



# HANDBOOK

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Due Date / Delivery Date	28.02.2023
State	Final
Reviewers	Hetty Saes, Christopher Reyer
Version	1.1
Confidentiality	Public (after approval)
Suggested citation	Adamczak, W., & Jarzabek, L. (2023). <i>Deliverable D7.7 (D45): Technical specification, rulebook and tutorials for the online multiplayer simulation game. CASCADES 2023.</i>

## **Abstract**

The Cascades Game is an interactive educational tool that serves as an experiential introduction to the concept of cascading climate impacts and to policy responses to address and tackle these impacts.

The purpose of this document is to provide handy instructions on how to successfully facilitate The Cascades Game, as well as to present its rules and technical specification. The document provides guidance on the theory behind this social simulation game, on preparations for the workshop, on the simulation game elements and materials, and all steps of the workshop facilitation.

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# 1. About The Cascades Game

*The Cascades Game* is an interactive educational tool that serves as an introduction to the concept of cascading climate impacts and to policy responses to address and tackle these impacts. It was developed as a part of the project CASCADES (Cascading climate risks: Towards adaptive and resilient European Societies). The project's goal is to identify how the risks of climate change to countries, economies and peoples beyond Europe might cascade into Europe. It does so by analyzing how these risks interact with major challenges facing European societies. CASCADES is working with a diverse range of stakeholders – both within and outside Europe – to support the design of a coherent European policy framework to address these risks.

*The Cascades Game* is based on the content of the Policy Simulation that was used in the CASCADES project to structure its stakeholder involvement and knowledge co-production process.

The target audience of *The Cascades Game* are policy/climate educators and university teachers who are welcome to use the game as an introductory interactive tool for the exploration of the issues connected with cascading climate risks. It is also possible to use the game during workshops and other initiatives engaging policy makers.

The game consists of two modules that can be used together or separately:

- **The Exploration Module** is a narrative-based online multimedia experience, presenting a fictional yet plausible story of impact transmission, from the point of origin outside Europe to the very heart of the European Union. The Exploration Module can be accessed asynchronously by multiple players.
- **The Classroom Module** is a workshop protocol and a package of multimedia and self-printed materials needed to run an offline, face-to-face workshop or lesson focused on developing policy responses to the crisis caused by climate impacts. The Classroom Module is designed for workshops with 5 to 60 participants (setting with 15-30 participants is recommended).

*The Cascades Game* is available free of charge for **non-commercial** use. Detailed [Terms of Use are available on the socialsimulations.org website](#), managed by the Centre for Systems Solutions.



# 2. Introduction: Using social simulations to understand and respond to cascading climate impacts

## 2.1. Exploring sustainable futures with social simulations

A social simulation is an experiential process where a group of participants collectively explore a complex reality. It is social because it requires the participation of real people who represent different groups and organizations. We call it a simulation because it represents carefully selected real-world structures and processes. It is similar to a multi-player serious game, as it uses many game-like mechanics, but it also resembles interactive theater by being open-ended in that it does not press participants to achieve any specific goals. Instead, participants set these goals themselves: they create visions of their “desired futures”, and then collectively explore possible strategies to reach them. These strategies, also known as pathways, are tested against a range of external scenarios that challenge the goals. This process allows the participants to understand key challenges on the way to their desired futures, as well as to develop solution options that are required to overcome them.

Social simulations bring together participants with diverse backgrounds and values to interact in a shared, safe environment. In this simulated reality, participants take on specific roles, representing different sectors: e.g. research, administration, business, NGOs. They have an opportunity to prioritize problems, plan and implement solutions, and solve conflicts via negotiations and dialogue. Together, they creatively experiment, test, and tinker with new ideas, after which they instantly face the outcomes of their decisions.



Fig. 1. A visual metaphor of the social simulation process.

It is an approach that combines the benefits of experiential learning (learning through direct experience) (Kolb, 2015) and social learning, that is: “[...]a process of iterative reflection that occurs when we share our experiences, ideas and environments with others” (Keen et al., 2005, p. 9). The dialogue and exchange of ideas within social simulations removes barriers to learning (Sterman 2000) and enables participants to expand their worldviews (Mochizuki et al. 2018). The shared experience eliminates barriers among diverse parties, enhancing trust and understanding. Participants find it easier to build a common language and act together towards a mutual cause. The resulting mind shift leads to creative, inclusive, and resilient solutions, as well as inspires change and action in the real world (Duke & Geurts, 2004).

Such an approach is ideal for addressing complex problems, i.e. ones where the overall system behavior cannot be reduced to a simple sum of its parts. Even a few simple parts with complex interactions can lead to surprising, emergent behavior (Holland 1992). Complex systems have been studied within many disciplines, including inanimate matter, living beings, and people (Berkes et al. 2008). In the context of sustainability, it is important to consider both problem-oriented (biophysical, technological, and economic) dimensions and people-oriented (psychological, ethical, social, and political) ones (de Vries, 2012). Systems that embrace all these dimensions simultaneously tend to be highly complex - not only is it impossible to predict its future trajectories but even interpretations of its current state are highly contested. It is the complexity of the system which tends to produce multiple perspectives and uncertain outcomes.

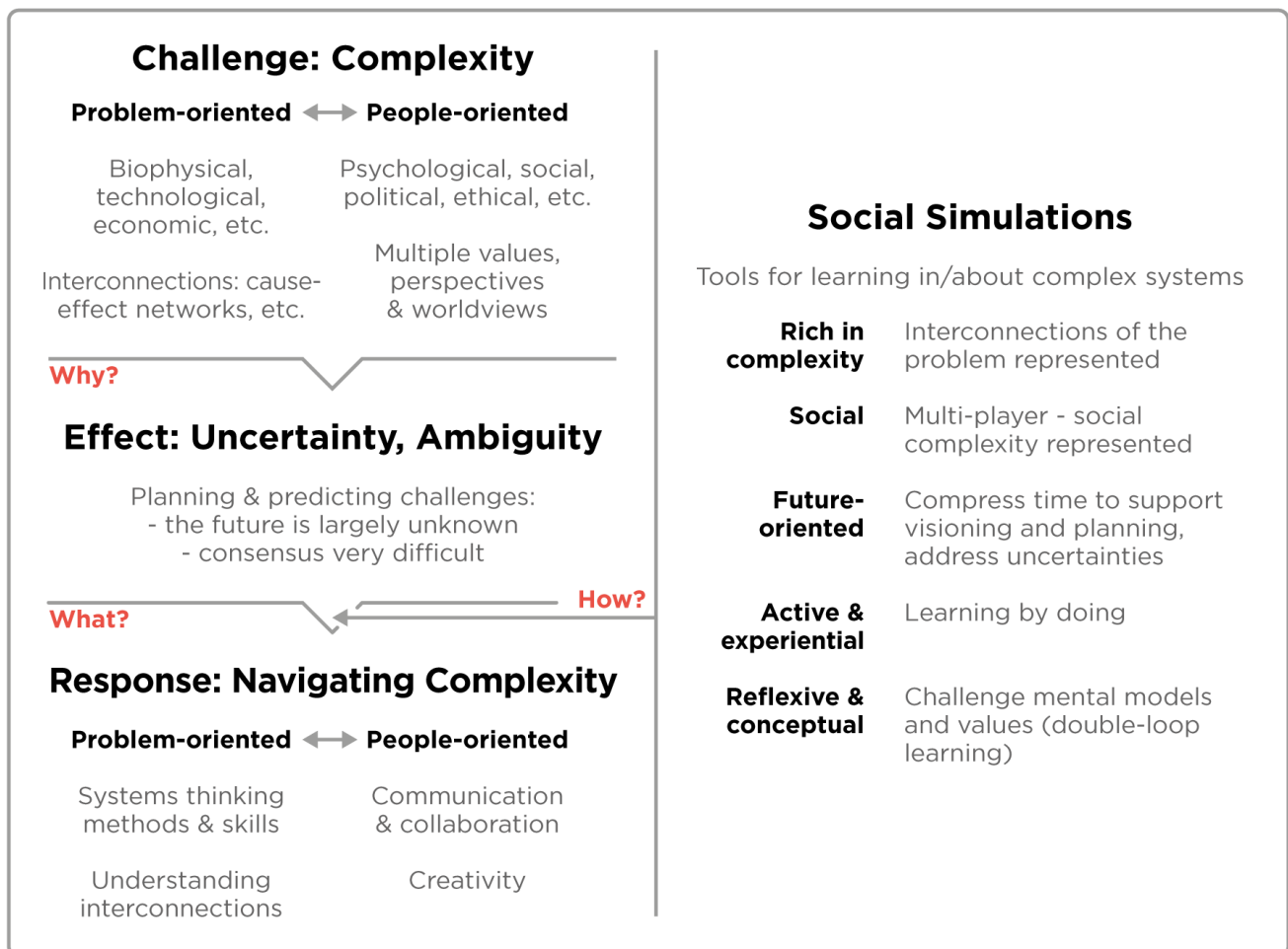


Fig. 2. Social simulations in the learning process.

Decision making and policy development in complex systems require addressing both problem-oriented and people-oriented spheres simultaneously. They need participatory systems thinking where a group of stakeholders openly reveal their assumptions, develop a shared understanding of their challenges, and look for possible ways forward.

Social simulations as a tool can greatly support this journey. They provide a rich representation of the real-world problem situation. They involve participants with different backgrounds. They are oriented towards the future. They allow participants not only to talk but also to interact within the system and therefore to 'learn by doing'. They provide participants with a way to keep their distance from the well-trodden paths of ideas and look at the world from a different perspective. Seeing the results of their decisions often challenges implicit assumptions, leading to a deeper understanding, new creative ideas, and a commitment to action.

Social simulations create shared arenas, where participants can gain a more holistic view of their challenges and how they affect the planet. Exploring new pathways towards sustainable development goals, adapting to and mitigating climate change, managing resources responsibly, transforming the energy sector, advancing individual and social well-being, or creating resilient communities: for all these challenges, social simulations can provide a testing ground, where educators, sustainability professionals, and policy-makers can collaboratively explore possible futures.

The process of a social simulation is broken down in detail below. Although it is presented in sequential order, the process is not entirely linear - the elements are fluid and may overlap with each other during a simulation.

- 1. Problem:** Participants face a complex, real-world challenge that calls for innovative responses and requires the integration of a wide range of data, insights, and tacit knowledge.
- 2. Different perspectives:** The social simulation provides an accessible, storyline-based representation of the problem and connects stakeholders with diverse backgrounds, values, tasks, and goals. Together, they can explore the issue from a number of perspectives that are carefully built into the backgrounds of the simulation roles.
- 3. Communication:** The unique setting allows participants to present their positions regarding the problem, propose their desired responses to the problem at hand, and negotiate and influence others. This leads to a free exchange of ideas and bridges communication gaps.
- 4. Complexity:** Throughout the negotiation process, participants discover the most important variables, identify interconnections, design responses, and test how they will impact other actors and the whole system. In this process, the problem becomes visible in its entirety.
- 5. Creativity:** Participants discover their creative potential and extend their field of view. Abstract ideas become tangible, opening new, original, and inspiring pathways into the unknown.
- 6. Agreement:** In the safe environment of the simulation, participants are more empathetic, trusting, and inclined towards cooperation. Thus, even if debates become heated, all voices are heard, trade-offs negotiated, and a joint policy response accepted. Even if participants' values differ, a compromise can be reached.
- 7. Commitment to action:** After finding a common ground in spite of differences, participants commit to implement their jointly developed strategy, and use their experience and knowledge to face real-life challenges.

