

# Canada

**CANADA CARIBBEAN DISASTER  
RISK MANAGEMENT FUND**



**Snapshot Document**  
Suriname

# About The CCDRMF

The Canada Caribbean Disaster Risk Management Fund (CCDRMF) is one component of Global Affairs Canada's larger regional Caribbean Disaster Risk Management Program. The CCDRMF is a competitive fund designed to support community-driven projects that enhance the resilience of communities and reduce risks from natural hazards (e.g. floods, droughts, tropical storms, hurricanes) and climate change.

Established in 2008 as a small grant facility, the CCDRMF finances projects ranging from CAD \$25,000 to CAD \$75,000, and up to CAD \$100,000 in exceptional cases. The target audience is community-based organisations, non-governmental organisations, civil-society organisations, and government agencies wishing to undertake community projects in the following beneficiary countries<sup>1</sup> : Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

For the purposes of the CCDRMF, a 'community' is defined as 'a group of people living in the same geographical area (such as a neighbourhood, district, city or town)' or 'a group of people

with similar interests (such as youth and women) or livelihoods (such as farmers or fishers)'.

Between 2008 and 2015, there have been nine (9) Calls for Proposals and in total, the Fund received 212 project applications. Only forty-three (43) projects, 20%, from thirteen (13) countries, met the criteria and were eligible for consideration.

Following a rigorous development process, the Fund has supported thirty-four (34) sub-projects in 11 countries valued at just over CAD\$2.2M. The projects have strengthened disaster risk management through improved emergency communication systems, shelter retrofits and safer building practices, flood mitigation and land stabilisation, water storage, food security and climate-smart agriculture, and mangrove restoration.

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<sup>1</sup>In addition, one small community project was approved for the British Virgin Islands



Suriname  
National Flag

# Country Overview

Suriname is located on the northeast coast of South America, covering 163,820 km<sup>2</sup>, divided into five (5) geographic regions: 1) the Near-coastal zone and the Coastline; 2) the Young Coastal Plain; 3) the Old Coastal Plain; 4) the Savannah belt; and 5) the Interior Uplands. Suriname has a tropical climate with abundant rainfall, uniform temperature, and high humidity. Precipitation amounts vary across the country with two wet and two dry seasons for the northern part of Suriname; and one wet and one dry season in the south. Seven main rivers originate in the interior of the country; and tropical rain forest with a great diversity of flora and fauna covers almost 88% of Suriname.

Compared to the other countries in the region, Suriname has experienced relatively few natural disasters in the past. It is only following the floods of 2006 that the country's exposure and vulnerability to natural hazards became increasingly recognised. Heavy and sustained rainfall resulted in wide-spread flooding in the interior and rivers carried three times more water than the maximum volume recorded in 25 years. Water levels rose 5 m to 7 m above normal high levels and around 12 m above standard. Around 48,351 persons were affected by the floods,

including 200 villages of indigenous and Maroon communities and their agricultural lands. The high-water levels on the land for a protracted period of time destroyed and damaged a significant proportion of the country's crops (in particular cassava the main staple), much of which was ready for harvest. Overall, the floods caused damages and losses valued at SRD \$111 million (US \$41 million). Prior to these floods, the last major flooding had occurred in 1946 and was not as severe. In 2007 large urban and peri-urban areas were flooded after excessive rainfall; and again in 2008 the rainy season caused major flooding in the interior which destroyed homes and crops.

Surinamese have also become more conscious of the potential impact of climate change on the country. A drought in the interior in 2007 was considered unusual and the number and intensity of gusty winds are thought to be increasing. It is also projected that water resources in Suriname may experience stress as a result of climate change, since the combined effects of evapo-transpiration and prolonged dry periods will exert additional pressure on existing water resources in the country.

# CCDRM Fund Projects in Suriname

The CCDRMF has received five (5) project applications from Suriname. Of these, three (3) community-based projects were approved and successfully implemented. These projects support disaster risk management through flood mitigation, a safer houses programme, and mangrove rehabilitation.

## Sluice Gate for the Sanica Sluice, Wageningen

Wageningen is a community in the Nickerie District, in the West of Suriname, and is home to over 3500 persons. Wageningen is settled on the left bank of the Nickerie River and a sluice protects the community against floods. Prior to the project, the sluice door was inoperable, which resulted in flooding of the community at least once per year. The project aimed to repair the sluice doors in an effort to reduce the risk of flooding in the community. With support from the project, the sluice gate was repaired to full functionality. Suriname Red Cross collaborated with the Ministry of Regional Development and engaged

members of the community in the repairs. Following the completion of the project, a special technical department was formed within the Office of the District Commissioner of Nickerie with the responsibility of repairing sluice gates in and around the district.



