

Seychelles: Flooding

Division of Risk and Disaster Management, Situation Report No. 1

(as of 01 Feb 2013)

This report is produced by Division of Risk and Disaster Management under the Ministry of Environment and Energy in collaboration with government ministries and humanitarian partners. It covers the period from 26 January to 1 February 2013. The next report will be issued on or around 6 February 2013.

Highlights

- Heavy rains brought by the tropical storm Felleng on 27 January 2013 combined with a high tide resulted in severe flooding and caused extensive devastation to coastline areas and widespread structural damages to infrastructure (roads, bridges, houses) mostly in the eastern areas of Mahe Island
- On 27 January 2013, the Government declared three districts, Point Larue, Anse Aux Pins and Au Cap as disaster zones
- Preliminary damage and needs assessment estimates that USD 9.3million is needed for response and recovery activities
- An estimated 400 households have been affected with about 32 families still displaced in 5 different sites
- The Disaster Emergency Operation Centre (DEOC) in the Division of Risk and Disaster Management under the Ministry of Environment & Energy was activated at 0800hrs on 27 January to coordinate all response activities
- Heavy rains also caused flooding on La Digue Island on the 18th of January, and Felleng caused further flooding after dumping more rain on the 27th of January.
- Burst sewage pumps and flooded sewage treatment plants in disaster declared districts pose health risk



1 Feb 2013 - Heavy rains on 27 and 28 January caused by tropical storm Felleng triggered flooding in the Seychelles. About 400 households were affected. Authorities declared 3 districts as disaster zones on 27 January 2013

Map Sources: EBRI, SALS, UNCS, WFP, WHO, Humanitarian Partners
Reference: Government of Seychelles Situation Report No. 1 (as of 1 February 2013)
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Map created on 31 Jan 2013.

400

Number of affected households

11

Families living with host families

78

Internally displaced people

4

Damaged schools

2

Police Stations damaged beyond repair

17

Farms destroyed

Situation Overview

Heavy rains battered the whole of Mahe, Praslin and La Digue (please see map on last page), prompting the government to declare the three districts along the east coast of Mahe as an emergency disaster zone on Sunday 27th January. Flash flooding, landslides and debris inundated houses, blocked roads and caused significant losses and damages to property and other infrastructures amounting to approximately USD 9.3 million.

Storm and flood warnings started on 26 January and remained in force till 29 January. Total rainfall recorded for 27 and 28 January amounted to 270mm, which is 68% of the average rainfall normally experienced in January. January 2013, had the highest amount of rainfall on record, 871mm mostly concentrated on the eastern coast of Mahe. The heavy rain started to fall on the morning of Sunday 27 January, causing havoc in three districts in the

east coast of Mahe, namely Pointe Larue, Au Cap and Anse Aux Pins. Emergency broadcasts were sent just before mid-day to warn people of the ongoing bad weather and of places that were seen as dangerous. The Disaster Emergency Operation Centre within the Ministry of Environment and Energy, under the Division of Risk and Disaster Management raised the alert code to red for Mahe. Members of the public were advised to remain in their homes and to refrain from making any trips except those that were essential so as to avoid unnecessary road blockage or accidents that could have hampered the assistance being provided by the emergency services.

Fallen trees and landslides caused electricity outage and blocked roads in some parts of the country. However as of 1 February 2013, the Government had managed to resume electricity supply in all affected areas and cleared all blocked roads. In some areas, water was up to waist-level or higher, flooding houses, properties and damaging infrastructures. Hillsides eroded causing mudslide that pushed houses off their foundations, filled houses or even destroyed some completely. Heavy rainfall and runoffs also caused small streams and big rivers to overflow, resulting in flooding of low lying areas and roads. Over 400 houses were damaged and some people were forced to evacuate their homes. A total of 78 people (about 32 families) are in five (5) temporary shelters. The Government has made available three (3) sites that currently host 28 families. Two private hotels have donated full board accommodation to four (4) families until Monday 4 February.

Four schools were flooded and inundated with debris; three primary schools, one from each district of Anse Aux Pins, Pointe Larue, Cascade and one secondary school in Pointe Larue. The primary schools service the whole district while the secondary school service all three districts mentioned. The primary schools were re-opened on Wednesday 30 January and the secondary school is scheduled to be opened on Monday 4 February 2013.

All 17 farms within the 3 most affected districts on Mahe have been completely destroyed. All of the 540 registered farms within Mahe, Praslin and La Digue have invariably suffered to varying extent through losses of food crops particularly amounting to a total of USD510,000.

