hamamboua		0	0	0	0	0	0	248	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

	Dar Salam		0	0	0	0	0	0	952	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bandani Vouani		0	0	0	0	0	0	1,136	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Iméré		0	0	0	0	0	0	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chitsangachele		0	0	0	0	0	0	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sima		0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Kavani		0	0	0	0	0	0	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Milembéni		0	0	0	0	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mirongani		0	0	0	0	0	0	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bimbini		0	0	0	0	0	0	360	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Moya		0	0	0	0	0	0	1,848	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>SUB-TOTAL</b>	<b>55,132</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30,163</b>	<b>120</b>	<b>17</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



Island	Region	Locality	Population	People								Material Damage														
				Death			Injured			Affected	Displaced	Shelter		Classroom										S		
				Men	Women	Children	Men	Women	Children			Totally destroyed	Partially	Pre-primary		Primary		College		High school		University			Community	
Part	Tot.	Part	Tot.							Part	Tot.			Part	Tot.	Part	Tot.	Part	Tot.							
Moheli		Nioumachoi	1,200	0	0	0	0	0	0	450	50	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Mbatse	1,500	0	0	0	0	0	0	1,050	24	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0
		Siry Zouroudani	1,850	0	0	0	0	0	0	1,480	16	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Wanani	2,700	0	0	0	0	0	0	1,620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Kangani	1,200	0	0	0	0	0	0	960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Hagnamoida	900	0	0	0	0	0	0	675	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Hamavouna	1,200	0	0	0	0	0	0	1,080	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		Itsamia	700	0	0	0	0	0	0	560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Mlambada	450	0	0	0	0	0	0	360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Fomboni	19,000	0	0	0	0	0	0	1,700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Miringoni	1,150	0	0	0	0	0	0	805	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Hamba	560	0	0	0	0	0	0	532	30	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Domoni	400	0	0	0	0	0	0	380	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Ouallah 1	800	0	0	0	0	0	0	760	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ouallah 2	982	0	0	0	1	0	0	930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ndrodroni	7,000	0	0	0	0	1	0	650	50	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bandar Salam	950	0	0	0	0	0	0	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bangona	1,000	0	0	0	0	0	0	950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mwali Mdjini	6,700	0	0	0	0	0	0	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ndremeani	160	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Barakani	1,025	0	0	0	1	1	0	320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hoani	1,600	0	0	0	0	0	0	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>SUB-TOTAL</b>	<b>53,027</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>17,592</b>	<b>180</b>	<b>31</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ANNEXES

ANJOUAN

# **Rapport d'évaluation des besoins à Anjouan**

## **1 au 3 mai 2012**

### **1. Situation générale**

La mission de l'équipe UNDAC à Anjouan a bénéficié des informations générées par les différents services présents sur l'île. Toutefois, les renseignements fournis n'ont pas fait l'objet d'une évaluation précise. 13 communes ou villages ont été déclaré sinistrés, à l'origine, sur la base du point de situation fait à l'équipe UNDAC par l'administration locale, le mardi 1 mai.

Compte tenu du manque de fiabilité sur les informations recueillies, il a été décidé de mener sur le terrain une mission d'investigation inter agences et multisectorielles afin d'apporter des compléments et des précisions sur les données déjà récoltées, ainsi que d'effectuer une première visite dans des communes sinistrées qui n'ont pas fait encore l'objet d'une évaluation.

### **2. Objectifs des évaluations**

1. Etablir les besoins prioritaires pour définir la stratégie des clusters:

- Récolte d'informations plus amples quand au nombre, conditions, capacités, priorités et intentions, entre autre la nécessité de déplacement) des populations et les possibilités locales.

2. S'informer sur le besoin de distributions d'urgence aux sinistrés : besoins et options

- Besoins : quantités et type d'assistance prioritaire
- Capacités locales pour distributions d'urgence (logistique d'accès, stockage, communication aux populations sinistrées)

3. Entretien avec les communautés affectées et les autorités locales pour mieux comprendre la situation :

- L'estimation des besoins (abris, alimentation, eau et assainissement, carburant cuisine, santé, éducation, protection)
- Les déplacements de population nécessaires, la volonté; la durée, les options, les préférences
- Les capacités locales pour la relocalisation

### 3. Communes et villages les plus affectés

- Ngandzale (7773 hab dont 560 enfants de - de 5ans, 140 personnes de + 60 ans et 155 femmes enceinte)
- Ouzini (1421 hab dont 102 enfants de – de 5ans, 28 femmes enceinte et 26 personnes de + de 60 ans)
- Outsa (574 hab dont 41 enfants de - 5ans, 11 femmes enceinte et 10 personnes de + de 60 ans)
- Salamani (2133 hab dont 150 enfants de – de 5ans, 43 femmes enceinte et 38 personnes de + de 60 ans)
- Vouani (2936 hab dont 211 enfants de – de 5ans, 59 femmes enceinte et 53 personnes de + de 60 ans)

