



Smart Transportation Alliance

Best-practice guidelines for the adaptation of roads to climate change

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Why?



In Latin America & Caribbean Region, 1 of each 4 \$ of losses for natural disasters affects transport sector



Road infrastructure is highly exposed to rain and flooding. For example, 39% of the main road network of Colombia shows high risk



Risks should be included in the institutional culture. Risks analysis should be considered in every decision: planning, regulations, projects, etc.



Adaptation of roads to climate change involves:

- Considering lessons learned.
- Implementation of measures to reduce future costs.
- Maximize investments.



CAF (Development Bank of Latin America) proposed the development of Best-practice Guidelines for adaptation of roads to climate change

What?

Best-practice guidelines with the following objectives:

- Provide an answer to basic questions about the importance of incorporating climate adaptation measures in highway projects.
- Guide public policy makers to identify measures that can be applied to highway projects.
- Identify specific measures that can be implemented in road projects and in the road network in service, throughout its life cycle.



How?

Successful experiences and best- practices:

Institutional:

- Creation of Directorate of Adaptation to Climate Change and Strategic Risk Management (DACGER) within the Ministry of Public Works of El Salvador.

Plans:

- Plan Vías-CC: roads compatible with the climate. Adaptation plan for the primary road network (Colombia)
- Plan for the adaptation of federal highways to recurrent natural disasters (Brazil)

Technical references:

- Inclusion of criteria for adaptation to climate change in the Handbook of highways (Chile).

Analysis:

- Study of climate risk for Colombia's primary road network at the national level (Colombia)
- Evaluation of the impact of El Niño 2015-2016 in the transport and communication sector (Paraguay).
- Assessment of vulnerability and adaptation to climate change in the transport sector (Peru).

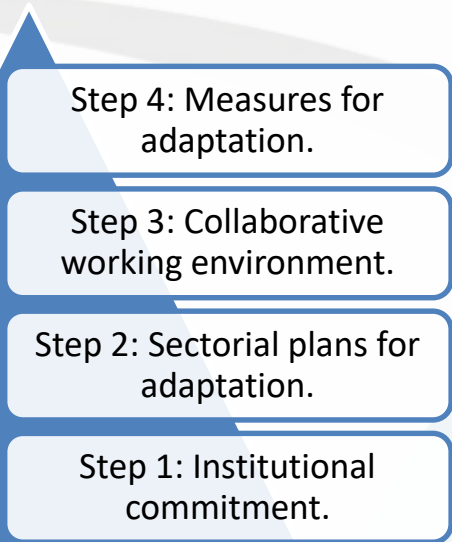
Stage 1: Specific survey to public and private sector.

Stage 2: Analysis of the state of the art in the Region and worldwide.

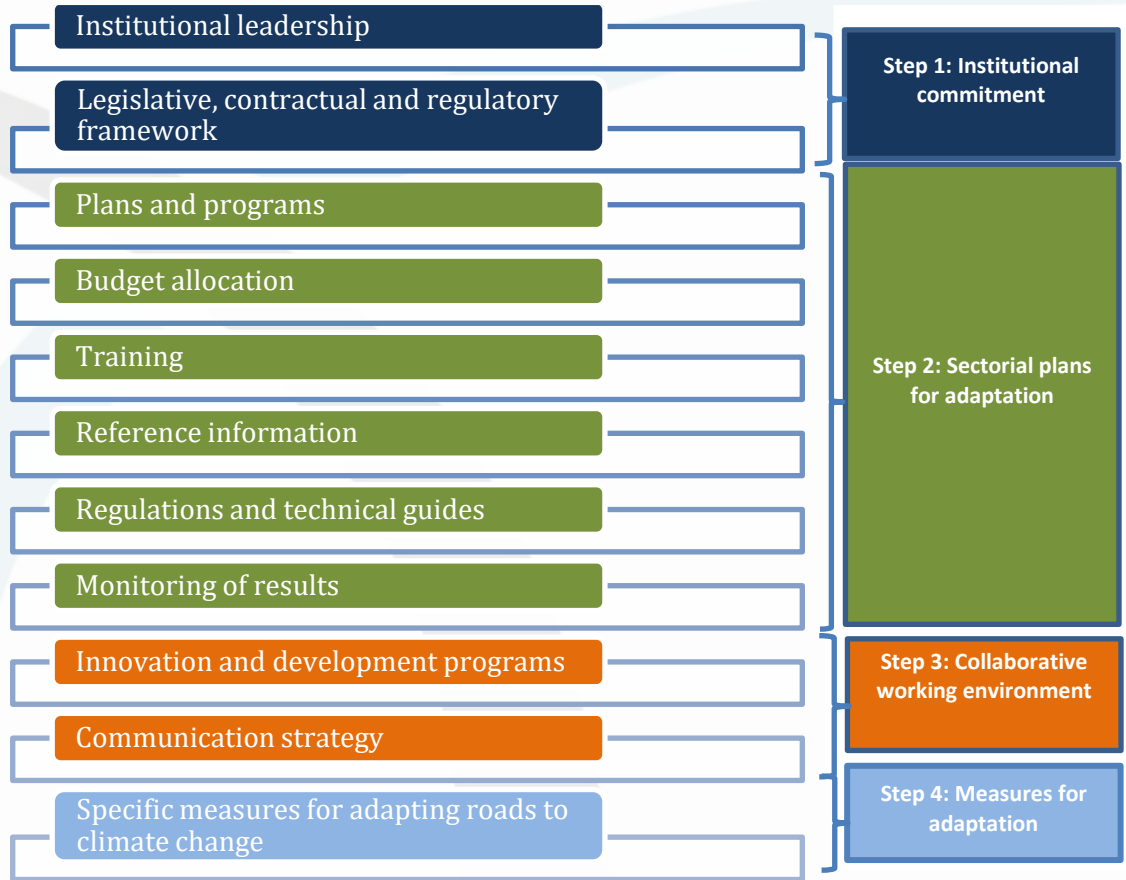
Stage 3: Development of Guidelines.