The 540 farming families make up 2700 individuals along with 400 people who are employed on the farms. As a result, a total of 3100 individuals have been directly affected. The direct losses translate into losses of income, livelihoods and food security. Evidently, the process of restarting farming activities hence restarting livelihoods will imply new investment in agricultural inputs and supplies. Agricultural inputs and supplies required to restart livelihoods will comprise of seeds, manure, fertilizers, small tools, pesticides and some support in the manner to continue to cope with the prevailing rainy conditions of the rainy months which will last till March 2013. Hence for the next 10 to 12 weeks there will not be any farm income until such a time that the first short term crops can be harvested.

In La Digue, heavy rains fell on the 18th of January causing heavy flooding. Tropical storm Felleng caused further flooding after dumping more rain on the 27th of January. The DEOC ordered an assessment of the damage on the 29th Jan as there were reports of water stagnation & possibility of water-borne disease risks. An advance team from the Ministry of Health was sent to assess and contain any such risk. To reduce risks a number of measures were recommended and implemented.

Two (2) police stations one in Anse Aux Pins and another in Pointe Larue have been severely damaged beyond repair and require rebuilding. The Pointe Larue police station services Cascade and Pointe Larue district, while Anse Aux Pins covers Anse Aux Pins district. Furniture and equipment have been lost. Police personal from both stations are currently occupying part of Anse Aux Pins clinic. Their presence at the moment is not hampering operations at the hospital, however, if there is an emergency which will result in an influx of patients, or an outbreak of any diseases brought about by the flood waters, operations at the hospital will be affected by the police presence.

According to the Seychelles National Meteorological Services, the weather is expected to be cloudy with showers over most areas of Seychelles for the next few days

The citizens of Seychelles have heeded the call to assist the affected population by in-kind donation of food and non food items (NFI) items ranging from clothes to furniture. The Seychelles Red Cross Society is coordinating the collection and distribution of all internal in-kind donations from individuals and private companies.

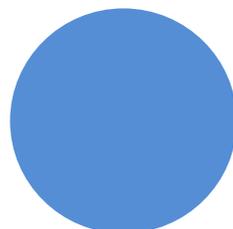
Funding

Preliminary damage assessment estimate financial requirements of USD 9.3million for response and recovery activities. Activities include rehabilitation of damaged and destroyed infrastructure and buildings. The Government of

Seychelles has asked for international assistance in raising the required funds. The President of the Republic of Seychelles, H.E. James Michel set up a National Disaster Relief Fund, for funds coming in from local and international partners. The Fund is managed by a Board that was appointed by the President. The Principal Secretary for the President's Office Administration chairs the board. The Fund replaces the National Emergency Foundation created in 2005, with the introduction of new legislation on the 29th of January 2013 which allows for the incorporation of the foundation's assets into the new fund.

US\$9.3million

Funded
0 %



Unmet
100 %

All humanitarian partners, including donors and recipient agencies, are encouraged to inform OCHA's Financial Tracking Service (FTS - <http://fts.unocha.org>) of cash and in-kind contributions by e-mailing: fts@un.org

Humanitarian Response



Early Recovery

Needs:

- Rehabilitation of infrastructure (road, bridges, schools etc.)
- Rehabilitation of damaged houses and reconstruction of destroyed houses
- Relocation of people who have had their houses completely destroyed
- Compensation of people who had their private retaining walls destroyed to make way for the flood waters in order to lower the flood water levels

Response:

- Displaced families have been relocated to 5 centers; 3 government sites and 2 private hotels. The two private hotels have offered full board accommodation until Monday 4 February
- Relocating of people with destroyed houses to newly built houses. The houses had been built to cater for the housing needs of different people and as such had a waiting list. The people who have had their houses destroyed will have priority on the waiting list

Gaps & Constraints:

- Funds to carry out the rehabilitation of road, infrastructure and houses
- Funds to rebuild demolished retaining walls



Education

Needs:

- School furniture that was either destroyed or damaged by the flood water and debris need to be replaced. The same for damaged or lost school equipment and consumables
- Rehabilitation of damaged infrastructure

4

Schools closed due to flooding

Response:

- Clearance of debris and cleaning of classrooms, fumigation/disinfection of affected schools has been done. The secondary school, which remains closed, will be opened on Monday 4 February.
- A needs assessment was done to ascertain the needs of the affected schools

Gaps & Constraints:

- Funds to carry out the rehabilitation of damaged infrastructure and replace lost equipment and consumables

**Food Security****Needs:**

- Agricultural input, supplies and technical assistance to the affected farmers

USD816,000

Amount requested to rehabilitate agriculture infrastructure

Response:

- A damage and needs assessment was conducted by the Seychelles Agriculture Agency, which identified losses in field production, farm equipment and supplies. FAO has been called upon for assistance.
- It is planned that the agricultural inputs and supplies will be distributed at cost to the beneficiaries. The funds collected will be used to mount a revolving fund which will be used in subsequent similar circumstances to assist needy farmers by stocking adequately with agricultural inputs and supplies.
- Hydrologist are being sought to help to address the drainage design of the low lying coastal strips used for agricultural production. The current design constantly causes flooding of the agricultural areas

Gaps & Constraints:

- Funds to start the revolving fund. There is no emergency fund with which to assist farmers. Available loans for farmers are at high commercial rates i.e. in excess of 10%.
- Farmers on the low lying coastal flats will continue to be affected by floods after heavy rains as long as adequate drainage is not provided. The services of a hydrologist to assist with finding solutions to the drainage reticulation.

