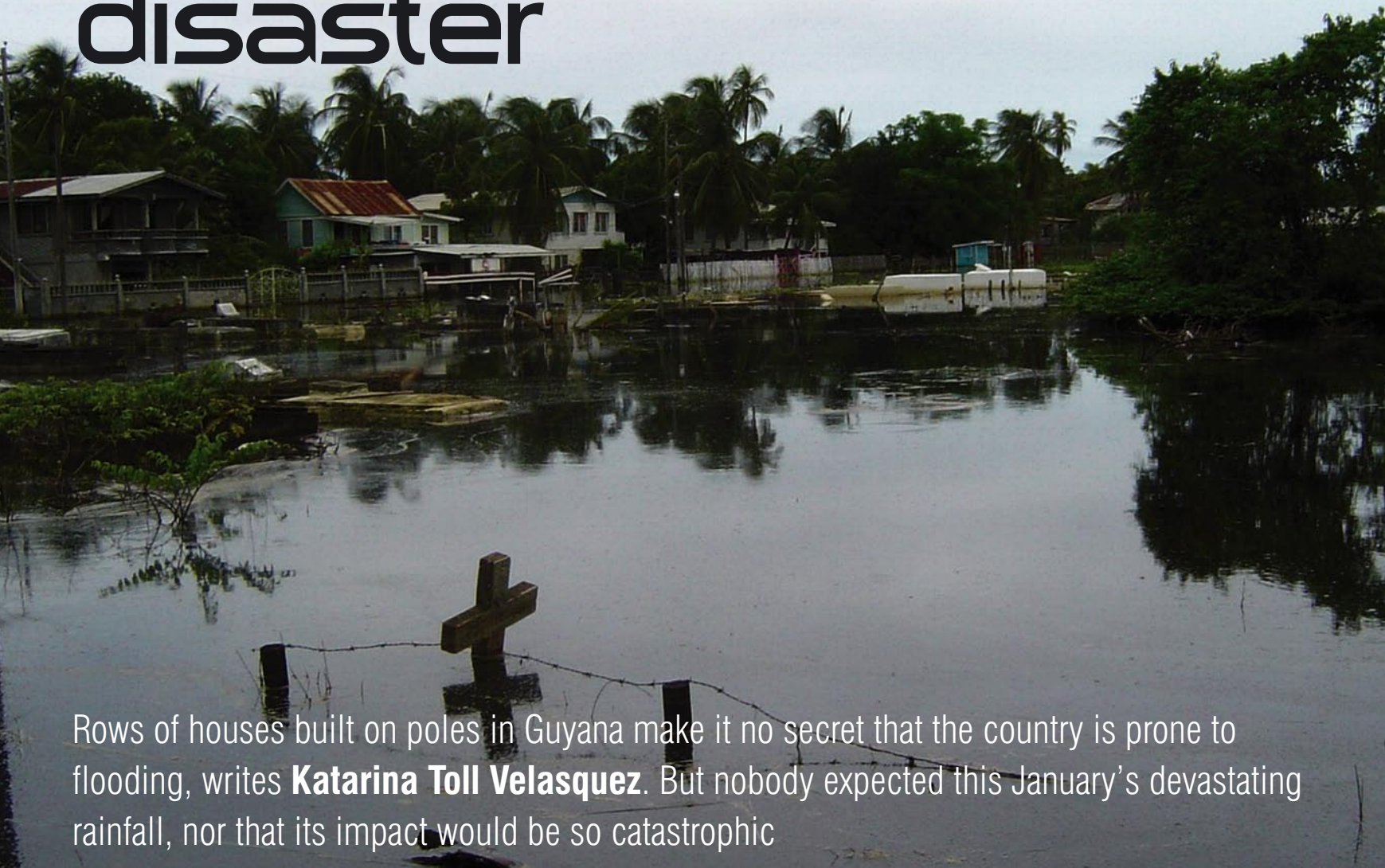


# Guyana's flooding disaster



Rows of houses built on poles in Guyana make it no secret that the country is prone to flooding, writes **Katarina Toll Velasquez**. But nobody expected this January's devastating rainfall, nor that its impact would be so catastrophic

**N**OBODY IN GUYANA expected as much rain as the country received in early 2005, nor did anyone anticipate that the impact of the rains would be so devastating.

