

Briefing Note – 11 April 2017

# COLOMBIA

## Floods and mudslides in Mocoa - UPDATE



Need for international assistance	Not required	Low X	Moderate	Significant	Major
Expected impact	Very low	Low	Moderate X	Significant	Major

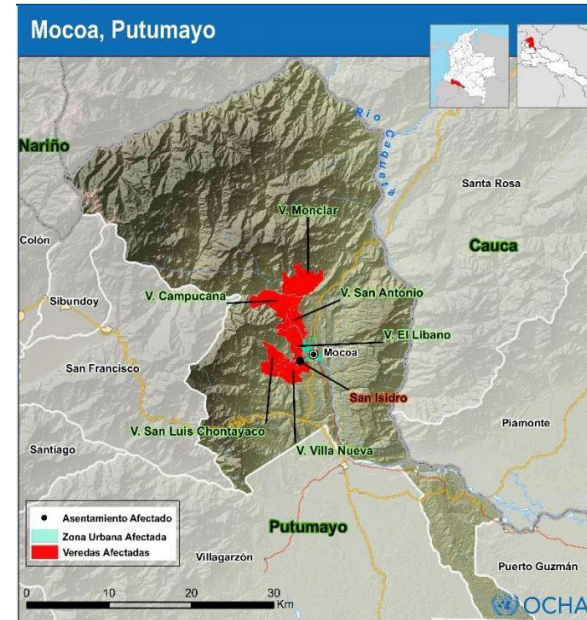
### Crisis overview

129mm of rain fell in the city of Mocoa in southwest Colombia, including more than 100mm between 23:00 on 31 March and 01:00 on 1 April local time (between 05:00 and 07:00 GMT), causing the flooding of the Mocoa, Mulato, and Sangoyaco Rivers, and several mudslides throughout Mocoa (WMO 04/04/2017; Sky News 02/04/2017). These rainfalls amount to one third of the average for an entire month for the area (IFRC 07/04/2017).

At least 314 people have died (including many reported missing as of 3 April), 332 were injured, 106 remain missing. About 17,500 of the up to 70,000 living in Mocoa have been affected by the floods and mudslides (compared to 1,200 reported as of 3 April), and 3,417 are displaced in temporary shelters (OCHA 08/04/2017 ; Colombia Reports 08/04/2017 ;).

36 of 37 neighbourhoods of Mocoa have now been affected – while 17 were initially believed to be affected (IOM 07/04/2017). Areas in southern Mocoa have been the hardest hit, and six are completely destroyed (OCHA 08/04/2017).

The government of Colombia stated it did not require additional assistance as of 2 April, and has not made any public call for international assistance since (OCHA 02/04/2017).



Source: OCHA 08/04/2017

Map of Mocoa – affected areas in red.

Enlarged version on last page.

### Key findings

#### Anticipated scope and scale

36 neighbourhoods in Mocoa have been affected by the mudslides. The severity of needs in rural areas near rivers in the vicinity of Mocoa is likely to be exposed when access improves, especially in the shelter and WASH sectors.

More rainfall is expected in the next weeks, which may cause more mudslides and aggravate needs. The rainfalls will hinder the response where roads are already hard-to-access, and is likely to further damage shelters and infrastructure.

### Priorities for humanitarian intervention

- **Health:** 332 people have been injured. A hospital has been damaged, impacting response.
- **Shelter:** 3,417 are likely homeless due to the mudslides, although the exact number is likely to be much higher, as imagery shows entire areas swept away.
- **WASH:** two aqueducts have been destroyed and access to drinking water is very limited. Hygiene needs for the population are reported but remain unclear. There is still a lack of electricity in most areas.

### Humanitarian constraints

- Many roads still need to be cleared of debris induced by mudslides. At least two bridges have been damaged, while roads are covered by mud and debris. Humanitarian workers reached the area mainly by boat, but it is almost impossible for the population to get out without assistance.
- More rainfall is expected in the next days and will likely hinder assistance. 40mm of rain is forecasted between 11 and 13 April (Accuweather 11/04/2017).