### 4. Communes et villages très modérément affectés

- Moya (10.511 hab)
- Pomoni (3777 hab)
- Lingoni (5474 hab)
- Marontroni (413 hab)
- Dzindri (3147 hab)
- Assimpao (1445 hab)
- Marahare (1637 hab)
- Vassi (1210 hab)
- Domoni (12681)

### 5. Priorités sectorielles

#### 5.1 Eau, hygiène et assainissement

Localités	Identification des dégâts	Vulnérabilité	Population total affectée	observations
Ngandzalé	Adduction d'eau endommagée, conduites et captage emporté	Population privée d'eau et des conditions d'hygiène et d'assainissement très précaires	7 773 hab	Le réseau d'eau endommagé aliment 30% de Domoni et le village de Bouladougou
Ouzini	Adduction d'eau endommagée	idem	1 421 hab	Toute la population est concernée
Salamani	Population privée d'accès a l'eau	idem	2 133 hab	Cette localité est alimentée par le réseau d'Ouzini

				et toute la population est touchée
Outsa	Qualité de l'eau détériorée par les torrents	idem	574 hab	Toute la population est touchée
Domoni	Adduction d'eau endommagée	idem	3 804 hab	35% de la population concernée
Vouani	Emergence des eaux souterraine au niveau des manages et effondrement des latrines	Hygiène et assainissement très précaire pour les ménages	2 936 hab	Cette situation présente un risque très élevés en terme d'hygiène et d'assainissement.

Par rapports à la situation du tableau ci-dessus, la mission recommande les réponses suivantes :

- Renforcer la communication sur la nécessité de bouillir l'eau de boisson dans les localités privées d'eau.
- Produire et partager des outils de communication
- Fournir en urgence 1200 kits WASH et ceci en concertation avec le croissant rouge Comoriens et les autres partenaires.
- Programmer le retour de l'administrateur du programme eau et assainissement de l'Unicef en vue d'évaluer les travaux de réhabilitation des adductions d'eau endommagées dans les localités ciblées.
- Mobiliser la somme de Quatre vingt millions de francs Comoriens (80 000 000 KMF) pour la réhabilitation des réseaux d'eaux endommagés.

## 5.2 Sante et nutrition

Risques d'épidémies de paludisme, de maladies diarrhéiques telles que le choléra, la typhoïde, etc.... à cause de l'eau insalubre, de la stagnation des eaux favorisant la prolifération des vecteurs de maladies, de la destruction des moustiquaires imprégnées. Faible accessibilité aux soins par les femmes enceintes, les enfants de moins de 5 ans et les personnes âgées. Malnutrition des enfants dues à l'insécurité alimentaire et aux maladies. Renforcer la prévention des épidémies à travers. Par rapport a la situation les actions suivantes doivent être entreprises :

- Des actions de sensibilisation sur l'utilisation de l'eau (chlorer ou bouillir)
- Séances de sensibilisation auprès de la communauté

- Renforcer la surveillance épidémiologique (tournées sur le terrain, relève hebdomadaire....)
- Maintenir la continuité des soins aux enfants, aux femmes enceintes et aux personnes âgées
- Surveiller la nutrition des enfants de – de 5 ans

### **5.3 Sécurité alimentaire et mode de subsistance**

- **Situation générale**

L'agriculture est la base de l'économie de l'Union des Comores, comptant pour 40 à 45% du PIB national et employant près de 80% de la population rurale. La plupart d'entre eux sont des petits exploitants (70%) avec des exploitations variant de 0,5 à 2 hectares. La grande majorité pratique l'agriculture de subsistance (faible productivité due au manque d'équipements, d'intrants agricoles et de capacités techniques). De plus, la parcellisation des terrains cultivés (4 à 10 petits lopins de terre par famille) empêche l'agriculture intensive. A cause des conditions topographiques, le mode principal d'exploitation des sols est basé sur des cultures associées.

- **Impacts**

Dans les zones affectées, les principales cultures vivrières, Presque à maturité, ont été sévèrement endommagées (70%), c'est à dire, manioc, patate douce, taro, banana, fruit à pain et cultures maraîchères. Les autres cultures, comme, les cultures de rente (girofle, poivre, ylang-ylang) ont été également touchées. Sur l'île d'Anjouan, les villages les plus touchés sont, Ngandzale, Salamani, Outsa, Ouzini, Vouani et Vassi, où environ 75 à 80% des terrains cultivés ont été détruits. De plus, les populations de Ngandzale, Salamani, Outsa, Ouzini ont subi de lourdes pertes en bétails (bovidés 70%, caprins 10%, ovins 10% et élevages de cycle court 10%).

#### **Réponse**

Les autorités locales ont distribué 20 tonnes de vivres dans les zones les plus touchées pour 4 500 personnes. Le PAM va faire acheminer 6 000 kg de biscuits à haute valeur énergétique (HEB) à partir de son stock pré-positionné à Dubai. Le PAM va assister les personnes temporairement déplacées à travers la distribution de biscuits HEB sur l'île d'Anjouan.

