Approaches to integrate people's representations of climate change within adaptation pathways

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APPROACHES TO INTEGRATE PEOPLE'S REPRESENTATIONS OF CLIMATE CHANGE WITHIN ADAPTATION PATHWAYS

The case of Saint-Pierre-and-Miquelon

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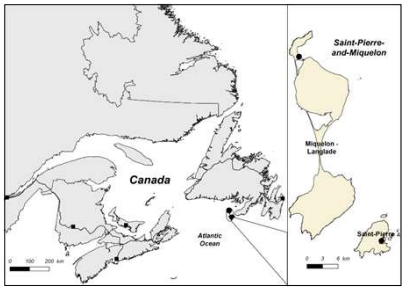
Introduction

Social research has shown that people's representations of climate change can either facilitate climate policies or act as a barrier to successful adaptation. Here, we explore how to integrate people's perception and representations of their territories, of climate change and adaptation within the adaptation pathways framework, and we present a preliminary application in Saint-Pierre and Miquelon, a French oversea territory affected by sea-level rise, erosion and flooding.



METHODES

- Surveys
- Interviews
- Mental Maps

PRELIMINARY RESULTS

MIQUELON TOWN

Challenges

- 600 residents in a low-lying area
- Critical Infrastructures

Adaptation : acceptability and timescales

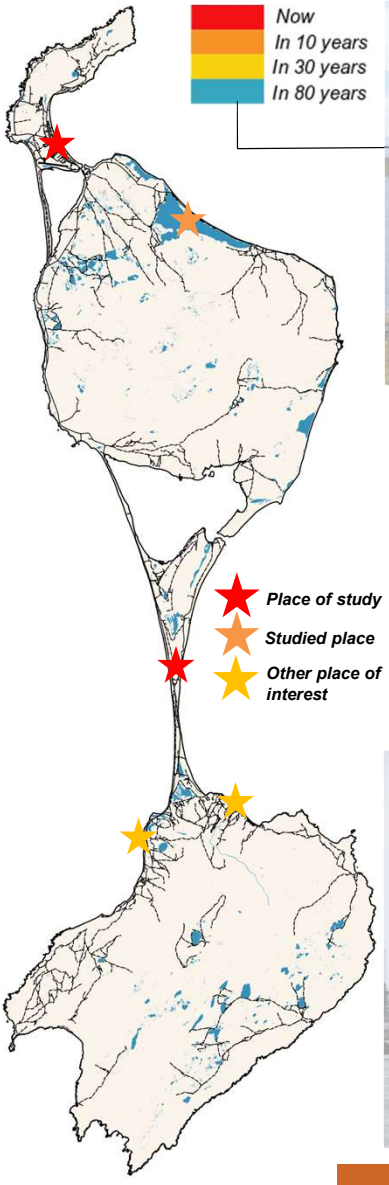
Rockfill : 50 %
82 % | 18 %

Vegetalization : 6 %
100 %

Relocation : 80%
54 % | 15 % | 8 % | 15 %

Discussion

Miquelon's résidents perceive an urgency for adaptation. The results show a demand for immediate action and are willing to allocate important ressources.



ÎLE-AUX-MARINS

Challenges

- Historical place, hot-spot for tourism
- Low-lying area

Adaptation : acceptability and timescales

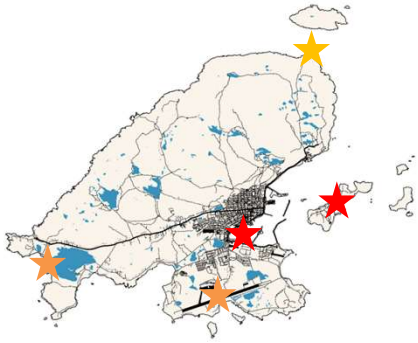
Rockfill : 36 %
79 % | 14.5 % | 3 %

Eco-tourism: 10 %
76 % | 14 %

Disappearance : 60%
39 % | 12 % | 18 % | 14 %

Discussion

Surveys suggest that people would accept the disappearance of the island. Some of them insist on the need to accept this phenomenon now, but the other are divided on the timing.



ISTHMUS OF MIQUELON-LANGLADE

Challenges

- An emblematic geomorphological landform and biodiversity hot-spot
- Critical road

Adaptation : acceptability and timescales

Rockfill : 34 %
91 % | 9 %

Vegetalization : 36 %
76 % | 8 % | 4 % | 2 %

Boat connection : 16 %
Desappearance : 53 %
54 % | 2 % | 21 % | 14 %

Discussion

Soft solution are largely preferred, but 3 diverging adaptation pathways are designed by the population. Some of them may coexist, according to people's perception.

COAST OF THE TOWN OF ST-PIERRE

Challenges

- 5400 residents, economic center
- Critical Infrastructures in a low-lying area

Adaptation : acceptability and timescales

Raising dikes : 53 %
83 % | 7 % | 2.5%

Rockfill : 22 %
54.5% | 27 % | 18 %

Partial relocation : 34 %
68 % | 8 % | 13 % | 7 %

Discussion

Hard solutions are largely preferred, as these are perceived most efficient to preserve residences and infrastructures. Partial relocation is considered as a potential solution only for few assets.

Conclusion

This study shows that preferred adaptation pathways depend on the challenges of each area. Hard solutions are often preferred, but people tend to slowly accept soft solutions such as relocation. The preliminary results highlight the local need for adaptation : people seem to feel an urgency to act. This study illustrates that people's perception of adaptation pathways can be use to support decision-making, to avoid dead-locks.

Relevant references :

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