## **2.2. CASCADES: Using simulation workshops to establish knowledge co-production interface**

Europe is strongly linked to the rest of the world via trade, value chains, business operations and financial investments, as well as its security, development and diplomatic interests. While direct climate change risks in Europe are relatively well-studied, less is known about how climatic impacts beyond the continent, might trigger risk cascades that affect Europe itself. Moreover, it remains unclear what effect such cascading risks, and potential responses to them, will have on existing and future challenges facing European societies, such as water and energy scarcity, socio-political tensions, rising inequality, financial instability, conflicts and changing security threats.

The CASCADES project identified the risks of climate change to countries, economies and peoples beyond Europe that might impact European societies. The project is working with a diverse range of stakeholders – both within and outside Europe – to support the design of a coherent European policy framework to address these risks.

You can read more about the Cascading Climate Impacts on [the CASCADES project website](#). Watch this [video with a short summary of the CASCADES objectives](#).

Policy Simulation (a variant of social simulation, focusing on policy development) method was applied as a part of the series of CASCADES Core Workshops with stakeholders. The goal of this series of workshops was to establish an effective science-policy-business interface between the project researchers and various stakeholders. Policy Simulation workshops were used to integrate research generated by partners, present the research results to stakeholders, gather stakeholders’ feedback on these results, and better understand stakeholders’ needs regarding what the project should produce. At the same time, in each of the three Policy Simulation workshops, stakeholders produced their own knowledge outputs by developing a set of policy recommendations and providing feedback on the project’s “response framework” during the final workshop.

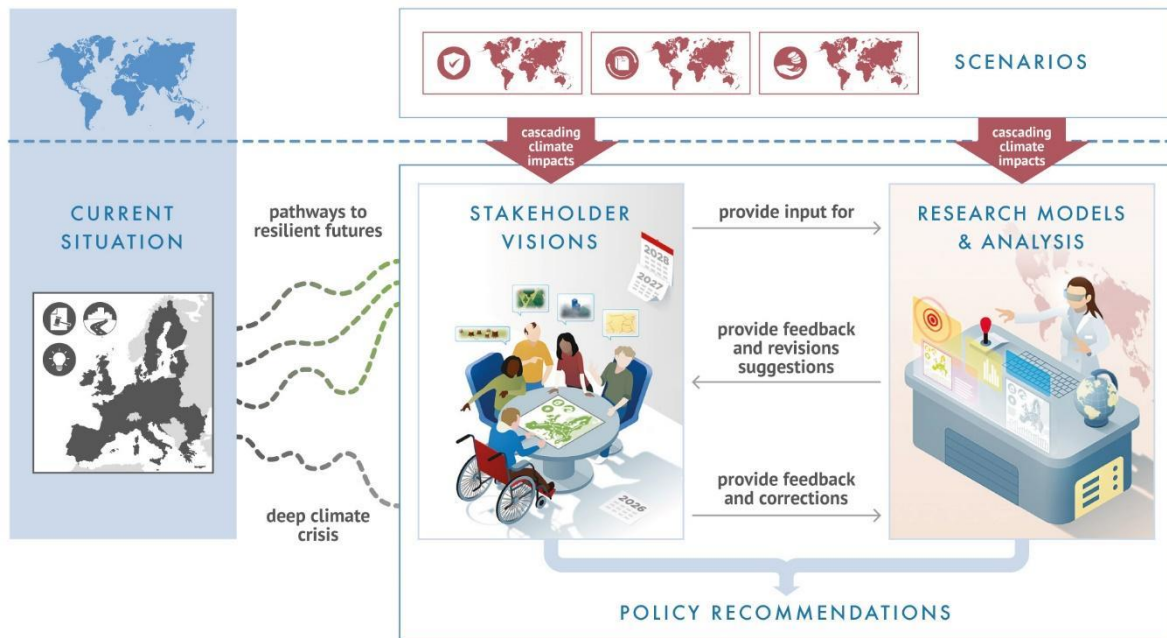


Fig. 3. Stakeholder involvement process in the CASCADES project.

Learn more about [lessons from the final CASCADES stakeholder workshop](#).

### 2.3. The Cascades Game: Bringing the lessons from the CASCADES project to a broad audience

Policy Simulation workshops in CASCADES were used to integrate research generated by partners, present the research results to stakeholders, gather stakeholders’ feedback on these results, and better understand stakeholders’ needs regarding what the project should produce. The simulation proved to be a useful tool, since it addressed some of the challenges, which researchers and policymakers might encounter when dealing with complex systems such as the global food production system and climate change. The Policy Simulation that was the core of



the workshops is the *Cascading Climate Impacts* simulation, and it is available in two thematic versions: *Raw Materials Challenge* and *Future of Food*.

*The Cascades Game* builds on the lessons and experience from the CASCADES project to bring them to a broad audience. The game is based on the content of the *Cascading Climate Impacts* Policy Simulation that was used in the CASCADES project, in particular on the *Future of Food* storyline. The storyline presents the participants with a concrete, complex challenge that starts with a series of climate triggers outside the European Union, which then, through a series of teleconnected cascading impacts, severely influence European society, economy, and politics. Other storylines may be available in the future.

*The Cascades Game* was created for policy and climate educators and university teachers who are welcome to use the game as an introductory interactive tool for the exploration of the issues connected with cascading climate risks. It is also possible to use the game during workshops and other initiatives engaging policy makers.

# 3. *The Cascades Game*: Technical specification and rulebook

*The Cascades Game* consists of two modules:

- **The Exploration Module** is a narrative-based online multimedia experience, presenting a fictional yet plausible story of impact transmission, from the point of origin outside Europe to the very heart of the European Union. The Exploration Module can be accessed asynchronously by multiple players.
- **The Classroom Module** is a workshop protocol and a package of multimedia and self-printed materials needed to run an offline, face-to-face workshop or lesson focused on developing policy responses to the crisis caused by climate impacts. The Classroom Module is designed for workshops with 5 to 60 participants (setting with 15-30 participants is recommended).

The Classroom Module can be used as a standalone workshop tool. It can also be used together with the Exploration Module which, in that case, serves as the introduction to the Classroom Module.

## 3.1. Exploration Module: Technical specification

The Exploration Module is available online and can be accessed from the [cascades.socialsimulations.org](http://cascades.socialsimulations.org) website, or directly at the address: [engage.socialsimulations.org/the-cascades-game](http://engage.socialsimulations.org/the-cascades-game).

It can be accessed anytime, by anyone, without a login or a moderation. We recommend using the Exploration Module as an introductory tool to the concept of cascading climate impacts that can be followed by either a class on this topic, or the simulation game workshop with the Cascades Game Classroom Module. Getting familiar with all the content of the exploration module should take no more than one hour.

### Technical requirements

The Exploration Module is an online application available from an internet browser. Each player needs a computer with the latest version of Google Chrome or Mozilla Firefox, an internet connection, and a headset or a set of speakers (the simulation includes a series of videos that need to be played with sound). No additional software is required.

### Game elements

The Exploration Module consists of a number of story arcs, each presented through one or more short videos. This content can be accompanied by news headlines and social media. The players can access the Exploration Module using a special web application that uses a map to set particular story arcs in the relevant geographical context. As the players explore the story arcs, elements of the simplified conceptual diagram are being shown, superimposed on the map, contributing to better understanding of the system that simulation narrative aims to describe.

### Introductory video

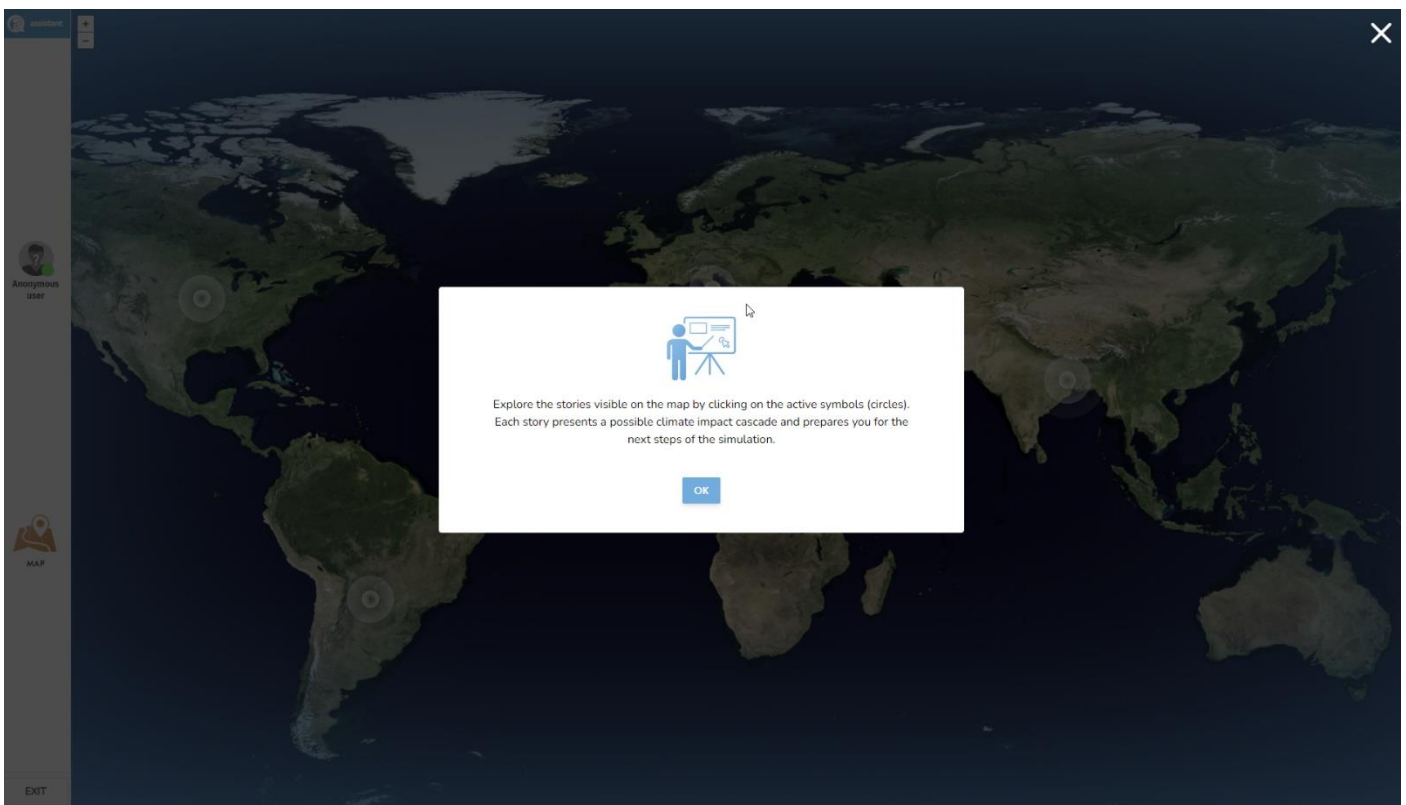
Introductory video is played immediately after the player enters the Exploration Module. It presents different perspectives on the simulation topic and sets the ground for further interactions with the game.