Three days of torrential rains and floods hit the capital area as of January 14. During that month, Guyana received a total of 132cm (52 inches) of rain, seven times the usual average for January. Entire villages found themselves cut off. Thousands of families had to flee their homes.

## Disaster areas

The Government of Guyana declared Regions 3 (Essequibo Islands/West Demerara), Region 4 (Demerara/Mahaica) and Region 5 (Mahaica/Berbice) disaster areas and released 200 million Guyanese dollars for immediate emergency relief (approximately US\$1.1 million; €0.8 million). The flood situation improved rapidly in the capital. However, rains resumed again towards the end

of January. Many villages on the coast and in the 'backlands' suffered from persistently high water levels days and weeks after the initial flooding.

Outside the country, this emergency very quickly turned silent, although the situation looked very different from Guyana's muddy roadsides. Very quickly, the realisation that these were indeed the worst floods in 100 years of Guyana's history struck the Government, diplomatic missions and the aid community.

The situation was alarming: flooding affected almost one half of Guyana's population of 750,000, mostly on the coastal stretch between the capital Georgetown and Mahaica on the coast East of Demerara River. Of the 300,000 people affected during the peak of the emergency, one third were estimated to be children under nine. Three weeks after the peak of the emergency, an estimated 92,000 persons still had water in their homes. Many areas could only be accessed by

boat. The water levels remained as high as 1.2-1.5 metres in some villages.

Many health centres and schools had to stay closed for a month or more. Those that opened only did so after extensive clean-up and sanitising efforts by affected communities, with support from public institutions and humanitarian organisations.

## Leptospirosis

The food chain was disrupted because it was hard to access flooded villages and because fresh produce and livestock had been lost. Close to 5,000 persons took refuge in temporary shelters. Serious environmental concerns arose because of the dysfunctional garbage collection system.

In addition, the Ministry of Health announced a much-feared outbreak of leptospirosis in late January. This is a disease caused by contact with water contaminated by animal urine and causes

probable death if not detected early enough. This outbreak was particularly alarming as it could quickly develop into an epidemic. The ministry launched a vast public campaign with UN support to prevent an epidemic and to avoid panic. Residents lined up at hospitals and health centres, where they were given free medication and guidelines on how to take it. This campaign was, undoubtedly, instrumental in avoiding the worst-case scenario.

The total death toll of the emergency was reported to be 34, of which seven were caused by drowning and the rest attributed to illnesses arising from the floods.

## Overseas response

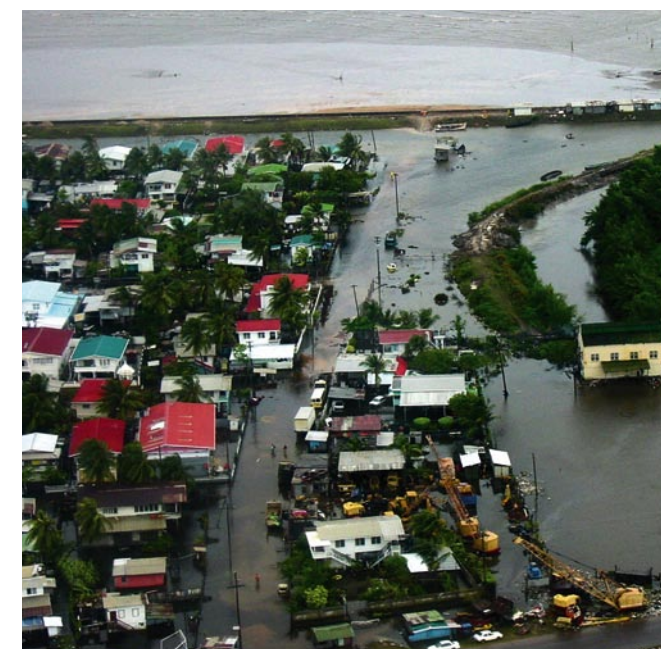
The United Nations Office for the Co-ordination of Humanitarian Affairs (OCHA) was in touch daily with the UN's in-country system in Guyana from the first days of the floods, both from its Geneva base and its regional office in Panama.