Project	Organisation	Objectives
Sluice Gate for the Sanica Sluice, Wageningen	Suriname Red Cross	To protect 100 households in low-lying areas of the village of Wageningen from annual floods associated with seasonal rains and changes in the level of the Nickerie River by constructing and installing a new sluice gate.
Project Period	GAC Contribution	Total Project Cost
2009-2010	\$ 59,104.00	\$ 67,144.00

**Introducing 'Safer houses'  
Program to Increase Awareness  
in Disaster Prepared  
Communities in Suriname**

District Para; Wit Santi, Hollandse Kamp, Vierkinderen; District Commewijne; Marienburg, Nieuw Amsterdam; and District Marowijne; Albina, Marijkedorp, Alfonsdorp are a few of the many communities in Suriname that are affected by flooding and severe winds. This project targeted these communities with the aim to reduce their vulnerabilities by making homes more resilient through a Safer Housing Program.

With support from the project, 35 community members from the various communities were trained in safer house construction in an effort to build their capacity to reinforce their roofs and houses, making them more resilient against future threats of severe winds and flooding. A total of 45 houses were retrofitted in four of these communities. Three shipping containers were also positioned in Para, Commewijne and

Marowijne containing relief supplies to be used in times of disaster with the accompanying logistics and warehousing training for the community members.

Loudhailers were installed in the communities for use as an early warning system. The communities also benefitted from educational materials that promoted safe behaviours and construction to reduce the risk of damage in the event of flooding and severe winds. The project realized the importance of behaviour change when it comes to reducing the risk and vulnerabilities associated with climate change. To ensure sustainability and in order to promote behaviour change over time, climate change educators in each community were trained to constantly deliver awareness information to their fellow community members.



**Project**

Introducing 'Safer houses' Program to Increase Awareness in Disaster Prepared Communities in Suriname

**Organisation**

**Suriname Red Cross**

**Objectives**

To reduce the vulnerabilities of the communities to flooding and severe winds by making their homes more resilient through a safer housing programme.

**Project Period**

**2014-2017**

**GAC Contribution**

**\$67,726.29**

**Total Project Cost**

**\$96,577.29**

## **Mangrove Rehabilitation Project at 'Weg naar Zee' through Sediment Trapping Technique**

The community of Weg naar Zee (WnZ), which is comprised mainly of farmers, fishermen, followers of the Hindu Pilgrimage and Cremation Resort and other inhabitants was prone to coastal flooding which has resulted in:

- Loss of productivity, due to salinization of fertile land;
- Damage to personal belongings due to inundation;
- Negative impacts on cattle, poultry and agricultural crops; and
- Temporary closure of the Pilgrimage and Crematorium.

The project implemented by the Anton de Kom University aimed to mitigate coastal erosion through application of wave breaking and sediment trapping techniques and the rehabilitation of mangrove communities. Two new sediment-trapping units were installed

and a functioning mangrove nursery established. In total, 2,500 mangrove juveniles were raised and planted on the newly formed coastal wetland.

The sediment-trapping techniques have proved their value. This is a method that can be used for all coastal areas where there is significant erosion. Other communities have already expressed an interest in building their own version to protect their land.



### **Project**

Mangrove Rehabilitation Project at 'Weg naar Zee' through Sediment Trapping Technique

### **Organisation**

**Anton de Kom University of Suriname (AdeKUS)**

### **Objectives**

To mitigate coastal erosion through application of wave breaking and sediment trapping techniques and the rehabilitation of mangrove communities.

**Project Period**  
**2017-2018**

**GAC Contribution**  
**\$96,206.00**

**Total Project Cost**  
**\$109,678.59**



## References

Buitelaar, R., Kamboon, A., Hendrickson, M., & Blommestein, E. (2007). Suriname: The Impact of the May 2006 Floods on Sustainable Livelihoods. Economic Commission for Latin America and the Caribbean (ECLAC).

IFRC. (2009, August 20). Suriname: Floods - Final Report. International Federation of Red Cross and Red Crescent Societies.

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