Latin America and the Caribbean: Index for Risk Management 2017

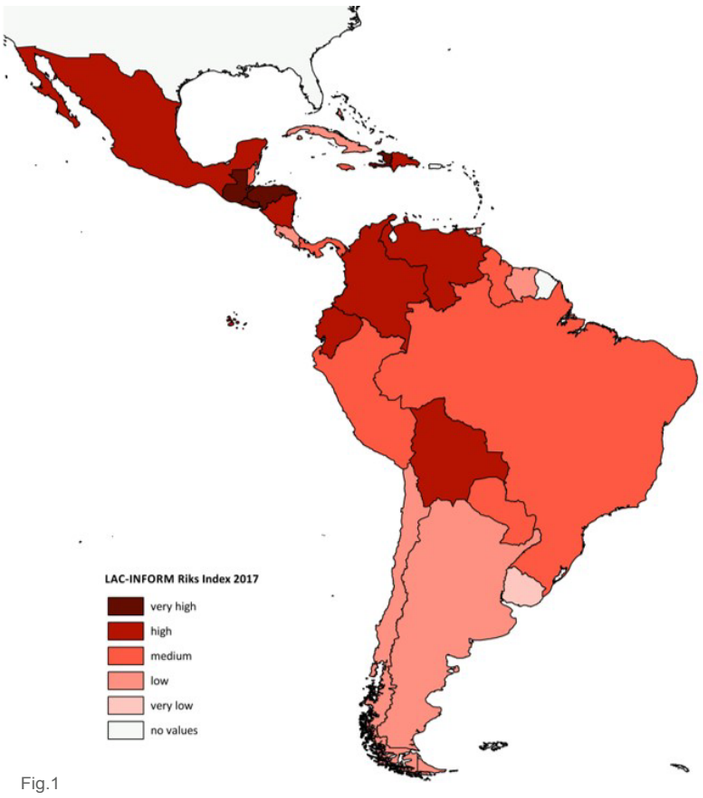

Fig.1

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Overview

The Index for Risk Management (INFORM) is a tool to understand and measure risk in humanitarian crises and disasters and how the conditions that lead to them affect sustainable development. The regional adaptation of the global INFORM model for the Latin America and Caribbean region (LAC-INFORM) aims to better capture the realities of the region and provide a realistic comparison of risk among countries within the region.

33 Countries

The LAC-INFORM model uses national level statistics and includes 33 countries of the region. The global and regional data sources used to construct the model meet four basic criteria: (1) the data is free, publicly available and transparent, (2) the data provides sufficient country coverage, (3) the data is reliable (4) and the data allows comparison between countries.

81 Indicators

The LAC-INFORM model has a multi-layer structure. A risk score is calculated by combining 81 indicators that measure the **three dimensions** of risk: hazard and exposure, vulnerability, and lack of coping capacity. Each **dimension** contains at least two risk categories, such as exposure to natural hazards, vulnerable groups, or lack of infrastructure capacity.

The risk **categories** are made up of **components**, which are carefully chosen sets of indicators that capture specific topics. Finally, the **indicators** are the individual datasets which are the basis of the model, such as the percentage of children under 5 who are stunted or the number of people exposed to earthquakes of a certain magnitude. Each indicator is re-scaled to a range from 0 to 10, where a score of 0 indicates a better condition (very low risk) and a score of 10 a worse condition (very high risk).

Risk Distribution

Fig. 1 illustrates how risk levels are spread among the countries in Latin America and the Caribbean and allows comparison across the region. The data shows that Haiti, in the Caribbean, and Guatemala, Honduras and El Salvador, in Central America, are more prone to risk than other countries in the region.

Vulnerability and lack of coping capacity among countries with high or very high exposure to hazards, LAC-INFORM 2017*

LACK OF COPING CAPACITY	Very low / Low	Medium	High / Very high
High / Very High	Dominican Republic, Jamaica	Nicaragua, Venezuela	Haiti, El Salvador, Guatemala, Honduras, Colombia
Medium		Mexico, Bolivia, Ecuador, Peru	
Very low / Low	Belize, Brazil, Cuba		

VULNERABILITY

*The color of the country names corresponds to the overall LAC-INFORM risk level: High or very high risk, medium risk, low or very low risk.

