

Briefing Note – 15 August 2017

# SIERRA LEONE

## Mudslide and flooding in Greater Freetown



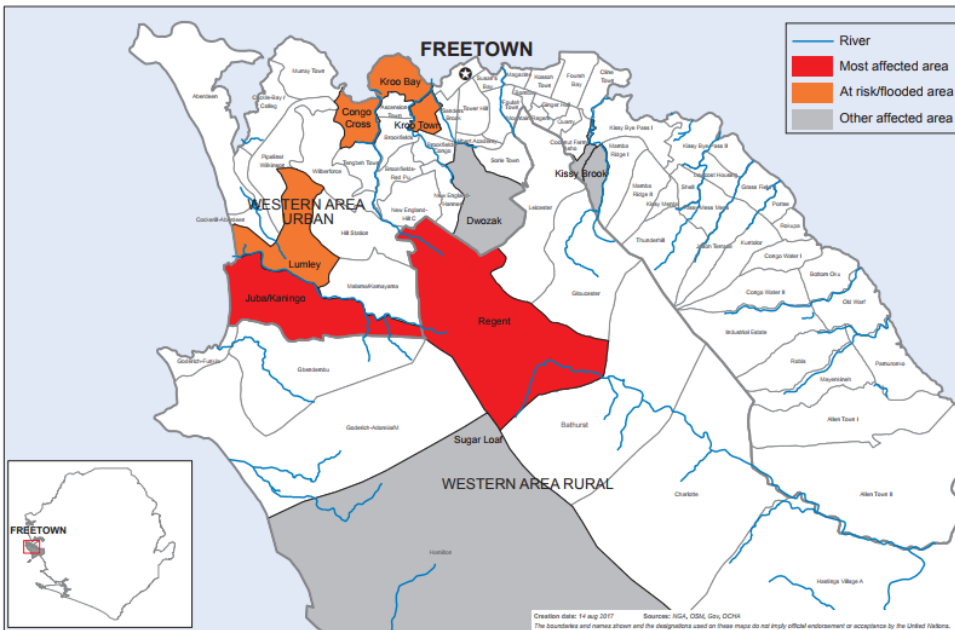
Need for international assistance	Not required	Low	Moderate	Significant	Major
		X			

Expected impact	Very low	Low	Moderate	Significant	Major
		X			

### Crisis overview

Rains in Freetown started on Sunday 13 August and have continued since. At least 400 people, including at least 60 children, were killed following the collapse of a hillside in the Regent area near the capital, in Greater Freetown early on Monday morning, as many people were asleep. Since 1 July, Freetown has received triple the usual amount of rain. Most affected areas are within an area known as Regent. Three other communities were inundated, at Lumley in the west of Freetown as well as Kissy Brook and Dworzak Farm.



### Key findings

Anticipated scope and scale

Weather forecasts indicate further heavy rain is expected this week in Freetown. More rain is likely to fall until the end of the rainy season in November, which could lead to further flooding. The risk of waterborne diseases is high, and compounded by a poor health system. An outbreak due to contamination of water sources and inadequate health services poses a serious risk. Cholera is endemic and outbreaks are recurrent in Sierra Leone.

Key priorities

- **Shelter:** At least 3,000 people are homeless and over 300 houses have been destroyed.
- **WASH:** Contamination of drinking water and sewage overflows are expected. Access to safe drinking water is a priority.
- **Health:** Poor WASH system, crowded conditions, and a lack of adherence to infection prevention measures could lead to new localised outbreaks.

Humanitarian constraints

Heavy rainfall and flooding are ongoing, hampering access to affected areas. A road linking Regent village and Jui has been cut in two, with vehicle traffic now severely restricted.

### Limitations

The overall number of people affected and in need remain unclear until floodwaters recede. There is a lack of specific information on sectoral needs at the time of writing. Because of disruption of communication lines and electricity, the full extent of the damage is still unknown.

## Crisis impact

Rains started on Sunday 13 August and have continued since then. At least 400 people, including at least 60 children, were killed following the collapse of a hillside in the Regent area in Greater Freetown early on Monday morning, as many people were asleep when the mudslide occurred (Telegraph 14/08/2017; BBC 16/08/2017). The death toll is rising as search and rescue operations are ongoing. Estimates of people still missing vary between 600 and thousands (The Guardian 15/07/2017; IFRC 15/08/2017).

Freetown has received triple the amount of rain usually seen since 1 July (Direct Relief 14/08/2017). Most affected areas are within an area known as Regent. Three other communities were inundated, at Lumley in the west of Freetown, as well as Kissy Brook and Dworzak Farm (Africanews 14/08/2017; The Sierra Leone Telegraph 14/08/2017).

