Detailed description of the games developed and proposed within the Educen project

Gifts of Culture

Gifts of Culture: Diversity in the context of flood resilience

Author: Michalina Kulakowska

The Gifts of Culture game developed by CRS for EDUCEN allows players to experience and appreciate both negative and positive aspects of cultural differences, developing better understanding of mutual needs. Play and use The Gifts of Culture to improve community flood resilience.

A calm, sunny day in a small river valley surrounded by hills and plains. The idyllic scenery betrays no signs of the disaster which is yet to come and turn the lives of the community upside down. But even earlier, in their attempts to protect their families, the inhabitants are faced with one of the biggest challenges of the modern world - lack of understanding and inability to cooperate with others.

This is how the Gifts of Culture board game starts. It simulates a diverse community living in a flood-prone valley. The players, who enter the valley to become its inhabitants, are invited to attend a community meeting, which constitutes the main part of the game. Though all the community members represent different views and ideals, they are all driven by the same goal – to ensure the safety and possible best living conditions for "their" people. But is it possible to satisfy them all?

As the representatives of the Local Citizens Board, the players are entitled to set priorities and make decisions about the investments in the valley. Their ideals, beliefs and biases are closely rooted in their group's culture. The final decision how to spend the money they were allocated belongs to them, yet the letter they received from the families they represent acts as a constant reminder of their responsibility for their supporters. It is not easy to move in this complex reality populated by farmers, workers, local entrepreneurs, retirees, people with disabilities, NGOs, immigrant workers and refugees whose interests and priorities overlap and collide.

The gamekit consists i.a. of a big map of the valley which depicts the situation of each family group Every player accepts responsibility for his new family, knowing that their wellbeing and safety depends entirely on his actions.

To make the game even more challenging, some players are bound by certain restrictions. The representative of the disabled sits with her back facing the map. The immigrants and refugees representatives cannot speak, using only notes and pictures to transmit their messages. Although vulnerable, they still try to push their ideas connected with safety and financial matters, yet they are often unnoticed by other players focused on their aims.

This mechanism is intended to work as a metaphor for social exclusion. Immigrants are often not allowed to participate in voting and decision-making activities occurring in their place of stay. The same goes for the people with disabilities, as in planning and budgeting processes their needs are often not taken into account. The most disadvantaged are the refugees, who are not only frequently excluded from the local decision-making processes, but are also feared and distrusted by the rest of the community, and their presence in specific areas is often perceived as problematic.

At the beginning of the game, the players usually focus on funding actions that bring benefit to the group they represent. What can I do for my people? Insurance and preparedness package seem a natural choice. Unfortunately, these solutions in their basic form are not inclusive as there are plenty of people who are denied the access to the safety mechanisms. Inclusion actions such as temporary residence registration could

change that, but most of the Local Citizens Board members turn blind eye to the wordless requests of the refugees, immigrants, and people with disabilities.

The first shock comes when the players are confronted with the results of their actions. Because of the exclusion, not all of the groups represented in the Board are properly prepared for the magnitude of the flood. Moreover, the players whose focus was merely on improving their group's wellbeing, would be shocked to discover the repercussions of their decisions. It is also worth mentioning that the lower was the players' safety level, the more wellbeing points they've lost in consequence. In turn some of the families reach a critical point and their living conditions are more than miserable. In order to recover, they thus need immediate medical aid.

Those who managed to retain or gain high safety and wellbeing points, e.g. the entrepreneurs or the workers, may, for the time being, feel safe. However, as soon as, the humanitarian crisis comes, all the families lose some additional wellbeing points. At this is when some vital questions arise: "How come we are in humanitarian crisis when my people have a high wellbeing level?" "Why do we lose wellbeing points when the others are in crisis, not us?"

No man is an island, and this applies also to the valley dwellers. The game reflects everyday problems and, like in real life, all events are interconnected - the poor wellbeing of some families negatively affects the wealth and health levels of the whole community.

In the face of new challenge, the players have an option: either to act jointly to tackle the humanitarian crisis or work alone on raising the wellbeing of the group they represent.

By acting alone, they can focus solely on protecting the interest of their group. Yet, since, all the Local Citizens Board members were allocated limited budget units to counteract the crisis, it may not be enough to pursuit their individual goals. As a result, the players start to communicate and cofinance common actions, which triggers movement towards better wellbeing and safety of all the groups, including these who were most affected by the flood.