*Fig. 4. Introductory video in the simulation online application.*

### **Assistant**

The assistant feature provides contextual information about the game elements and interface. It is displayed automatically whenever the player enters a new interface section. Players can also access the assistant feature by clicking on the button in the top right corner of the screen.



*Fig. 5. Assistant feature in action.*

## Map

The map serves as the main navigation interface of the game. It sets the geographical context for the presented storylines, and, in the later phase of the exploration, is used to present the conceptual diagram revealing the interconnections between cascading climate impacts from different story arcs.



*Fig. 6. Map at the early stage of exploration.*

## Conceptual diagram

The game's story is based on a conceptual diagram that presents a plausible chain of events leading to specific climate impacts. The players are confronted with this chain of events when exploring the story arcs that together form the story. The conceptual diagram presents how specific elements of the system interact with each other. The conceptual diagrams are also consulted with project researchers and other subject matter experts. In CASCADES, the conceptual diagrams for the game were created following the conceptual framework for cross-border impacts of climate change, developed in the project (Carter et al., 2021).

In the Exploration Module of *The Cascades Game*, the diagram is presented as an overlay on the map and is gradually discovered by players while they explore the story arcs. With each new story arc explored, new elements of the diagram are added on the map.





Fig. 7. A part of the conceptual diagram, as seen when only one of the story arcs was explored.

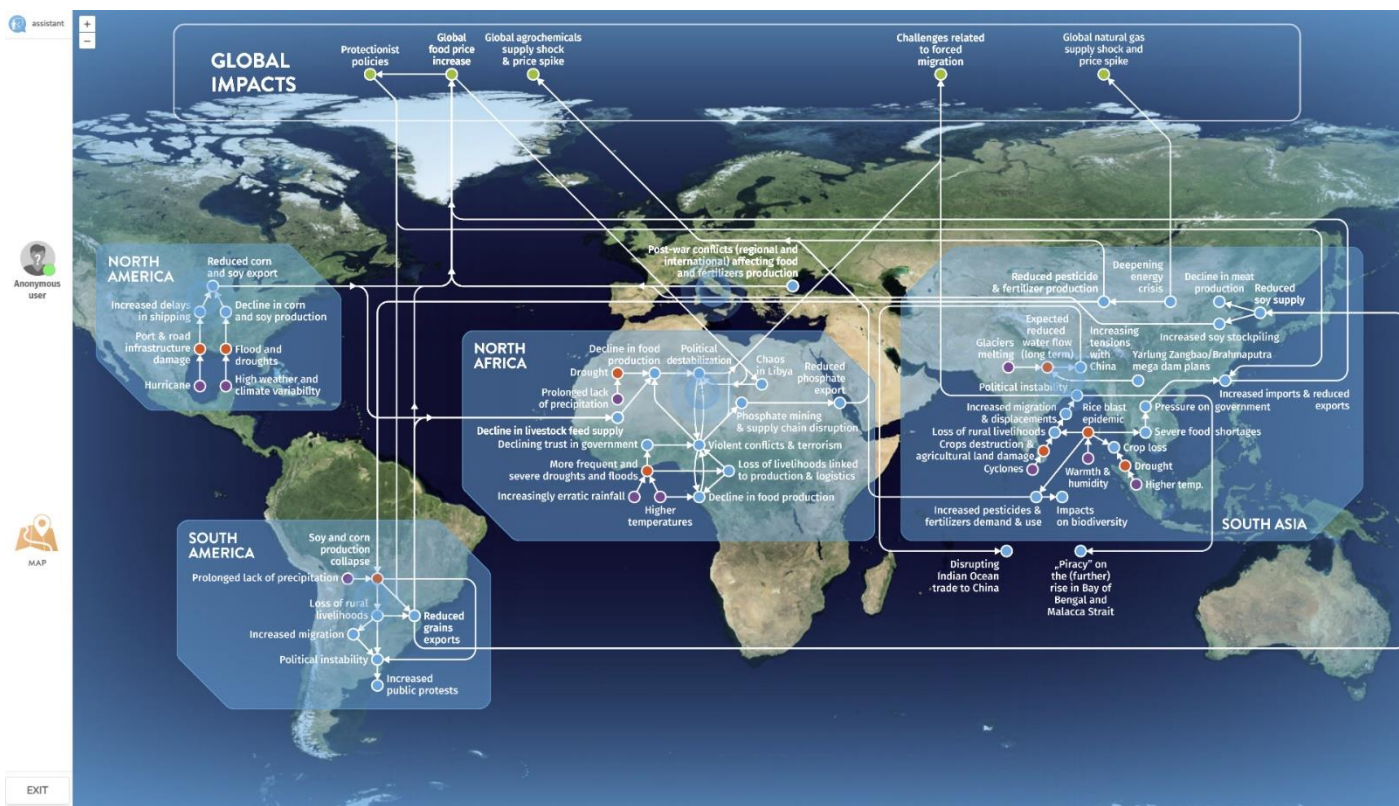


Fig. 8. The full conceptual diagram, visible only after all storylines were explored by the player.



## Story arcs

The *Cascades Game* story arcs are short, self-contained, stories presented in an interactive, multimedia format. The players can decide in which order they explore the story arcs, as well as how much time they want to spend on every segment. Each of the story arcs can be accessed by hovering and clicking on one of the points of interest on the map (marked as radiant circles).



Fig. 9. An entry point to one of the story arcs, available from the map level.



Fig. 10. A promotional graphic presenting all story arcs in the Future of Food storyline.

Each story arc consists of a series of sequentially presented segments consisting of:

- videos using different storytelling techniques to present the main story,
- and supplementary materials stylized as social media entries (personal perspective of story protagonists) and online news (a “big picture” view on the story arc).

The content of the story arcs and its protagonists are based or inspired by the press coverage and other available sources on the simulation’s topics, and were consulted with project researchers and other subject matter experts. Players can navigate through the segments that build a story arc using the interface that also places certain events within the fictional timeline of the crisis presented in the simulation. Players can explore these segments at their own pace, which means that when they will open the game again from the same browser, they will be able to resume the exploration where they left. With each explored story arc, new conceptual diagram elements are revealed on the main map.



Fig. 11. First segment in the story arc. Navigation interface is visible on the top, the video is played in the central part, and the social media entries are available on the right. News can be accessed by clicking the bottom bar.

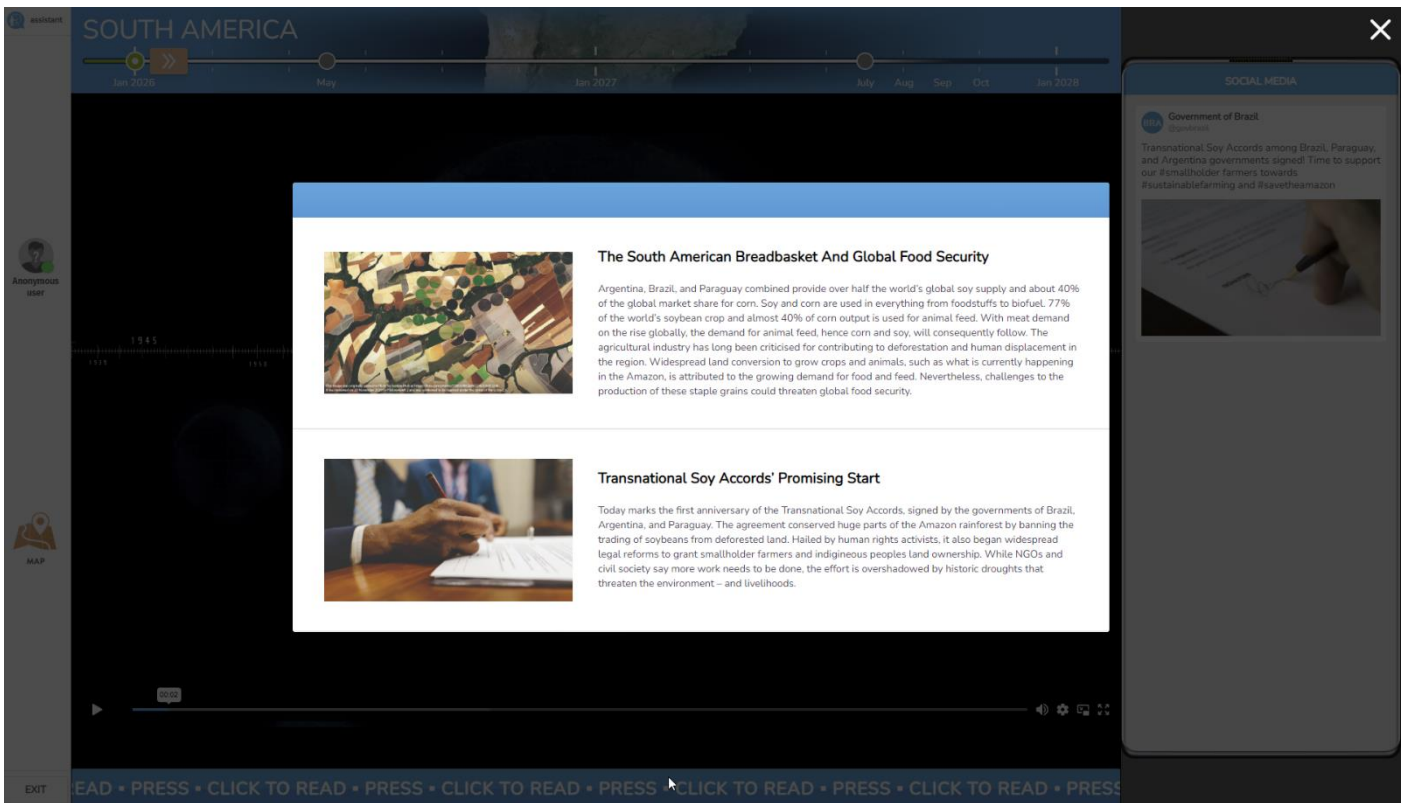


Fig. 12. News pieces accompanying the first segment of the story arc.



Fig. 13. A further segment in the story arc. Progress visible on the navigation interface at the top.



## 3.2. Classroom Module: technical specification and rulebook

The Classroom Module consists of two parts: simulated political summit focused on roleplaying and debriefing during which players reflect on the connections between their simulated experience and real-world situation. The Classroom Module materials can be downloaded at [cascades.socialsimulations.org](http://cascades.socialsimulations.org).

