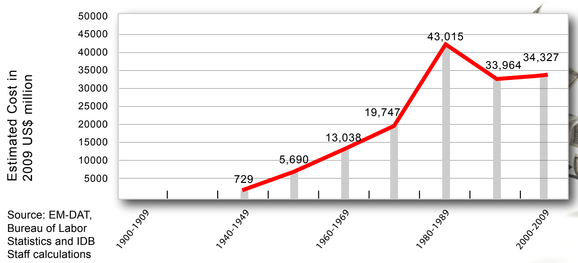
Measuring Disaster Risk

Economic losses caused by natural disasters in Latin America and the Caribbean 1900-2009 (US$ million)

Over the past century, population growth, unplanned urbanization, overexploitation of natural resources and the effects of climate change have dramatically increased the economic costs of natural disasters for Latin America and the Caribbean, underscoring the need for countries to better manage these risks.

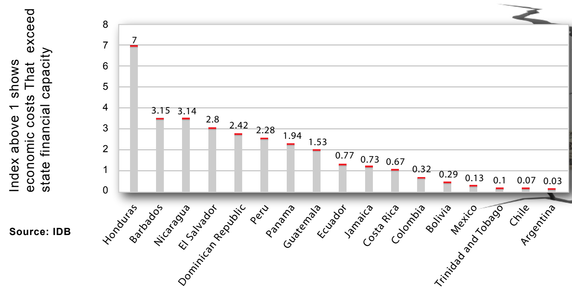


Source: EM-DAT, Bureau of Labor Statistics and IDB Staff calculations

Note: Disasters considered are earthquakes, floods and storms. All U.S. dollars figures were inflation-adjusted using the U.S. Consumer Price Index For All Urban Consumers, as reported by the Bureau of Labor Statistics. Latin American and Caribbean countries included in the calculations: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

Disaster Deficit Index (2008)

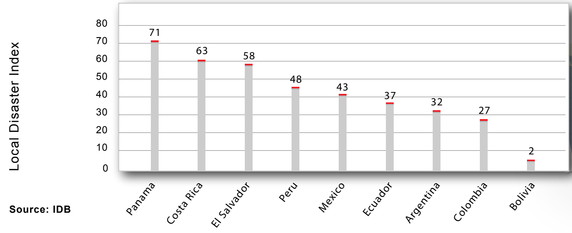
The Disaster Deficit Index (DDI) shows potential economic losses countries can face and their governments' financial capacity to address such costs. It measures the state's capacity to pay in order to recover from the economic losses if a catastrophic event – the type that can occur once every 50, 100 or 500 years – were to happen in 2008. A DDI greater than 1.0 indicates economic losses would exceed the state's financial capacities (the greater the DDI, the greater the financial gap).



Source: IDB

Local Disaster Index (2001-2005)

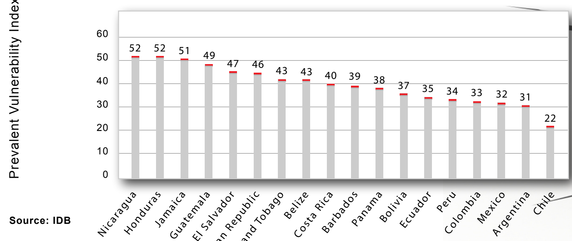
The Local Disaster Index (LDI) evaluates the social and environmental risks stemming from recurrent small-scale disasters, looking at death tolls, numbers of affected people and damages to housing and crops. It measures a country's propensity to suffer these types of disasters and their cumulative impact on development. An index below 20 implies a high concentration of small disasters in a few local areas. An indicator between 20 and 50 indicates a normal propensity and a number above 50 indicates that a majority of the areas of a country's territory suffer small disasters.



Source: IDB

Prevalent Vulnerability Index (2007)

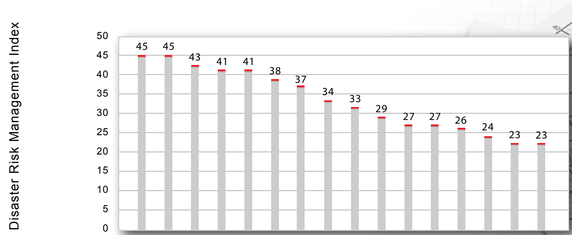
The Prevalent Vulnerability Index (PVI) gauges the fragility and exposure of human and economic activity in disaster-prone areas and the social and human capacity to absorb the impacts of disasters. The three composite indicators that make up this index consider factors such as demographic growth, population density, poverty and unemployment levels, soil degradation caused by human action, gender balance, social expenditures and insurance of infrastructure and housing. An index of 20 or less indicates low levels of vulnerability while an index between 20 and 40 indicates a medium level. An indicator between 40 and 80 shows high vulnerability.



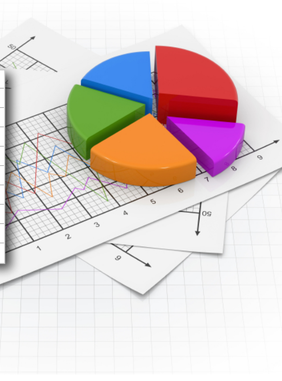
Source: IDB

Disaster Risk Management Index (2008)

The Risk Management Index (RMI) measures a country's risk management performance. It combines several measures to evaluate the capacity to identify and reduce risks, respond and recover from catastrophes as well as to provide financial protection and risk transfer. An index below 50 is considered unsatisfactory; a number between 50 and 75 is considered safisfactory and an index above 75 is considered outstanding.



Source: IDB



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