Fig.2

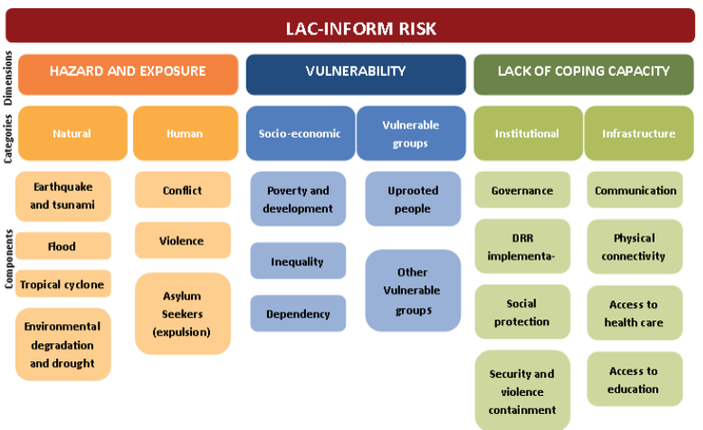

Fig.3

Risk dimensions

The data, analysis and results of the LAC-INFORM index are free and openly accessible. Each index of the model can be analyzed and compared in more depth to gain a better understanding of the underlying conditions of risk. For example, Fig. 2 compares the scores on the dimensions of vulnerability and lack of coping capacity among those countries in the region with high or very high scores on the exposure to hazards dimensions.
Countries such as Haiti, El Salvador, Guatemala, Honduras, and Colombia have a high or very high exposure to hazards along with high vulnerability and a lack of coping capacity, all resulting in a high overall risk level. On the other hand, some countries with high or very high exposure to hazards—such as Belize, Brazil, and Cuba— present a medium or low overall risk level, as they show less vulnerability and better coping capacities.

Data Reliability

The model includes a **reliability index**, which takes into account the number of missing indicators and the recentness of the data. The index shows that data gaps exist in particular among the Caribbean countries, and complementary indicators have been introduced in the LAC-INFORM model to compensate for these gaps.

How to Use the Model

The LAC-INFORM results are a valuable input into any regional analysis that supports objective, risk-based decisions to help prevent, prepare for and respond to crises and disasters and build resilience.

The shared risk analysis and common understanding of risk can be used by regional humanitarian, development and disaster risk and reduction (DRR) sectors to align their actions and funding decisions towards risk reduction and management.

LAC-INFORM can help integrate disaster risk management into ongoing regional development, DRR, humanitarian and preparedness planning processes.

Validated to global standards, INFORM can support inter-agency processes, including those of sectorial working groups. For example, the REDLAC group uses the LAC-INFORM tool to support their decisions on regional prevention and preparedness actions. It can also contribute to the implementation of the Sendai Framework for Disaster Risk Reduction in the region and the Sustainable Development Goals.

