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The Latin American and Caribbean Region (LAC) is extremely diverse in terms of the natural environment, the human societies and their epidemiological profiles. Accordingly, the expected human health impacts of climate change will vary in the different sub-regions, biomes and cities. Of great importance for the region are endemic infectious disease (dengue fever malaria; leishmaniasis); accidents and injuries related to extreme hydro-meteorological events (storms; floods; landslides), the health effects of atmospheric pollution and also drought-related infectious disease outbreaks and nutrition problems.

The high degree of the concentration of the regional population in urban areas makes it particularly vulnerable to the health impacts of a changing climate. Some climate sensitive infectious diseases such as dengue fever and leptospirosis are typically urban. All these characteristics should be considered in the assessment of vulnerabilities to the impacts of climate change.

Some LAC countries (Paraguay; Mexico; Brazil) have already designed strategies to face the threats posed by climate change to human population health, based on assessments of vulnerability. In Brazil, following the conceptual model of vulnerability proposed by the IPCC, approaches to the assessment of vulnerability have included aspects related to the sensitivity, exposure and adaptive capacity of the population, in specific territories. The main tool applied to these assessments was the development of compound (or aggregate) indicators of vulnerability, especially at the municipal level. These have included downscaled climatic scenarios (to the municipality level); time series of epidemiological data; social-economic indicators and environmental information (land cover; water; sanitation). The Brazilian Ministry of the Environment is currently sponsoring a major project for the development of tools to assess vulnerability in the country as a whole as well as to monitor sectoral adaptation to climate change.

On a regional basis there is the need to develop a mapping of the “hotspots” of health vulnerability to climate change to all countries, based on available sets of data and information such as projected climatic scenarios; population projections; knowledge of areas at risk for the impacts of extreme events (floods, landslides); indicators of adaptive capacity and resilience (social-economic; institutions) as well as health status and the capacity of health care systems.