

Climate Services for Adaptation: Prioritizing Adaptation Measures

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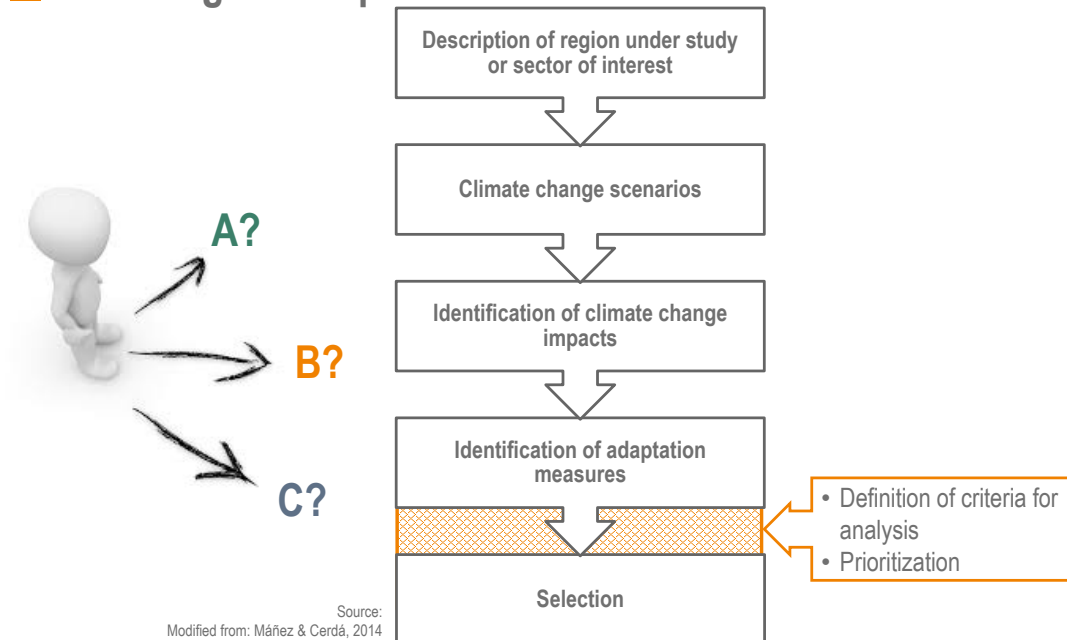


■ Planning and implementing adaptation: Challenges

- A feature of adaptation planning is **decision making under uncertainty** (Mimura et al, 2014)
- **Financial** resources for adaptation are a main **constraint**
 - Only 25% of resources allocated to adaptation in developing countries (SCF, 2016)
- **Prioritization** and selection of measures is key (Noble et al, 2014).
- **Lack of tools**, which help to prioritize measures **when only limited financial resources** are available (IPCC, 2007).



■ Planning for adaptation



■ Developing prioritization tools for adaptation

Development of a prioritization tool for climate change adaptation measures in the forestry sector
A Nicaraguan case study

Forestry Sector - Nicaragua

- Multi-criteria Analysis

REPORT 28

- Master Thesis
- Fellowship of the Alexander von Humboldt Foundation at GERICS

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- Selected to be presented in:



■ Bosawas: case study area

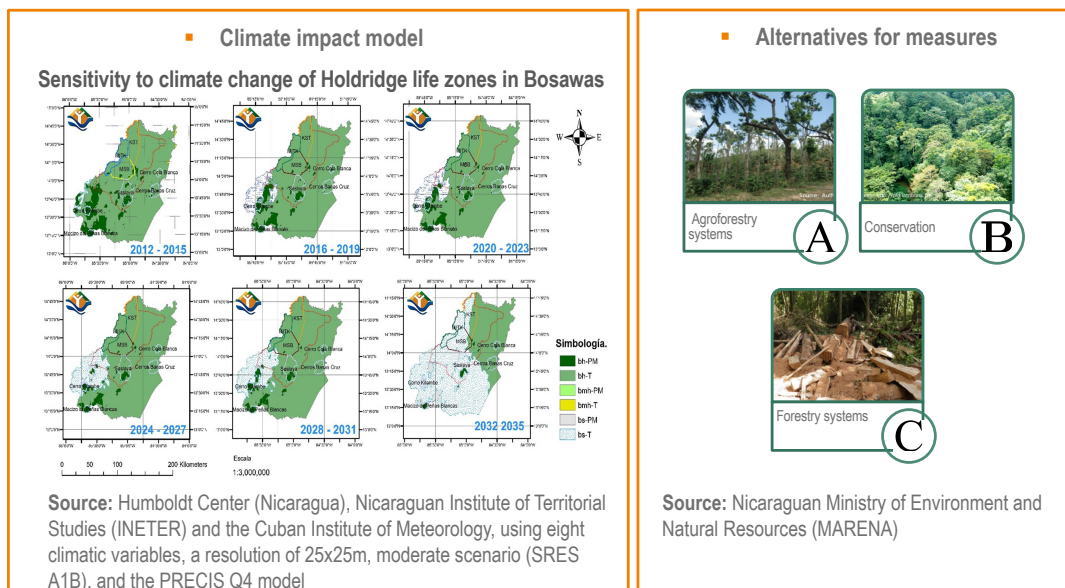
- Largest rainforest area remaining in Central America
- 3.5% of world's biodiversity
- 20,065 km² (8,118 km² core area)
- Comprises 8 different types of ecosystems and 6 protected areas

Source: Marena, 2012



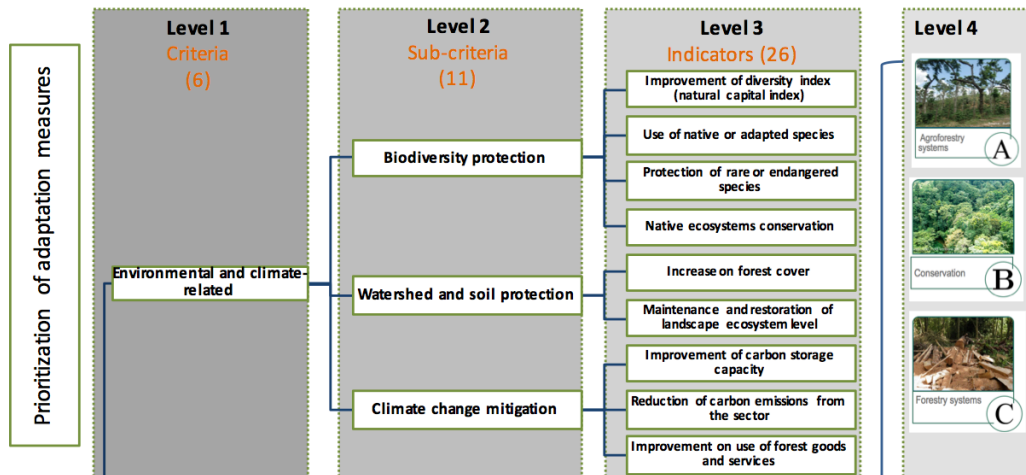
■ Bosawas: case study area

Test data set



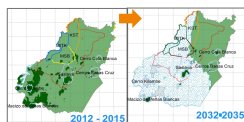
■ Prioritization tool: criteria and indicators

- Multicriteria Analysis (using Analytic Hierarchy Process – Saaty, 2008):
 - **Criteria:** Environmental and climate-related, economic, social, institutional, financing needs, implementation barriers