The road to hell is paved with good intentions, they say, and it cannot be more true in this case. On the surface all the players are now striving for the better good, but, there are still the refugees, the immigrants, and people with disabilities whose needs stay ignored in the discussion. The language and physical barriers prevent them from active participation in negotiations, and the rest of the community shows no intention of helping them overcome these obstacles. Even the NGO, who was set to support these in need, is often helpless in their attempts to understand the needs of the disadvantaged groups. For example, they focus on wellbeing and inclusion actions when in fact, what they need the most is a safety improvement.

The aim of the game is thus to highlight the importance of discussions and negotiations which shall precede any actions. For example, financing accessibility programs without the participation of the most interested groups, may only worsen the situation.

Furthermore, the negotiation process will stay impaired if the players decide on accepting closure and social boundaries. The less contact they have with different cultures, the more limited they are in terms of their perspective thinking and ideas. It is a common belief that people are strongly rooted in their own culture and naturally take on the collective way of thinking. The game does not entirely deny this thesis, as the players are not asked to question their group's interest, yet they are at least encouraged to show some initiative and act across divides.The cooperation brings about both financial and strategic benefits because the players are not only able to cofinance their needs, but also to rely on solutions they wouldn't have come up with otherwise. Each representative has a chance to contribute to common good with his idea - each culture brings different things to the table, be it stronger need for consensus, specific knowledge regarding some actions or even the preference for more altruistic factors. With new ideas, it's time for discussion. All the representatives share their arguments for and against the specific actions, objectives, and needs. And that's exactly where the "gifts of culture" are hidden. In diverse communities, the problem-solving process might take longer, but thanks to the many perspectives and knowledge exchange, it can result in many more interesting solutions. The players learn that it isn't the cultural diversity that causes problems in the valley,

but the lack of mutual understanding. Accepting different points of view enables the players to see the broader picture of the problems and plan actions in a long-term perspective.

At the beginning of the Gifts of Culture, the community resembles an amateur choir. Each group has a different voice but doesn't know how to use it collectively. However, with some training (and a little bit of will to cooperate) they can finally achieve harmony in which their unique timbres are still audible.

These are not only voices but also emotions that play an important role in the game. With every round, the players become more and more immersed in the new reality. The wellbeing and safety of their group are put at the centre of their concerns. For some players, especially those impersonating the members of the excluded groups, the game might become highly emotional. It is very important that these emotions be addressed by the moderator during the debriefing session after the game, but on the whole, they can only help the players understand the nuances of working in culturally diverse environment, marked by social inequalities, discrimination and social exclusion.

Through the experience of joint gameplay, the players improve cooperation and information sharing skills, especially in regard to collaboration between organizations and individuals representing diverse cultural backgrounds. The result of this being better disaster resilience. They not only learn some basic ways to support each other but also to communicate their needs, to share their knowledge and tackle complex problems.

The Gifts of Culture was already tested with various groups at EDUCEN project meetings, Balaton group meetings and in the Stockholm Resilience Centre. With feedback from the players, the process of improving and modifying the game is still in pending. Its new polished version will hopefully explore even more interesting interactions and decision-making processes.

Title	**GIFTS OF CULTURE**
Description	Gifts of Culture is a board game role-playing simulation of a culturally diverse community. Players become the representatives of various groups living in the flood-prone valley. Though they represent various views and ideals, they all have the same goal – for their group to have a better life. How will they achieve that with the constant threat of flood looming above their heads? Each of the actions players can undertake has its advantages and disadvantages. Information sharing and collaboration can greatly improve their outcomes, however, diverse cultural backgrounds make it very difficult. The Gift of Culture allows players to experience how cultural differences can lead to troubles but at the same time they can also be helpful. Play and use the "gift of culture" to improve community flood resilience.
Target group	local communities, ngos, policy makers, public administration, youth
Benefits	Players understand different ways how cultural factors affect disaster preparedness and ability to cope. Players improve collaboration and information sharing skills, especially in regards of collaboration between organizations and individuals representing diverse cultural backgrounds leading to improved disaster resilience

	Players increase their understanding of disaster risk for heterogeneous cultural backgrounds.
Created by	Centre for Systems Solutions - CRS
Number of players	8-16
Number of moderators	1
Duration	1-2 hours + 1 hour debriefing
How to obtain this game	giftsofculture.games4sustainability.org

Figure 103. Playing the serious game on cultural memory of disaster during the EDUCEN final conference in March 2017

Figure 104.Playing the serious game on cultural memory of disaster during the EDUCEN final conference in March 2017

Evacuation Challenge Game

Evacuation Challenge Game: How to introduce empathy into civil protection policies

Author: Michalina Kulakowska

The game presents challenges connected with disaster response and evacuation during the disaster (in this case – zombie apocalypse!) in a diverse culturally and linguistically environment. Participants take on the roles of citizens and rescue team members, soon realizing that the road to safety won't be easy!