#### **Manque et contrainte**

Les denrées alimentaires sont disponibles sur les marchés locaux, et aucune augmentation de prix n'a été observée jusqu'à présent. Le stock commercial de riz à Mutsamudu, où il y a l'approvisionnement principal, est estimé à 2 500 tonnes (l'équivalent de 7 semaines de consommation ; le prochain arrivage est prévu à la fin du mois de mai). Néanmoins, le mode de subsistance des groupes de population sinistres a été sévèrement perturbé. La situation de sécurité alimentaire de cette population, à court et moyen terme, doit toutefois être surveillée.



## **Recommandations**

Dans le court terme, les activités visant à approvisionner les groupes de population les plus affectés doivent être entreprises. 9 600 personnes (35% de la population) seraient concernées. Cependant, la distribution des biscuits (HEB) doit être effectuée immédiatement dans les villages les plus touchés, Ngandzale, Salimani, Outsa, Ouzini, Vouani et Vassi. Comme la relance agricole peut encore se faire, il serait nécessaire de fournir rapidement des semences et des boutures (manioc, patate douce, taro, banane, cultures maraîchères). A moyen terme, pour compenser les pertes en bétails, les agro pasteurs doivent être indemnisés, compte tenu que ces animaux constituent une épargne pour eux. Enfin, une évaluation plus approfondie de la sécurité alimentaire et de la vulnérabilité pourrait être nécessaire pour une meilleure compréhension de la situation dans les zones affectées.

## **6. Education**

De nombreuses toitures d'écoles ont été signalées comme endommagées. Néanmoins, la mission d'investigation sur le terrain a constaté que les toits, constitués de tôles ondulées étaient parfaitement en place dans les écoles visitées. Il s'avère que lors des pluies, l'eau pénètre dans les salles de cours par les points de fixation des tôles sur l'armature en bois de la toiture. Ce fait est récurrent et ne constitue donc pas une priorité. Par ailleurs, les professeurs n'ont signalé aucune interruption de cours pendant les événements liés aux pluies.

## **7. Infrastructures**

D'une façon générale le réseau routier est en mauvais état et mal entretenu. Néanmoins, les intempéries, qui ont provoqué des glissements de terrains, ont aggravé l'état des chaussées les rendant difficilement praticables par endroit. Cependant, l'équipe d'évaluation a pu circuler sans rencontrer d'obstacles majeurs sur son trajet. L'équipe a rencontré le directeur national des infrastructures, sur place pour effectuer également une évaluation, qui fera le nécessaire pour la prise en compte de la situation à Anjouan.

**Comoros – Flash Floods  
Reporting Rapid Needs Assessment  
Anjouan  
01 to 03 May 2012**

**I. Introduction**

*Explain what triggered the assessment, i.e the disaster and its extent. Include a map of the extent of the disaster*

**II. Assessment Objective**

The Assessment team, led by UNDAC was composed of UNICEF, WHO, CRCO in Anjouan, gathered information on several services in the region. However the information provided has not been an accurate assessment. On Tuesday, 1st May, during the point of situation's meeting with the local administration, the team was informed that 13 towns or villages have been declared disaster. With the unreliability of the information collected, it was decided to conduct a field investigation mission interagency and multi-sectoral order to make additions and clarifications on the data already collected, as well as perform a first visit to the municipalities affected who have not yet been evaluated.

**III. Assessment Methodology**

1. Establish priority needs to set the strategy clusters:

- Collect more information whit the number, condition, capacity, priorities and intentions, among other things the need for displacement and local opportunities.

2. Emergency needs and distribution to disaster victims: needs and options

- Needs: quantity and type of assistance priority
- Local capacity for emergency distribution (logistics of access, storage, communication to affected populations)

3. Interview with affected communities and local authorities to better understand the situation:

- The estimate of needs (shelter, food, water and sanitation, cooking, fuel, health, education, protection)
- Population displacement necessary, the will, the duration, options, preferences
- Local capacity for relocation

**Situation Analysis**

#### **IV. Damage**

In the area of Domoni, waterpipe supply for the towns and villages as Ngandzale, Salamani, Ouzini, Outsa and 1 sector of Domoni is broken for about 4.5 km. 15,705 people are without water. In the area of Ngandzale the only one source of water is a river, and there are significant problems of hygiene and health. In the southern region of Sima in the city of Vouani, several neighborhoods are unsafe with sanitation problems which can exacerbate health risk. In all the affected towns and villages, there are large losses of farmland and animals. 17 houses were destroyed and four identified as severely damaged. The road network is also damaged in many places.

#### **V. Affected Population**

In total 28,546 people are affected, including 13,340 severely and 15,206 moderately.

