

Publication

Anticipating the social fit of CCS projects by looking at place factors

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Understanding the factors influencing the acceptance of carbon capture and storage (CCS) projects is key for the projects' deployment and for accelerating the global mitigation of CO₂ emissions. While anticipating the ways in which "places" can potentially affect a technology's deployment is relevant to mitigating social risks, social aspects are often omitted or included late in site selection processes. Here, we present a methodology to include place factors upstream in the site-screening process based on a literature review of former CCS implementation processes and maps of potential locations. We identified the place factors that had been determinative for the acceptance of or opposition to 38 CCS projects. Then, the usability of geographic information system (GIS) maps to represent social factors around potential storage sites in Switzerland was assessed. Our results show that place factors have positively influenced 22 and negatively impacted 16 projects in the past. In addition, it is possible to visualize several factors around potential CO₂ storage locations, while unmappable factors must be explored at later stages. We conclude that awareness of place factors coupled with reflection on the values pushed by the technology will likely enable better site choices.

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