The Office for National Security (ONS) advised the evacuation of disaster-prone areas such as Lumley, Regent, Samba Gutter, Krootown Road, Kroo Bay, Campbell Saint and Congo Cross (Tweet 14/08/2017; OCHA 15/08/2017).

**WASH:** Many of the impoverished areas are close to sea level and have poor drainage systems, exacerbating flooding during the rainy season (Telegraph 14/08/2017). Contamination of drinking water and sewage overflows are to be expected (Wateraid, 2012). Access to safe drinking water is of immediate concern (IOM 15/08/2017).

**Shelter:** About 3,000 people are homeless and over 300 houses have been destroyed (IFRC 14/08/2017; The Guardian 14/08/2017). Over 1,000 homes have been covered in deep mud with people still stranded inside some of them (The Sierra Leone Telegraph 14/08/2017). The affected population is in need of blankets, clothes and other NFIs (The Guardian 15/07/2017).

**Health:** Poor WASH system, crowded conditions, and a lack of adherence to infection prevention measures could lead to new localised outbreaks. Safe burials of the deceased is a challenge, as morgues do not have the capacity to handle such a high number of bodies (The Sierra Leone Telegraph 14/08/2017). A mass burial was held on 15 August to free up space in the city's central morgue (The Guardian 15/07/2017).

**Protection:** Children may have become separated during the mudslide and flood (Save the Children 14/08/2017).

## Impact on critical infrastructure

Communication lines and electricity have been disrupted (IFRC 14/08/2017).

## Humanitarian and operational constraints

A road linking Regent village and Jui has been cut in two, with vehicle traffic now severely restricted (The Sierra Leone Telegraph 14/08/2017). Bridges have collapsed (Concern Worldwide 15/08/2017). Heavy rainfall and flooding are ongoing. As a result, needs assessments and response are hampered by lack of access (ECHO 15/08/2017). The full extent of the damage is still unknown (New York Times 15/08/2017).

## Aggravating factors

### Weather

More rain is likely to fall until the end of the season, in October, which could lead to further flooding (FEWSNET). Weather forecasts indicate that further heavy rain is expected this week in Freetown (BBC 15/08/2017). The lack of early warning systems could further expose communities to flooding (IFRC, 18/09/2015).

### Living in flood-prone areas

Population in Freetown has increased tenfold since Sierra Leone became independent in 1961. The city extended outwards to accommodate this influx, but without any urban planning in place. As a result, thousands of people are living in flood-prone areas. Kroo Bay, one of the largest coastal slums with an estimated population of 6,000, has flooded every year since 2008. Deforestation for firewood and charcoal of the Western Peninsula has also exacerbated the impact of the floods. Without the protection of trees, exposed soil is being carried off the hills and down into the city during heavy rainfall (LSE 18/11/2017).

The Government's response to the floods has usually been to forcibly evict slum communities and moving the residents to the outskirts of the city, causing protection concerns (LSE 18/11/2017).

### Waterborne disease outbreaks

The risk of waterborne diseases is high, compounded by a poor health system. An outbreak due to contamination of water sources and inadequate health services poses a serious risk to children. 14% of deaths among children under-five are related to diarrhoea (Freetown WASH Consortium, 04/2015).

Cholera is endemic and outbreaks are recurrent in Sierra Leone. Though the last major outbreak was reported in 2012 with 23,000 cases, the risk of an outbreak remains (WHO,

08/10/2012). Cholera outbreaks in Sierra Leone have tended in the past to start in a coastal fishing community in Kambia to the north of the country, and spread down the coast by boat and by road to Freetown, where coastal slums are particularly vulnerable (GoSL MoH, 2012).

A consortium of different NGOs with WASH programmes in Freetown identified 28 hotspots as particularly vulnerable to poor WASH related diseases in 2015. A hotspot was defined as an area that has met two of the three following criteria: previously recorded cholera cases, at risk of flooding, and reported Ebola cases. 15 are at risk of flooding and all 28 have had Ebola cases reported. All of the identified hotspots reported cholera cases in 2012, apart from Kissy Mental which is still considered at high risk of cholera due to its dire WASH conditions. According to the same consortium of NGOs, at least half of the urban population potentially exposed live in the Western Area, including in the urban and peri-urban slums of Freetown (Freetown WASH Consortium, 04/2015). [See map of hotspots on page 6](#)

## Previous flood

In 2015, floods affected 12,000 people in Freetown, the majority of whom were displaced and staying in two stadiums (IFRC 12/10/2015). Worst affected areas were Kroo Bay, Moyiba, Aberdeen, Cockerill Bay, and Wilkinson Road (OCHA, 18/09/2015).

