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Permafrost thaw in the coastal Russian Arctic: interconnectedness of cultural & material dimensions

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1. INTRODUCTION



Map of Sakha Republic (Russian Federation). Source: self-elaboration

1

Surface: over 3.000.000 km²

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Climate: Sharply continental

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Indigenous Peoples of the North: Evenki, Even, Dolgan, Yukaghir, Chukchi

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100% of the territory contains some form of permafrost



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2. METHODOLOGY

SCOPING FIELDWORK IN YAKUTSK WITH JEAN-PAUL VANDERLINDEN

- Identify key stakeholders related to permafrost thaw
- Stakeholders mapping
- Better understanding of administrative system
- Collecting data: semi-structured interviews. Snowball sampling.
 - Which are the risks associated to climate change & permafrost thaw perceived by local inhabitants?
 - Which sectors are most impacted?
 - Similarities and differences between regions?
 - Adaptive strategies implemented and/or desired to be implemented?

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graph TD; A[Translate and transcribe interviews] --> B[Qualitative analysis (Atlas.ti8): codification and identification of main concerns of the interviewees]; B --> C[Mental map: visual comprehension of new risks, material and cultural impacts related to climate change and permafrost thaw in Yakutia];
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Translate and transcribe interviews

Qualitative analysis (Atlas.ti8): codification and identification of main concerns of the interviewees

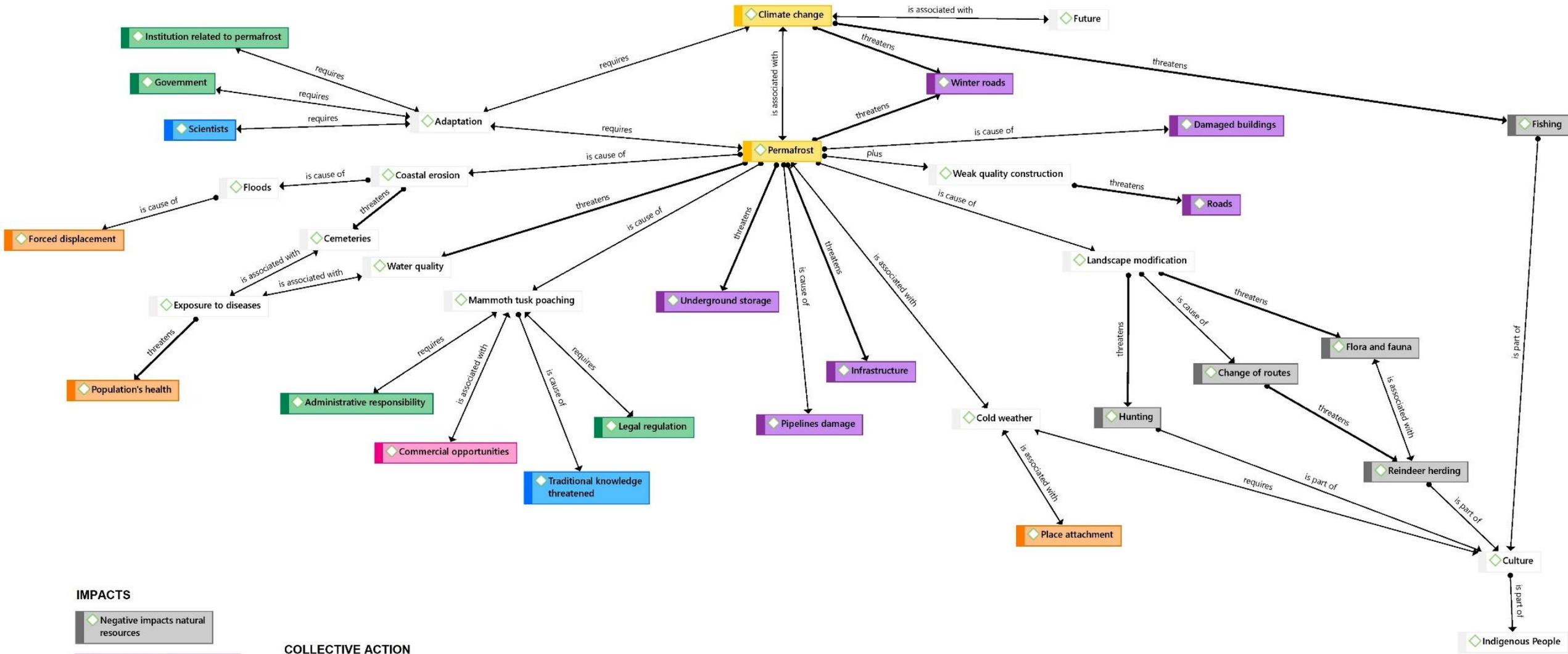
Mental map: visual comprehension of new risks, material and cultural impacts related to climate change and permafrost thaw in Yakutia