The direct United Nations counterpart of OCHA was the United Nations Resident Co-ordinator in Guyana. As is generally the case, the Resident Representative of the United Nations Development Programme (UNDP) holds this position. In case of disaster, it is the responsibility of the United Nations Resident Co-ordinator to consult with the Government on the appropriate UN response and to activate the relevant UN disaster response mechanisms.

The United Nations in-country team, made up of the various agencies established in Guyana, immediately mobilised to address the emergency needs in priority areas such as emergency food and water, health and sanitation. At the request of the UN Resident Co-ordinator and the Government of Guyana, OCHA immediately mobilised a UN Disaster Assessment and Co-ordination (UNDAC) Team to Guyana led by the OCHA Regional Disaster Response Advisor.

In January 2005, OCHA already had five UNDAC teams active in Indonesia, Sri Lanka, Thailand, the Maldives and the Seychelles in response to the Tsunami of December 26, 2004. The team mobilised to Guyana totalled seven experts from Bolivia, Finland and Norway in addition to two OCHA staff members. The International Humanitarian Partnership, a consortium of donor countries that provides support to UNDAC teams with equipment modules ranging from communications kits to entire aid working camps, supported the Guyana team with a Finnish communications module and one operator. This was despite it being stretched as it simultaneously supported international aid agencies operating in Indonesia and Sri Lanka.

During its three-week mission in Guyana the UNDAC Team provided a range of different



**Flooding affected almost one half of Guyana's population of 750,000. This disaster caused losses representing 59 per cent of the nation's gross domestic product. Three weeks after the peak of the emergency, an estimated 92,000 people still had water in their homes**

all photos: UNDAC Team Guyana

support activities that are its speciality:

- It continuously assessed affected areas, together with Governmental partners, United Nations agencies, bilateral agencies and other responders. Guyanese partners in the assessment and liaison activities involved both the Joint Operations Centre (JOC) and the Civil Defence Commission (CDC), entities responsible for disaster management at national level, and other organisations such as the IFRCRC and the Guyana Red Cross, as well as the Guyana Citizens' Initiative for Flood Relief.

- The UNDAC team helped manage and disseminate the information generated through assessment activities of the affected populations and their needs. Information sharing took place first and foremost at local level, reaching the international donor community on a regular basis through the OCHA-managed humanitarian information website Reliefweb, with OCHA situation reports and material provided by other aid agencies.

- The UNDAC Team in Guyana provided support to the national disaster management authorities and UN's in-country system in co-ordinating international assistance and, in particular, in advising on setting up a platform for the various actors to meet. Progressively, the daily co-ordination meetings organised by the national authorities became a central meeting point for the entire range of national and international agencies involved.

- Meanwhile, the UNDAC team also provided support to the UN's in-country System in preparing a US\$ 3 million United Nations Flash Appeal for Guyana. This document, launched in February, outlined the requirements of FAO, UNICEF, WFP, UNDP and WHO/PAHO for emergency activities in response to the floods, covering a six-month period.

## Collapse threat

Shortly after the arrival of the UNDAC Team, the potential collapse of the East Demerara Water Conservancy dam cropped up as a major issue of concern. The UNDAC team alerted the Joint Environment Unit managed by OCHA and the United Nations Environment Programme (UNEP), as more extensive flooding could become another deadly threat. At the request of the Government, The Netherlands provided two experts in geotechnics, hydraulics, sea and river defence.

The water conservancy dam, dating back to 1880, is an essential part of Demerara's eastern coast hydraulic system. It channels a number of water sources into a storage area, primarily to irrigate sugar cane plantations, rice fields and other cash crops during periods of drought. It also protects neighbouring zones from floods. It has



a bearing capacity of more than 160 square km (100 square miles) of water.

The experts found the water conservancy dam to be fragile, unsafe and in serious need of urgent and substantial repairs. Though work teams are constantly monitoring and repairing this structure on a daily basis, they lacked sufficient and modern equipment to contribute with significant impact. Further support has been given to establish a national emergency task force for repairing the dam and the drainage system.