**Health****Needs:**

- In Anse Aux Pins and La Digue, the water has been stagnant for a while and it has been contaminated with sewage. It is necessary to strengthen disease surveillance in order to prevent any potential outbreak and waterborne diseases such as Dengue Fever, Chikungunya and Cholera and to procure medical supplies and consumables to deal with potential outbreak in affected areas.
- School dental health unit equipment completely destroyed. The dental health unit services primary and secondary school students in 3 districts on the main island, Mahe.

1

School dental health unit destroyed

Response:

- Needs assessment to identify the medical supplies and consumables required has been carried out and a comprehensive list compiled
- The Ministry of Health is making an inventory of the damaged equipment for the dental health unit for replacement
- The Ministry of Health has stepped up disease surveillance to curb any potential disease outbreak

Gaps & Constraints:

- Funds to buy equipment for the school dental health unit and to purchase medical supplies and consumables for potential outbreaks



Logistics

Needs:

- Transport to urgently distribute equipment mostly gunny bags to use to build temporary embankments while damaged retaining walls are being repaired
- Clearing of roads and debris and cleaning/painting of schools and houses
- Transportation between islands and districts to transport equipment and supplies
- Equipment to clean and clear debris in schools and houses

Response:

- Road and debris that had blocked roads have been cleared on all major roads
- Coast guard providing transport between islands
- Volunteers, coordinated by the Disaster Emergency Operation Center are scheduled to clean, paint and decontaminate schools and houses that have been cleared of debris that included sewage

Gaps & Constraints:

- Transportation to distribute equipment between islands and districts



Protection

Needs:

- Identification documents were lost and damaged by the flood waters
- Psychosocial support for the affected population
- Rebuilding of two police stations, one in Anse Aux Pins and another in Pointe Larue that have been damaged beyond repair
- Equipment for the police stations that need to be rebuilt

2

Police stations damaged beyond repair

Response:

- Psychosocial support for students at the affected 3 primary schools and temporary shelter sites is ongoing
- Plans are underway to extend the psychosocial support to the teachers and other affected households

Gaps & Constraints:

- A process to start identifying the people who lost their documentation and putting measures in place to ensure that the documentation is replaced
- Not enough social workers or counselors to provide psychosocial support
- Funds to rebuild and buy lost equipment for the two (2) police stations that have been damaged beyond repair



Shelter and NFI

Needs:

- Shelter for the displaced people

Response:

- Government has made available 3 temporary shelter sites which are currently hosting close to 32 families. 2 private hotels have donated, in kind, rooms on full board for 4 families until Monday 4 February
- Government provides food and toiletries and NFI to the families in temporary shelters

5

Temporary shelter sites

Gaps & Constraints:

- Permanent accommodation for the people that are in shelters who have had their houses destroyed or severely damaged making the house unsafe to live in

- No funds to continue providing food and procure non-food items for people who lost their belongings in shelters



Water, Sanitation and Hygiene

Needs:

- Burst sewage pipes and flood damage treatment plants (3) that have led to the contamination of flood waters posing a health risk
- Need for protective clothing for people helping with the cleaning of houses and clearing of debris in the flood affected areas

3

Damaged sewage treatment plants

Response:

- Burst sewage pipes have been temporarily repaired to curb leakage into flood waters, but there is need to replace them
- The three (3) sewage treatment plants on the island in Mahe that were flooded are no longer working, as a result, the accumulated sewage has to be pumped manually and transported to the central treatment plant by a private contractor
- Hygiene promotion through Ministry of Health is ongoing

Gaps & Constraints:

- Funding to replace the burst sewage pipes and to rehabilitate the damaged treatment plants
- Technical expertise to advise on the rehabilitation of the treatment plants

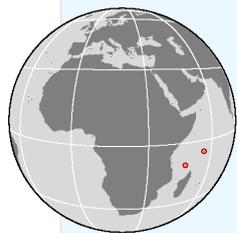
General Coordination

The Government of Seychelles activated the Disaster Emergency Coordination and Operation Centre on the morning of the 27th of January when it became apparent that Seychelles will be hit by the Tropical Storm Felleng. From the 27 to 29 January, the National Disaster Coordination Committee, chaired by the Minister of Environment and Energy where the Division of Disaster and Risk Management falls under, met twice on a daily basis, to coordinate response concentrating on life saving activities. From the 28 February, the Coordination Committee now meets every afternoon at 1400hrs. The meeting is attended by Ministers from key ministries involved in the response activities and any other partners involved in the response.