In the summit part, players take roles of members of a special taskforce – the European Taskforce on Food – consisting of representatives of countries and organizations from the European Union and its neighbors. The taskforce’s goal is to decide and develop policy responses that will guide the legislators from EU, UK, and other countries in tackling the ongoing crisis described in the selected simulation storyline. Depending on who the players are, their task during the summit part – can be negotiating and voting on predefined policy responses or drafting policy ideas they developed themselves. The summit part is accompanied by short video summarizing the key storyline events (Start Video, WG Introduction and Mid-Simulation Video) and providing new information during negotiations. In specific storylines, the videos can be accompanied by other multimedia or printed materials (provided in the Classroom Module materials).

In the debriefing part, the players discuss the policies that won the voting, reflect on the system diagram behind the simulation storyline and analyze the policy responses using the guidance provided in the workshop debriefing scenario. The effectiveness of the simulation and related to its negotiations will be assessed by participants during the debriefing – it is an essential part of the simulation learning process.

### Technical requirements

The size of the room in which the simulation game takes place depends on the number of participants. The possible setups depending on the participant number are:

- 5 participants: 1 working group,
- 6-14 participants: 2 working groups,
- 15-60 participants: 3 working groups.

Each working group needs to discuss their topic without being interrupted by other groups.

The room should be equipped with:

- Projector + screen / a big LCD screen,
- a laptop/computer with a stable internet connection to run YouTube/Vimeo videos and display the newsreels (using PowerPoint),
- loud speakers,
- a table for each working group,
- a chair for every participant.

The simulation game workshop facilitator should print and prepare all the materials before the workshop.

The simulation game protocol is planned for 90 minutes. Participants should not be interrupted during that time. It is important that everybody joins on time. It is also highly recommended to ask the participants to get familiar with the Exploration Module before the simulation game workshop.

### Game elements

In this section we describe the elements of *The Cascades Game* – its conceptual building blocks – together with the physical and digital materials that represent them during a game workshop.

## Countries/Organizations and Roles

The playable countries and organizations in the simulation are the European Commission's Directorates-General, EU countries, countries from EU neighborhoods, and international organizations. Each country/organization is represented by 3 players (one representative of a country/organization per working group).

The game is prepared for up to 60 participants (later in this instruction also called players) that are split in 3 working groups (max 20 players per working group). This means that we have 20 playable countries/organizations, each represented by 3 roles (corresponding with 3 working groups) that players take.

As a role introduction, each player receives a **Role Card** that describes their role and country/organization, as well as assigns them to a specific working group. Role Cards are printed on A6-size thick paper sheets and contain following information:

- Avatar – an icon for the role and organization,
- organization name,
- department - role name,
- working group,
- “room” number - information about the physical location of the working group in the workshop venue (in case there is a need to separate groups into different rooms),
- information about the meeting that the game simulates,
- information about the organization.



Working Group **I** Trade, Supply and Value Chains Room **1**

The Directorate-General for International Partnerships is responsible for formulating the EU's international partnership and development policy, with the ultimate goal to reduce poverty, ensure sustainable development, and promote democracy, human rights, and the rule of law across the world.

The European Union set an ambitious goal for itself: to support the global transition to a low-carbon, more resource-efficient and sustainable economy. To deliver on climate, environmental and social sustainability goals, major private and public investments are needed. There are many obstacles to reaching these objectives: conflicting visions of different member states, changing circumstances outside the EU, and climate impact. All of that creates new, unpredicted challenges.

Fig. 14. Two sides of a sample Role Card.



Bear in mind !

Participants are free to interpret the guidance provided in the Role Card and creatively use it in the roleplaying part of the workshop.

Two additional, technical roles may be also used during the gameplay: Working Group Moderator and Working Group Secretary. These roles are described in detail in the *Game protocol and rulebook* part of this document.

All available roles and their descriptions are listed in the [Appendix 1](#) to this document.

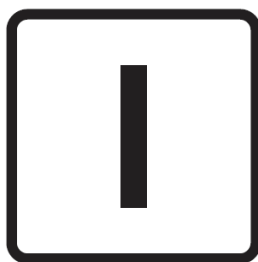
### Working Groups

During the simulation, the players work together in 3 working groups based on the thematic pillars of the CASCADES project:

- Working Group 1: Trade, Supply and Value Chains
- Working Group 2: Foreign Policy, Security, and Development
- Working Group 3: Finance and Business.

Each working group should work in a separated space in a bigger room or - if it is possible - in a separate room. Each such space or room should be marked with a **Room ID label**. Room ID labels are printed on A4 thick paper sheets.

# Working Group



# Trade, Supply and Value Chains

*Fig. 15. A sample Room ID label.*

At the beginning of the simulation, the participants watch **the Start Video**, which summarizes the story blocks from the Exploration Module and sets the scene for the simulation. It is the moment when the simulation and “magic circle” starts.

Afterwards, the facilitator opens the working groups with **the Working Group Introduction** video – a short video presenting basic information about how the working group part of the simulation looks like.



**European  
Taskforce on Food**



As members of the European Taskforce on Food, you will work together to develop policy recommendations on how to tackle the ongoing food crisis.

*Fig. 16. A screenshot from the Working Group Introduction video.*

In addition, each working group receives a number of printed copies of the **Newspaper Excerpt** (EuroWire Magazine) –stylized as an expert discussion, that provides more information on the crisis, filtered through the topic of each working group. These printouts are shared at the beginning of the working group discussion.

## EXPERTS TALK

# BETWEEN A ROCK AND A HARD PLACE

EVERY WEEK WE INVITE OUR EXPERTS TO DISCUSS RECENT DEVELOPMENTS IN TRADE



**ADEL  
BAZ**

WORLD FOOD  
PROGRAMME

The growing energy crisis and the disruption of the phosphate production in Morocco have made fertilizers more expensive than ever. This, in turn, forced European farmers to raise their prices as well.

At the same time, the soy production collapse in Brazil, Argentina, and Paraguay has painfully exposed Europe's dependence on economically viable imports of animal feed products.



**MADLYN  
EDGAR**

EUROPEAN FOOD  
INDUSTRY ASSOCIATION

Europe has truly found itself between a rock and a hard place.

One would say that European crop farmers could step in and fill the gap in feed imports...



**RADU  
DAMIAN**

EU FARMERS  
ALLIANCE

But how can you expect us to do so, if for more than a year we have been choked with unbearable costs of fertilizers and pesticides?

Add to that droughts, heatwaves, drastically high energy prices. And on top of that, all kinds of regulations that leave really little space for the farmers to react properly.



**SOPHIE  
DAM**

COALITION FOR NATURE  
AND SOCIETIES

The situation is extraordinary, that's correct. But we cannot just rush headlong into interventions that support unsustainable farming systems.

By sacrificing the environment and biodiversity in the short-term, we are risking our future.

## Policy Development

Each working group discusses and places initial votes on predefined, fictional **Initial Policy Proposals** (one policy proposal per working group). These policy proposals stylized as submitted by fictional organizations – were co-developed with the CASCADES partners representing each of the project’s thematic work package. They are presented as official documents and printed on regular A4 paper sheets.



WORKING GROUP 1:  
TRADE, SUPPLY AND  
VALUE CHAINS

POLICY PROPOSAL SUBMITTED BY  
FRENCH MINISTRY OF  
AGRICULTURE AND FOOD

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## Modify Common Agricultural Policy requirements regarding fallow land use to increase EU protein crops production

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### 1. Description

Seeking to secure EU food sovereignty, the French Ministry of Agriculture and Food proposes an amendment to the Common Agricultural Policy (CAP) to increase protein crop production. Protein crops include soybeans, legumes and various oilseeds, and are used both in animal feed and plant-based protein alternatives.

The amendment to the CAP 2027-2033 would immediately suspend good agricultural and environmental conditions (GAECs) for all farms that focus on protein crop production. This would allow EU farmers to use fallow land for crop production without losing CAP subsidies.

Suspending the GAECs for protein crop farmers in the CAP will be the first and immediate step in the creation of an EU-wide protein strategy. In the short-term, the EU supply of animal feed will be secured. Over time it will give a necessary boost to protein crop farmers to build their production capacity.

### 2. Justification

In 2023, a proposal for an EU-wide protein crop strategy failed to garner majority-support. Though it had widespread support from various agricultural ministries, member countries could not agree upon the details of the final package. Currently however, recent developments in South American soy-exporting countries shows the urgent need for a comprehensive strategy.

EU member states must now collectively decide how to secure the bloc’s food sovereignty. There are discussions, should the EU support its livestock sector, or encourage switching from meat consumption to plant-based protein diets. For both of these directions, a common protein crop strategy is a must.

*Fig. 18. A sample Initial Policy Proposal.*

Together with the Initial Policy Proposals, participants also receive a **Memo from Supervisor** – a document stylized as a memorandum from the management of the organization that the player's role represents. The document is printed on regular A4 paper sheets. The document contains information on what vote is expected from the player, and why this position is important for the player's organization.

Bear in mind !

Participants are free to interpret the guidance provided in Memo from Supervisor and creatively use it in the roleplaying during the game workshop. They are not obligated to follow these instructions.

Memo

From: Department Director

To: Directorate-General for Climate Action: Trade Department's delegate to the European Taskforce on Food

Subject: Our position on the "Modify Common Agricultural Policy requirements regarding fallow land use to increase EU protein crops production" policy proposal

We must look at the bigger picture. In Europe, we produce in the most ecological way on the planet, particularly compared to the methods of third states. In practice, producing proteins in the EU prevents deforestation elsewhere.

Therefore, in the interest of our organization, you should vote YES for following policy proposal: "Modify Common Agricultural Policy requirements regarding fallow land use to increase EU protein crops production".

We trust you will protect our interests and promote our values throughout the meeting of this Taskforce.

Sincerely,  
Department Director

*Fig. 19. A sample Memo from Supervisor.*

The reflection on Initial Policy Proposals serves as a conversation starter for the policy development process by the players. They can submit their own policy ideas or modifications to predefined policies (using the **Policy Forms** – A4-sized printouts included in the game set). Policy proposals must have approval from the majority of the working group members (50% of members + 1 member) to be considered a policy response recommendation to the crisis that is at the center of the simulation game scenario. (The voting protocol is described in detail in [the Game protocol](#) and [the Game rulebook](#) part of this document.)



