



"Simulation Urban Resilience Exercise" #111

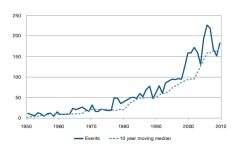
Why this game?

The occurrence of floods is the number:

01

most frequent among all natural disasters.

In the past twenty years in particular, the number of reported flood events has been increasing significantly.*



Urban flooding is a serious and growing challenge. The causes of floods are shifting and their impacts are accelerating.

Contributing factors:







Demographic growth

Climate change

Urbanisation trends

Link with climate change

Climate change increases the probability of heavy rains. Flooding is expected to become more likely, so preparedness is key!

Game overview

Description: The aim of SURE! is to better protect urban people, services and buildings from flood risk

Learning outcomes: This game aims to support community groups to engage in focused conversations about planning and collaboration to better prepare for floods.

Facilitator skill level: ★★ Somewhat challenging, needs careful facilitation, check if this is appropriate for the group

Intended audience: Community members

Number of players: 6-20

Time needed for gameplay/discussion: 30 - 45 minutes

Playspace Requirements: Large open floor space

Materials:







2. Container for beans



3. 3 Spoons per player



4. Vulnerable People cards



5. Important



6. Building cards



7. Sandbag cards



8. Go Pack cards

Want to know more?



See link to more resources

All Climate Centre games can be found on: www.climatecentre.org/games



^{*}Figure: Number of reprted flood events. Source: based on EM-DAT/CRED (2017)

Facilitation guide

Prepare materials:

Spread the following materials out on the floor. The no. of cards depends on the number of players, see table.

- 1. Vulnerable People cards
- 2. Important places cards and Main Road (Evacuation Route)
- 3. Building cards: place a number of beans on the building cards corresponding to the number indicated: 10, 15 or 20
- 4. Sandbag cards: place the cards in piles at least 4 metres from the other cards on the ground
- 5. Go pack cards
- Spoons: place 1 spoon on each of the vulnerable people cards, important places cards and buildings cards.

Category	Nr of players	6	7	8	9	10 - 20
1. Vulnerable people	Cards	4	4	4	4	4
2. Important places	Cards	4	4	4	4	5
3. Buildings	Value 10 beans	2	2	3	4	4
	Value 15 beans	2	2	2	2	3
	Value 20 beans	2	3	3	3	3
4. Sand bags	Sets	3	3	3	3	4
5. Go pack	Duct tape	3	3	3	3	3
	Torches	6	7	8	9	10
	Batteries	5	6	7	8	9
	Food packets	4	5	6	7	8
	Water containers	3	4	5	6	7
	First Aid Kits	2	3	4	5	6
	Money	1	2	3	4	5

Rules and game play:

• Begin: Welcome to your "city" which we will use for this exercise on urban flood preparedness. Climate change increases the probability of extreme rainfall. Let's see if you're prepared! We will play 2 rounds.

Round 1:

 Teams / individual: 10 or fewer players, play as individuals. 11 or more players, some players play individually and some in teams, see table.

Total nr of players	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Players as individuals	6	7	8	9	10	9	8	7	6	5	4	3	2	1	
Players in teams						2	4	6	8	10	12	14	16	18	10

- Have each player, or team pick a work card to start at. This is where you work in the game, or spend a lot of time. The player will start with the number of beans indicated on the card. Beans represent the your resources, either time or money. You have worked hard to get these resources and want to protect them from the flood.
- The goal of round 1 is: to save as many of your beans as possible from the flood. Whoever has the most beans at the end of round 1 wins! Beans are saved in one of two ways: you can Evacuate OR protect. There is no need to do both.
- If at the end of round 1 you did not evacuate on time, or if you are not protected, you loose all your beans.

How to Evacuate in Round 1:

- Players who choose to evacuate try to get the beans on their card and themselves to safety.
- Players can gather as many spoons as they can find and hold them by the handle.
- · Players put as many beans as they want on their spoons. If they drop a bean, they can pick it up again.
- Players flip over their building card and it tells them to find a Go pack card that they need to evacuate, for example: "Find Duct Tape".
- · Carrying their beans on spoons they must locate and pick up the Go pack card and keep it.
- On the back of that Go pack card is another Go pack card that they must locate, while carrying the beans and an increasing number of Go pack cards.
- This continues until a Go pack card says "Get to the Main Road for Evacuation. Touch the card before the time runs out!"
- They must get to the Main Road card before time runs out and can stay there with the number of beans they have managed to evacuate.