Stage 4: Workshops and dissemination activities.

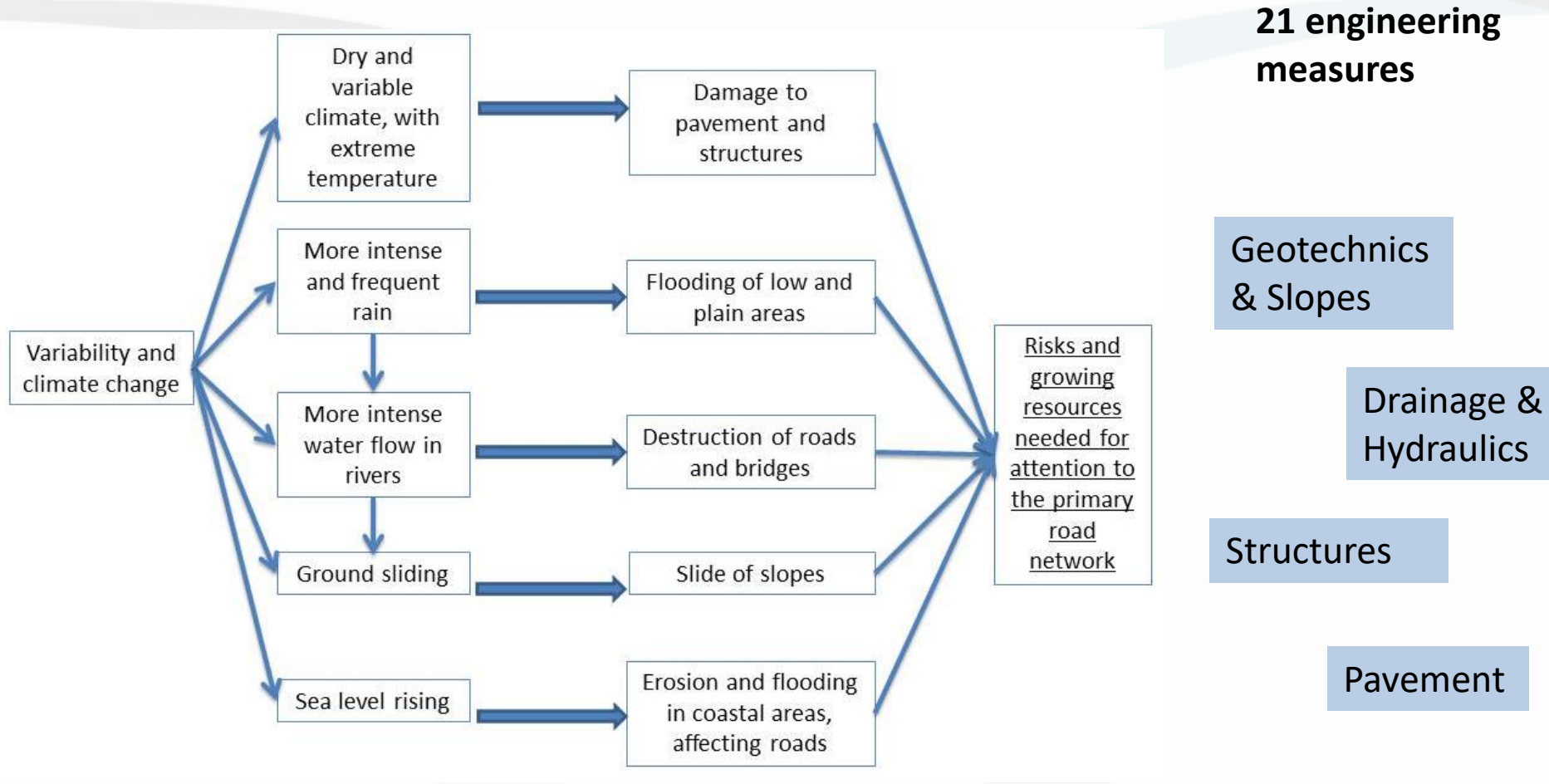
Structure of Guidelines



Strategic pyramid of adaptation to climate change



Structure of Guidelines



Conclusions



1

There are several barriers for the implementation of adaptation measures: institutional, financial, technical, political, social, etc.

2

These Guidelines are the contribution of CAF to improve knowledge about the importance to consider adaptation measures in roads.

3

There is a long way to go. Specific funds for adaptation of roads are required.



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**THANK YOU
FOR YOUR
ATTENTION**

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