**VOTING RESULTS**

Delegate	VOTE	
	YES	NO
Germany: Trade Department		
Mali: Trade Department		
EU Farming Coalition: Trade Department		
Center for Food Security: Trade Department		
Commissioner for Future Generations: Trade Department		
Directorate-General for International Partnerships: Trade Department		
Spain: Trade Department		
The Netherlands: Trade Department		
Tunisia: Trade Department		
European Banking Association: Trade Department		
Directorate-General for Agriculture and Rural Development: Trade Department		
Poland: Trade Department		
OilProt Europe: Trade Department		
EUROFOOD Group: Trade Department		
Just & Green EU: Trade Department		
Directorate-General for Climate Action: Trade Department		
Sweden: Trade Department		
United Kingdom: Trade Department		
Nature First: Trade Department		
Green Investments Chamber: Trade Department		
<b>TOTAL</b>		

Signature of the Working Group Secretary

European Taskforce  
ON FOOD

Working Group 1: Trade, Supply and Value Chains

WORKING GROUP 1:  
TRADE, SUPPLY, AND  
VALUE CHAINS

POLICY PROPOSAL SUBMITTED BY:

---

Title

---

**I. Description**

**II. Justification**

Fig. 20. A sample empty Policy Form.

In addition, during the gameplay the players receive A4 printouts with **Emails with Policy Suggestions** from various lobby groups. These Emails can serve as inspiration for policy responses developed by the participants.

**European Food Industry Association**

Suspend the EU anti-deforestation policies

To: Working Group 1: Trade, Supply and Value Chains

Re: efia@█.org

Inbox - WG1 █ 2028



Dear Sir/Madam,

Sometimes, you need to choose lesser evil. Suspension of the EU anti-deforestation policies would re-open the EU market for more suppliers from South America to counteract the soy supply crisis.

This will ensure animal feed deliveries for the European livestock farmers. It must be done. Otherwise, the impact on the stability of the European food market will be devastating.

Kind regards

European Food Industry Association

Fig. 21. A sample Email from a lobby group.

## Narrative Content

To summarize, the narrative content of the simulation game is presented through videos and Newsreels displayed in the classroom and through the printouts with Newspaper Excerpts, Memos from Supervisor and Email with Policy Suggestion that each Working Group receives.

The **videos** include:

- **Start video:** a recap of the exploration storyline content combined with the starting point of the crisis scenario.
- **The Working Group Introduction:** a short video presenting basic information about how the working group part of the simulation looks like.
- **Mid-simulation video:** a “breaking news” video, at a certain point in the workshop disrupting the negotiations in Working Groups, providing new perspectives and development in the crisis, to some extent impacting the discussions on the appropriate policy responses.

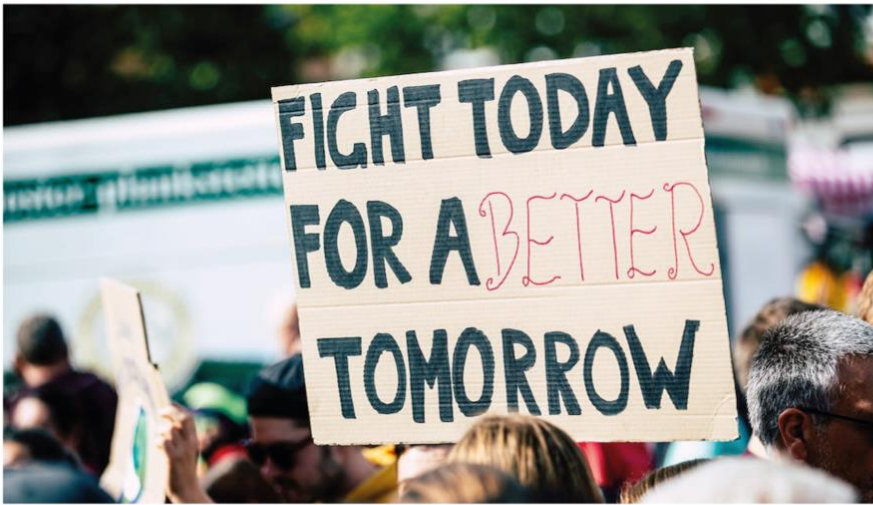


*Fig. 22. A screenshot from the Start video.*

Two powerpoint presentations with **Newsreels** are displayed on the loop on the screen during the whole negotiations process. They contain the supplementary information on the crisis depicted in the simulation. The second presentation is turned on after the Mid-Simulation Video.

## Europeans take it to the streets

Society



It started with farmers, now it looks like everybody is protesting. Not every European government will survive this.

f

## DAILY NEWS



12.04.2022  
Price Shocks in Fertilisers,  
Pesticides, and Blue Oiling  
Panic-Buying in Housing

11.04.2022  
The unprecedented historic  
collapse of staple food  
commodities, sparking global

11.04.2022  
T markets. Hoarding is also an  
issue, both locally and by  
national governments, which

Fig. 23. A screenshot from the first Newsreel presentation.

Printouts with Newspaper Excerpts provide more information on the crisis, filtered through the topic of each working group (described in detail in the Working Groups section).

**Emails with Policy Suggestions** contain new policy proposals from various lobby groups that the working groups receive during negotiations (described in detail in [the Policy Development Guidelines section](#)).

### Debriefing protocol

Simulation game sessions are always followed by debriefing. The main goal of the debriefing session is to connect simulation experience and its content with participants' needs and practice in the real world.

During debriefing, the participants leave their working groups and gather in the plenary session. First, they are asked to step out of their roles, leave the simulated world behind and reflect on their experience. Debriefing starts with reviewing simulation results (i.e. policies developed by participants that received most SUPPORT votes).

## Game protocol

The Cascades Game should be facilitated following a clearly defined protocol. Table 1 presents an overview of this protocol (simplified gameflow), and a full version is available in the Classroom Module package.

**Important: All information below refers to groups up to 30 participants. For bigger groups, adjust the time accordingly.**

Time	Simulation segment	Details
10 minutes	Welcome and roles selection	<p>Facilitator welcomes the players and, while they're coming to the room, asks them to sit down on free places in the Working Group tables.</p> <p>While waiting for others, the participants that are already in the room can read Newspaper Excerpts that are placed on the Working Group tables.</p> <p>When everybody is in the room, the Facilitator hands out envelopes with Roles (at random, each WG has their own set of envelopes). One player gets one envelope.</p> <p>Facilitator asks everybody to open their envelope, read their role description, and discover who they will role play in the game.</p>
10 minutes	Introduction to the taskforce meeting	<p>The game - and the magic circle - starts. We're in 2028 now. Facilitator welcomes everybody once again, setting the scene for the Start Video.</p> <p>Facilitator announces the Start Video and plays it.</p>
10 minutes	Introduction to the working groups	<p>Facilitator announces work in the working groups.</p> <p>Facilitator plays the WG Intro Video.</p> <p>Facilitator asks players in each working group to - very briefly - introduce themselves (staying in their roles).</p>
10 minutes	Phase One: Discussion on the Initial Policy Proposal	<p>Facilitator announces that - in a moment - every participant will receive:</p> <ul style="list-style-type: none"> <li>An Initial Policy Proposal from a certain lobby group, responding to the crisis presented in the Start Video (each working group receives the same policy proposal);</li> <li>A Memo from the Supervisor that explains how the country/organization that player represents expects them to vote on the Initial Policy Proposal.</li> </ul> <p>Facilitator distributes envelopes with the Initial Policy Proposals and Memos around the room, and asks players to take their envelopes and read the Initial Policy Proposal and the Memo.</p> <p>Facilitator turns on the Newsreel 1 presentation (looped).</p> <p>Facilitator asks participants to share their views on the Initial Policy Proposals (they can use the Memo as guidance).</p> <p>If present, the WG Secretary and the WG Moderator support and stimulate the discussion.</p>
5 minutes	Phase One: Voting on the Initial Policy Proposal	<p>Facilitator asks participants to place votes on the Initial Policy Proposals (they can use the Memo as guidance).</p> <p>Participants that support Policy Proposal leave a signature with their organization's name on the SUPPORT area in the Voting Protocol section of the Initial Policy Proposal document.</p> <p>If present, the WG Secretary supports the voting process.</p> <p>Number of signatures needed for Policy Proposal to be accepted = (number of Delegates / 2) + 1.</p> <p>Facilitator asks the WG Secretaries (or one of the participants in each WG) to share voting results with the rest of the group. The reporting person reads the title of Policy Proposal aloud and announces the voting result.</p>
10 minutes	Mid-Simulation Video	<p>Facilitator announces the Mid-Simulation Video.</p> <p>Facilitator plays the Mid-Simulation Video.</p>



20 minutes	Phase Two: Negotiations and policy development, continuous voting	<p>Facilitator hands out empty Policy Forms, Emails with Policy Suggestions, and Policy Proposal Guides to every Working Group.</p> <p>Facilitator asks players to try to improve Initial Policy Proposals, build new policy proposals based on Emails, or even to develop their own policy responses - and to get the signatures of their colleagues. Facilitator asks players to construct their policy proposals according to the Policy Proposal Guide.</p> <p>Facilitator turns on the Newsreel 2 presentation (looped).</p> <p>Voting is continuous - players can sign the policies anytime in this phase. Policy Proposal needs to have at least 50% + 1 SUPPORT signatures to be accepted.</p> <p>If present, WG Moderator and WG Secretary stimulate the discussion, review the policies, and support the voting process.</p> <p>5 minutes before the end of this phase, the Facilitator reminds the players that this is the last chance to place the votes.</p>
15 minutes	Debriefing	<p>Results overview - each WG secretary (or selected player) presents the voting results. Reflection on the simulation experience.</p> <p>Bridging with the Real World [this could be done during a class on another day].</p>

*Table 1. Simplified gameflow.*

The proposed timespan for this protocol is 90 minutes. However, the facilitator may decide to expand the game workshop. It is not recommended to run the game during classes or workshops that have below 90 minutes.

## Game rulebook

*The Cascades Game* is an open-ended, social simulation. This means that there are only a few rules that are meant to structure meaningful discussion and co-creation among the players. The rules can be grouped into following categories:

### Narrative assumptions

- The game takes place between 2026 (Exploration Module) and 2028 (Classroom Module). Players are shaping policies that would be introduced by the year 2030.
- The events presented in the game are entirely fictional – but developed based on real-life inspirations and consulted with CASCADES project researchers and stakeholders regarding their plausibility.
- The players are facing a hypothetical food crisis. They are taking the roles of the members of the European Taskforce on Food, tasked with developing policy recommendations that will guide the legislators from the EU and can possibly inspire other countries in tackling the ongoing crisis.
- The players cannot interfere with the storyline directly (it's outside their sphere of influence).

Visit section [5. Additional materials](#) to learn more about the selected CASCADES research that guided the simulation game's story development.

*(NOTE: These are narrative assumptions for the Future of Food scenario. They may change for other possible scenarios that may be added to the game in the future.)*

### Roleplaying

- Each player takes the role of a representative of a department member in one country or an organization.
- Each organization has three department members in the game: Trade Department, Foreign Policy Department, Finance Department.

- The players receive the materials about their organization and its goals, as well as the instructions from their “supervisor”. However, they are free to construct their own roleplaying and make their own decisions during the game - also if that means contradicting their supervisors’ messages.
- During the game, the players should refer to themselves as the representatives of their respective organizations.

