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Basic vs. applied science for effective climate adaptation - narrowing the gap

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Available modeling predictions for Ilulissat (Greenland) forecast that permafrost in the sediments will thaw within the next forty years. Permafrost in the area is both ice-rich and saline, depending on the depth in the soil profile. Permafrost degradation will drastically alter such landscape: surface deformation following the ground volume changes will affect built structures; mobilization of salts dissolved in the pore water risks to contaminate surface water sources. We combine scientific findings with input from local stakeholders to discuss whether this knowledge plays role in community development plans. As the community is running out of the “safe ground” (bedrock) to build on, one of the main issues for town planners is to know what and how can be built on the sensitive terrain with high risk of ground settlement. We also reflect on how can science contribute to climate adaptation in face of ongoing changes and the pervading need to “build things fast”.