### Limitations

- The exact extent of sectoral needs – especially in WASH and shelter – remains unclear.
- The needs of the population in rural areas in the immediate vicinity of Mocoa are unclear, although they are likely to be high.

## Crisis impact

The death toll has reached 314 – compared to 254 as of 3 April. The number of people missing went from 200 to 106 during that timeframe – those still missing are likely either in hospitals in other cities or have died and not yet been found in the rubble. Official search operations for the missing ended on 7 April (Colombia Reports 08/04/2017). 332 people were injured (MSF 10/04/2017).

The timing of the mudslides prevented people from being alerted (The Guardian 01/04/2017)

**Health:** A hospital has been damaged, likely injuring people and impacting access to health services and capacity to respond to the injured (Colombia Reports 01/04/2017). There

are gaps in the medical response in hard-to-access rural areas in the vicinity of the city of Mocoa along the rivers (OCHA 08/04/2017). No major outbreak of waterborne disease has been reported in recent months in the area.

**Shelter:** More than 3,000 people could have lost their homes due to the mudslides (Colombia Reports 07/04/2017). Many more houses were damaged, some severely (OCHA 01/04/2017). Rocks, trees and debris have fallen on many houses and roofs have collapsed (CNN 01/04/2017).

**WASH:** There has been little access to drinking water in Mocoa due to the floods (MSF 10/04/2017 ; al Jazeera 02/04/2017). Reports suggest drinking water distribution has been insufficient (OCHA 08/04/2017).

Two aqueducts providing water have been destroyed, increasing the needs, as some of the population is dependent on these for their drinking water (The Guardian 01/04/2017, Action Against Hunger 02/04/2017).

Hygiene conditions have been poor since the event, although the extent of needs remains unclear (MSF 10/04/2017).

There have been electricity cuts that are ongoing since the rainfalls (Colombia Reports 08/04/2017).

No major outbreak of waterborne disease has been reported recently in the area.

**Food and livelihoods:** Food access has been limited since the rainfall, as the markets are difficult to access (OCHA 01/04/2017). Due to the decrease in access to the market, which is important in the Putumayo region, food access is probably going to decrease in the region – although the extent of damage or potential effects on the region remain unknown. (BBC 02/04/2017).

Food aid has been distributed but remains insufficient – the affected population does not have access to three meals a day (OCHA 08/04/2017).

Mocoa is an important economic hub in the region therefore livelihoods will likely be affected. Stocks and infrastructure have been damaged. Oil activities – including petroleum – are operated from the city (The City Paper Bogota, 02/04/2017).

**Education:** 12,500 children are out of school as 53 education centres have been closed since the rainfalls (OCHA 08/04/2017). Five schools have been damaged by rainfall (UNICEF 06/04/2017; OCHA 01/04/2017).

**Protection:** There have been reports of looting of shops and homes which have been abandoned since the mudslide. Stolen goods include food and drinking water. At least

25 people were arrested between 1 and 7 April on suspicion of looting (Colombia Reports 07/04/2017).

### Humanitarian and operational constraints

Access to and within Mocoa by road remains challenging (Colombia Reports 08/04/2017 ; Colombia Reports 02/04/2017). Two bridges were destroyed by the mudslide (Reuters 01/04/2017). Close to 80% of the streets in the city were hard to access as of 2 April and many still are (ABC 02/04/2017). They are covered with mud, rocks and debris (Le Monde 01/04/2017).

Electricity is still largely cut in Mocoa (Colombia Reports 08/04/2017).

There has also been continuing heavy rainfall. As a result, search and rescue teams had to suspend their work overnight (al Jazeera 02/04/2017; The City Paper Bogota, 02/04/2017).

Drug traffickers have disguised at least one of their convoys transporting marijuana as an aid convoy (Colombia Reports 07/04/2017). If this illustrates a larger trend, this could lead to mistrust between the authorities and/or the local population towards aid workers.