## **Policy development guidelines**

### *Drafting Policy:*

- Policy responses proposed by players should have clear focus on the food crisis presented in the game’s narrative.
- If they include financing, grants, payments, etc., proposed policies should indicate where the funds will come from and how they will be distributed.
- Policy proposals should be written clearly and concisely on the policy forms included in the game set.

### *Amendments to Policy:*

- If one of a player adds an amendment to the Policy that already raised SUPPORT, the players who SUPPORTED policy earlier have to agree to the amendment.

### *Voting:*

- Participants that support Policy Proposal leave a signature with their organization’s name on the SUPPORT area in the Voting Protocol section of the Initial Policy Proposal document.
- Number of signatures needed for Policy Proposal to be accepted = (number of Delegates / 2) + 1.
- If WG Secretaries are present they facilitate the voting process.

# 4. How to run The Cascades Game? Guidelines, tutorials, and instructions

## 4.1. Which module is right for me?

The game works best when is applied in two steps:

1. Players get familiar with content of the Exploration Module on their own;
2. Then, players take part in a face-to-face workshop organized using the Classroom Module.

However, not every time organizing a full, 90-minute workshop may be possible. In that case, the Exploration Module can be used to introduce the players to the concept of cascading climate impacts - and it can be discussed during the class or a workshop. If you don't have the capacity to run the full workshop - sharing the Exploration Module will still allow you to introduce your students or trainees to cascading climate impacts.

The Classroom Module is prepared to be accessible as a standalone tool. This means that the content of the Exploration Module enriches the experience - but it is not necessarily needed to meaningfully engage in *The Cascades Game* in a workshop. If your students or trainees don't have time for spending one hour on the Exploration Module, don't hesitate to make it optional or even skip it altogether.

## 4.2. Using the Exploration Module

1. Enter the Exploration Module and get familiar with its content.
2. Make sure you understand how to navigate the interface to be able to respond to your participants' questions. Revisit the 3.1. section of this document if needed.
3. Share the information about the game with your players:
  - a. If you're using the Exploration Module as a standalone tool, send only the link to the Exploration Module. You can use following email text:

You've been invited to explore The Cascades Game - an online social simulation on cascading climate impacts. Please enter the link below:  
<https://engage.socialsimulations.org/the-cascades-game>

You can explore the content of the game at your own pace. Total exploration time should be around 1 hour. You will need a computer with internet access, the latest version of the Chrome or Firefox browser, and a headset or speakers.

Should you have any questions or technical problems, please let us know by replying to [this](#) email.

The Cascades Game was created as part of "CASCADES – Cascading climate risks: Towards adaptive and resilient European Societies" project, which was funded through the EU Horizon 2020 programme under grant agreement No 821010.

- b. If you're using the Exploration Module as an introduction to the workshop with the Classroom Module, follow the instructions provided in the next section on the Classroom Module.

## 4.3. Using the Classroom Module

### Introduction

In this chapter, we discuss how to prepare a workshop with *the Cascades Game*. You can download the checklist from the Classroom Module Package (available at the [cascades.socialsimulations.org](http://cascades.socialsimulations.org) website), the file is titled: The Cascades Game: Step-by-Step checklist.

The workshop lasts approximately 90-minutes. Additionally, it is recommended to ask participants of the simulation session to go through the interactive Exploration Module that sets the scene for the simulation, which should take about 1 hour. No other prior preparations for the role are necessary.

Using the game at a workshop is more than just knowing the structure of the game and the theory. It's also about preparing space and materials, planning ahead for worst-case scenarios, and knowing what to do to provide the most constructive experience for participants.

### A week before the game

#### Read carefully all instructions

Make sure you're prepared for what's ahead of you!

#### Learn how many participants will take part in the game workshop

You will need this information to prepare the room and the game materials. If you are not sure what will be the exact number of participants, estimate what will be the minimum and maximum number of participants. Collect email addresses from your participants in order to send them materials before workshops.

#### Save the date

Decide what will be the date and time of your workshop.

#### Check the room

Make sure the room in which you plan to run the game workshop is suitable for the maximum number of participants and that it meets the [technical requirements](#) (also below). Make the necessary arrangements regarding room booking, if needed. It is highly recommended to visit the room in person. Make sure that you will have access to the room one day before the workshop so you can set it up in advance.

#### Technical requirements

The size of the room in which the simulation game takes place depends on the number of participants. The possible setups depending on the participant number are:

- 5 participants: 1 working group,
- 6-14 participants: 2 working groups,
- 15-60 participants: 3 working groups.

Each working group needs to discuss their topic without being interrupted by other groups.

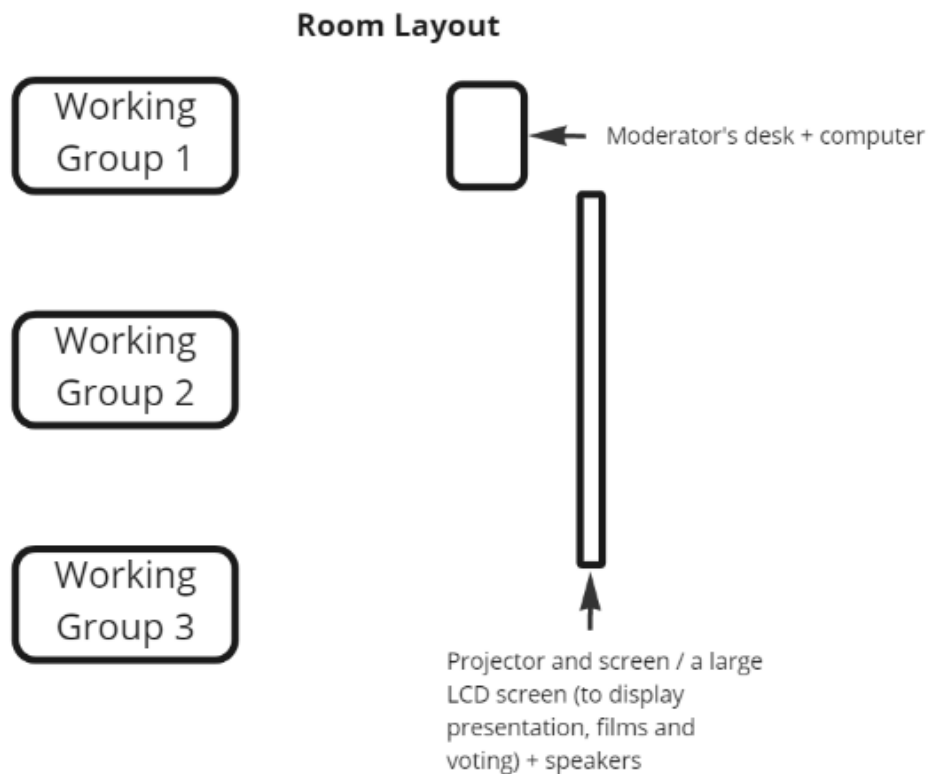
Additionally (if your WG will be bigger than 5 people), it is worth introducing the Working Group Secretary. Secretaries should be played by one of the participants in each WG and the role's responsibility is to facilitate the voting process, write down policy drafts and track down the voting results in the group. In larger groups (more than 10 people per WG) we advise adding a



role of Working Group Moderator, who, if necessary, will moderate and stimulate conversation in a group (with the aid of moderation questions).

The room should be equipped with:

- Projector + screen / a big LCD screen,
- a laptop/computer with a stable internet connection to run YouTube/Vimeo videos and display the newsreels (using Microsoft PowerPoint),
- loud speakers,
- a table for each working group,
- a chair for every participant (every WG table should have the amount of chairs that equals the amount of players who will join this WG).



*Fig. 24. Preferred room layout for The Cascades Game workshop.*

### **Prepare the list of materials needed**

Use ***the Cascades Game: Prepare the Game*** spreadsheet that you can find in the Classroom Module Package to generate the list of printouts and other materials for the workshop.

### **Arrange the materials printing**

The Classroom Module package contains two versions of the printing files: the print shop version and the home/office printer-friendly version.

If you are sending materials to a print shop, make sure that you do that at least a week in advance to avoid delays. Note that not every print shop will cut the materials for you!

If you are printing materials on your own, make sure to book some time for cutting and arranging them.

Some of the materials can be printed double sided (Newspaper Excerpt). In order to be more eco-friendly and cut costs of the prints you can print some materials in black and white (Initial Policy

Proposals, Emails with Policy Suggestions). Please bear in mind that Role Cards and Newspaper Excerpts look better in color.

### Send the participants the preparatory materials

A week before the game workshop, send your players the information about it, the brochure, and the link to the exploration content (optional). You can use a sample email text presented below.

Dear Participants,

[Day of the session] you are going to take part in the Cascades Game in which you will experience how the impacts of climate change to countries, economies and peoples beyond Europe might cascade into Europe. Moreover, you will work together with other participants to develop policy responses to these impacts.

Below you will find information on when and where the session will be held.

#### Schedule and logistics

The game workshop will take place on [DATE] at [TIME] in [VENUE].

#### Exploration Module

Before the simulation, please explore the interactive exploration content available at:

<https://engage.socialsimulations.org/the-cascades-game>

This preparatory material presents the roots of the hypothetical crisis set in 2026-2028 that you will be responding to as a participant in the game workshop. This interactive narrative experience is split into five short segments that you can explore at your own pace. Getting familiar with all storylines should take around one hour. You will need a computer with the latest version of Google Chrome or Mozilla Firefox, an internet connection and a headset.

The Cascades Game was created as part of "[CASCADES – Cascading climate risks: Towards adaptive and resilient European Societies](#)" project, which was funded through the EU Horizon 2020 programme under grant agreement No 821010.

See you on [DATE] during the simulation session!

## A day before the game

### Send the participants a reminder email

A day before the game workshop, send your players the reminder about it, the brochure, and the link to the exploration content (optional). You can use a sample email text presented below.

Dear Participants,

Tomorrow you are going to take part in the Cascades Game in which you will experience how the impacts of climate change to countries, economies and peoples beyond Europe might cascade into Europe. Moreover, you will work together with other participants to develop policy responses to these impacts.

Below you will find information on when and where the session will be held.

#### Schedule and logistics

The game workshop will take place on [DATE] at [TIME] in [VENUE].

#### Exploration Module

Before the simulation, please explore the interactive exploration content available at:

<https://engage.socialsimulations.org/the-cascades-game>

This preparatory material presents the roots of the hypothetical crisis set in 2026-2028 that you will be responding to as a participant in the game workshop. This interactive narrative experience is split into five short segments that you can explore at your own pace. Getting familiar with all storylines should take around one hour. You will need a computer with the latest version of Google Chrome or Mozilla Firefox, an internet connection and a headset.

The Cascades Game was created as part of "[CASCADES – Cascading climate risks: Towards adaptive and resilient European Societies](#)" project, which was funded through the EU Horizon 2020 programme.

See you tomorrow during the simulation session!

### Visit the game room and prepare all materials

Book at least **3 hours** to prepare.

