

CariCOF Flash flood potential outlook – April to June 2025

Dr. Cedric VAN MEERBEECK

Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados

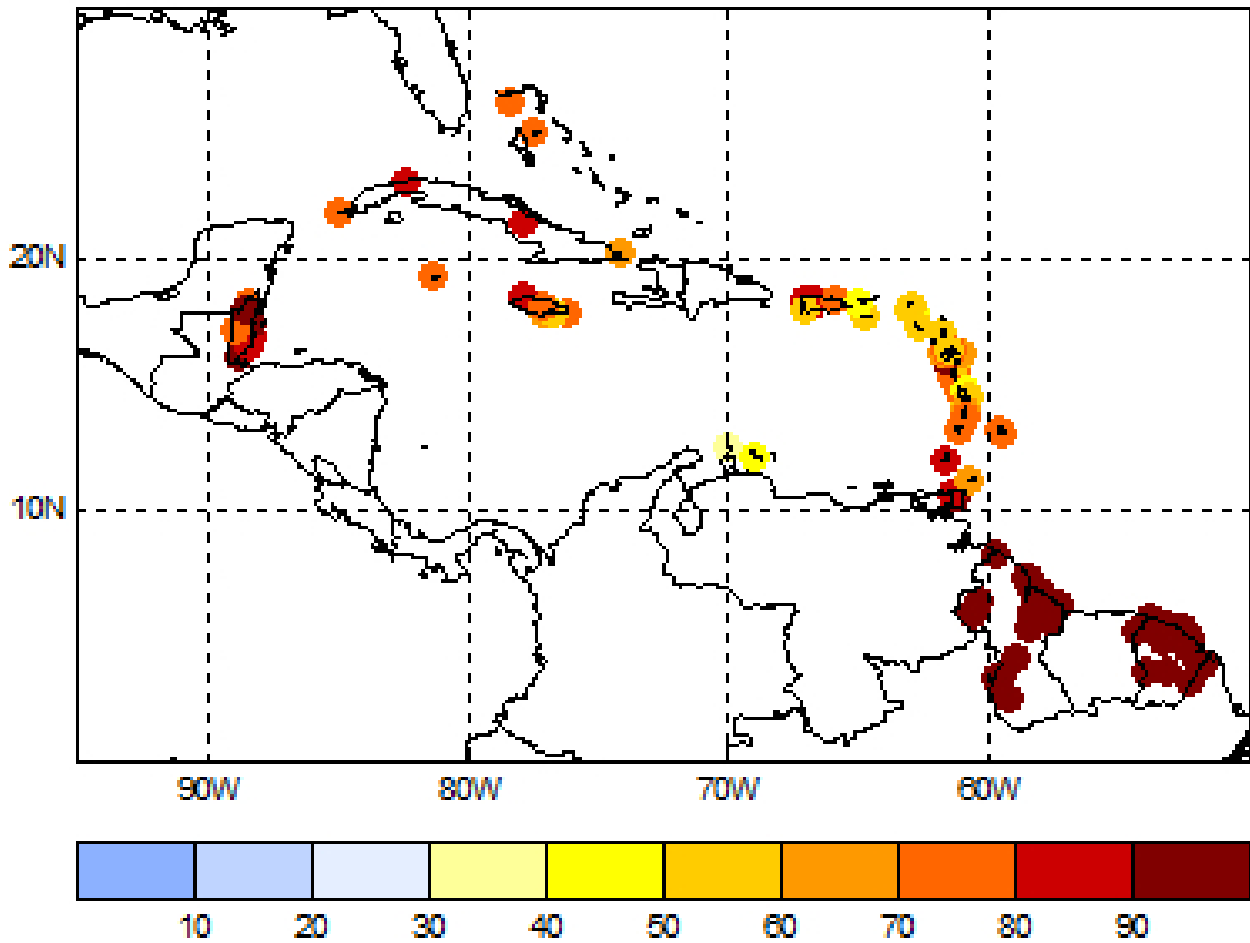
Picture credits: Barbados Today; Rosalind Blenman (Barbados Met Service, Desiree Neverson SVG Met Office; <https://www.cnc3.co.tt/press-release/rowley-national-disaster>; <https://reliefweb.int/report/trinidad-and-tobago/trinidad-and-tobago-floods-flash-note-no-01-24-october-2018>