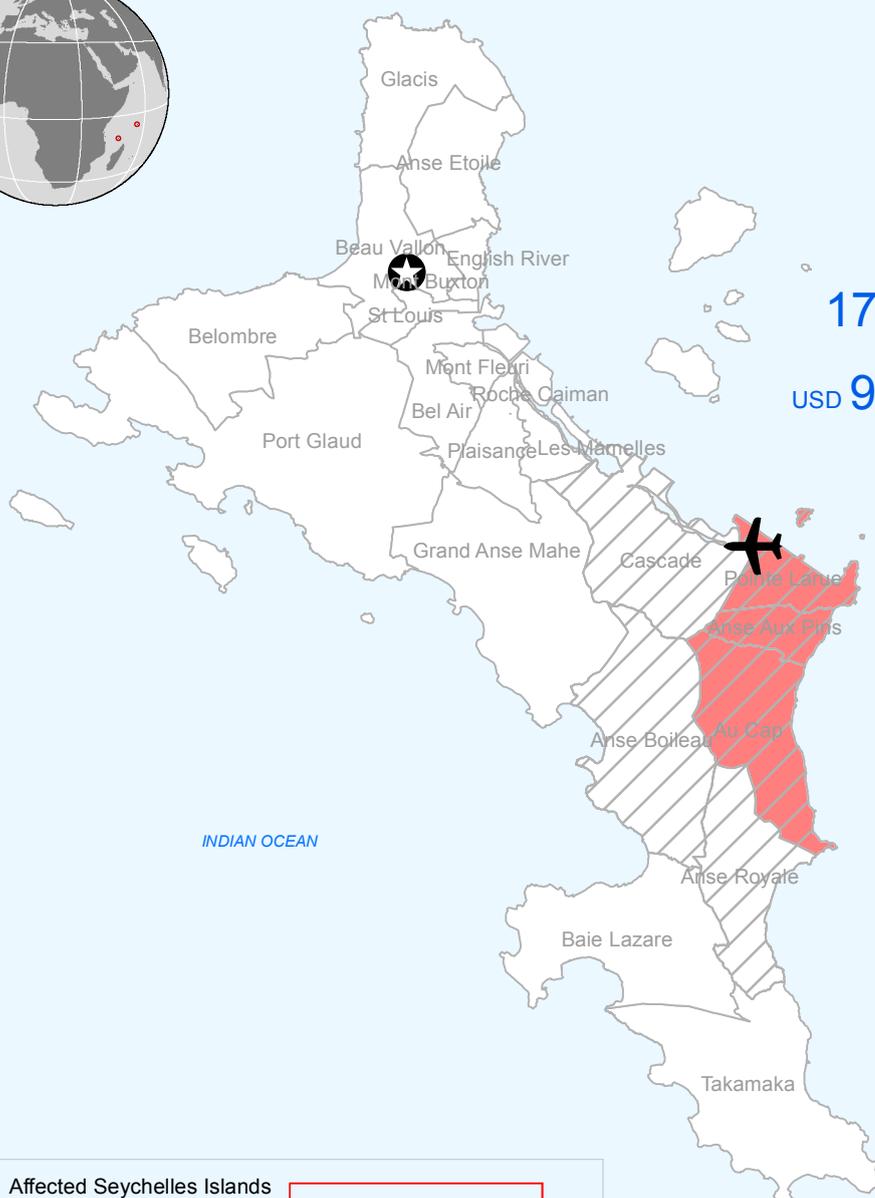
It is planned that the Seychelles Red Cross will conduct an in-depth assessment starting on the 2nd of February to ascertain the medium and long term needs of the affected population. Conducted at household level using the Red Cross standard multi-sectoral in-depth assessment form, the assessment is scheduled to take a few days, dependent on the number of volunteer assessors. Training of the assessors will be done on 1 February 2013. The results will be shared with all stakeholders as soon as it is ready.

For further information, please contact:

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Heavy rains brought about by tropical storm Felling on 27 January 2013 combined with a high tide resulted in severe flooding and caused extensive devastation to coastline areas and widespread structural damages to infrastructure (roads, bridges, houses) mostly in the eastern areas of Mahe Island



400 Households affected

17 (100%) Farms in disaster zones destroyed

USD 9.3 million Required for relief and recovery activities

78 People in temporary shelter

2 Destroyed police stations

INDIAN OCEAN



Affected Seychelles Islands



Heavy rains caused flooding on La Digue Island on the 18th of January, and Felling caused further flooding after dumping more rain on the 27th of January.



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