Evacuation in the face of a disaster is a challenge for all parties involved. Panic and confusion are friends neither to the evacuation team nor to the evacuees. But there are more obstacles on the road to safety than people usually think of. The Evacuation Challenge Game is just the right tool to help realize them.

Evacuation Challenge Game simulates an evacuation action during a disaster in a culturally and linguistically diverse environment. The participants take on the roles of citizens and evacuation team members. And although the disaster here (in this case zombie apocalypse) is entirely fictional, the challenges the players face during the game are intrinsically linked to real life.

At the beginning of the game, the participants are divided into groups. Each player receives a set of simple instructions. Yet, only one of the group is equipped with the most crucial piece of information - the zombies are drawing nearer and, since the concept of mercy is not known to them, the whole city has to be evacuated as soon as possible. From this time on, the most informed group, that is the evacuation team, will carry the burden of responsibility for all the players engaged into the Evacuation Challenge.

Their main purpose in the game is to evacuate all the participants to the designated safe place. The question is how to do it if most of the players are blissfully unaware of the approaching danger? The evacuation team has limited time and resources to bring the mission to the successful end.

Despite the obstacles, they decide to rush into action. The first moves seem unexpectedly easy, as the people display willingness to cooperate and obediently follow the instructions. The action runs smoothly until one of the players refuses to interact with the rescue team. It is now obvious that the operation won't be a piece of cake.

It turns out that the members of the evacuation team are not as well informed as they thought. They seem completely unprepared for a new challenge - a cultural and linguistic melting pot they were thrown into. As they continue to play, the participants start to display a number of impairments; some can only speak their native language, others cannot see or hear. There are some evacuees with mobility problems and other players bound by specific tradition or cultural taboos that may become an obstacle during evacuation efforts. All the restrictions inhibit communication and pose danger of staying behind.

Add all these factors, and you will see how complex the reality of the players has become. The evacuation team is already acting under high pressure. Not only do they have to find the way to convey their message but also help these who are unable to rely solely on themselves. Will they succeed? What skills and resources will they depend on? What to do in a situation like that?

One possible scenario involves forcing the evacuation without any explanation. It may, however, bring more damage than benefit. The people with restrictions would still be unaware of the risk. In the overall chaos and confusion they might not only refuse to follow the rescue team's instruction but also show open resentment or aggression towards them.

There is a better solution to this problem. It entails taking time to explain the reason for evacuation and effort to understand the needs of the evacuees. In this sense, this seems a more elaborated scenario, but in the long term it is the only one which does not impose on but offers help to all the players, including those with health or cultural restrictions. Consequently, the game may be treated as a test of cooperation and communication skills. Unfortunately, the resources the evacuation team depend on are limited. With varied restrictions on both sides, it is difficult to convey the information about zombies' attack and effectively evacuate people who don't speak the same language, are disabled or bound by their cultural taboos.

Sadly enough, in most cases, the Evacuation Challenge Game players fail in evacuating all participants. And a vast majority of those left behind belong to the restricted groups.

The Evacuation Challenge Game exposes the lack of preparedness in the area of civil protection. Most of the agencies working in this field are rarely equipped with a coherent plan to deal with the issues of multiculturalism or disabilities occurring in their communities. There is thus an obvious need to embed empathy for and understanding of these problems even before a disaster strike. The game allows the stakeholders to identify some of the obstacles which are often omitted in planning for disaster and risk management and coping. These include i.e. miscommunication due to cultural differences and absence of proper training for the evacuation members or risk managers who often lack knowledge on problems experienced by socially and culturally excluded groups. In this sense, the Evacuation Challenge Game helps understand how the language and cultural differences affect the capacity of an emergency crew to provide an effective help during disasters.

