EGU26-11239, updated on 10 Nov 2026
https://doi.org/10.5194/egusphere-egu26-11239
EGU General Assembly 2026
© Author(s) 2026. This work is distributed under
the Creative Commons Attribution 4.0 License.

Hotspot Earth: a climate action game

Jan Steinhauser[1,2,3], Doris Vollgruber[3], Steffen Fritz[2], Ian McCallum[2], Monika Mayer[1], and Harald Rieder[1]

[1]BOKU University, Institute of Meteorology and Climatology, Department of Ecosystem Management, Climate and Biodiversity, Vienna, Austria (jan.steinhauser@boku.ac.at)

[2]International Institute for Applied Systems Analysis, Novel Data Ecosystems for Sustainability Research Group, Laxenburg, Austria

[3]Terragami, Vienna, Austria

Effectively implementing climate solutions requires wide societal support and openness towards systemic change. Spreading knowledge about both the need to act and valid solutions is a fundamental basis for this. Video games have been identified as a versatile medium with great potential regarding this task. They can convey factual knowledge about risks and solutions, serve as accessible experimentation and simulation tools, motivate by fostering feelings of agency and self-efficacy, and create connections to people and narratives outside the players' own experience. Even more, they can reach people who rarely engage with other forms of media and science communication.

However, despite these various strengths and potentials, few video games feature the climate crisis, and most games with strong climate themes fall into a narrow genre spectrum, primarily strategy, management, and simulation. To explore the reach and impact of climate-themed games beyond these genres, we are developing *Hotspot Earth*, an action-heavy 2D top-down horde-survival game fused with light management and climate simulation elements.

In *Hotspot Earth*, players lead a growing climate movement and are tasked to survive until the end of the century while increasingly powerful hordes of monsters, symbolizing climate hazards, try to overwhelm them. Additionally, in each round, they visit a different country and support local relief efforts when points of cultural interest are under threat. To make this task easier, players can expand their climate movement by collecting activists who fight alongside them and empower each other if smartly matched.

Between rounds of this action gameplay, players can spend limited collected resources to activate various options related to global political, industrial, and societal changes. The benefits and trade-offs of these options are purposely kept simple, limited to impacts on 1) global heating and thus the monsters' strength, 2) resilience, increasing the defenses of the points of interest, and 3)

electricity supply and demand as expression of societal needs.

Hotspot Earth combines these core mechanics to transport several fundamental messages about the climate crisis and its solution space, such as global and local impacts of the climate crisis and thus the need to act everywhere; ways to act as individuals, groups and society, including relative effectivity and synergies of measures; and the importance of community.