



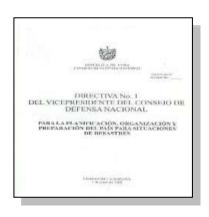


# Disaster risk management in Cuba. Present and future scenario.

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Ministry of Sciences, Technology and Environment in relation to:



## Carry out disaster risk studies, climate risks, impact assessments and environmental damage

Hazard Vulnerability Risk







#### HAZARD

#### **NATURAL**

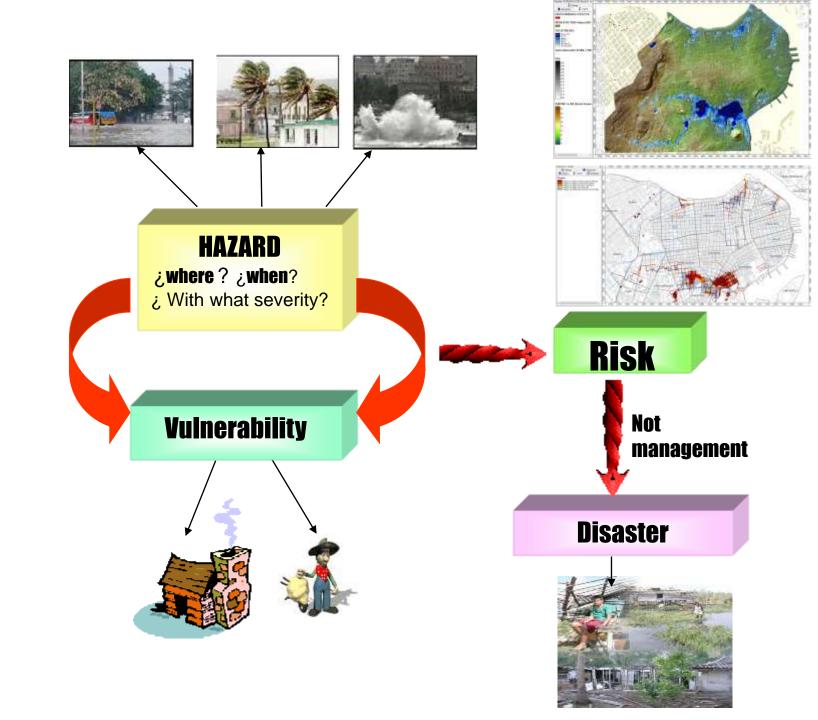
- STRONG WINDS
- FLOODS
- INTENSE DROUGHTS
- RURAL FIRES
- LANDSLIDES
- EARTHQUAKES
- TSUNAMIS