- Open all necessary materials (videos, presentation, newsreel) on the computer you will be using in the room.
- Connect the computer and check if the projector works and play one video to make sure the sound is working.
- Prepare the WG tables: each table should have a Working Group Label with a working group name and the Newspaper Excerpts and chairs for participants (number of chairs = number of WG members).
- Prepare the Role Cards:
- Take C6 envelopes (number of envelopes according to the Cascades Game: Prepare the Game spreadsheet)
- Divide envelopes into three stacks and write on the envelopes the Working Group numbers (WG1, WG2, WG3). Don't write the role names on them!
- Put the Role Cards inside the envelopes according to the order that they were generated in the Cascades Game: Prepare the Game spreadsheet.
- Prepare the Policy Packs:
- Take the A5 envelopes.
- Write the WG number and one role name on each envelope according to the information generated by the Cascades Game: Prepare the Game spreadsheet. Continue until you have envelopes for all the roles listed for your chosen number of players in the spreadsheet.
- Take the Initial Policy Proposal and Memo from Supervisor printouts and put them in envelopes for each player. Remember that Policy Packs are personalized for each role! Again, make sure that each envelope contains a Memo for the right role and the Initial Policy Proposal!
- Open the Policy Form document for each WG and remove the players that you will not have during your workshop (according to the Cascades Game: Prepare the Game spreadsheet). Divide the Emails with Policy Suggestions to three Working Groups.
- Prepare all other materials from the list generated by the Cascades Game: Prepare the Game spreadsheet (Materials: Checklist tab, make sure to adjust the number of players first).

## The game workshop

To get an overview of the game session go to [the Game Protocol section](#). Before the session make sure to study the Cascades Game: Gameflow document available in the Classroom Module Package and use it during the workshop. This is a more detailed version of Table 1 that you can find in the Game Protocol session.

Below is listed an overview of the WG Moderator and the WG Secretary role – for information on how to run the workshop without them, consult the relevant Game Protocol version.

### Facilitation steps in Working Groups

The moderation will be held mostly by *the WG Moderators*, but make sure to check from time to time on all groups to see how they are doing.

#### Phase One

1. Before players will receive the Initial Policy Proposal, the WG Moderators should ask everyone to introduce themselves in their roles (what organization, country they represent) and to summarize their official goals (what a player might find relevant for other players to know).
2. Next, the Facilitator hands out to the participants Initial Policy Pack (Initial Policy Proposal and Memo from Supervisor). Each player receives a personalized policy pack and should be given around 5 minutes to read it and reflect on it.
3. The negotiation on the Initial Policy Proposal and voting should be coordinated by the WG Secretaries according to the Policy Development Guidelines they received with their instructions. After all players have expressed their opinions, the WG Secretary should manage the voting by asking participants to leave a signature with their organization's name on the SUPPORT area in the Voting Protocol section of the Initial Policy Proposal.
4. Phase One ends when all WG Secretaries have collected votes under the Initial Policy Proposition. Number of signatures needed for Policy Proposal to be accepted =  $(\text{number of Delegates} / 2) + 1$ .

#### Phase Two

Now players know how a potential policy proposal may look. They also know a little bit more about other players intentions and may understand better their internal goals. In this phase the full negotiations begin.

5. Facilitator hands out blank Policy Forms and Emails with Policy Suggestions to every player.
6. Then, *the WG Moderator* should encourage the group to draft one or more policy proposals (they can use the [Moderation Questions](#) provided in their instruction).
7. *The WG Secretaries* are managing the voting process. Every policy proposal developed by players should be submitted to *the WG Secretary*. *The WG Secretary* then briefly checks if this policy proposal meets the requirements (see [Policy Development Guidelines](#)). If it does so, *the WG Secretary* asks the players to vote by leaving a signature with their organization's name on the SUPPORT area in the Voting Protocol section of the policy proposal.
8. If the Policy Proposal was accepted–  $\text{SUPPORT} = (\text{number of Delegates} / 2) + 1$ , it goes on the Accepted stack.
9. If the Policy Proposal was not accepted, *the WG Secretary* hands it out to the player that submitted it. *The WG Moderator* can use this moment to ask the players why they did not support this policy and what needs to be amended in order to get their support.
10. In the meantime, other policy proposals can be submitted to *the WG Secretary*. *The WG Secretary* and *the WG Moderator* should facilitate the process.

11. When some time passed the Facilitator gets players attention and plays the Mid-Simulation Video. After the video has finished, the Facilitator informs players that they can come back to negotiations, encouraging them to reflect on the video and “last minute” news.
12. The Facilitator announces that the negotiations will end in 5 minutes and it is the last moment to support policies. *The WG Secretaries* manage the voting and after its closing report the results to all members of the European Taskforce on Food.

## Debriefing

In other parts of the training we have referred to the debriefing as the most important part of the social simulation. This is because the debriefing is the first formal time players have the opportunity to reflect on what they did, why they did it and what it meant. It also provides time for bridging the gap between the game’s world and reality.

We have a tendency in running workshops to let participants play a little longer when they’re having fun and cut the debriefing short. This is a mistake. The debriefing is the time when we close the experiential learning cycle. Experiential learning requires us to experience a problem, test solutions and see whether or not those solutions work. But finding a solution is not enough. Without reflection and abstract conceptualization, we are not able to understand why the solution is correct or how it could be modified to be even more effective.

The first thing you need to do after the simulation part ends is asking players to step out of their roles – for example you can ask them to give back their badges.

Some participants are eager to share their thoughts and experiences. Make sure that you encourage participation from quiet participants, too. If any participant makes an inaccurate statement about something in the game or the real world, feel free to correct it (but do not correct opinions). If participants make superficial statements, try the [5 Whys](#) technique to help them get to the root of the problem.

If you are short on time, reduce the time you spend summarizing what happened and let participants begin reflecting on their actions. If you find that conversation is slow, encourage conversation by asking individual participants some of the questions.

Don’t neglect the “Now what?” section. This gives participants time to make connections between what happened in the game’s world and the present reality. Referring back to Piaget’s theory of constructivism, this is the time when participants can “build” new connections between their existing knowledge and new experience.

### *Debriefing protocol*

#### *What?*

##### a. Results overview

Topics and questions to ask participants:

- ⇒ Policy propositions: What policies were proposed? (sponsor of the policy presents the policy quickly to the whole group)
- ⇒ How did it make you feel?

#### *So what?*

##### b. Reflection on the simulation experience

Topics and questions to ask participants:

- ⇒ **Goals:** *Did you set goals for your role (your country/organization)? If so, what were the goals? Were you able to achieve them in whole or in part?*
- ⇒ **Challenges:** *Did you encounter any problems or challenges? What were they? How did you overcome them? Were there barriers you could not overcome?*



- ⇒ **Relationship with other roles:** *Who did you work well with from different countries/organizations? Who did you struggle to cooperate with?*
- ⇒ **Interlinkages in the system:** *What did you notice about the sequence of unfolding events? What did it mean for your country/organization and the system as a whole? In hindsight, do you wish you had focused on different issues or acted differently?*

c. Cascading Climate Impacts Framework

- ⇒ Presentation of CASCADES Framework (available in the Classroom Module facilitator package)
- ⇒ Interconnection - What do you see now that you didn't see before?

*Now what?*

d. Bridging with the Real World

Topics and questions to ask participants:

- ⇒ How likely is the scenario that you experienced (or a similar one) to happen in the real world?
- ⇒ In what way different countries/organizations could achieve their goals in the real world? Can they avoid difficult trade-offs and conflicts of interest? What is the best response taking into account the whole system?
- ⇒ What can be done before such cascading impacts are triggered? How to build resilience on organizational, national, and international levels?
- ⇒ What have you learned from this experience?

**Evaluation**

After completing the Debriefing, you can distribute the "Simulation Survey" (available in the Classroom Module Package), to gather feedback on the simulation. This can be shared with the Centre for Systems Solutions, which will be used to further refine the simulation.

Giving an overview of the results, having players reflect on their individual experiences, discussing and understanding the system and bridging to the real world.

Depending on your needs and those of the group, you can alter the amount of time you spend on the sections, and you may decide to connect them to an additional planning workshop.

What we can say from experience is that players are eager to chat about what happened in the game, but they may need some encouragement to see the bigger picture and connect it to the work they are doing or the future. Your task is to help them achieve that.

# 5. Additional materials

## Social Simulations

- [What are Social Simulations?](#)
- [Introduction to Social Simulations](#) (pdf)

## Key CASCADES publications that inspired *The Cascades Game (Future of Food version)*

- [Carter, T. R., Benzie, M., Campiglio, E., Carlsen, H., Fronzek, S., Hildén, M., ... & West, C. \(2021\). A conceptual framework for cross-border impacts of climate change. \*Global Environmental Change\*, 69, 102307.](#)
- [West, C. D., Stokeld, E., Campiglio, E., Croft, S., Detges, A., Duranovic, A., ... & Reyer, C. P. \(2021\). Europe's cross-border trade, human security and financial connections: A climate risk perspective. \*Climate Risk Management\*, 34, 100382.](#)
- [Desmidt, S. \(2021\). Climate Change and security in North Africa: Focus on Algeria, Morocco and Tunisia. \*CASCADES research paper\*.](#)
- [Cepero, O. P. Climate change and livelihoods in the Sahel: revisiting nexus and focusing on endogenous knowledge.](#)
- [Knaepen, H. \(2021\). Climate risks in Tunisia: Challenges to adaptation in the agri-food system. \*CASCADES research paper\*.](#)
- [Mosello, B., König, C., Wright, E., & Price, G. Rethinking human mobility in the face of global changes.](#)
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## CASCADES films

- [Professor Tim Carter presents CASCADES' conceptual framework of cascading climate impacts](#)
- [CASCADES: Conceptual Framework of cascading climate impacts](#)
- [Climate change, vulnerability and security in the Sahel - 3 Scenarios](#)
- [Dr Hanne Louise Knaepen reflects on ECCA 2021](#)

## CASCADES blog

[CASCADES project blog](#)

