

Safe Lake **CRISIS**

The Facilitator's Guide

About the team



Hi, we're Léo, Lily, Simon, Tilly and Nuño! We are a group of students from Leiden University College The Hague, and we created the game “Safelake Crisis” for our Global Challenges course. Our game was brought together by a shared concern for one of the world's most important environmental challenges: water scarcity. Over the course of this project, we wanted to explore the issue and find a way to make it real and relatable to others. With a focus on water usage from industrial activities, we made a board game centered around a small European town called Safelake, where each player represents a citizen who must balance their personal interests with the collective responsibility of protecting their shared water source. Players have to deal with what happens when water starts running out and figure out which decisions they should best make.

Our Global Challenge

Water scarcity is often blamed on individuals, but the real story goes much deeper. Individual water use matters, but households are responsible for only around 10% of global freshwater use, while industries like agriculture, energy and textile make up the other 90% (UNESCO, 2024). So while turning off taps helps, it is only a small part of a bigger problem.

Over 4 billion people already face severe water scarcity at least one month each year, and industrial demand keeps growing (Mekonnen and Hoekstra, 2016, p. 1). The energy industry, our main focus, plays a major role in driving this crisis. While transitioning to renewable energy is crucial to meet climate goals, it does often require a lot of water usage (Jin et al., 2019). Therefore, it is important to understand the water footprint of different energy sources when discussing the causes of water scarcity (Jin et al., 2019). Real change starts with industry and policy, not just personal habits. However, energy companies have significant political influence that often makes it difficult for local communities to have a meaningful say in the decisions that directly affect them (Nanko and Coan, 2024).

Our methodology

Water scarcity is a specific and well-studied issue that we only have a vague idea of. However, education in LUC helped us identify the different components of water scarcity, the causes and consequences of it.

We then chose to focus on an aspect of water scarcity we can observe in our environment in the Netherlands and more broadly in Europe: the monopolization of water. While doing some research here, we found a real-life case of a town in Hungary called Pecs that fought actively against the energy giant “Suez” in 2009 (European Public Service Union, 2011). From this perspective, our idea was to translate the tensions of this problem into a game which simulates a situation of water scarcity due to monopolization of the water source, allowing players to learn about its causes and the consequences it can have on a community and the environment.

Our design challenges

Water scarcity is a huge global challenge and representing it fully is difficult. Issues like wealth, gender, education and location all play a role but we kept the scope narrow on purpose: the game is meant as a first introduction. The main focus is on industry influence and the balance between personal and collective interests, centered around a European context. Not giving players different backgrounds felt like a conscious choice, keeping things simple for a first version. Since our game uses the energy industry as the main actor, we discussed the fact that a lot of the water they use goes towards renewable energy sources that also have climate benefits. We decided to leave this out for now, but it would be interesting to develop in a future version. It would show that there are many more things impacting our real decision-making.



Targeted Players

This game is for high school students between the ages of 15-18. We chose this target audience because high school students will soon be the next generation of young adults and will serve as the most important “agents of change” in combatting political and environmental issues facing our world today (United Nations [UN], n.d.). By educating these students about the negative causes and impacts of water scarcity at an industry level, we hope that they choose to take action against it throughout their adult life, whether through voting choices, job occupation or direct protest. Collective action from the younger generations is essential to “holding world leaders accountable to make sure that they don't betray the future of humankind” (UN, n.d.).



Learning goals

Cognitive learning objectives:

1. After completing the game, the players will be able to identify at least two specific ways that the energy industry contributes to water scarcity (e.g., through extracting water for cooling systems or using water for power generation like growing crops for biomass energy)
2. After completing the game, the players will be able to compare the volume of water used by different types of energy facilities (through the number of water tokens assigned to the different scenarios played in the game)
3. After completing the game, the players will recognise that pressure from the energy industry prevents citizens from taking collective action to prevent water scarcity

Affective learning objectives

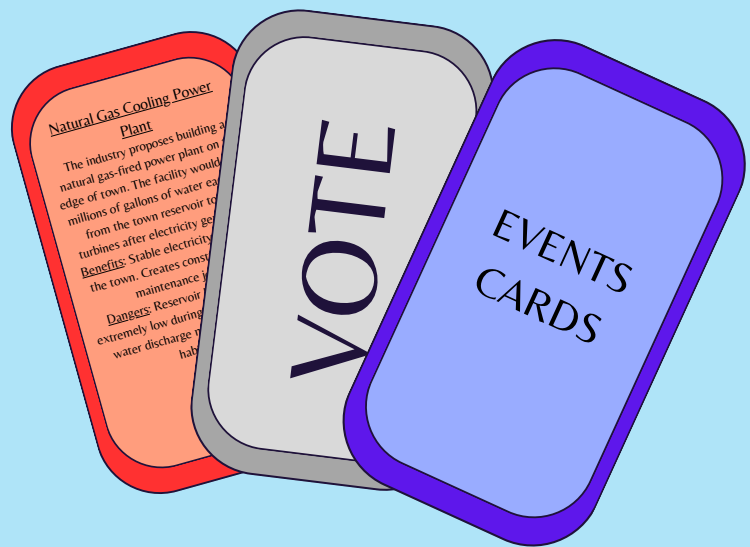
1. At least once during the game, the players will feel frustrated that the energy industry is able to monopolise local water sources and that the player, as an individual, has little power to counteract this
2. After completing the game, the players will be able to recall at least one specific discussion during which arguments from the other players helped convince them of the importance of collective action
3. After completing the game, the players will report an increased sense of concern about industrial water consumption in their area

Making it playable in the class room

In order to play as a whole class, teachers would need to read aloud the background storyline for the game, so that students understand its context as well as the reason for voting on individual proposals. Students would also have to be split up into smaller groups as the game can only be adapted to accommodate between 4-6 players. There is also an option for players to play in pairs, which can be a new opportunity for learning as students would have to discuss strategy and decisions with a partner. Finally, more than six players could realistically be added to the game to accommodate a full class, however the amount of starting personal/lake tokens would need to be adjusted accordingly, and it would be helpful to print more industry/event cards so that the game can have more rounds.

Print and Play Materials

- SafeLake Board
- Die x 1
- Vote cards “YES” and “NO”
- Industry proposal cards
- Event cards
- Tokens yellow (personal influence tokens)
- Tokens blue (water tokens)



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