##### Towns and villages most affected

- Ngandzale (7773 hab with 560 childrens under 5 years, 140 people more of 60 years and 155 pregnant women)
- Ouzini (1421 hab with 102 childrens under 5 years , 28 pregnant women and 26 people more of 60 years )
- Outsa (574 hab dont 41 childrens under 5 years, 11 pregnant women and 10 people more of 60 years )
- Salamani (2133 hab dont 150 childrens under 5 years, 43 pregnant women and 38 people more of 60 years)
- Vouani (1439 hab dont 211 childrens under 5 years, 59 pregnant women and 53 people more of 60 years)

##### Moderately affected communes and villages

- Domoni (3804 hab)
- Moya (1848 hab)
- Pomoni (2135 hab)
- Lingoni (105 hab)
- Marontroni (239 hab)
- Dzindri (750 hab)
- Assimpao (210 hab)
- Marahare (260 hab)
- Vassi (399 hab)
- Domoni (3804 hab)
- Koué (1552 hab)
- Hamaboua (248 hab)
- Dar Salam (952 hab)
- Bandani Vouani (1136 hab)
- Iméré (496 hab)
- Chitsangachele (176 hab)
- Sima (120 hab)
- Kavani (192 hab)
- Milembéni (88 hab)
- Mironгани (136 hab)
- Bimbini (360 hab)

## VI. Highlight Key findings/issues identified

- Provide the necessary support to the health sector in order to the present difficulties and future
- Support the agriculture and food security sector (the basis of the economy for 80% of rural population)
- Provide WASH kits in the area of Ngandzalé (11,901 people)
- Assessment of repairs to water supply
- Distribution of WASH kits to the affected area of Vouani (1439 people)
- In general, accurate assessment of food and non food and regular monitoring of epizootic and epidemiological risks

## VII. Current response

## VIII. Sector Analysis and Recommendations

SECTOR : Camp Coordination	
Findings	
Needs	
Current response	
Gaps in response	
Recommendations	Immediate
	Medium term
	Long term

SECTOR : Education	
Findings	Many roofs of schools were reported as damaged. Nevertheless, the mission field investigation has found that the roofs, made of corrugated iron were perfectly in place in the schools visited. When it rains, water enters in the classroom through the points of attachment plates on the wooden frame of the roof. This is recurring event and is not a priority. Moreover, teachers have reported no interruptions course during the rainfall event.
Needs	
Current response	
Gaps in response	
Recommendations	Immediate
	Medium term
	Long term

SECTOR : Food and Nutrition	
Findings	In the affected areas, the main food crops, which were already close to maturity, have been seriously damaged (up to 70 percent), i.e. cassava, sweet potato, taro, banana, breadfruit, market-farming crops. Other crops, such as, cash crops (cloves, black peper, ylang-ylang) have been also significantly impacted. In the Anjouan Island, the most affected villages are Ngandzale, Salamani, Outsa, Ouzini, Vouani and Vassi where about 75-80 percent of the cultivated land was destroyed. Besides, the population of Ngadzale, Salimani, Outsa, Ouzini suffered heavy losses on livestocks (cattles 70% losses, sheep 10%, goat 10%, poultry 10%).

Needs		
Current response		The GOV distributed 20 tons of food to the most severely hit areas in Anjouan to 4 500 people. WFP will move 6 000 kg of high energy biscuits (HEB) from its pre-positioned stock in Kenya. WFP will assist temporarily displaced people through the distribution o high energy biscuits.
Gaps in response		
Recommendations	Immediate	In the short term, activities aims at providing food supply to the most affected segments of the population should be conducted. This would target 9,600 people (35% of a population of 19,194) in the affected villages of the entire island. In the mean time, immediate delivery of HEB biscuit to those highly affected population in Ngadzale, Salimani, Outsa, Ouzini, Vouani and Vassi should be carry out. Seeds and cuttings (cassava, sweet potato, taro, banana, market-farming crop) should be provided to affected farmers as the food crop cultivation could still be relaunched in both of the 2 regions.
	Medium term	In the medium term, regarding the losses on livestock, cash-value compensation to the agro-pastoralists should be thought as livestock constitutes the saving of the household.
	Long term	An in-depth food security and vulnerability assessment may be required to have a clear understanding of the situation in all the affected areas.

<b>SECTOR : Health</b>		
Findings		<ul style="list-style-type: none"> <li>• Risk of malaria, diarrheal diseases like cholera, typhoid, etc. .... because of unsafe water, stagnant water that favors the proliferation of disease vectors,</li> <li>• Destruction of nets.</li> <li>• Low access to heath center by pregnant women, children under 5 and seniors.</li> <li>• Child malnutrition due to food insecurity and disease.</li> </ul>
Needs		<ul style="list-style-type: none"> <li>• Awareness campaigns on the use of water (boil or with chlorine)</li> <li>• Awareness sessions to the community and strengthen epidemiological surveillance (field trips, weekly notes ....)</li> <li>• Maintain continuity of care for children, pregnant women and seniors</li> <li>• Monitor the nutrition of children - 5 years</li> </ul>
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Livelihoods</b>		
Findings		
Needs		

Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Logistics</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Protection</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Shelter and Non Food Items</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Water, Sanitation and Hygiene</b>		
Findings		Lack of drinking water on the area of Ngandzale
Needs		<ul style="list-style-type: none"> <li>➤ Strengthen communication on safe drinking water (boiling drinking water) in communities without water.</li> <li>➤ Develop and share communication tools</li> <li>➤ Provide 1,200 emergency WASH kits and in consultation with the Comoros Red Crescent and other partners.</li> <li>➤ Set the return of the program administrator for water and sanitation from UNICEF to assess the rehabilitation of damaged water supply systems in target communities.</li> <li>➤ Mobilize the sum of eighty Comorian francs (80 million KMF) for the rehabilitation of damaged water networks.</li> </ul>
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

**IX. Sector Analysis/ Findings and Recommendations – limited to one page per sector – bullet points**

**X. Key Assessment Recommendations**

**XI. Conclusion – overall statement/remarks about the situation**

**XII. Annexes**

- Map of the affected area (MapAction)
- Map showing the camps/sites visited (MapAction)

**XIII. Attachments**

- Field team reports

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**GRANDE COMORO**



## Reporting Template

### I. Introduction

*Explain what triggered the assessment*

*The unprecedented continuous rain that fell between April 22 and April 25 caused flash flooding throughout the Comoros Island. Grande Comore the most populated of the three islands was most seriously affected.*

### II. Assessment Objective

*Clearly state the objectives of the assessment*

*UNDAC made three assessment missions Grande Comore, Anjouan and Moheli. The objective was to establish the geographical area most affected the number of people affected and principle needs.*

### III. Assessment Methodology

*Clearly state the assessment methodology, i.e. how many teams went out? Where? Was it a census or a sample? If sample, how was the sample size selected?*

*Two teams conducted the assessment on Grande Comore The assessment forms is attached.*

### Situation Analysis

### IV. Damage

*Highlight the damage caused by the disaster. Include information on damage to roads and bridges, and the number and type of buildings and houses destroyed.*

Grande Comore

The following damage was caused by the flash floods:

- a. Water and sanitation
- b. Infrastructure
- c. Domestic housing
- d. Agricultural production

### V. Affected Population

*Outline how the term "affected" was defined. Include a **table** summarising the affected population including the baseline, e.g. 10,000 people are affected in district X, total population in district X is 100,000 people. The same goes for affected infrastructure, e.g. 5 schools have been flooded and are closed in district Y, total schools in district Y is 20. Total learners in district Y affected is 12,000, total learners in district X is 130,000.*

## **VI. Highlight Key findings/issues identified**

*Provide a short narrative of key findings / issues identified according to sectors that have critical concerns (see below). Support the findings by graphs and tables from the analysis of the assessment forms*

*Grande Comore*

*The main findings were:*

- a. Water and Sanitation (Moroni water supply 80,000 affected)*
- b. Electricity supply to Moroni (important for water supply)*
- c. Loss of agricultural production*
- d. Damage to infrastructure (3 roads, and a health centre)*

## **VII. Current response**

*Outline the current response, specifying who is doing what and where*

### *1. Water and sanitation*

*UNICEF is supporting government efforts to repair the pumping station at Vouvouni which supplies Moroni and the surrounding area (80,000 people). It also supporting repairs to a second pumping station at Mitsoudje which supplies 3,900 and the health centre.*

### *2. Electricity supply*

*The two power stations in Moroni are in poor condition and are currently running at 67% of capacity.. Without urgent support the electricity supply is unlikely to continue more than 6 months. The water supply is dependent on the supply of electricity.*

### *3. Food security*


*Significant damage has been done to agricultural land. However 80% of food is imported and most of the population receive remittances from diaspora abroad. WFP has flown in 28 tonnes of high energy biscuits to cover any one who remains in need.*

### *4. Infrastructure*

*There has been damage to the roads in the most affected area. Some sections directly attributable to the floods (2000 m in total need repaving) However the road network generally is in very poor condition. This remains a government responsibility. Some broken sections have been breached by rivers that have left their river beds. It is recommended that fords are built along these routes where necessary.*

## **VIII. Sector Analysis and Recommendations**

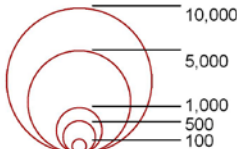
*Each sector is limited to ONE page. No narrations, just bullet points.*



**MapAction**  
**Union des Comores**  
**Inondations**  
**Grande Comore**  
**Evaluation UNDAC**

Résultats de l'évaluation  
 UNDAC du jour 4 mai 2012

Population des villages affectees



■ Degats Humain Affectes  
■ Degats Humain NonAffectes


○ Village  
 — Routiers  
 Zone affectee

0 1 2  
 kilometres  
 Echelle 1:60,000 (a la taille A3)