## 'Forgotten' disaster

It should be no surprise, however, that the outside world paid virtually no attention to what was happening to this corner of the planet. Guyana could perhaps have received greater visibility considering the sheer oddity of this disaster and the tragic fate of so many families trapped in their precarious homes for so long, totally dependent on daily distributions of cooked food parcels and bottled water for weeks and with no access to basic social services. But the flooding occurred only 20 days after the earthquake and Tsunami in South Asia. The international mass media could not be attracted to Guyana, despite the efforts of the UN and other entities. This reality, coupled with the fact that the name 'Guyana' was probably unfamiliar to anyone outside the borders of South America, made it impossible for this country to compete for international attention.

Emergency funding did reach Guyana, in great part due to the interest and involvement of the country and regional representatives of major donors such as Canada, the EU, the UK and the US. Donations and in-kind assistance also came from other countries, including several in the Latin America and Caribbean region. By mid-April 2005, the United Nations Flash Appeal had attracted approximately US\$ 670,000, or close to one-fourth of the announced requirements of the United Nations agencies active in Guyana. The funding reported to OCHA has been provided to carry out programmes mainly in the emergency sectors of food, health, water and sanitation.

Overall, considering also bilateral and other contributions, a total of more than US\$ 6 million has been reported to OCHA as donations for the flood response. Nevertheless, more is needed to allow Guyana's population to recover their livelihoods and to diminish the impact of any future floods.

Another telling indicator is the report of the Economic Commission for Latin America and the Caribbean (ECLAC), which undertook an assessment of the flood effects on the national economy and put the total damage at over half a billion US dollars.

In other words, this 'silent' disaster caused

losses representing 59 per cent of Guyana's gross domestic product (GDP).

Independently of competing donor priorities, could the emergency aid for the flood-stricken population of Guyana have been quicker and more generous? As in every sudden-onset disaster, the major challenge at the beginning of the flood emergency was finding the right information – which was credible, logical, organised and easy to digest. Information that could help identify needs, financial requirements and support the international decision-making process as to the support that can be provided. Through the efforts of all concerned – local, national and international entities – this information slowly became available. However, a pre-defined system for early assessment and the availability of baseline data on the population of the areas affected could have speeded this process.

## Preparedness

Guyana will need support in order to build capacity to address these issues and enhance preparedness for future natural phenomena. With two rainy seasons per year, and the next one due to start in June, it is becoming urgent to undertake these disaster preparedness efforts. This would facilitate access to the kind of information on needs and requirements necessary in the early stages of an emergency, without which it proves difficult to attract initial emergency funding.

For the international aid community, it is essential to find a capacity in-country to manage the early information on needs. Technical support is probably the greatest need at present in order to prepare for an effective response to the potential humanitarian impact of future rainy seasons. This type of support could be provided at relatively low cost, and yet have an enormous impact on the quality of the emergency response should Guyana be ever hit by flooding of this magnitude again.

■ See [www.crisisresponsejournal.com](http://www.crisisresponsejournal.com) for full list of donations by country

## Author



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Support Section, Emergency Services Branch, OCHA Geneva. See [www.reliefweb.int](http://www.reliefweb.int) – the United Nations/OCHA managed website for information on disasters and humanitarian emergencies



**Opposite:** Serious environmental concerns arose because of the dysfunctional garbage collection system and the fact that so many livestock were lost to the floods. **This page:** Guyana has two rainy seasons a year – the second one starts in June. Technical support is therefore greatly needed to help avoid a repetition of this disaster