Latin America and the Caribbean

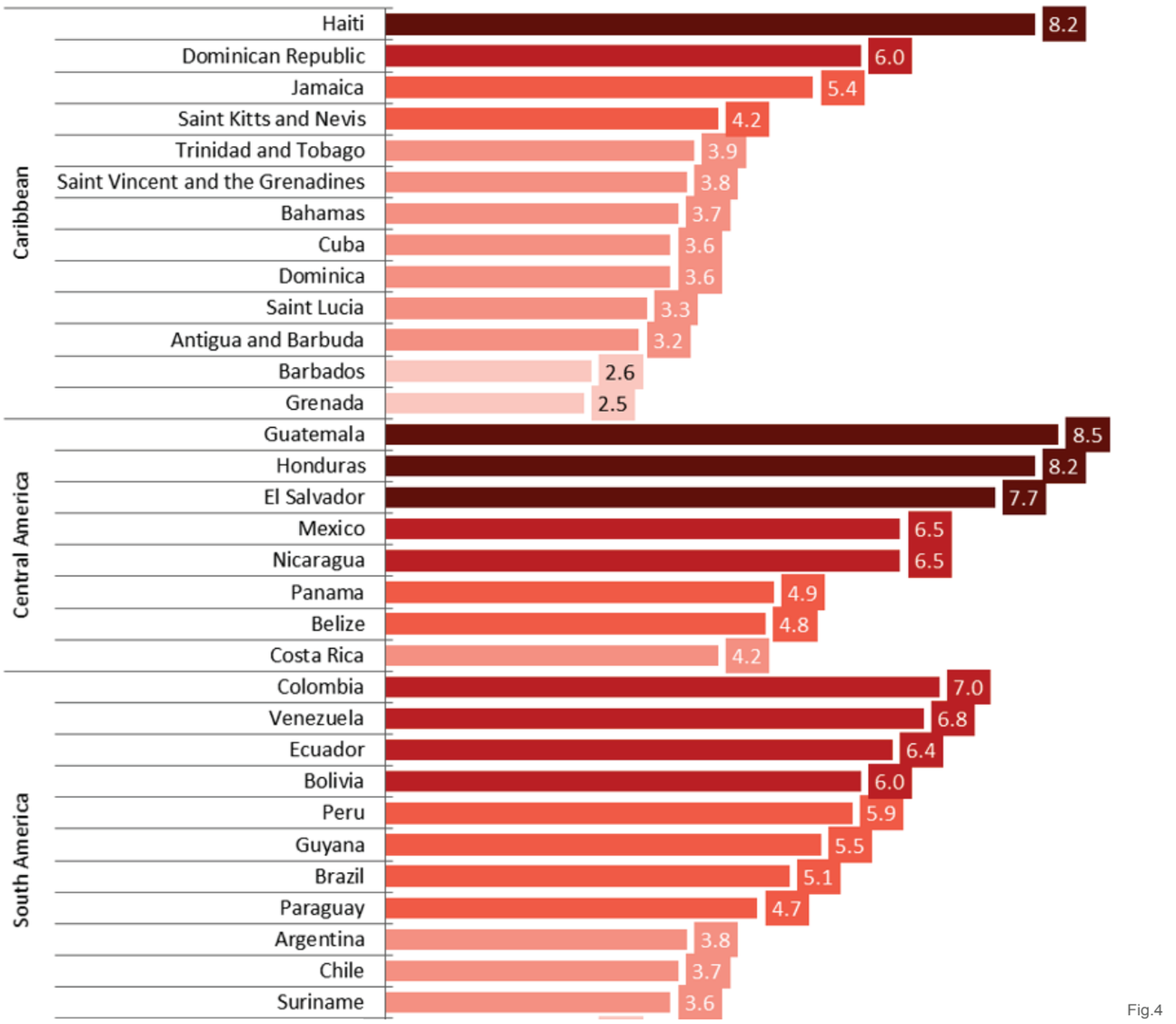

Fig.4

Latin America and Caribbean INFORM Hazard and Exposure Index, 2017

Fig.5

Latin America and Caribbean INFORM Lack of Coping Capacity Index, 2017

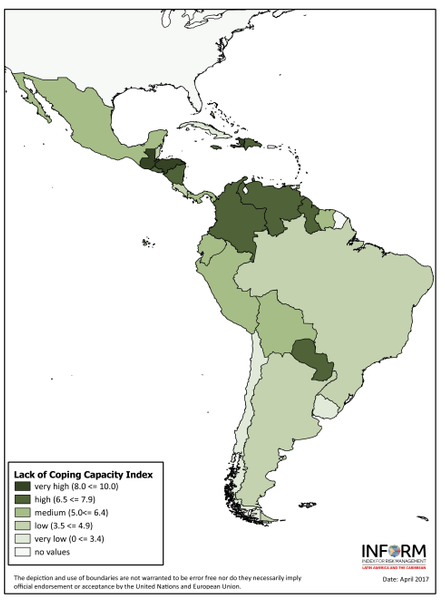

Fig.6

Latin America and Caribbean INFORM Vulnerability Index, 2017

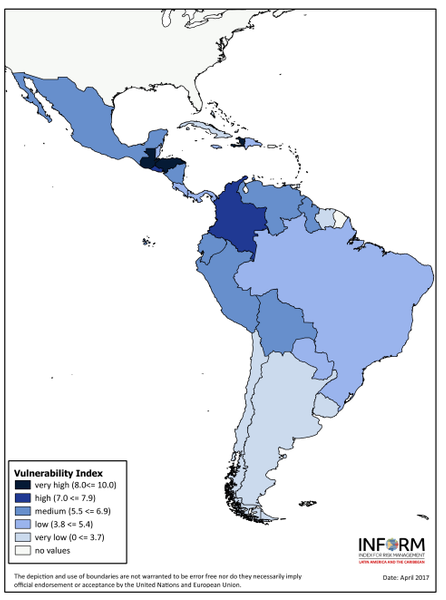

Fig.7

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Data sources: Institute for Economics and Peace, EM-DAT, FAO, GSHAP, Heidelberg Institute, Institute for Health Metrics and Evaluation (IHME), Inter-American Development Bank, Internal Displacement Monitoring Centre, ILO, Joint Research Centre, European Commission, Latinobarómetro, OpenStreetMap, PAHO, Transparency International, UN Inter-agency Group for Child Mortality Estimation, UNDP, UNESCO, UNHCR, UNICEF, UNISDR, UN-Habitat, United Nations Population Division, UNODC, Vanderbildt University, WHO / PAHO, Joint Monitoring Programme (JMP) for Water Supply and Sanitation, and World Bank.