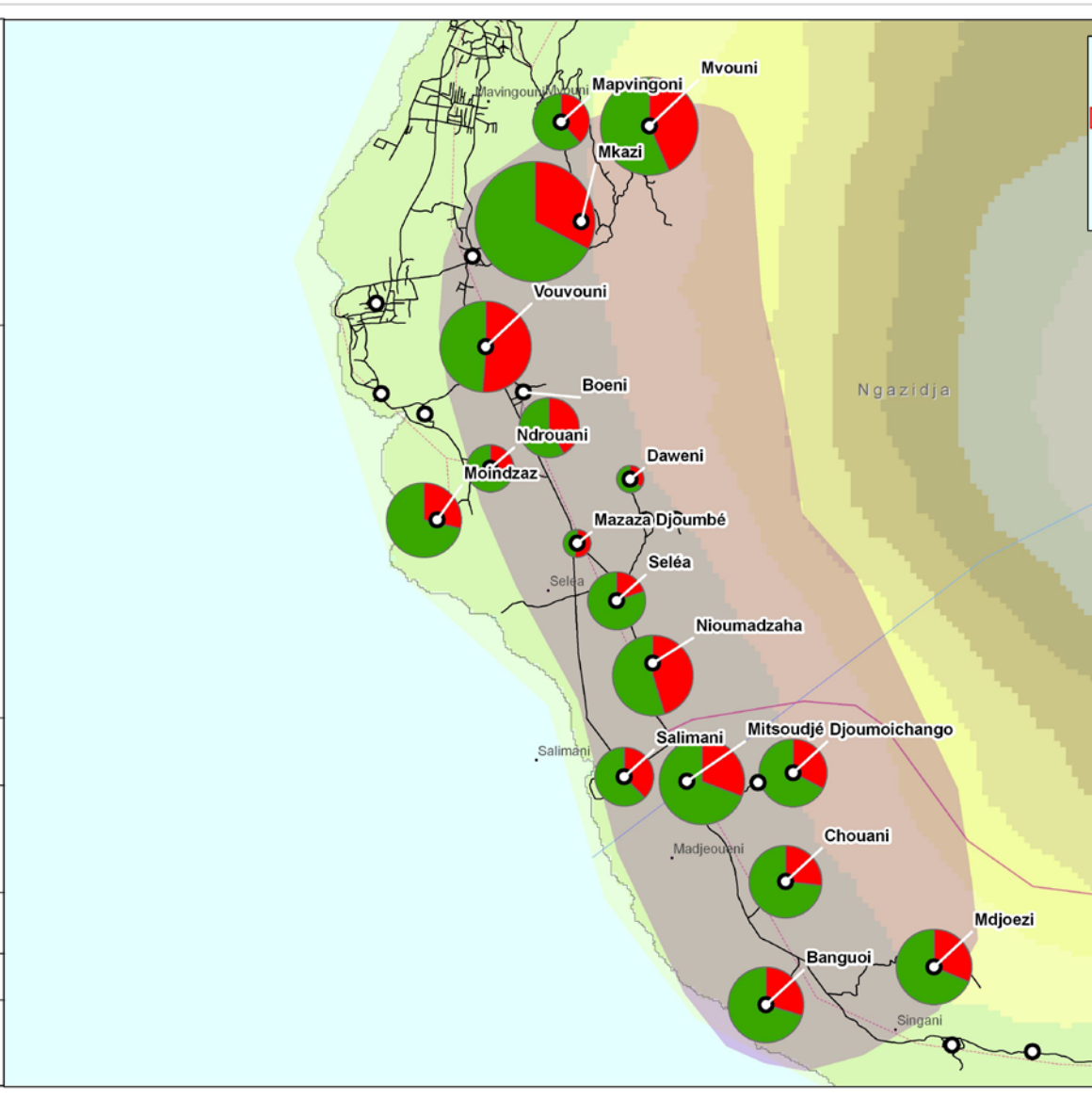
**Donnees**  
 Evaluation: UNDAC  
 Zone affectee: UNDAC, COSEP  
 Population: PLAN  
 Villages: COSEP  
 Infrastructures Routier: GoogleMapMaker, Europatech  
 Altitude: SRTM

Creé 7 mai 2012 / 16:00  
 Dossier Carte MA022\_T0000P00\_COM  
 Projection / datum UTM38S / WGS84  
 GLIDE Nombre FL-2012-000066-COM

The depiction and use of boundaries, names and associated data shown here do not imply endorsement or acceptance by MapAction.

MapAction remercie:  


Produit par MapAction www.mapaction.org  
 Comoro@mapaction.org



<b>SECTOR : Education</b>		
Findings		
Needs		<b>Vouvouni: cleaning of flooded classrooms.</b>
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Food and Nutrition</b>		
Findings		<b>With the destruction or damage of fields and produce, and death of livestock, the food security of the population is threatened.</b>
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	<b>Sectoral assessment of the food security situation on Grande Comore.</b>

	Medium term	
	Long term	

<b>SECTOR : Health</b>		
Findings		<b>Grande Comore: No major health problems were reported, and all health posts functioned as before the floods. Health risks include the possible contamination of drinking water, the flooding of latrines, and possible veterinary diseases.</b>
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	<b>Epidemiological monitoring, (re)stocking of health posts.</b>
	Medium term	
	Long term	