## Key characteristics

**Demographic profile:** Freetown is a coastal city of one million inhabitants. Sex ratio is 98.8 in Western Area Urban (Census 2015 03/2016).

**Food security:** 92,000 people are facing Crisis (IPC Phase 3) food security outcomes across the country and 6.3 million people are facing Minimal and Stressed (IPC Phase 1 and 2) food security outcomes until end of August (Cadre Harmonise 27/03/2017).

**Nutrition:** 21.1% of under-five are underweight, 44.9% suffer from stunting and 7.6% from wasting (WHO 2010)

**Health:** Infant mortality is 117 per 1,000 live births. Under-five mortality is 187 per 1,000 live births (UNDP 2014). Maternal mortality is 1,100 per 100,000 live births (WB 2013). These indicators are among the worst in the world.

**WASH:** Access to improved water sources is 47% in rural areas and 88% in urban. Coverage of improved sanitation is much lower: 6% in rural and 22% in urban areas. Open defecation is higher in rural areas, at 26%, compared to 7% in urban areas (SL DHS, 2013). It was estimated in 2013 that Sierra Leone's cities produce about 0.3 million

metric tons of solid waste per year, with Freetown contributing 800 metric tons a day in 2010 (local media 21/06/2012). 40% of Freetown's waste is collected in formal disposal sites by private operators. The rest is burned at home or disposed outside in waterways, drainage channels, alongside roads and vacant lands (Freetown WASH Consortium 2013). This results in flooding and an increased transmission of vector-borne diseases.

**Lighting and cooking:** 98% of Sierra Leone's population uses solid fuels for cooking. 85% uses wood, and 14% uses charcoal (Clean Cookstoves).

**Literacy:** In Sierra Leone, 36% of women and 52% of men are literate (SLDHS, 2013).

## Response capacity

### Local and national response capacity

The Office for National Security is responsible for the coordination of the disaster response, and acts as a first responder. Capacity to forecast and disaster preparedness are minimal (FAO, 12/09/2015). Military personnel have been deployed to help in the rescue operation (Telegraph 14/08/2017). The president declared a national emergency and called for international assistance to help support response efforts (The Guardian 15/07/2017).

Three emergency centres have been set up in Regent village, Lumley, and Ross Road to register victims, in local schools and police stations (S4CCC-SL 14/08/2017; OXFAM 15/08/2017). The Government is evaluating the needs of IDPs but is currently requesting affected people to evacuate and stay with relatives (OCHA 15/08/2017). Sierra Leone Red Cross is currently responding, notably in search and rescue operations and safe burials (IFRC 14/08/2017). Street Child launched an appeal focusing first on food, shelter and water, then on education and livelihood (Street child 14/08/2017).

### International response capacity

Israel announced it will send medicine, clean water, and blankets via the embassy in Senegal (Times of Israel 14/08/2017). Nigeria and Liberia also pledged support (New York Times 15/08/2017). The UN Country Team is currently assessing the damage and preparing the response (Africanews 14/08/2017). UNICEF is responding in search and rescue operations, as well as providing trauma counselling and therapy to families and children (UNICEF 14/08/2017; Reuters 15/08/2017). Contingency plans are being put in place to mitigate any potential outbreak of waterborne diseases such as cholera, typhoid and diarrhoea (BBC 16/08/2017). WFP is providing food rations to the people evacuated. WHO is supporting the Ministry of Health in providing medical assistance to the injured (OCHA 15/08/2017).

Save the Children is assessing the situation and preparing to respond, if required (Save the Children 14/08/2017). OXFAM is providing clean water and hygiene kits to help 2,000 households (OXFAM 15/08/2017). Concern Worldwide is supporting needs assessments and data collection, as well as preparing an emergency response plan (Concern Worldwide 15/08/2017). World Vision is supporting children affected by the mudslide (World Vision 15/08/2017). Medecins Sans Frontieres is providing hundreds of body bags to authorities (Eye Witness News 16/08/2017). The IFRC has today released more than USD 278,000 from its Disaster Relief Emergency Fund to fund initial search and rescue and recovery efforts (IFRC 15/08/2017). IOM released USD 150,000 in emergency, first-response aid relief (IOM 15/08/2017).

## Information gaps and needs

- The overall number of people affected and in need remain unclear until floodwaters recede.
- There is a lack of specific information on sectoral needs at the time of writing.

## Lessons learned

### WASH

Anticipating the impact of seasonality is crucial to mitigate the impact of the rainy season, particularly in relation to the effects of a rising water table and flooding on WASH facilities. The negative impact could be reduced if this is taken into account during the construction or rehabilitation of facilities (ACAPS 19/05/2015).