### Vulnerable populations

10,500 IDPs (displaced before the rainfalls) live in Putumayo department (where Mocoa is located) and the affected neighbourhoods hosted IDPs (La Croix 02/04/2017; OCHA 10/12/2016). They live in more vulnerable conditions, with 83% living below the poverty line and 35% in extreme poverty (OCHA 10/12/2016). They likely live in areas where the shelters are more vulnerable to floods.

Some rural areas have not yet received humanitarian and medical assistance. The affected population does not have access to communication means, and therefore does not know how to register for help, which could increase needs (OCHA 08/04/2017). The affected population in the rural areas is in the vicinity of Mocoa along the rivers (OCHA 08/04/2017).

1,364 indigenous people are likely to be more affected. Their underlying vulnerability comes from their remote locations, higher poverty levels, and discrimination (OCHA 08/04/2017; OCHA 31/05/2014).

## Aggravating factors

### Recurrent and ongoing rains

Heavy rains and floods have been ongoing since early January across Colombia, but particularly in neighbouring Nariño department. However, the Putumayo department has not been affected between January and 31 March. Even before the most recent mudslide, the rains affected over 1,390 families – around 5,400 people - as of mid-March in 11 departments (Flood List 02/04/2017).

There is a high risk of new mudslides in Mocoa, due to continual rainfall (UNICEF 06/04/2017).

Mocoa is located at the confluence of several rivers and surrounded by steep slopes.

### Location and type of housing/infrastructure

Most of the houses swept away by the mudslides were located on the river banks of the three rivers that flooded: Mocoa, Mulato, and Sangoyaco. Protection from runoff was reduced during the past years due to deforestation and construction of houses near the water (Time 02/04/2017). Roofs in these areas appear to mostly be made of iron. Debris has merged with a thick mud, making excavation difficult.

### Prior needs

211,700 people were in need of assistance prior to the rainfalls in Putumayo - about 63% of the whole population. This includes 10,500 IDPs – the result of a combination of natural disasters and long-term effects of internal conflict. It is one of the areas most in need in the country (OCHA 10/12/2016).

### Government preparedness

Reports indicate the impact of the disaster could have been decreased by reinforcing riverbanks, reforesting the surrounding area, and redirecting the water trajectory away from the town (Time 01/04/2017).

According to local media, the threat posed by one of the ravines surrounding Mocoa was ignored by local authorities. This ravine flooded on Friday night, causing the mudslides. (Flood List, 02/04/2017, NotiFronteras 20/10/2014). An official investigation of possible negligence has been launched by Colombian authorities (Colombia Reports 05/04/2017).

## Key characteristics

**Demographic profile:** 237,000 people live in Putumayo department, including 36,000 in the city of Mocoa according to the latest census. More recent estimates state there could be around 70,000 people living in Mocoa. In the city, 50.5% of the inhabitants are women and 49.5% men (Census 2005 ; al Jazeera 08/04/2017).

**Food security:** Nationwide, 600,000 people are in need of food assistance – 1.2% of the whole population. Needs are also higher than the country average in the Putumayo department due to the combined effects of natural disaster and conflict on livelihoods in the area (OCHA 30/11/2016).

**Nutrition:** Global acute malnutrition (GAM) estimates are currently unavailable. Throughout Colombia 0.6% of children under five are severely underweight and 2.8% moderately underweight (UNICEF 2012). While exact figures are unknown, nutrition needs are higher than the country average in Putumayo, due to the combined effects of natural disaster and conflict on livelihoods in the area (OCHA 30/11/2016).

**Health:** Nationwide, 4.39 million people are in need of health assistance. Infant mortality: 14.1 deaths per 1,000 births. Maternal mortality: 64 deaths per 100,000 births (OCHA 30/11/2016; CIA World Factbook 31/12/2015).