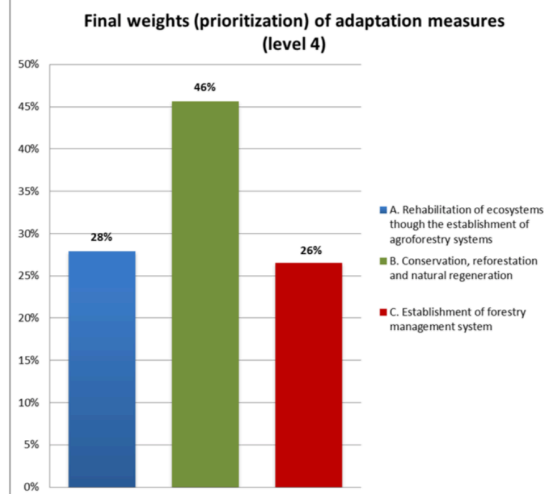
■ Prioritization tool: criteria and indicators

Normalized matrix (comparison between measures)

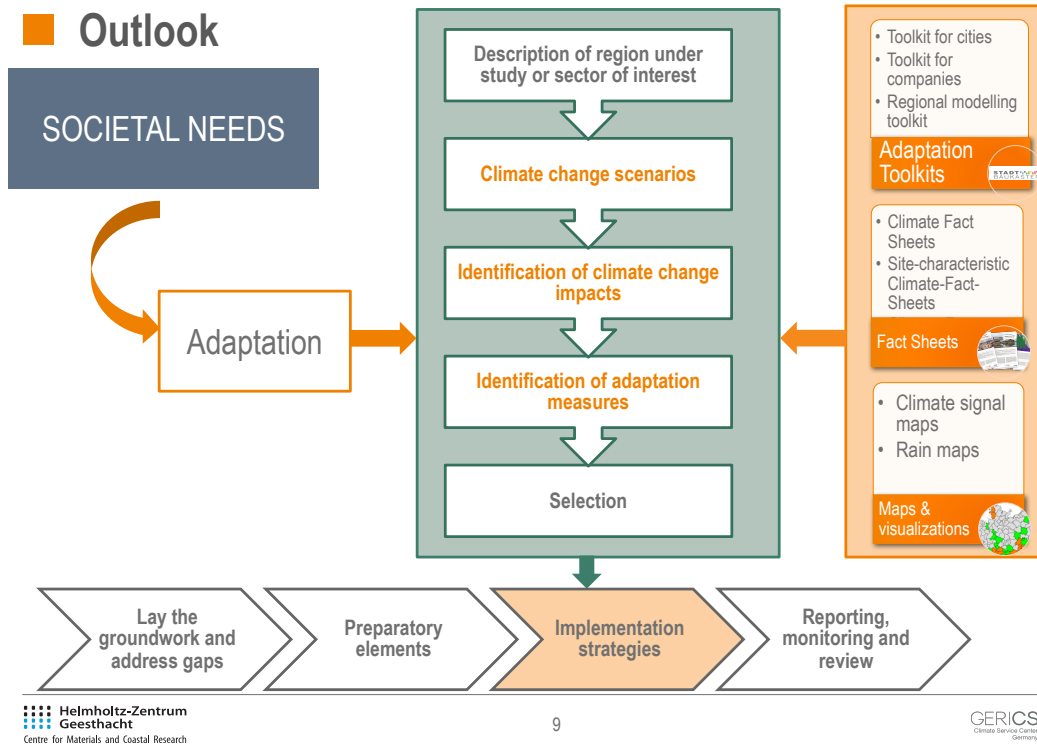


Indicator 1: Improvement of natural capital index

Pairwise comparison				
	A	B	C	Priority
A. Rehabilitation of ecosystems through the	0.24	0.23	0.38	0,28
				0,64
				0,08
				1,00



■ Outlook



■ Summary

- A **prototype of tool to prioritize adaptation measures** was developed and empirically tested
- Major **challenges** identified:
 - Availability of information to **compare performance** of measures under different scenarios (e.g, local climate information, adaptation assessment)
- **GERICS'** services, products & tools can contribute to each step of the adaptation planning & implementation process



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