<b>SECTOR : Livelihoods</b>		
Findings		<b>With the destruction or damage of fields and produce, and death of livestock, the livelihoods (and food security) of the population is threatened.</b>
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	<b>Sectoral assessment of the food security situation on Grande Comore</b>
	Medium term	
	Long term	

<b>SECTOR : Logistics</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Protection</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Shelter and Non Food Items</b>		
Findings		<b>Grande Comore: some villagers have suffered loss of NFI's due to the floods.</b>
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Water, Sanitation and Hygiene</b>
---

Findings		<b>Water supply</b> a. Moroni and surrounding area (80,000) b. Mitsoudje (3900)
Needs		Repair to 550 kVA generator at TP5, cleaning and repair to pumps
Current response		
Gaps in response		
Recommendations	Immediate	Repair to submersible pumps at TP5 and Mitsoudje
	Medium term	
	Long term	

#### IX. Sector Analysis/ Findings and Recommendations – limited to one page per sector – bullet points

##### X. Key Assessment Recommendations

The situation on Grande Comore stabilised quickly after the five days of continuous rain which caused the flash floods. The country experienced the entire normal annual rainfall in 5 days.

The immediate risk to the population as a result has been modest. However the failure of the urban water supply for both Moroni and Mitsoudje does represent a significant risk especially as the country has experienced 4 waterborne epidemics since 1980. These must be brought back into operation without delay.

The water pumping stations are dependent on the electricity supply. The situation in the power stations is serious. Half the generator sets no longer function. The lack of maintenance, spare parts and managerial competence will cause a complete failure in the short term. This will affect the water supply of 443 cubic metres an hour at TP5

Sections of the road damaged by the floods require fords to allow the passage of water during the rainy season. This a more suitable and less expensive solution than bridge construction.

Agricultural production will probably recover quickly but food security is too dependent on remittances from abroad. With such a large population increase agricultural production will be increasingly important. Support for the agricultural sector will be required.

##### XI. Conclusion

The floods were an acute exacerbation of a chronic problem - underdevelopment. Many other countries would have managed but even a relatively brief period of exceptionally heavy rainfall was enough to tip nearly 8% of the population into crisis.

It may be that with 60% of the population working abroad the country lacks the leadership, and the management necessary to cope in a crisis. Civil protection in the Comoros requires a mentor and twinning arrangement with Madagascar. To maintain critical infrastructure some technical support agreements need to be put in place.

Many of the flooding problems are caused by too many people living in the wrong place on unsuitable land prone to flooding and in houses not built to withstand flooding. If all houses were built with raised foundations (the traditional method in Comoros) they would not be flooded.

Finally the exceptional population increase will increase the pressure to find safe places to build houses. This is a subject that has to be addressed by the government.

##### XII. Annexes

- Map of the affected area
- Map showing the camps/sites visited

### **XIII. Attachments**

- Field team reports

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MOHELI

## Team report Moheli – 3 May 2012

The team split up in two. Team 1 (UNDAC, IHP, Red Crescent, UNDP, commander Civil Security, local Ministry of Health, national Ministry of Health) visited Ouallah (S 12.32,772 E 043.66,153), Ouallah 2 (S 12.34,702 E 043.66,972), Ndrodroni (S 12.34,753), Nioumachoi (S 12.36.930, E 043.71,854), Ndremeani (S 12.35,523 E 043.75,132), Mwali-Mdjini (S 12.30,513 E 043.77,431), Bandar-Salam (S 12.29,518 E 043.76,022) and Bangoma (S 12.29,082 E 043.75,276).

Team 2 (UNDAC, UNICEF, local UNICEF education expert) went to Mbatse, Siry-Zouroudani, Wanani, Kangani, Hagnamoida, Hamavouna, Itsamia, Mlabanda, Fomboni (the following districts: Wemani, Cooperant, Comotel/Islamique, Mouzdalifa).

From the interviews with “crisis committees” consisting of different villagers, both men and women, the following key priorities can be distilled: food security, access to clean drinking water, sanitation, and prevention of disease outbreaks like conjunctivitis and diarrheal diseases including typhoid. Longer-term problems seem to be at the basis of the current troubles.

### *Agriculture*

Most villagers suffered from loss of livestock and severe damage to or complete loss of crops and fields. Most villages estimated that 80-100% of the villagers were affected by damaged fields. In every village mostly all inhabitants were fully dependent on agriculture. Crops that were affected: bananas and cassava, coconut palms and rice. Most villages named food security as their number one priority. When asked whether there would be a crop that could be planted in the coming month to relaunch agriculture, most villagers mentioned bananas as it was the right season. Some villages reported veterinarian diseases, like skin rash and conjunctivitis.

### *Drinking water*

Several villages indicated that their water supply was in dire need of an upgrade: the pipes were over 25 years old and were unreliable or leaking. More villages reported soiled water, with mud or sand. Apparently this has been a permanent problem, but worsens during rain times. Most of the population use water source as river.