Flash flood potential associated with excessive rainfall* in Apr. – May – Jun. 2025

Flash flood potential	Colour codes	Probability of excessive rainfall* event
EXTREMELY HIGH		>80%
		
		
HIGH		50-80%
		
		
MODERATE		20-50%
		
SLIGHT		10-20%
		
MARGINAL		0-10%

* excessive rainfall is defined here as at least 30 mm of rainfall within a 24-hour period

Probability excessive rainfall event Apr. to Jun. 2025



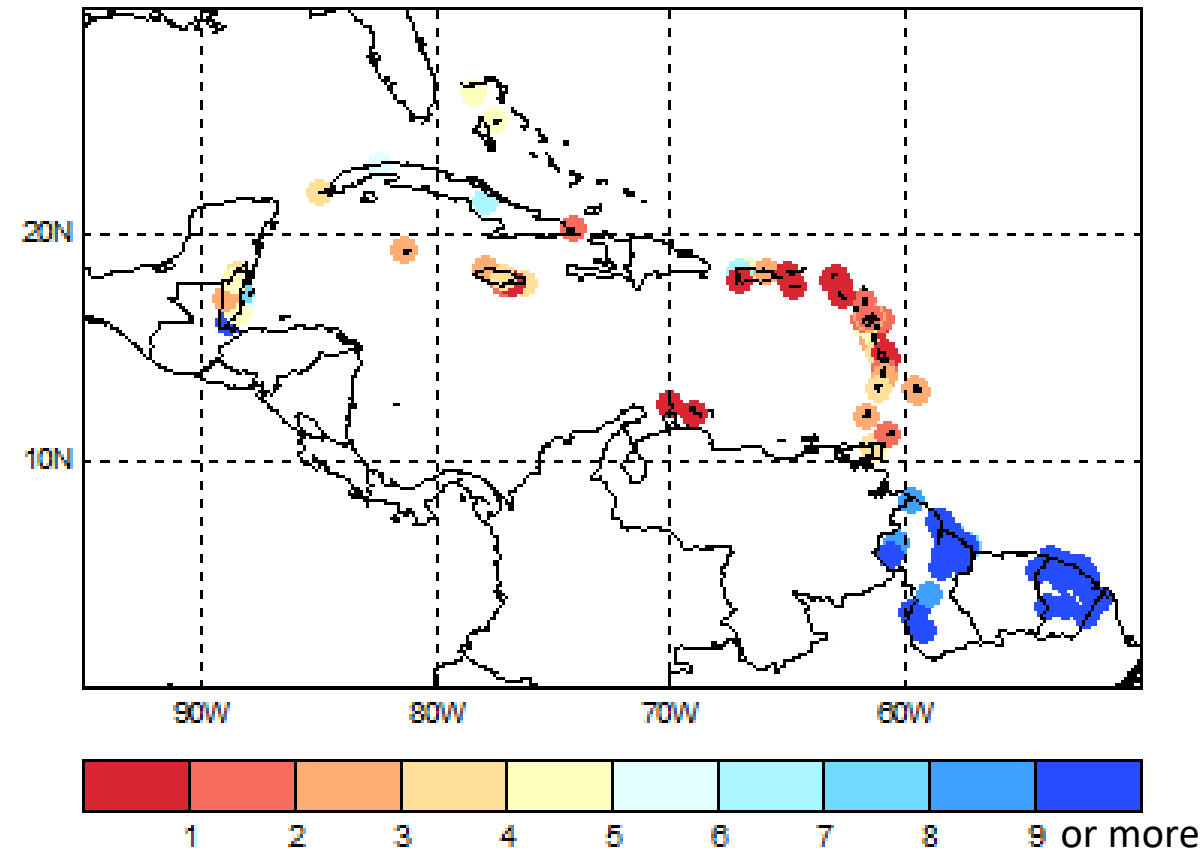
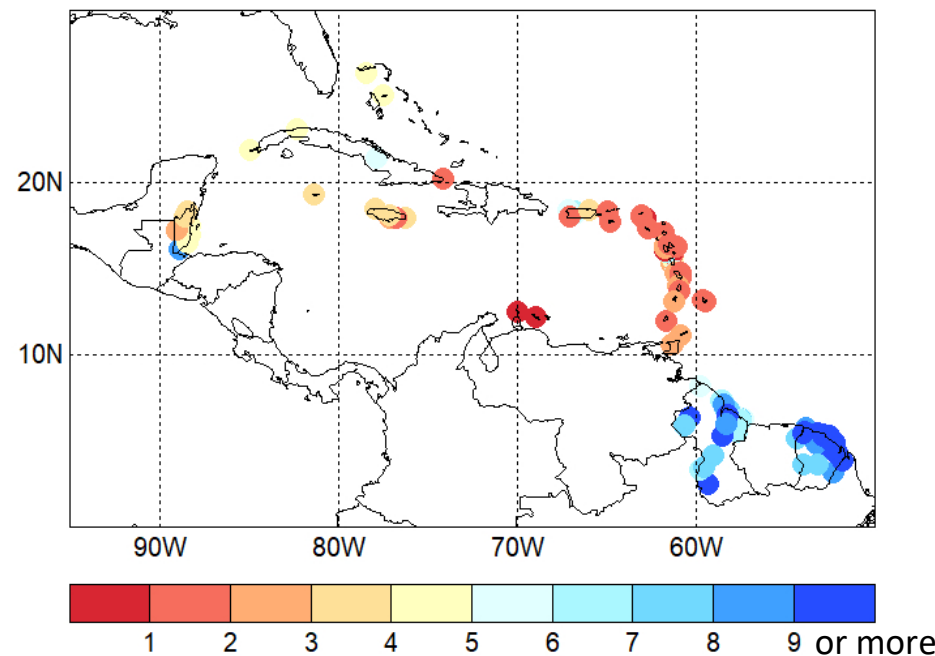
FORECAST: *Extremely high* flash flood potential across the Guianas and most locations at higher elevation; *high to extremely high* potential in other areas in Belize, Cuba, Jamaica, Puerto Rico; *moderate to high* potential in low-lying areas in the Lesser Antilles; *moderate* potential in the ABC Islands.