The Evacuation Challenge Game, created by the Centre for Systems Solutions, was played during the EDUCEN meetings in Wageningen, Netherlands and in Valladolid, Spain. The game can be easily modified for different regions and cities to suit the needs of various groups by incorporating traits characteristic to the community in question.

Title	**EVACUATION CHALLENGE GAME**
Description	The Evacuation Challenge Game presents challenges connected with disaster response and evacuation during the disaster (in this case – zombie apocalypse!) in diverse culturally and linguistically environment. Participants take on the roles of citizens and evacuation team members, but unbeknownst to them, the road to the safety won't be easy!
Target group	aid workers, local communities, ngos, youth, disaster managers
Benefits	Players experience problems connected with language barriers during risk situations. Players understand problems encountered by people with disabilities during disasters and risk situations. Players learn about challenges of an evacuation in multicultural environment. Players realise importance of preparedness training, and why the said training should be adapted with diverse community in mind.
Created by	Centre for Systems Solutions - CRS
Number of players	12 - 72
Number of moderators	at least 1

Duration	1-2 hours + 1 hour debriefing
How to obtain this game	To run this game download it from this page: evacuationchallenge.games4sustainability.org

Extreme Event Game: Coastal City

Title	**EXTREME EVENT GAME: COASTAL CITY**
Description	Extreme Event Game: Coastal City presents coastal city facing the category 5 hurricane. Players are set to deal with the issues and problems arising throughout the city and on the way learn about community resilience and key elements to overcoming chaos and increasing disaster management skills.
Target group	aid workers, local communities, ngos, public administration, youth
Benefits	Players learn how to use available resources, respond to extreme events and assess the impact of disaster.
	Players experience the risk and learn to overcome problems as a community.
	Players are encouraged to create the understanding between different stakeholders.
	Players understand the key topics connected with the community resilience.
Created by	Koshland Science Museum
Number of players	12-48
Number of moderators	at least 1
Duration	1 hour + 1 hour debriefing
How to obtain this game	https://www.koshland-science-museum.org/explore-the-science/extreme-event/plan-your-game

Flood Resilience Game

Flood Resilience Game: How to help flood professionals to identify policies and strategies that can make communities more resilient

Author: Lukasz Jarzabek

The Flood Resilience Game is an educational game that allows players to experience, explore and learn about the flood risk and resilience of communities in river valleys. The game is designed to help participants – such as NGO staff working on flood-focused programs – to identify novel policies and strategies which improve flood resilience.

Two groups of NGO workers met in two distant parts of the world - Peru and Indonesia.

Despite 18,000 km of ocean separating them, they shared a common goal: to help river valley communities that are vulnerable to floods. They were going to explore the ways to do that by playing a game.

The Flood Resilience Game is a simulation that helps the flood professionals to identify policies and strategies that can make flood-prone communities more resilient. The game presents the challenges that flood-prone communities in developing countries face every day. This way it creates an environment for exploring the strategies to increase flood resilience. The aspects of communication and collective decision making are also strong in the game, in result making it a fine tool to diagnose the problems connected with the organizational culture of specific institutional actors in the community.

The NGO staff who tested the game in Jakarta and Lima took roles of citizens living in a river valley (farmers, workers, entrepreneurs) and its authorities (local government and the water board). They confronted the harsh day-to-day reality. While the citizens had to find ways to provide for their families, the authorities bore the responsibility of managing the valley's infrastructure and advancing its development. A couple months later, the modified version of the game was played in Valladolid, Spain. Because of the urban setting, new roles were added to the game - retirees and unemployed people. The game can be adjusted to address specific needs of the community in which it will be applied.

The community in the Flood Resilience Game works as a system where all the parts are connected. As their resources are limited, both citizens and authorities must face hard choices. How much the residents spend on their food depends on the state of the food market. If they don't eat properly, their health will worsen, they will be less efficient at work and in result they will earn less. They can go to the health clinic, but it costs them their hard-earned income. Their households bring them losses when flood damages them. They have children that they would like to educate, but the accessibility of education depends on the state of the local school. Farmers suffer losses when the water supply is damaged; when the road is in a bad shape, workers have to spend more time to get to their workplaces in the distant city; entrepreneurs rely on the electronics and machines so they cannot provide their services when the power station is not working properly. Local government and the water board decide on the management and flood protection of specific infrastructure facilities, like the food market, the hospital, the power station, and more. But they don't have enough means to take care of everything.