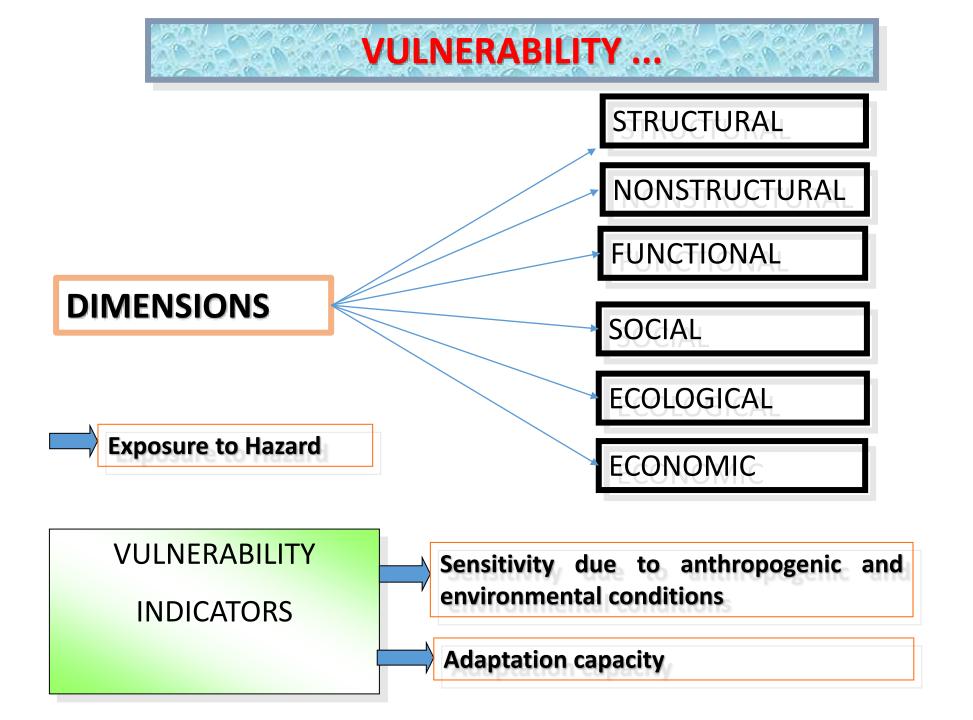
#### **TECHNOLOGICAL**

- CATASTROPHIC TRANSPORT ACCIDENTS
- ACCIDENTS INVOLVING HAZARDOUS SUBSTANCES
- HYDROCARBON SPILLS
- FIRES OF LARGE
   PROPORTIONS IN
   INDUSTRIAL FACILITIES
   AND BUILDINGS

#### **OF HEALTH**

- EPIDEMICS
- ANIMAL DISEASES
- PLANT PESTS





## Creation of Risk Reduction Management Centers (CGRR) in the most vulnerable municipalities and Early Warning Points (EWP).

Identify, assess and monitor disaster risks and improve early warning





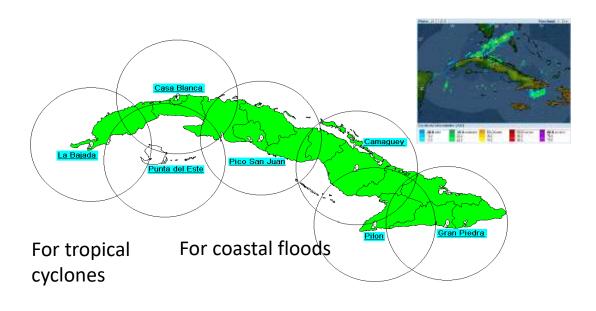


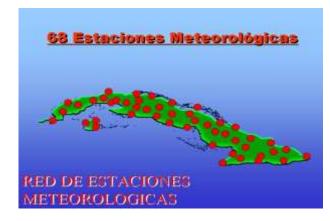
THIS EXPERIENCE HAS BEEN REPLICATED IN VARIOUS COUNTRIES IN THE REGION. AS PART OF THE SOUTH-SOUTH COOPERATION AND THROUGH THE PROJECT "CARIBBEAN RISK MANAGEMENT INITIATIVE" (CRMI), UNDP PROMOTED THE CREATION OF A PILOT CGRR IN FIVE COUNTRIES: JAMAICA, TRINIDAD AND TOBAGO, DOMINICAN REPUBLIC, BRITISH VIRGIN ISLANDS AND GUYANA.

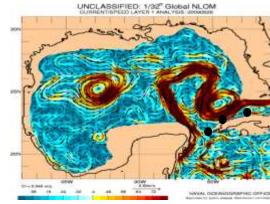
#### ASSESSMENT OF IMPACTS AND ENVIRONMENTAL DAMAGE

- Map or represent in sketches as much as possible.
- Define the vulnerabilities and anthropic actions that could have affected the effect of the hazard intensifying.
- Give recommendations to reduce vulnerabilities.
- Evaluate the correspondence between the magnitude of the disaster and the studies of hazard, vulnerability and previous risk.

#### EARLY WARNING SYSTEMS AT NATIONAL AND LOCAL LEVEL.



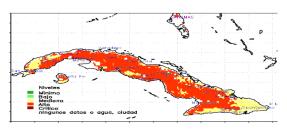




For heavy rains

For oil spills



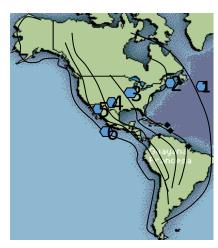


2 078 Pluviometrical stations, 168 Pluviographic stations, 15 Hydrometeorological stations, 40 Hydrometric stations