Number of excessive rainfall events* that could trigger flash floods in Mar. – Apr. – May 2025

* excessive rainfall is defined here as at least 30 mm of rainfall within a 24-hour period

Forecast # excessive rainfall events Apr. to Jun. 2025

Historical # excessive rainfall events Apr. to Jun.



Historically: Guianas at least 7 (and up to 20) excessive rainfall events; southern and central Belize, most mountainous areas in the Antilles 4-9 events; low-lying and flat areas in northern Belize, the Greater Antilles, the Windward Islands 2-5 events; ABC Islands, low-lying areas in the smaller Leeward Islands up to 2 events.

FORECAST: A notable increase in the number of excess rainfall events forecasted for Barbados, the Guianas, and the Windward Islands. Little change from the historical norm in most other areas.

Number of excess rainfall events* that could trigger flash floods in Apr. – May – Jun. 2025

* excessive rainfall is defined here as at least 30 mm of rainfall within a 24-hour period

Country/Territory	(Island-) Station	AMJ 2025	range	Country/Territory	(Island-) Station	AMJ 2025	range
Antigua & Barbuda	Antigua - VCBIA	1	(0-5)	French Guiana	Cacao	18	(11-25)
Aruba	QBIA	0	(0-1)	French Guiana	Camopi SAPC	10	(3-16)
The Bahamas	Grand Bahama - Freeport	4	(0-10)	French Guiana	Camp Szutz	16	(7-26)
The Bahamas	New Providence - LPIA	5	(0-11)	French Guiana	Matoury SOCA	23	(15-30)
Barbados	CIMH	2	(0-5)	French Guiana	Cayenne Suzini	18	(10-27)
Barbados	GAIA	2	(0-4)	French Guiana	Charvein	15	(11-20)
Belize	Belmopan	4	(1-8)	French Guiana	Dégrad des Cannes	21	(12-30)
Belize	Central Farm	2	(0-5)	French Guiana	Île Royale	18	(11-25)
Belize	Libertad	4	(0-8)	French Guiana	Iracoubo	17	(11-24)
Belize	Melinda	5	(1-9)	French Guiana	Kourou CSG	18	(12-24)
Belize	PGIA	7	(3-11)	French Guiana	Maripasoula	10	(5-15)
Belize	Punta Gorda	9	(3-16)	French Guiana	Montsinery	23	(15-30)
Belize	Savannah	4	(0-8)	French Guiana	Regina	24	(14-33)
Belize	Spanish Lookout	2	(0-5)	French Guiana	Roura	26	(20-33)
Belize	Towerhill	5	(2-8)	French Guiana	Saint-Élie	10	(3-16)
Cayman Islands	Grand Cayman - ORIA	2	(0-4)	French Guiana	Saint-Georges	21	(10-31)
Cuba	Cabo San Antonio	3	(0-7)	French Guiana	Saint-Laurent	12	(6-18)
Cuba	Casablanca	5	(1-9)	French Guiana	Saul	10	(6-15)
Cuba	Camaguey	6	(2-11)	French Guiana	Savane-Combi	18	(10-25)
Cuba	Punta de Maisi	1	(0-3)	French Guiana	Sinnamary	16	(9-24)
Curaçao	TNCC	0	(0-4)	French Guiana	Tonate	21	(11-30)
Dominica	Canefield	2	(0-6)	Grenada	Point Salines MBIA	3	(0-5)
Dominica	Douglas Charles	4	(0-10)	Guadeloupe	Grand Bourg les basses Aéro	1	(0-4)
Dominican Republic	Jimani		(-)	Guadeloupe	Saint-Louis Presbyterie	1	(0-2)
Dominican Republic	Las Americas		(-)	Guadeloupe	Gourbeyre Gros Morne dole	6	(0-12)
Dominican Republic	Santo Domingo Mirador Este		(-)	Guadeloupe	Vieux Habitants gendarmerie SAPC	4	(2-7)
St-Barthélemy	Anse des Flamands	0	(0-2)	Guadeloupe	Pointe noire Bellevue	2	(0-5)
St-Barthélemy	TFFJ	0	(0-5)	Guadeloupe	Le Raizet TFFR	3	(0-6)
St-Martin	Grand Case	1	(0-4)	Guadeloupe	La Désirade gendarmerie	1	(0-4)
St-Martin	Marigot gendarmerie	1	(0-4)	Guadeloupe	Sainte-Rose Clugny	2	(0-5)
French Guiana	Apatou	10	(6-13)	Guadeloupe	Petit Canal gros Cap	2	(0-5)
French Guiana	Awala Yalimapo	14	(8-20)	Guadeloupe	Port Louis gendarmerie	1	(0-4)

Number of excess rainfall events* that could trigger flash floods in **Apr. – May – Jun. 2025**

table continued * excessive rainfall is defined here as at least 30 mm of rainfall within a 24-hour period