all photos: UNDAC Team Guyana

Donor	Description	Value in US\$
Brazil	Centre of Brazilian Studies to be used as a shelter; provision for humanitarian assistance (food aid)*	0.00
Canada	Access to safe drinking water and sanitary environment	80,645.00
Canada	Cash	120,000.00
Canada	Cash-CAD 240,000	193,548.00
Caribbean Development Bank	Cash	100,000.00
China	Cash	100,000.00
Cuba	29 medical doctors and 11 technical officials*	0.00
Economic Commission for Latin America	Assessment mission of the long-term impact of the floods*	0.00
Ecuador	One C130 to transport food items*	13,237.00
European Commission Humanitarian Aid Office	Emergency assistance to the victims of floods in Guyana (ECHO/GUY/EDF/2005/01000)	261,438.00
European Commission Humanitarian Aid Office	Emergency assistance to the victims of floods in Guyana (ECHO/GUY/EDF/2005/01000)	522,876.00
European Commission Humanitarian Aid Office	Emergency assistance to the victims of floods (ECHO/GUY/BUD/2005/01000)	330,251.00
European Commission Humanitarian Aid Office	Emergency assistance to the victims of floods (ECHO/GUY/BUD/2005/01000)	132,100.00
European Commission Humanitarian Aid Office	Awaiting allocation to specific projects/sector (ECHO/GUY/EDF/2005/01000)	130,719.00
European Commission Humanitarian Aid Office	Emergency assistance to the victims of floods (ECHO/GUY/BUD/2005/01000)	858,652.00
France	Emergency Relief – EUR50,000	67,842.00
Germany	NFI's	65,359.00
Germany	Urgent supply of water filters, water buckets, kitchen sets and mosquito nets	127,902.00
Inter-american Development Bank	Assessment personnel for needs/damage assessment	200,000.00
International Federation of Red Cross and Red Crescent Societies	Providing meals; will send hygiene kits, mosquito nets, jerry cans and other supplies*	0.00
International Federation of Red Cross and Red Crescent Societies	Disaster emergency relief fund – CHF 300,000	254,237.00
International Federation of Red Cross and Red Crescent Societies	Disaster emergency relief fund – CHF 150,000	132,743.00
IRA Fund	Food aid	387,392.00
Japan	In kind: 30 electric generators, 30 cord reels, 30 portable water tanks, 900 polyethylene tanks, 900 sleeping mats – JPY 12,450,000	120,046.00
Netherlands	Dispatch of 2 environmental experts*	0.00
New Zealand	Awaiting allocation to specific projects	69,000.00
Office for Coordination of Humanitarian Affairs	Dispatch of a 4-person UNDAC Team*	0.00
Office for Coordination of Humanitarian Affairs	Emergency cash grant for purchase of inflatable boats with motors	50,000.00
PAHO/WHO	Undertaking assessments in affected areas; SUMA training team*	0.00
Private	Medical personnel, free freight, pumps, boats, water tanks, food, water, bread etc*	170,000.00
Private	20 tons of relief items from Guyanese living in Suriname*	0.00

Russian Federation	Air transportation of NBLI boats*	0.00
Singapore	Awaiting allocation to specific project/sector	20,000.00
Sweden	Distribution of blankets, household items, watercleaning tablets and watertanks	147,490.00
Trinidad and Tobago	4 large pumps*	0.00
United Kingdom	Strengthening coordination	18,500.00
United Kingdom	Rapid response team of 6 boats and 20 crew	222,000.00
United Kingdom	Government relief account	37,000.00
United Kingdom	Water and environmental sanitation kits, bed nets	148,000.00
United Kingdom	Water and sanitation	105,500.00
United Nations Children's Fund	Cash	75,000.00
United Nations Children's Fund	Organised and provided technical support; provided oral rehydration salts, water containers, buckets and dry food rations*	0.00
United Nations Development Programme	Dispatch of staff to ensure smooth transition from immediate relief to rehabilitation phase*	0.00
United Nations Development Programme	Cash	50,000.00
United States of America	10,000 blankets, 7 shallow-water boats	170,000.00
United States of America	In response to PAHO Appeal	150,000.00
United States of America	Cash	50,000.00
United States of America	For local purchase of relief items, boats and rental of office	100,000.00
United States of America	12 boats for relief effort*	0.00
United States of America	In kind: 10,000 water jugs, 10,000 hygiene kits and 10,000 blankets*	147,000.00
Venezuela	Team of medical personnel and agriculture specialist*	0.00
Venezuela	In kind: foodstuff, water, medicines	300,000.00
World Bank	Assessment of rehabilitation requirements*	0.00
World Food Programme	Rapid assessments, distribution of biscuits/food rations	0.00
World Food Programme	Emergency food assistance	387,000.00
Grand Total		6,615,477.00
* Value of contribution not specified		
** Estimated Value		