**WASH:** Nationwide, 960,000 people need WASH assistance (OCHA 30/11/2016). Urban access to improved drinking water: 97%. Urban access to improved sanitation: 85% (CIA World Factbook 12/01/2017). WASH needs pre-crisis were particularly high in Putumayo due to lack of access to drinking water. Industrial activities in the area – namely oil concessions and illegal mining – are partly responsible of this contamination (OCHA 10/12/2016).

**Lighting and cooking.** Nationwide, 75% use gas for cooking, 15% wood, 7% electricity and 2% other fuels (Clean Cookstoves 2016).

**Literacy.** Nationwide, 95% of the population over 15 can read and write (CIA World Factbook 12/01/2017).

## Response capacity

### Local and national response capacity

A state of emergency was declared in the area (BBC 01/04/2017). The response comes from the national, departmental and municipal levels, and is led by the National Risk Management Unit (OCHA 08/04/2017). The government of Colombia states it does not require additional assistance (OCHA 02/04/2017).

Food, 5,000 to 10,000L of drinking water, shelter kits, hygiene kits, as well as power generators have been delivered to the affected areas in Mocoa (OCHA 01/04/2017) (La Croix

02/04/2017). Military engineers have also been working to fix damaged infrastructure – mainly roads and bridges (Colombia Reports 01/04/2017).

The National Army is present, the national Civil Defence, the Colombian air force, 300 members of the National Unity for the Management of Disaster Risks, fire departments as well as the Corpoamazonia – Colombia's environmental agency (OCHA 01/04/2017). The search for missing people was abandoned on 7 April (Colombia Reports 08/04/2017).

The government has shipped 500kg of medicine to Mocoa in order to minimize the gap in supplies (Government 02/04/2017). The government is monitoring potential outbreaks (Colombia Reports 08/04/2017).

Twelve temporary shelters have been set up by local authorities (IOM 07/04/2017). They are being run by the Colombian army, civil defence and police, the Colombian Red Cross and the Instituto Colombiano de Bienestar Familiar (Colombian Institute for Family Welfare) (OCHA 08/04/2017).

The ICBF is coordinating response for pregnant and lactating mothers – who have been moved to a special shelter (OCHA 08/04/2017).

### International response capacity

UNICEF is leading the response in WASH and education sectors. They have provided at least 200 medium sized water filters, blankets, 1,000 family hygiene kits, 2,000 school hygiene kits and early childhood development kits (UNICEF 06/04/2017).

Many INGOs, including Action Against Hunger, have already deployed teams to the affected areas (Action Against Hunger 02/04/2017).

MSF has been providing medical care (including psychological support) to the affected population. They were dispatched hours after the mudslides occurred and have provided care both in a temporary displacement centre outside town and within Mocoa (MSF 10/04/2017).

China donated USD1 million, the Inter-American Development Bank USD 200,000, ECHO USD 159,000, Switzerland USD 33,000 and Caritas USD 10,000 in relief funds to the Colombian government (OCHA 08/04/2017; Reuters 03/04/2017). Japan has provided emergency relief goods, such as generators (Government of Japan 07/04/2017).

## Information gaps and needs

- There is a lack of specific information on sectoral needs (such as the extent to the damage to houses), at the time of writing.