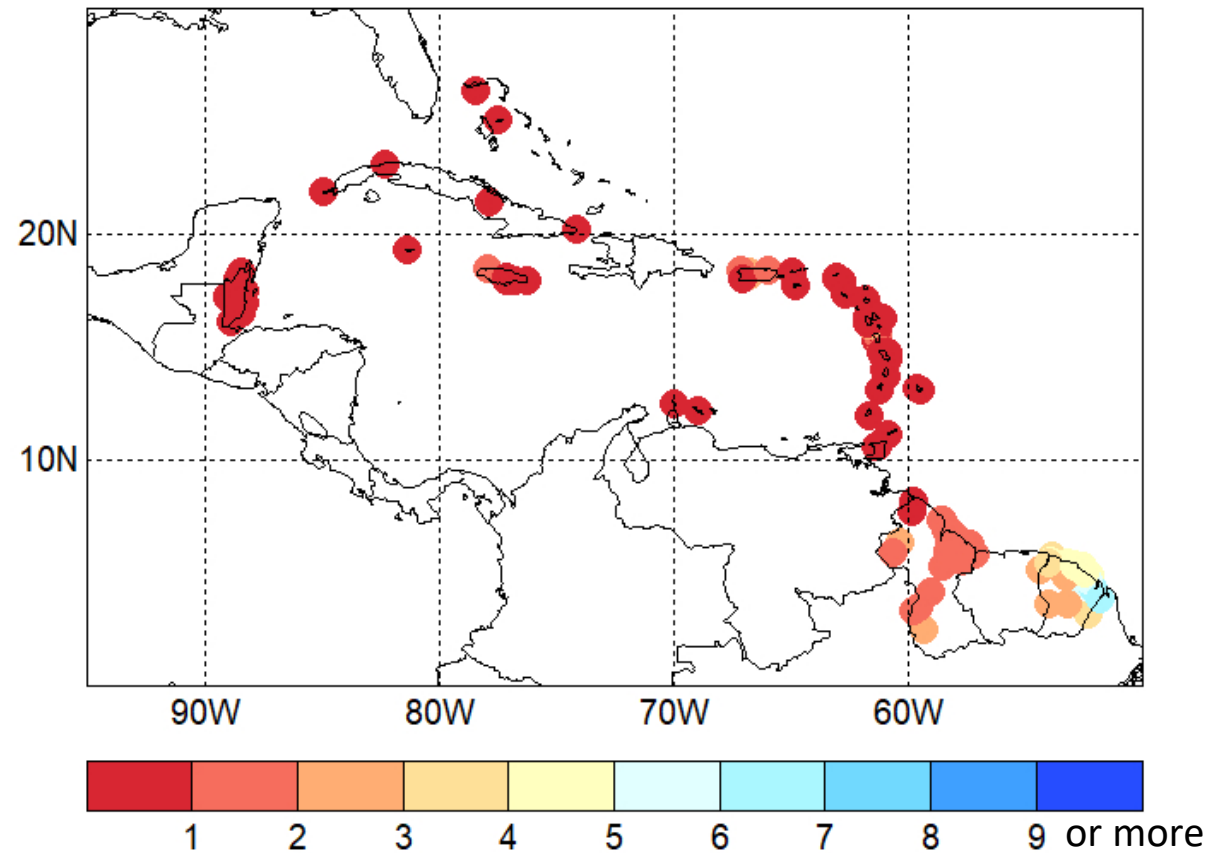
Country/Territory	(Island-) Station	AMJ 2025	range	Country/Territory	(Island-) Station	AMJ 2025	range
Guyana	Aishalton	13	(5-22)	Martinique	Fonds-Saint-Denis Cadet	5	(0-9)
Guyana	Albion Front	8	(3-12)	Martinique	Fort-de-France Désaix	1	(0-4)
Guyana	Apaikwa	8	(2-14)	Martinique	Fort-de-France Donis	6	(0-11)
Guyana	Blairmont 7		(-)	Martinique	Lamentin ACIA	2	(0-5)
Guyana	Blairmont Front	13	(7-19)	Martinique	Macouba Bellevue	4	(0-9)
Guyana	Blairmont 6	8	(5-11)	Martinique	Le Morne-Rouge Champflore	7	(0-14)
Guyana	Charity	9	(3-15)	Martinique	Saint-Joseph Rivière Lezarde	2	(0-5)
Guyana	De Kindren Back	10	(4-17)	Martinique	Sainte-Anne Seci	1	(0-5)
Guyana	Ebini	13	(8-18)	Martinique	Saint-Pierre Depaz	3	(0-8)
Guyana	Enmore Front	7	(3-11)	Martinique	La Trinité Caravelle	0	(0-2)
Guyana	Georgetown	10	(7-14)	Martinique	Le Vauclin	1	(0-3)
Guyana	Great Falls	13	(8-18)	Montserrat			(-)
Guyana	Kamarang	10	(4-16)	Puerto Rico	Adjuntas	6	(1-10)
Guyana	La Bagat	12	(8-17)	Puerto Rico	Arecibo	5	(0-9)
Guyana	Leon Front		(-)	Puerto Rico	Coloso	6	(2-11)
Guyana	Lethem	10	(5-15)	Puerto Rico	Lajas-Substation	1	(0-4)
Guyana	Mabaruma	8	(4-13)	Puerto Rico	Magueyes-Island		(-)
Guyana	Mackenzie		(-)	Puerto Rico	San-Juan	3	(0-6)