For forest fires

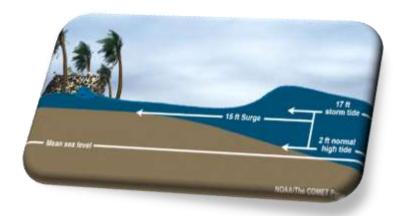


For earthquakes and tsunamis



For exotic diseases

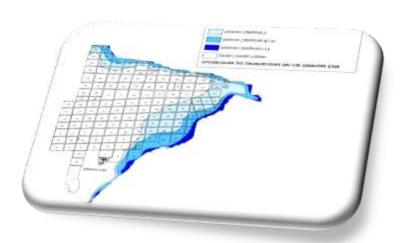
For drought



#### **Surveillance and alert**



Warning



#### Risk assessment and decision-making



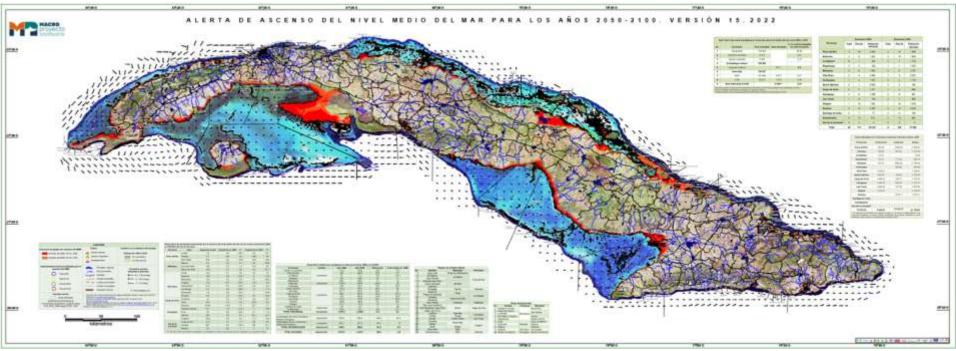
**Protection** 

### Macroproject "Hazard and vulnerability scenarios for Cuban coastal zone, associated to mean sea level rise by 2050 and 2100"





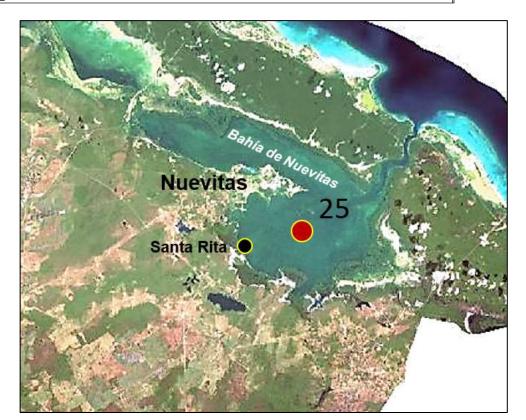


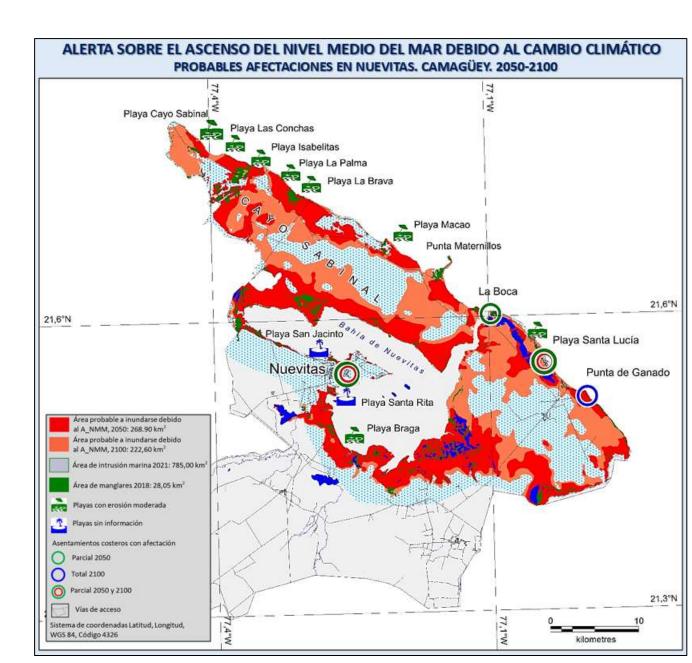


#### **DETAIL STUDIES**

#### Municipio Nuevitas, Camagüey

Territorio	2050	2100
	A_NMM	A_NMM
Archipiélago cubano	29,0	95,0
Nuevitas (Punto 25)	28,4	94,9
Diferencia	0,6	0,1
* <b>A_NMM</b> : Ascenso del nivel medio del mar		





#### LIFE TASK: STATE PLAN TO FACE CLIMATE CHANGE

Comprehensive proposal that presents a first identification of prioritized areas and places, their effects and actions to be undertaken.

It is made up of 5 Strategic Actions and 11 Tasks.

- International collaboration
- South- South Cooperation
- Triangular Cooperation
- Capacity building
- International projects

Share good practices and lessons learned on: Hazard, vulnerability and disaster risk study methodologies, climate risk studies, early warning systems, disaster risk reduction plans, risk management centers, plans and measures for adaptation to climate change









### Thank you

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