

# NICARAGUA

## COUNTRY PROFILE

5.5

Nicaragua depends in grand part on international remittances and aid funding. The weakness of fundamental characteristics of its institutions has been demonstrated in events such as the 1998 impact of Hurricane Mitch.

### 5.5.1 SELECTED RTU



#### RTU Managua

Disorganised rapid urban growth in the absence of planning criteria, has led to the creation of many human settlements located in high-risk areas. Due to its location on a system of faults (Stadium and Tiscapa), Managua has the highest exposure of any city in the country to earthquakes, and has been destroyed on two occasions (1931 and 1972). The risks associated with volcanoes are also very high

due to the RTU's proximity to the volcanic lagoons of Tiscapa, Nejapa, Asososca and Apoyeque. The recurrence of flooding, consequence of the rivers that flow through the city on their way to Lake Managua, has increased with deforestation, soil erosion, a deficient sewage system and inadequate waste treatment, among other factors.

## RTU Río Grande de Matagalpa

The most common hazards are floods caused by overflowing rivers and streams, hurricanes, tropical storms and drought. Risks associated with these hazards are higher because of an irregular topography as well as the effects of bad livestock management and agricultural practices, such as

the disposal of waste and pollutants in rivers and streams. Deforestation, improper land use and the location of human settlements on unstable hillsides also contribute to increased risks to a growing population from landslides and debris avalanches.

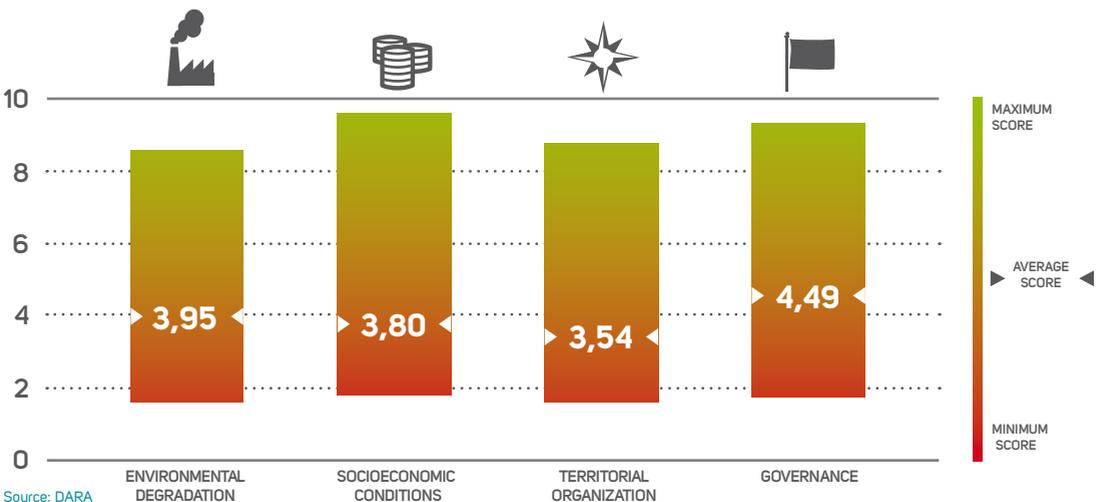
## RTU Región Autónoma del Atlántico Norte (RAAN)

This region lies on a coastal plateau crossed by numerous rivers that drain into the Caribbean. It is a region with important natural resources and the highest frequency of rainfall in the country. With a humid tropical rainforest climate, floods caused by saturated soils and overflowing rivers, lakes and streams, are recurrent. Infrastructure and housing are particularly vulnerable, as they are not built in

accordance with construction regulations and are made of traditional materials that are less resistant to hurricanes. The lack of access roads to many communities makes it difficult to reach these communities and carry out evacuations. Thus, a large part of the population remains isolated with limited access to basic services provided by government authorities and/or international agencies.

### 5.5.2 RISK DRIVERS

CHART E: QUESTIONNAIRE RESULTS IN NICARAGUA BY RISK DRIVER



### RISK DRIVER 1: Environmental Degradation

The most detrimental elements of environmental degradation for risk reduction in all three RTUs are deforestation and the overexploitation of land and water resources. Local authorities are doing more to tackle environmental degradation problems, but there are limitations due to lack of resources

and environmental management capacity. Climatic variations such as increased temperature, drought periods, and increased intensity and frequency of storms and hurricanes have been observed in recent years.



Infrastructure destroyed in Central America during the hurricane season. Source: USAID

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### **RISK DRIVER 2: Socioeconomic Conditions**

In the three RTUs, poverty, food insecurity, limited access to water/drainage services and unemployment are identified as the socioeconomic conditions that most adversely affect risk management. Social protection mechanisms and financial support are felt to be beneficial, although

in the RTU RAAN, social and community initiatives are insufficient. In addition, in this RTU, there are particular problems with lack of communications infrastructure and financial mechanisms to address socioeconomic problems.

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### **RISK DRIVER 3: Territorial Organisation**

The low quality of housing and its inappropriate location in unsafe areas are the territorial organisation conditions that are least conducive to risk reduction in the three RTUs. In the RTU Río Grande de Matagalpa, land use plans and public

investment decisions incorporate DRR measures, although in the RTU Managua, these measures are considered insufficient. In the three RTUs, construction codes are commonly disregarded.

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### **RISK DRIVER 4: Governance**

Particular aspects of governance that impede risk management include limited institutional capacity, centralisation in decision-making, high levels of bureaucracy, non-compliance of regulations and corruption. Coordination and cooperation among

different levels of government are considered more efficient in the RTUs Río Grande de Matagalpa and Managua than in the RTU RAAN. In all three RTUs, there are instruments and regulations that can be used to control risk, but their application is insufficient.

In the three RTUs in Nicaragua, the governance driver is considered the most influential, affecting other drivers. Improvements in this risk driver would therefore result in positive changes in the other risk drivers. Specifically, strengthening governmental institutions throughout the country is identified as the most important recommendation, as this can help ensure that existing regulations are applied in order to achieve effective risk reduction.

THE LACK OF ROADS TO COMMUNITIES MAKES THEM DIFFICULT TO ACCESS, IMPEDES EVACUATIONS AND ISOLATES A LARGE PART OF THE POPULATION

In the workshop held in Nicaragua, the main challenges to improving the effectiveness of disaster risk reduction were discussed. From this debate, several concrete actions were defined for each of the RTUs:

#### RTU RAAN

- Strengthen the coordination and cooperation among different levels of government (territorial, local, regional and federal).
- Create a comprehensive agenda for risk management in the autonomous regions.
- Promote community participation in development processes, with a focus on comprehensive risk management.

#### RTU Río Grande de Matagalpa

- Implement land use plans at the municipal level. This is particularly important with regard to the water resources plan.
- Promote the construction of affordable housing, respecting land use plans and relocating dwellings situated in high-risk areas.
- Ensure inter-agency coordination to improve land use planning and advocate for the approval of a land use planning law.

#### RTU Managua

- Regulate the informal private sector and ensure compliance with legislation.
- Coordinate among agencies to avoid the duplication of efforts.
- Promote the development of plans and training for disaster response situations.