Just as in the real life, citizens and authorities of the valley have a lot on their minds, even without floods lurking around the corner. Nobody knows which parcels the flood will strike. Only the water board have the historical data about past floods. There is also the feeling of confidence because the levees are supposed to protect the valley. During the first round of the game, the community members focus on reacting to the danger. They prepare the sandbags in case of a flood, they learn how to perform first aid or evacuate themselves properly. Preparedness-oriented actions are a clear choice at this point, as they don't take much effort that is needed elsewhere. But is it enough?

Then the levee breaks. It is always a moment of shock. "What happened, we were safe behind the levees, how come there is a flood now?"

Levees are an expensive investment, and they have some advantages - but their strength is limited. And when they break, not much can stop the water from devastating the area. This effect is even bigger if the people are confident that they are safe because the levees protect them.

After the first round, the losses in the valley are significant, but not critical. There are some flood accidents, resulting in the health decrease of the victims. Some houses and assets are damaged. If the owners don't

repair them immediately, the damage will pile up. It is similar when it comes to the infrastructure. Damaged hospital makes the cost of going to the health clinic much higher.

People of the valley know that there will be next flood, but they don't know how strong it will be. In the second round, they start to think how they can reduce the risk of damage. The long-term actions, like the house retrofitting or permanent infrastructure protection, become popular among the players. They also discover that it is more efficient for them when they help each other, or when they create joint funds to finance specific actions. This social capital is often neglected in the context of the disaster response, and the role of the cooperation sparked by bonds between the community members is often underestimated.

Social capital is one of the five capitals (5C) represented in the game. Others include:

- human capital (represented by the investment in education and health),

- physical capital (public infrastructure and private assets),

- financial capital (savings gathered by players, avoiding losing the long-term ability to produce income, also insurance - more about it later),

- and natural capital (using ecosystems and their services for increasing flood resilience - more on it later).

These capitals are complementary and describe the assets that the community consist of. Identifying and using them properly fosters community development and safety.

With each flood the community experiences, the need for progressing from reactive actions towards flood resilience becomes more and more clearer. The third round introduces more advanced actions. The water board can now decide to create the early warning system. It is a huge investment but - when it's working, and the community members know how to use it - it boosts the effectiveness of other protection measures. Citizens and authorities can buy insurance for their houses, assets, and infrastructure they manage.

They face the dilemma of further community development. Should they spend their budgets to improve their houses and infrastructure?

The question how to link the development and growth with disaster risk management is not easy. Real-life cases show that new infrastructure or housing is often built on flood-prone areas. There are many reasons why this can happen. The citizens and authorities may not be aware of the risk. The land may be cheaper than in the safer locations. On the other hand, there is also the dilemma of investing in development when the safety is uncertain. But does it mean that the community should abandon its development goals? This is a hard choice that players have to face.

The fourth round represents a longer period - 15-25 years. During this round, the citizens and authorities decide on implementing long-term actions. They can relocate from flood-prone areas to the safer ones. They can use the natural capital and reforest the deforested parcels. They can also build a retention polder in the upper course of the river. Then, players experience how these decisions improve their safety in a long run. But they also see the future from the different angles: their level of development, the quality of their life, the effects of education of their children. Combined with the lessons from previous rounds, such "time-compression" allows the players to understand how they can design their future, so their community becomes flood resilient.

In the Flood Resilience Game, the players begin with little knowledge about the real flood vulnerability of their community and the ways of improving their safety. Throughout the game, they progress from reactive actions (levees, preparedness) towards avoiding risk creation (prospective risk reduction). At the same time, they struggle with everyday problems (making a living, being healthy, taking care of children's education). The game also recreates interdependencies between the specific members of a community. This way it highlights the need for communication, cooperation and solidarity between them. All of this helps the players connect what happens in the game with their daily realities. Two-hour gameplay allows them to live through

a couple of decades, so they can experience the long-term effects of the decisions that they can make now. In result, they can grasp better the whole concept of flood resilience, and why it is so important.

The game was developed by the Centre for Systems Solutions (CRS) in collaboration with the International Institute for Applied Systems Analysis (IIASA), with funding from the Zurich Flood Resilience Alliance.

The first version of this text was previously published on the Games4Sustainability.org website.