Guyana	Mards		(-)	St Kitts and Nevis	St. Kitts RLB Airport	1	(0-3)
Guyana	Mc-Nabb B	9	(4-15)	St Kitts and Nevis	St. Kitts National Agri. Station		(-)
Guyana	New Amsterdam	14	(7-21)	St Kitts and Nevis	Nevis Airport		(-)
Guyana	Onderneeming	10	(4-16)	Saint Lucia	GFLCharles	2	(0-6)
Guyana	Parishara	10	(6-15)	Saint Lucia	Hewanorra	2	(0-5)
Guyana	Port Kai		(-)	Sint Maarten	TNCM	1	(0-3)
Guyana	Rose Hall	11	(6-15)	St. Vincent and the Grenadines	St. Vincent - Argyle		(-)
Guyana	Skeldon		(-)	St. Vincent and the Grenadines	St. Vincent - ET Joshua	3	(0-7)
Guyana	Surama	8	(3-13)	Suriname	Cultuurtuin		(-)
Guyana	Timehri	13	(7-18)	Suriname	Lelydorp		(-)
Guyana	Wismar	10	(3-16)	Suriname	Nieuw Nickerie		(-)
Jamaica	Bodles	1	(0-5)	Suriname	Zanderij		(-)
Jamaica	Duckenfield	4	(0-10)	Suriname	Zorg en Hoop		(-)
Jamaica	NMIA	1	(0-4)	Trinidad and Tobago	Trinidad - Piarco	5	(2-7)
Jamaica	Sangster	3	(0-5)	Trinidad and Tobago	Trinidad - UWI St. Augustine	3	(1-5)
Jamaica	Worthy Park	4	(0-7)	Trinidad and Tobago	Tobago - Crown Point	2	(0-5)
Martinique	Ajoupa Bouillon Eden	6	(0-13)	U.S. Virgin Islands	Saint Croix	1	(0-3)
Martinique	Basse-Pointe Chalvet	4	(0-11)	U.S. Virgin Islands	Saint Thomas	0	(0-2)
Martinique	Le Diamant Jacqua	2	(0-5)				