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How to Protect in Round 1:

- Players who choose to protect, must surround their work card with sandbag cards in the time limit. Small gaps between the sandbag cards are acceptable.
- To get a sandbag card, players must run one bean on one spoon to the sandbag card pile, leave the bean, and take a sandbag. Then they return to their work card with the sandbag and place it.
- · Players cannot buy more than one sandbag at a time.
- Make sure that players understand there are different sized sandbags and that it is first come first serve.

Game play Round 1:

- Teams / individual: Individual players have 2 minutes. Teams have 1 minute and 30 seconds. Secret facilitator's note!

 Make sure to end Round 1 while some players have not reached their goal of evacuation or protection.
- · Ready, set, go! Apply time pressure: 10 seconds before the end, start count down and STOP!
- · All players who did not evacuate on time, or were not protected, loose all their beans
- · Announce the winner with the most beans: Any words of wisdom from our winner?

Debrief Round 1:

- Ask who took a spoon from one of the Vulnerable people cards or Important places cards. Did these players think about what the flood could mean for the vulnerable people and important places?
- Explain to players that while they may or may not have been successful last round that their hasty plans left a lot of vulnerable people and important places in danger.
- Explain how <u>evacuation</u> represents all forms of protecting people or animals and ask players for examples. These could include warning your neighbours, or making sure your paretns have enough food.
- Similarly, explain how <u>protection</u> represents all forms of protecting places or belongings and ask players for examples. These could include clearing the drainage, or moving valuable possessions away from the ground floor.

Set up for round 2:

- Take all of the beans that players saved from round 1 and place them in a pile in the middle of all the cards. If there are less than 35 beans from round 1 then add beans and tell the players that they have received a grant for flood preparedness.
- Place on the floor: 1 Emergency Radio; 1 Emergency Blanket; 1 Medicine; 1 Whistle
- Place all of the Go pack cards from Round 1 back on the floor.
- Place all of the Sand bag cards from Round 1 back in their original position.
- · Place 1 spoon on each of the vulnerable people cards, important places cards and buildings cards.
- Store: The facilitator places all unused Go pack cards in a row near the Sand bag cards. This is the store.

Round 2 goal:

- Explain to players that while they may or may not have been successful last round that their hasty plans left a lot of vulnerable people and important places in danger. Point out vulnerable people and important places.
- The goal of round two is: As a community you must evacuate the vulnerable people and protect the important places with sand bags. Work has already been protected.
- Unlike last round, players have 5 minutes to prepare.





Facilitation guide

Round 2 Options:

- They can plan who wants to do what. Players can evacuate, protect or go to the store.
- <u>Evacuate</u> Vulnerable people: Players will flip over the Vulnerable person card and similar to Round 1 Evacuation, it tells them to find a Go pack card that they need to evacuate, for example: "Find Whistle".
- Carrying the Vulnerable person card (no beans), a player must locate and pick up the Go pack card, keep it and locate (and keep) the next ones until the Vulnerable person is brought to the Main Road for evacuation.
- <u>Protect</u> Important Places: players use beans from the middle of the floor to buy the sandbags, 1 bean on 1 spoon at a time. They must surround the Important places cards with sand bags.
- <u>Store</u>: Only with fewer than 10 players. Players can buy Go pack cards at the cost of 1 bean per Go pack card (from the middle of the floor) instead of looking for them. *Note:* without the store, there are too few Go pack cards. Like in real life, we do not always have all items readily available.

Game play Round 2:

- Teams / individual: Individual players have 2 minutes. Teams have 1 minute and 30 seconds.
- Ready, set, go! Apply time pressure: 10 seconds before the end, start count down!
- · See if the players have achieved the goal.
- If they have achieved the goal: Congratulations, you were well prepared! You showed how a city can be resilient when faced with floods! Continue to the Debrief.
- f they have not achieved the goal in the set time, reflect on what happened. Ask them what they would do differently. Give the players the chance to redo Round 2. This time you can say that weather services have improved and that the lead time before the flood is announced is increased. Give players an additional 30 seconds to complete the tasks. Secret facilitator's note! Make sure to end this Round just after the players have achieved their goal.

Debrief

Debrief is an important time to discuss what was experienced during gameplay. Synthesizing through debrief discussion is where mutual learning happens. Debrief questions begin with validation of players' emotional experience as a lead-in to draw out insightful reflection. Basic debrief questions for "SURE!" could include:

- What did you experience in this game?
- What was the main difference between the rounds in terms of a. planning; b. collaboration?
- · What insight can you draw from this game, related to real life?
- · What if you received a forecast of a record-breaking flood how would that change your local flood preparedness plan?

Conclusion: Thanks for playing today. During this exercise you pointed out the importance of planning and cooperation, of knowing your community risks and prioritising. You would never have been able to save the city on your own. Only 5 minutes of planning changed your decision making process: Imagine what you could do with more time. Congratulations!

Acknowledgements

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