### *Sanitation and health.*

In most villages latrines (if available) had either been damaged or were flooded. This created a sanitation problem. Health posts that were operating before the floods were still operating. No deceased or missing were reported. Only 2 injuries were reported in Ouallah 2 and Norodroni by lightning.

### *Education*

In Nioumachoi the primary school (S12.36,312 E 043.718,15) was inundated and flooded by mud. The roof of the school gave way – only 2 of 9 classes are in use. 104 children are not in school. The high school has 2 of 10 classes that are not in use. In Mbatse the school was not easily reachable, therefore the preschool children were unable to attend.

### *Infrastructure*



In Bandar Salam one road was heavily damaged due to flooding. Many villages asked for channelling of water and dikes against river flooding and sea flooding. There had been no maintenance of infrastructures that were put in place decades ago.

### *Shelter*

In a small number of villages several houses were destroyed. All families that were victim have found a different place to live.

## Reporting Template

### I. Introduction

*Explain what triggered the assessment, i.e the disaster and its extent. Include a map of the extent of the disaster*

### II. Assessment Objective

*Clearly state the objectives of the assessment*

### III. Assessment Methodology

*Clearly state the assessment methodology, i.e. how many teams went out? Where? Was it a census or a sample? If sample, how was the sample size selected?*

### Situation Analysis

#### IV. Damage

*Highlight the damage caused by the disaster. Include information on damage to roads and bridges, and the number and type of buildings and houses destroyed.*

##### Mohéli

Many villages suffered, to various extents, from loss of agricultural fields. Some roads were damaged: a road near Bandar Salam, a bridge and a road near Miringoni (the road was subsequently repaired by the government and community). A number of villages were faced with the destruction of dikes, levees and canals (Nioumachoi, Bandar Salam).

In total 31 houses were destroyed in Nioumachoi, Mbatse, Miringoni, and Ndrodroni. In other villages, some houses sustained minor damages. Several water collection points were flooded, or were contaminated with mud or otherwise.

#### V. Affected Population

*Outline how the term “affected” was defined. Include a **table** summarising the affected population including the baseline, e.g. 10,000 people are affected in district X, total population in district X is 100,000 people. The same goes for affected infrastructure, e.g. 5 schools have been flooded and are closed in district Y, total schools in district Y is 20. Total learners in district Y affected is 12,000, total learners in district X is 130,000.*

#### VI. Highlight Key findings/issues identified

*Provide a short narrative of key findings / issues identified according to sectors that have critical concerns (see below). Support the findings by graphs and tables from the analysis of the assessment forms.*

##### Mohéli

The following key priorities were identified: food security, access to clean drinking water, sanitation, and prevention of disease outbreaks like conjunctivitis and diarrheal diseases. Flood control is needed, to protect both against the sea and rivers.

#### VII. Current response

*Outline the current response, specifying who is doing what and where*

## VIII. Sector Analysis and Recommendations

Each sector is limited to ONE page. No narrations, just bullet points.

<b>SECTOR : Education</b>		
Findings	<b>In Mohéli two schools were damaged, hindering over 100 children to go to school</b>	
Needs	<b>Mohéli: reconstruction of roofs, cleaning of flooded classrooms.</b>	
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Food and Nutrition</b>		
Findings	<b>With the destruction or damage of fields and produce, and death of livestock, the food security of the population is threatened.</b>	
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	<b>Sectoral assessment of the food security situation on Mohéli.</b>
	Medium term	
	Long term	

<b>SECTOR : Health</b>		
Findings	<b>Mohéli: No major health problems were reported, and all health posts functioned as before the floods. Health risks include the possible contamination of drinking water, the flooding of latrines, and possible veterinary diseases.</b>	
Needs	<b>Epidemiological monitoring, (re)stocking of health posts.</b>	
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Livelihoods</b>		
Findings	<b>With the destruction or damage of fields and produce, and death of livestock, the livelihoods (and food security) of the population is threatened.</b>	
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	<b>Sectoral assessment of the food security situation on Mohéli.</b>
	Medium term	
	Long term	

<b>SECTOR : Logistics</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Protection</b>		
Findings		
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Shelter and Non Food Items</b>		
Findings		<b>Mohéli: some villagers have suffered loss of NFI's due to the floods.</b>
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	
	Medium term	
	Long term	

<b>SECTOR : Water, Sanitation and Hygiene</b>		
Findings		<b>In Mohéli, the access to safe drinking water has always been a problem. The current crisis has slightly aggravated the situation, because the landslides and floods have contaminated or polluted the regular water sources. Some villages have access to a water supply network, but the delivery has always been unreliable, partially due to an absence of maintenance.</b>
Needs		
Current response		
Gaps in response		
Recommendations	Immediate	<b>An analysis of the state of the drink water provision system,</b>
	Medium term	
	Long term	

**IX. Sector Analysis/ Findings and Recommendations – limited to one page per sector – bullet points**

**X. Key Assessment Recommendations**

**XI. Conclusion – overall statement/remarks about the situation**

**XII. Annexes**

- Map of the affected area
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