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3. RESULTS & CONCLUSIONS

MENTAL MAP



IMPACTS

- Negative impacts natural resources
- Negative impacts infrastructure
- Negative impacts health and well-being

COLLECTIVE ACTION

- Governance
- Knowledge related topics

OPPORTUNITIES

- Identified opportunities

- Changes with regard to climate and permafrost are giving rise to new, inter-related processes and stressors → create new risk patterns
- Explicit understanding of the complex causal webs that permafrost thaw entails
- Transformations lead to changes in traditional lifestyles and economic activities

Access to traditional resources

Exposure to new diseases

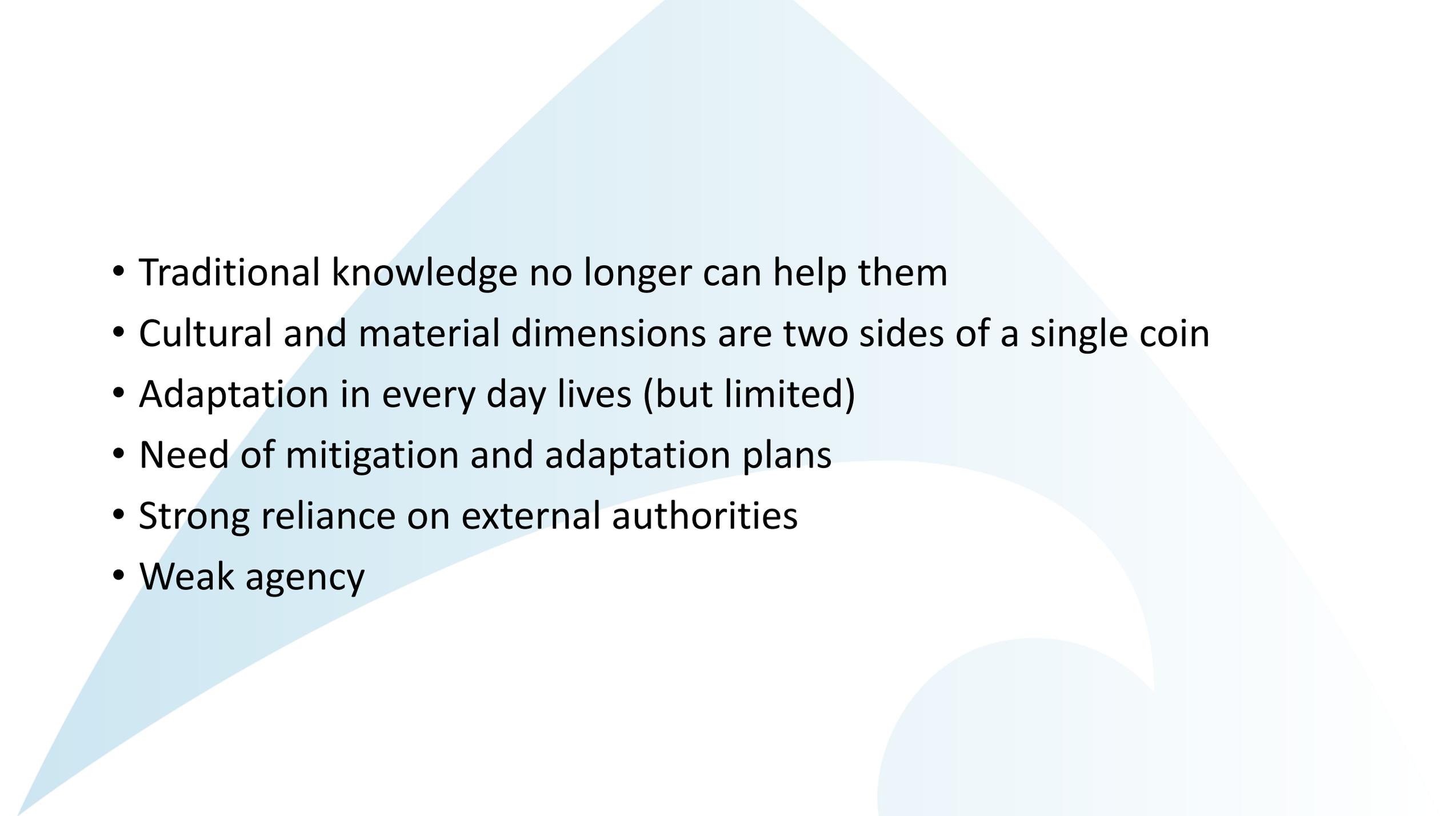
Exposure to new species

Forced displacements

Inaccessibility

Extraction of mammoth tusks

Complex & fragile socio-environmental
system

- 
- Traditional knowledge no longer can help them
 - Cultural and material dimensions are two sides of a single coin
 - Adaptation in every day lives (but limited)
 - Need of mitigation and adaptation plans
 - Strong reliance on external authorities
 - Weak agency



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THANK YOU

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