### Communication with affected populations

- Increasing community-led communication and social mobilisation were instrumental in achieving behaviour change (ACAPS 12/2015).
- Radio was the preferred means for receiving information for 85% of the population, followed by house-to-house visits, televisions and religious venues (ACAPS 12/2015).
- The opinion of faith leaders was held in high regards. Mosques and churches, became critical channels for the dissemination of Ebola messages (ACAPS 12/2015).

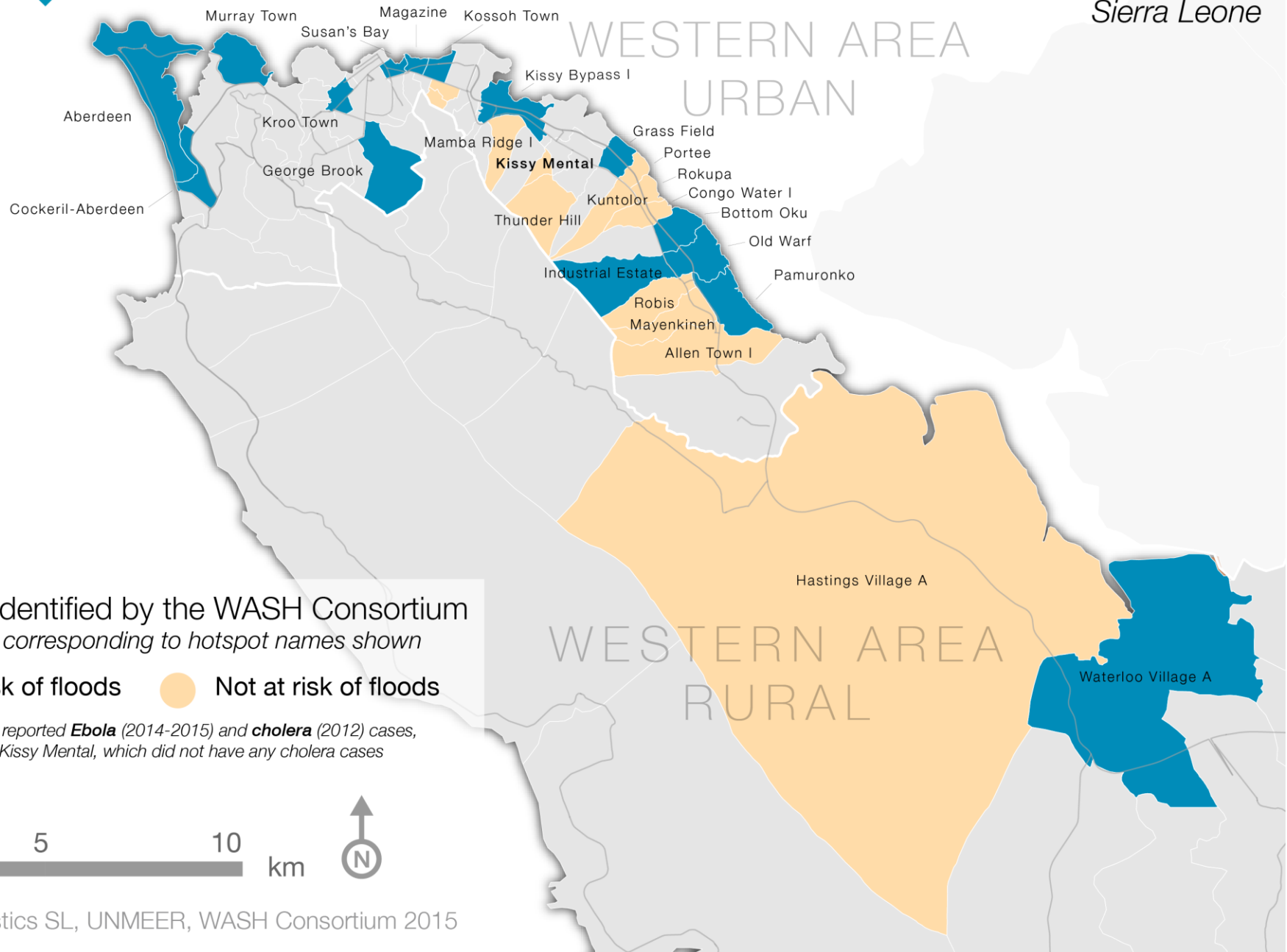
For more information on lessons learned for communicating with affected communities in Sierra Leone, refer to the ACAPS report Ebola Outbreak, Sierra Leone: Communication: Challenges and good practices, December 2015.





# WASH Hotspots in Greater Freetown

Sierra Leone



Sources Statistics SL, UNMEER, WASH Consortium 2015