Zooming in on April

Historical number of excessive rainfall events* that could trigger flash floods

* excessive rainfall is defined here as at least 30 mm of rainfall within a 24-hour period

Historical # excessive rainfall events in April



Historically in April:

French Guiana at least 3 excessive rainfall events;

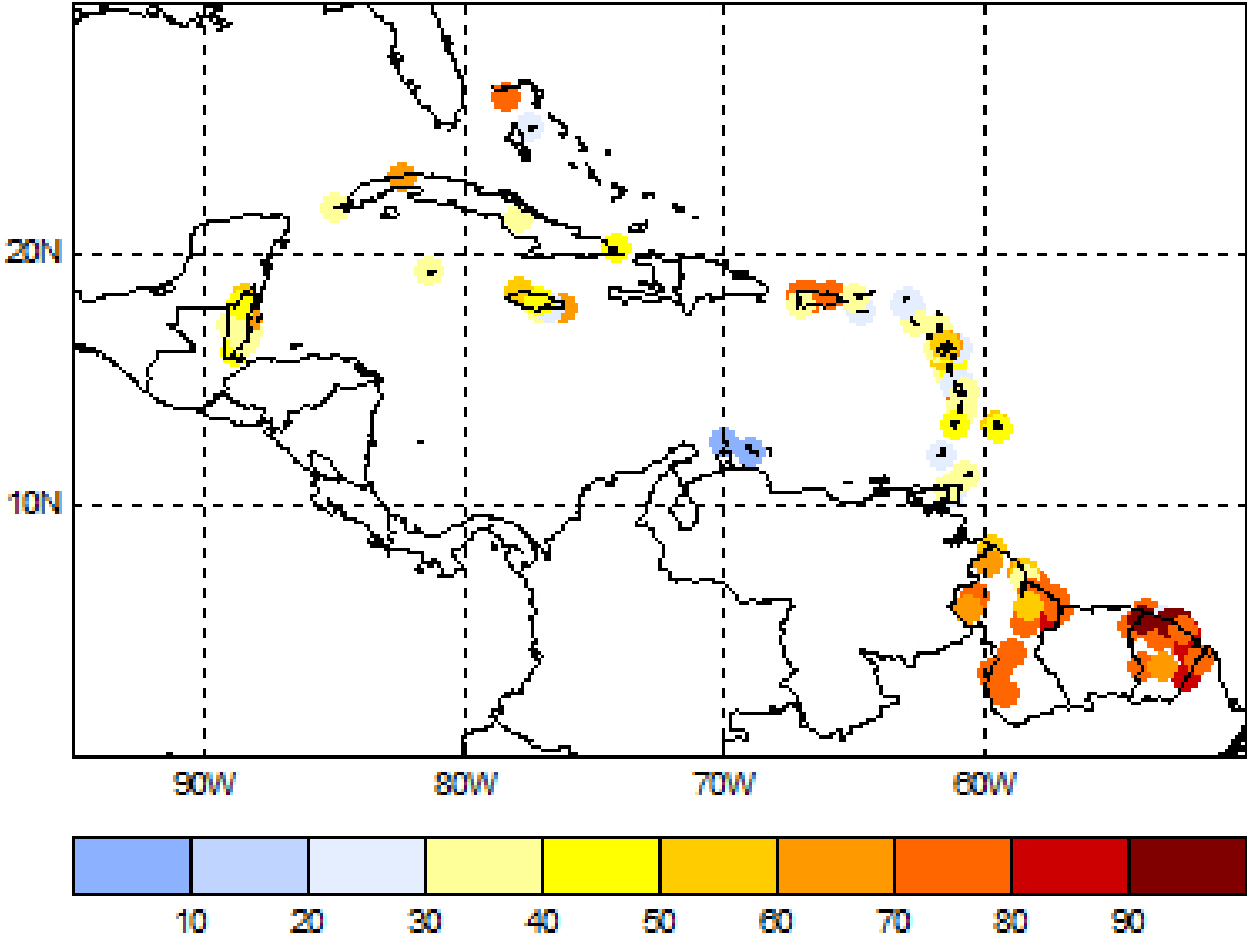
Guyana and high-mountain 1 to 3 events; other areas up to 1 event.

Flash flood potential associated with excessive rainfall* zooming in on **April 2025**

Flash flood potential	Colour codes	Probability of excessive rainfall* event
EXTREMELY HIGH		>80%
HIGH		50-80%
		
		
MODERATE		20-50%
		
		
SLIGHT		10-20%
MARGINAL		0-10%

* excessive rainfall is defined here as at least 30 mm of rainfall within a 24-hour period

Probability excessive rainfall event in April 2025



FORECAST: *High to extremely high* potential in Grench Guiana; *high* potential in Guyana; *moderate to high* potential in The Bahamas and mountainous areas of the Greater and Lesser Antilles; *moderate* potential in other areas of the Antilles and in Belize; *marginal* potential in the ABC Islands.



**Regional climate data, information, tools,
experimental and operational products
are available at**

<https://rcc.cimh.edu.bb>

Coordination: Caribbean Institute for Meteorology & Hydrology
Contact: caricof@cimh.edu.bb

Author(s): Dr. Cédric J. Van Meerbeeck – *Climatologist*
(cmeerbeeck@cimh.edu.bb)

The prototype for this product was developed in 2022 with the generous support of (1) the American People through the USAID funded SDCR Programme, (2) the European Union through the Intra-ACP GCCA+ Programme, and (3) the Climate Risk and Early Warning Systems (CREWS) Initiative.

Development Team: Dr. Cedric J. VAN MEERBEECK¹, Ms. Janice REID*, Dr. Simon MASON²

¹Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados, *former CREWS intern at CIMH

²International Research Institute for Climate and Society (IRI), USA