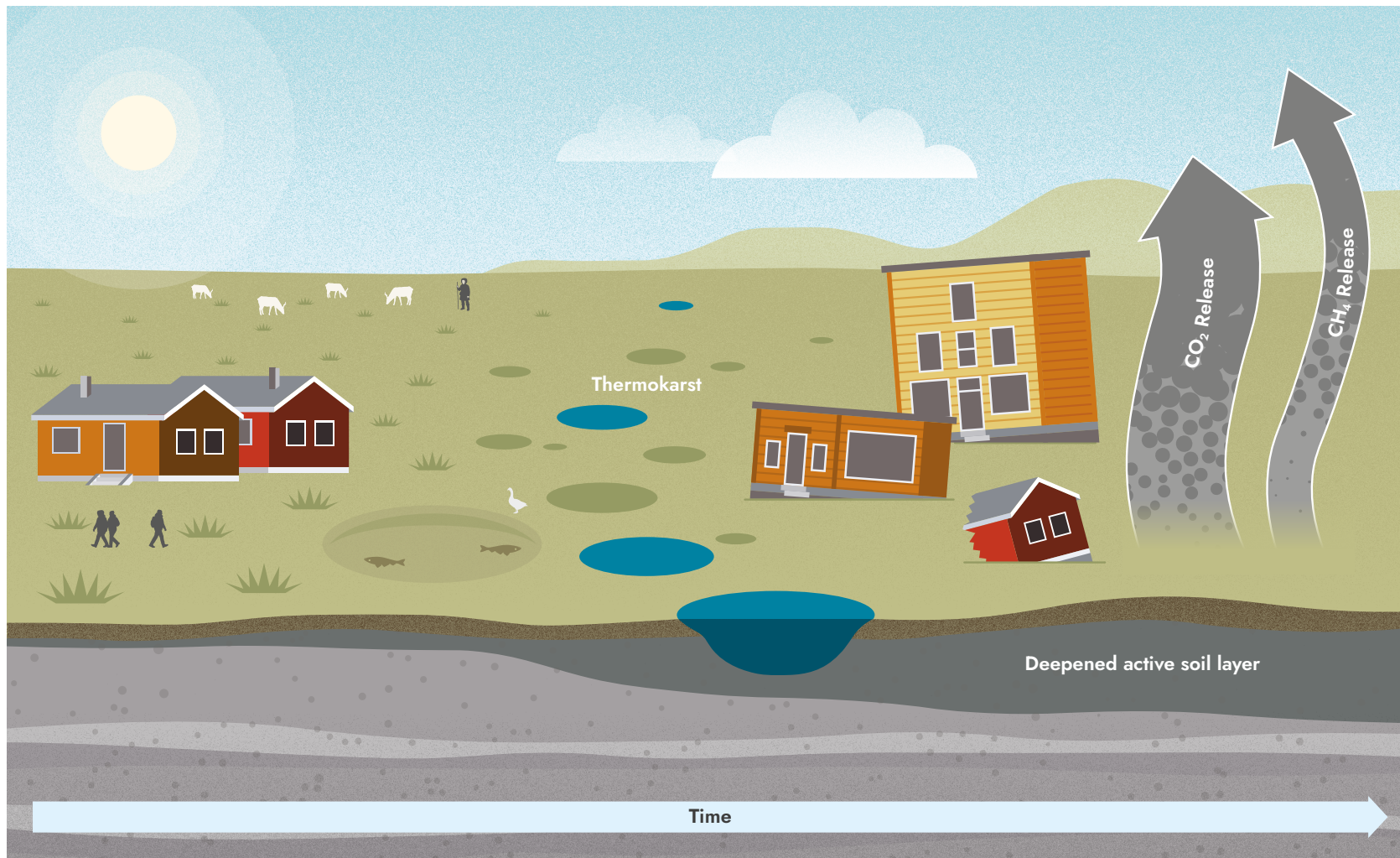




## PERMAFROST THAWING

Permafrost thawing leads to widespread landscape changes, such as ground subsidence, thermokarst development, the formation or draining of wetlands and lakes, and the deepening of the active soil layer. Abrupt thaws occur when local subsidence and changed hydrology expose deeper layers to thaw. As the ice-rich permafrost melts, previously frozen organic carbon is exposed to microbial activity, resulting in the release of CO<sub>2</sub> and methane into the atmosphere