# Appendix 1: List of the countries and organizations in The Cascades Game

Country/Organization	Description
Directorate-General for Climate Action European Commission	<p>The Directorate-General for Climate Action (DG CLIMA) leads the European Commission's efforts to fight climate change at the EU and international levels.</p> <p>The European Union set an ambitious goal for itself: to cut greenhouse gas emissions by at least 55% by 2030, and to become carbon neutral by 2050. There are many obstacles to reaching these objectives: conflicting visions of different member states, changing circumstances outside the EU, and climate impact. All of that creates new, unpredicted challenges.</p>
Directorate-General for International Partnerships European Commission	<p>The Directorate-General for International Partnerships is responsible for formulating the EU's international partnership and development policy, with the ultimate goal to reduce poverty, ensure sustainable development, and promote democracy, human rights, and the rule of law across the world.</p> <p>The European Union set an ambitious goal for itself: to support the global transition to a low-carbon, more resource-efficient and sustainable economy. To deliver on climate, environmental and social sustainability goals, major private and public investments are needed. There are many obstacles to reaching these objectives: conflicting visions of different member states, changing circumstances outside the EU, and climate impact. All of that creates new, unpredicted challenges.</p>
Directorate-General for Agriculture and Rural Development European Commission	<p>The Directorate-General for Agriculture and Rural Development is responsible for EU policy on agriculture and rural development and deals with all aspects of the common agricultural policy.</p> <p>The European Union set an ambitious goal for itself: to reduce the environmental and climate impact of food production while ensuring fair economic returns for farmers. There are many obstacles to reaching these objectives: conflicting visions of different member states, changing circumstances outside the EU, and climate impact. All of that creates new, unpredicted challenges.</p>
Sweden	<p>Sweden is a green leader in the EU, with a growing demand for organic food products and a good share of farms producing such commodities. Despite well-developed dairy and cereal sectors, we remain a net food importer.</p> <p>Swedish livestock farmers were devastated by the recent animal feed supply crisis. Far-right political parties were the first to address the farmers' concerns. First, they blamed the European Union for the inability of proper action. Financial institutions were next on the list, accused of preying on the agricultural entrepreneurs searching for loans to keep themselves afloat. Somehow, the anti-immigration agenda ended up mixed into the discourse as well.</p> <p>Our current government, formed by the coalition of centrists and social democrats, faces record-low polls and huge farmer - and consumer - protests. Many are asking if it will find a way to stay true to its principles and not lose power in favor of populist movements.</p>
Germany	<p>Our country plays a crucial role in the international food trade, both as an exporter and an importer of agricultural commodities.</p> <p>So far, we remain resilient to food crises, as the rest of the EU member states. However, our livestock farmers were devastated by the recent animal feed supply crisis. Fertilizer price spikes and brutal droughts sent crop farmers into a spiral of debt. Finally, food price inflation is unnerving the general society, shocked by the drastic drop in the expected standard of living.</p> <p>Such a political landscape is fertile ground for all kinds of populism. The situation is far from stable. Our current government is a fragile coalition of everybody except the far right. The center-right senior coalition partner must deal with the increasing popularity of controversial, eurosceptic politicians within their party, openly trying to take over the government.</p>

Spain	<p>Our country is one of the European climate hotspots with the highest risk of desertification in the EU. Andalusia, the most important agricultural region in Spain, is exposed to extreme heat and droughts, highlighting the urgency of implementing adaptation measures.</p> <p>Livestock farming accounts for about half the value of Spain's total agricultural output. However, the country imports most of its animal feed, leaving the dairy and meat sectors vulnerable to the recent soy and corn crisis.</p> <p>The current government's polls are record-low. Spain is one of the leaders of organic farming in the EU, but Spanish farmers increasingly protest against the further regulations of agriculture, especially regarding fertilizer and pesticide use. The protests gain momentum in rural areas, and many frame them as an emanation of the growing conflict between peripheries and urban mega-hub innovation centers.</p>
Poland	<p>Our country is a net food exporter and the largest food and beverage market in Central and Eastern Europe. It has one of the worst rates of water scarcity in Europe. With the climate crisis exacerbating droughts, the urgency of implementing adaptation measures is one of the hottest topics in public discourse.</p> <p>Agriculture remains the backbone of our rural economy, and the farmers' votes are critical for our government's support. To put it plainly: this government will be interested in only these European policy schemes that benefit our farmers - or, at least, don't harm them.</p> <p>Our current government proudly defines itself as conservative and is oriented towards free market principles and political pragmatism. We believe in a Europe of vibrant nations working together rather than in the dream of a European federation. Some of the opponents of our government use the terms "Euroscepticism" and "populist" to describe its methods.</p>
The Netherlands	<p>The Netherlands is one of the world's largest agricultural producers, traders, and exporters. It is famous for agricultural innovation and getting the most from every patch of arable land.</p> <p>At the same time, the Dutch agricultural sector uses a lot of energy, and the farmers were hit severely by the recent crises. The animal feed crisis that impacted our vibrant meat and dairy sector multiplied the scale of the problem.</p> <p>Recently, the numerous job losses in the agri-food sector shocked public opinion. The trend continues, with the anti-immigration movements using the crisis to build political support.</p>
United Kingdom	<p>The food and drink industry is the UK's largest manufacturing sector, with a diverse and complex supply chain. Globally connected, it benefits from market-oriented policies.</p> <p>The British food industry was hit hard by the post-Brexit trade barriers, the pandemic, and other crises in 2020-2028. Still in recovery, it actively looks for opportunities to boost its growth.</p>
Tunisia	<p>Our food safety depends on food imports, and the economy is prone to food crises. Agriculturally viable lands are already in usage, so we do not have high potential of furthering the area of our farmlands.</p> <p>However, the agricultural production here has high export potential, and large-scale farming prevails in cultivating for-export crops. We are also a major producer of raw materials for fertilizers.</p>
Mali	<p>Our economy remains partially dependent on food imports, as well as importing agrochemicals. Because of these and other factors, like vulnerability to climate impacts, we remain prone to food crises.</p> <p>Small-scale farming forms the basis of our agriculture - however there is evident potential of further development of agricultural areas, since a lot of potentially good lands are currently unused for farming production.</p>
EU Farming Coalition	<p>The EU Farming Coalition is the leading organization of European agricultural producers.</p> <p>It boldly represents the interest of the EU farmers: when possible open for negotiations, when necessary ready to organize a strike that will make the front page of every newspaper in the Union.</p>

	<p>The Coalition's current leadership takes pride in making the voice of every European farmer heard in the corridors of Brussels.</p>
<p>OilProt Europe Federation of European Vegetable Protein and Oil Producers</p>	<p>OilProt Europe is an umbrella association gathering leading protein and oil producers in the EU.</p> <p>Our mission is to provide quality plant protein for food and feed purposes. Our members ensure the European supply chains stay stable and resilient.</p> <p>The recent soy and corn crisis was a huge challenge for our members. The priority action for them is to secure stable sources of protein crops, be it in Europe or abroad.</p>
<p>EUROFOOD Group Association of EU Food and Drink Producers</p>	<p>EUROFOOD Group is an umbrella association gathering leading food and drink producers in the EU.</p> <p>Our mission is to feed, nourish, and sustain the world. With the wide global footprint of our members, we bring cutting-edge investments and standards to the food and beverage sector. Our members ensure the European supply chains stay stable and resilient.</p>
<p>Nature First! Environmental NGO</p>	<p>As stewards of the planet, we must work together to affect local, national, and international policy makers to protect the natural environment that feeds us.</p> <p>Through our unique lens of direct action based on evidence-based research, we push for clean water and air with a focus on food systems. We need action now - or we risk the collapse of the environmental systems that sustain the planet and the people that live on it.</p>
<p>Just &amp; Green EU Organization for Just Sustainability Transition</p>	<p>Just Transition Alliance speaks out on behalf of a vision-driven, unifying, and place-based set of principles, processes, and practices that build economic and political power to shift from an extractive economy to a regenerative economy.</p> <p>The organization's priority is to ensure that nobody is left behind in the great quest for combating the climate crisis.</p>
<p>Center for Food Security</p>	<p>The Center for Food Security's mission is to save lives in emergencies by using food assistance.</p> <p>With climate change accelerating faster than before, we need to broaden global stakeholder engagement in food security issues. With increasing numbers of climate disasters, we need to strengthen the resilience of our food systems now.</p>
<p>European Banking Association</p>	<p>The European Banking Association represents the interests of the EU financial sector. The biggest European banks are becoming increasingly concerned about the stability of the EU agricultural sector. Should the current crisis continue, the food companies and farmers may lose the ability to repay their loans, leading to losses on banks' balance sheets via non-performing loans. This makes the European Banking Association determined to join the efforts to develop policy responses that will counteract the crisis.</p>
<p>Green Investments Chamber</p>	<p>Green Investments Chamber represents the financial institutions that help fund climate innovation projects and startups.</p> <p>Our members are profit-oriented and look for the next big thing. They consider any government support for research and innovation as valuable.</p>
<p>Commissioner for Future Generations</p>	<p>In 2025, the United Nations established the Commissioner for Future Generations' office after a six-month-long, global, social media-coordinated school strike against the inability of policy makers and politicians to react to the climate crisis.</p> <p>The Commissioner's role is to be the guardian of future generations, with a mission of helping policymakers think about the long-term impacts of their decisions. The Commissioner's office focuses on what impacts our decisions will have in the long-term - and prevent problems before they happen. Any decision we take now will have repercussions for the rest of the world, even for those whose voices we cannot hear yet.</p>



# Appendix 2: Workshop facilitation - good practices

The Facilitator plays an important role in social simulations. He or she is a game master, and helper. But moderators have to be careful not to get too involved in the action. Although they are responsible for outlining what's important to know in the game, they act more as detached advisers than engaged wizards. Facilitators are responsible for ensuring that players do not make critical mistakes in the beginning and for answering technical questions. However, they should try to avoid telling players how to act strategically or what exact steps to take. Our social simulations often have a lot of information packed in. Facilitators should not try to share everything at once. As much as possible, they should introduce relevant information only when needed. Providing too much or too little information can result in players feeling overwhelmed or frustrated, which can lead to disengagement. It can be easy to become part of the action and get caught up in emotion - especially when the moderator knows what's coming. Be careful! The goal is to provide the right amount of information at the right time and then let them play.

DOs	DON'Ts
<p>Be confident and assertive            Allow them to ask questions            Make it fun and engaging            Practice your introduction!            Be reassuring! "Confusion is normal, you will get it"            Organize the introduction in a sensible way - basic information should always be communicated to all            Focus on the game – you can talk about the real world in debriefing</p>	<p>Don't set goals            Don't rely too much on notes            Don't jump from point to point            Don't emphasize winning/losing            Don't obsess over keeping an eye on the time during the introduction and debriefing</p>

## Moderation questions

Sometimes we make workshops for groups that are naturally very active and from the beginning start discussing and negotiating. However, at times it might take a little push for players to start a conversation and policy-drafting. That is why we came up with some tips that a moderator (WG Moderator or Facilitator) might use to stir up the conversation among participants.

1. At times players might be lost – they do not know what they can and can't do. Ask them about a situation that was represented in simulation's materials (Newspaper Excerpts, Intro Video, Mid-Simulation Video). Remember not to guide participants in any direction – questions should be general and should just attract players attention to the problem of the Game.

I'm curious about your initial thoughts on... [e.g. fertilizer crisis]  
 How to tackle the issue of... [e.g. global breadbasket failure]?

2. If one player starts drafting a policy but others are not joining in, ask about the goals of the policy or opinions that other players might have.

What is this policy supposed to do?  
 I'm curious about your initial thoughts on policy X.

I wonder what X organization has to say about the policy.

Do you agree with these arguments ?

3. You can confront participants by inquiring about their motives to implement a policy.

Why do you believe so?

How will this policy be successful?



Co-funded by the Horizon 2020 programme  
of the European Union



# SOCIAL SIMULATIONS

