

CSQ-28

| Question | Knowledge Advancement Objectives | Geophysical Observables | Measurement Specifications | Tools & Models | Policies / Benefits |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <p>What is the size of anthropogenic impact on change in the Polar regions?</p> | <p>Quantify the size of anthropogenic impact on the Polar regions.</p> | <ul style="list-style-type: none"> ● Glacier area change and volume change ● Ice sheet mass balance ● Sea ice thickness and extent ● Permafrost volume change | <p>Medium temporal (monthly to annual) resolution, and medium (kilometres) spatial resolution.</p> | <p>EO satellite datasets. Climate models</p> | <p>Climate change adaptation and mitigation policy. IPCC monitoring. Improve future projections</p> |

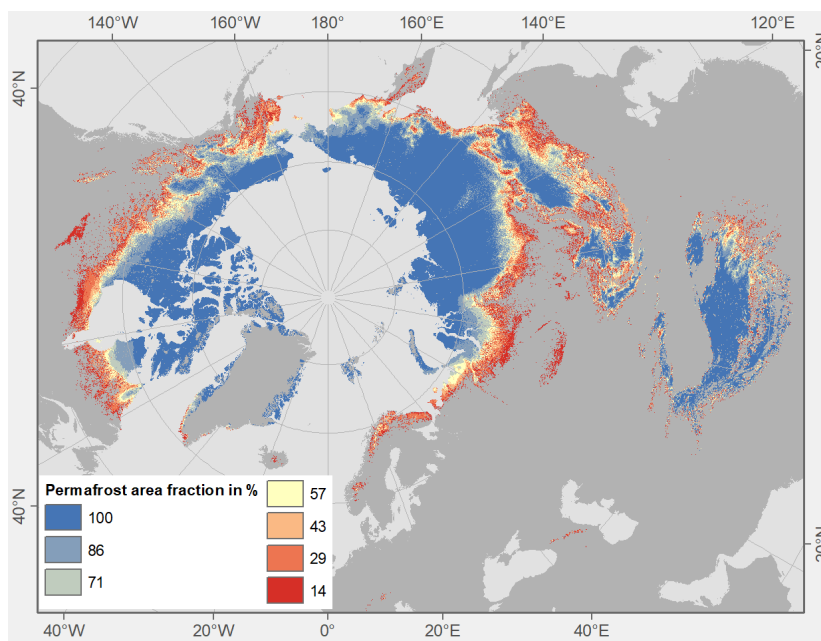
Narrative:

Fig. 9: Change in Permafrost area Fraction. From ESA CCI Permafrost.

To be completed**References**

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