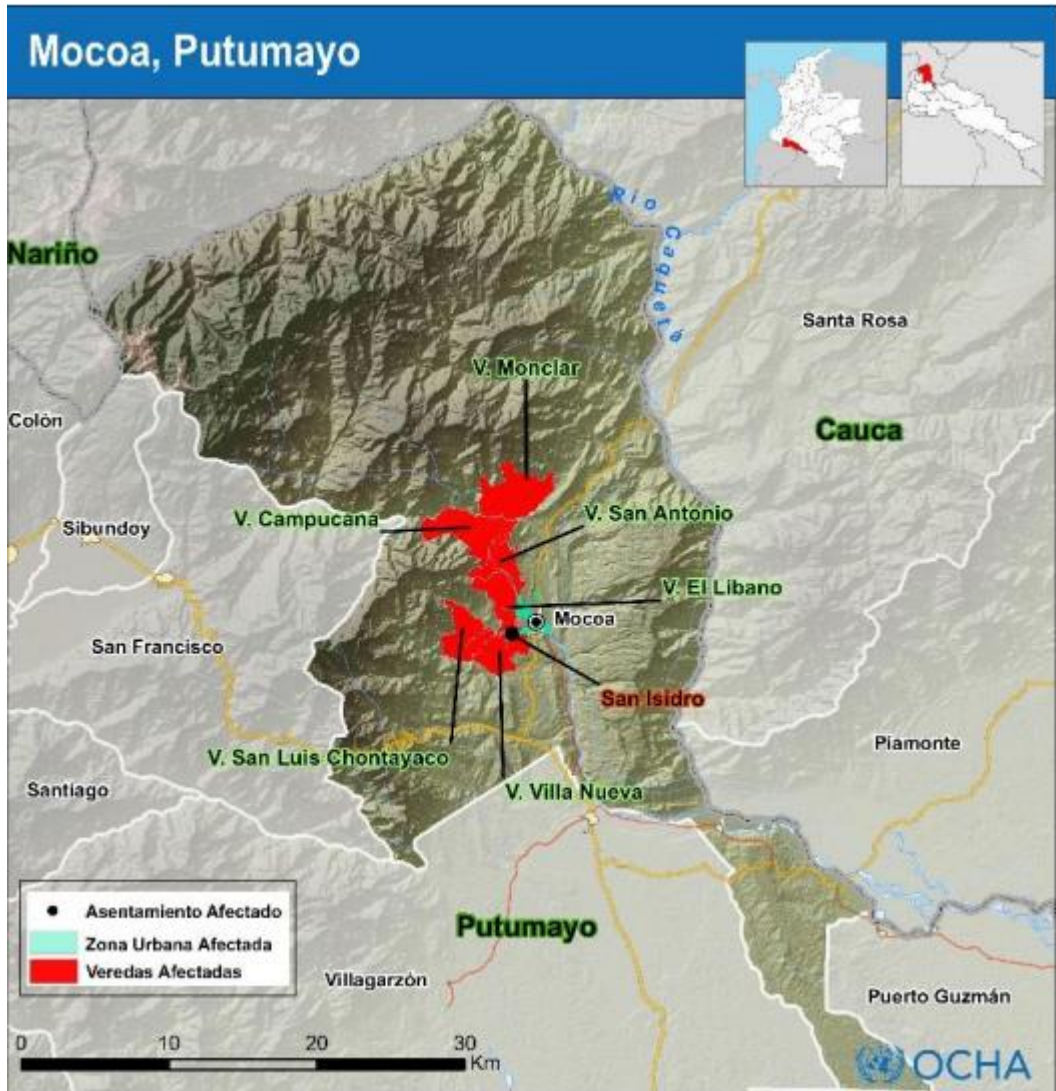
- However, teams on the field are currently counting the number of houses destroyed or damaged (OCHA 01/04/2017).
- It is uncertain whether the authorities were adequately prepared to respond to this emergency. People in the area have claimed that preparedness was weak. However, floods and mudslides are common in Colombia, and authorities are used to responding to them.

## Lessons learned

Information from similar previous disasters in the same and other areas and the humanitarian response.

- Government preparedness and timely action has been key in the response in previous floods in Colombia. While there are concerns about the preparedness of this crisis, emergency aid from both local and national has been fast.
- Food security, nutrition and education have been identified as the main needs long-term in past floods in Colombia.
- Early recovery from natural disasters is challenging in Colombia due to a combination of the frequency of natural disasters – including floods and mudslides, but also drought and forest fires – and sporadic spikes in conflict (OCHA 30/11/2016).

Map



Source: OCHA 08/04/2017