Title	**FLOOD RESILIENCE GAME**
Description	The Flood Resilience Game is an educational game that allows players to experience, explore, and learn about the flood risk and resilience of communities in river valleys. The game is designed to help participants – such as NGO staff working on flood-focused programs – to identify novel policies and strategies which improve flood resilience. The game is set in a community living in an area exposed to floods, occurring with different severity. Players take roles of members of different citizen groups (workers, farmers, entrepreneur, financial services agent), local government and water board officials. The direct interactions between players create a rich experience that can be discussed, analysed and lead to concrete conclusions and actions. This allows players to explore vulnerabilities and capacities leading to an advanced understanding of interdependencies and the potential for working together. The game has been designed to align with the framework of the Zurich Flood Resilience Measurement tool (but also operates completely independently).
Target group	flood professionals, local communities, ngos, policy makers, public administration
Benefits	Players experience the effects on resilience of investments in different types of "capital" – such as financial, human, social, built, and natural. Players have a better understanding of the influence of preparedness, response, reconstruction on flood resilience. Players learn of the benefits of investment in risk reduction before the flood strikes. Players discover the types of decisions needed to avoid creating more flood risk in the future, incentivizing action before a flood through enhancing participatory decision-making.

	Players experience complex organizational reality and organizational culture.
Created by	Centre for Systems Solutions - CRS
Number of players	8-16
Number of moderators	at least 1
Duration	1-2 hours + debriefing
How to obtain this game	To run/play this game download it from the game's website. http://floodresilience.games4sustainability.org/#download-the-game

About That Forest

Title	**ABOUT THAT FOREST**
Description	About That Forest is a web-based role-playing simulation game that takes place in a small community that makes living from a forest. Players set their own goals and then try to achieve them. They face many challenges, including the uncertain environment and the consequences of the decisions made by other people. Community lives by the river that runs through the mountainside. Because of that, it is exposed to floods that are caused by the rainfall. Forest has a capacity to absorb the rainfall. The bigger the forest is, the more rainfall it can absorb. Rainfall that is not absorbed by the forest gets to the river and causes floods. Floods cause financial losses for the community members. These losses are distributed unequally between the community members. Players can vote for policies that are based on different solidarities proposed by the cultural theory (individualistic, hierarchical, egalitarian). They can also make up their own rules. The game allows to exercise cooperation and decision-making in disaster-prone environment when multiple worldviews are involved.
Target group	local communities, disaster managers, policy makers, NGOs
Benefits	Players learn about different types of behavior connected to the cultural theory in the context of natural disasters and depletion of natural resources. Players learn practices that create a sustainable system in any environment, business or organisation. Players experience complex organizational reality and organizational culture. Players explore effectiveness and stability of policies for management of common goods.
Created by	Centre for Systems Solutions
Number of players	best played with 10-30

Number of moderators	1
Duration	1-2 hours + 1 hour debriefing
How to obtain this game	To run this game register on the Games4Sustainability games platform and run your own session: https://play.games4sustainability.com/ Learn how to use the games platform here: http://www.games4sustainability.org/games-platform/

The Climate and Gender game

Title	**THE CLIMATE AND GENDER GAME**
Description	The Climate and Gender game supports learning and dialogue on the different vulnerabilities of women and men facing climate change and its results, including floods and droughts. With the added element of gender roles the game becomes an interesting starting point in a discussion on women's place in a harsh world of constantly changing risk.
Target group	aid workers, NGOs, local administration, local communities
Benefits	Players discover how climate changes affect lives of farmers in Africa. Players learn of role of gender in facing changing risk. Players are encouraged to discuss different vulnerabilities of women and men facing natural disasters such as flood and droughts.
Created by	Red Cross/Red Crescent Climate Centre
Number of players	10 – 40
Number of moderators	at least 1 (a support team of 1-3 facilitation assistants can be helpful for larger groups)
Duration	1-2 hours + 1 hour debriefing
How to obtain this game	To run/play this game download it from the game's website. http://climatecentre.org/resources-games/the-gender-and-climate-game

Cultural Memory Game

Title	**CULTURAL MEMORY GAME**
Description	Cultural Memory Game confronts the players with the history of a city that experienced a serious disaster in the past. However, last decades were kind for the city and its people and nobody seems to take the risk seriously anymore. The game content can be adapted to the situation of different cities.
Target group	youth, museums, schools
Benefits	The game helps players understand the role of the memory of past disasters and recognize its signs. At the same time, players learn why being prepared is so important and where they can find information about that.
Created by	Centre for Systems Solutions - CRS
Number of players	8-32 (the more players, the bigger room is needed)
Number of moderators	1-2 (depending on the number of players)
Duration	60-90 minutes
How to obtain this game	culturalmemory.games4sustainability.org

Decisions for the Decade

Title	**DECISIONS FOR THE DECADE**
Description	Decisions of the Decade is an interactive game that helps people to recognize that there are many uncertain aspects to the future of the climate, and therefore, risk management may require being prepared for surprises such as natural disasters. The game supports the education for community resilience and encourages the understanding between members of the community, aid workers and other stakeholders involved in disaster risk reduction in rural communities.
Target group	aid workers, local communities, ngos, public administration
Benefits	Players learn about different risks and climate change impacts. Players learn to plan for extremes as an individuals and as a community. Players experience the uncertainty and other challenges connected to the disaster risk reduction and disaster risk management

Created by	Red Cross/Red Crescent Climate Centre
Number of players	8-40 people, in teams of 4
Number of moderators	at least 1 (a support team of 1-3 facilitation assistants can be helpful for larger groups)
Duration	30-60 minutes + debriefing
How to obtain this game	To run/play this game download it from the game's website. http://www.climatecentre.org/resources-games/decisions-for-the-decade

Lords of the Valley

Title	**LORDS OF THE VALLEY**
Description	The Lords of the Valley is a mobile game that takes place in the valley of the river exposed to unexpected droughts and floods. Participants take role of farmers-businessmen, water authorities, local authorities, bank and non-governmental organization. Players attempt to achieve their own goals, facing many challenges arising from the decisions of other players and the unpredictability of the environment. The Lords of the Valley game is a laborator for practicing strategy, collaboration and leadership in a complex environment.
Target group	aid workers, local communities, ngos, public administration
Benefits	Players develop skills for effective communication and collaboration in contacts with stakeholders with different worldviews and goals. Players diagnose various organizational problems. Players experience complex organizational reality and organizational culture.
Created by	Centre for Systems Solutions – CRS
Number of players	12 – 36
Number of moderators	at least 1
Duration	3-4 hours + 1 hour debriefing
How to obtain this game	To run/play this game go to the game's website and contact its creators. lordsofthevalley.games4sustainability.org

Ready!

Title	**READY!**
Description	Ready! is a game which introduces players to the topic of disaster preparedness and disaster risk reduction. It shows an innovative approach to focusing attention on those issues. The game is prepared to be set in a real-case scenarios.
Target group	Affected community members. The game can also be played with disaster managers, volunteers, branch officers etc.
Benefits	Players learn of the benefits of early warning and other aspects of the disaster preparedness. Players experience planning for extremes as an individuals and as a community. Players learn what type of preparations are necessary to withhold against different natural disasters. Players learn more about topics connected with community resilience.
Created by	Red Cross/Red Crescent Climate Centre, Parsons The New School for Design's PETlab
Number of players	10 - 50 players, in teams of 5-10 players
Number of moderators	1-2
Duration	30 minutes + 1 hour debriefing
How to obtain this game	To run/play this game download it from the game's website. http://climatecentre.org/resources-games/ready

Stop Disasters

Title	**STOP DISASTERS**
Description	This disaster simulation game, (from the United Nations (UN) and International Strategy for Disaster Reduction (ISDR) enables players to experience 5 natural environmental hazards (wildfires, earthquakes, floods, tsunamis and hurricanes), by understanding their risks and applying effective methods of prevention and

	mitigation. The player's role is to plan and construct a safer environment, assess the disaster risk for the environmental disaster hazards, while attempting to limit the damage when natural hazards strike. You are given advice along the way; some will be good, and other will be bad.
Target group	children, youth, NGO, local communities
Benefits	Players understand the risks that can be brought on by poor city management.

Players learn what type of preparations are necessary to withhold against different natural disasters.

Players learn more about topics connected with community resilience. |
Created by	United Nations (UN), Inter-na-tional Strat-egy for Dis-as-ter Reduc-tion (ISDR), Playerthree
Number of players	1
Number of moderators	None
Duration	15-30 minutes (depending on difficulty level and chosen disaster) + 1 hour debriefing
How to obtain this game	To play the game go to the game's website.
http://www.stopdisastersgame.org/en/playgame.html