Decisions for the Seasons

Why this game?

In the past decades, there has been a sharp increase in weather-related disasters.

Quantifiable risks, such as the (increased) future probability of a severe flood, are often difficult for decision makers to understand and in turn integrate into their decision making processes.

This game helps stakeholders in climate risk financing to **understand and address financial preparedness needs** of countries and communities to address humanitarian consequences of climate change and extreme events.

Link with Climate Change

Extreme weather events are becoming increasingly frequent and severe under the influence of climate change.

In this context, it is important that financial decision makers in organisations make smarter risk-aware decisions to better prepare for future disasters.

Game overview

Description: "Decisions for the Seasons" is an intensely interactive game designed to support learning and dialogue about key aspects of long-term investments under uncertainty, with a special focus on addressing financial preparedness needs

Learning outcomes: planning for extremes, experiencing climate change impacts, cooperation to better manage risk

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

Intended audience: Disaster managers, volunteers, metereological service authorities, donors, etc.

Number of players: 6-100

Time needed for gameplay/discussion: 30 - 60 minutes

Playspace Requirements: Large room with tables and chairs or auditorium

Materials:

1. Large dry beans (10 per player)

2. Pen(cil) and paper (1 per player)

3. Six-sided dice (1 per 3 players)

4. Eight-sided dice (1 per 3 players)

5. Red stones or other tokens (2 per player)

6. Optional - prizes for winners

7. Optional - projector / audio

8. Larger (foam) dice: auditorium version

Want to know more?

▶ See video link   ⓘ See link to more resources

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

Facilitation guide

Rules and game play:

Explain setting and ground rules:

1. Players should expect to be confused. The relationship between decisions and consequences can be complex,

like in the real world. The confusion should dissipate as gameplay evolves and people figure out the implications of the rules.

2. The game is a deliberate distortion of reality, focusing on aspects that contribute to the learning outcome.

3. Players join the game accepting the rules; there is no challenging the rules during gameplay.

4. Players cannot share or give away beans, otherwise players tend to behave in unrealistically altruistic and cooperative ways.

Set up and basics:

In both options, players represent a business represtative working in the agricultural business. Their aim is to have a thriving agricultural business, which leads to prosperity for people in the province.

Option 1: Auditorium setting:

Drought insurance   Regular investment   Flood insurance

• Participants are divided in groups of 10, ideally in rows.

• Each person represents an investment in one of the 10 districts.

• Per year there will be 10 rolls of a die (by the facilitator).

• Each player can take one of three actions: 1. Regular investment (thumb up);

2. Drought insurance (hands cupped over head, like a bucket); 3. Flood insurance (hands folded over head, like an umbrella).

Investing all the budget in regular investment, hoping it will lead to prosperity can be great, if there are no floods or droughts...

Option 2: Regular room setting: Participants will sit in teams of 3 players, see image.

Region A   Region B

• Each **player** has: one 6-sided die, a piece of paper, a pen(cil) and 10 beans.

• Each **team** receives: one 6-sided die. A team represents a region.

• Beans represent resources available to each player. Each simulated year, everyone starts with 10 beans; 1 bean per district.
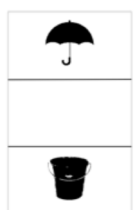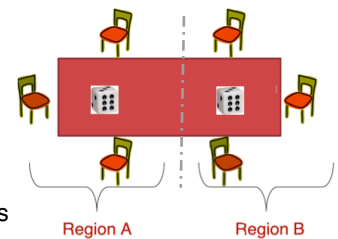
• Players draw their own playing boards for budget allocation: divide the blank paper in three parts, then draw a simple umbrella in the top part and a bucket in the bottom part, as shown in the figure. The facilitator explains that the middle section represents regular business investment that brings prosperity. Investing the entire budget of 10 beans per year for prosperity can be great, if there are no floods or droughts...

How to win this game:

• The group winner is the team with the fewest 'humanitarian crises' (red stones) at the end of the game.

• If there is a tie, the team with the highest number of prosperity points at the end of the game.

• The individual winner (only for option 2 - regular room setting) is the player with the most prosperity points at the end of the game.

Facilitation guide

Game play:

1. If you are comfortable to do so, you can explain that the dice represent the historical probability distribution function of extreme events based on the historical record of precipitation. In plain English this means: "the historical amount of rainfall". A 1 is not very much rain, or drought, whereas a 6 is too much, and a flood.

2. Time pressure: the facilitator imposes a firm, tight deadline for any of the investment decisions (preferably in a way that makes several players feel the pressure: decisions often have to be made faster than desired). After the deadline, decisions cannot be changed.
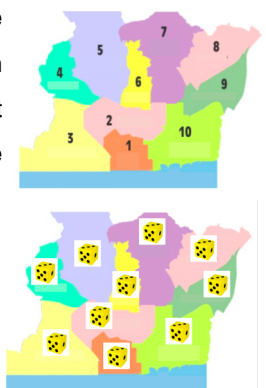
Option 1: Auditorium Setting

Practice Round:

1. Ask all of the teams to stand up. In the first round you will impose investment choices. For one team, ask them to self-organise so that one player invests in drought preparedness (show this by cupping one of your hands over your head, like a bucket), another player invests in flood preparedness (show this by placing one of your arms over your head, like a roof), and all other players invest in regular investments (show this by sticking an arm out and a thumb up). For another team, ask them to self-organise so that one player invests in regular investments, and the remaining players are allocated evenly to drought preparedness and flood preparedness. All other teams must self-organise in a way of their choice, with more than one regular investments, more than one drought preparedness, and more than one flood preparedness.

1 year: 10 rolls: 10 districts

2. Explain how you will roll the die 10 times. Each roll will represent the rains in one district, in one given year. If the die shows: 2,3,4, or 5, there is no problem. These rains are "normal". However, each time a 1 is rolled, one of the players per district, who has invested in drought preparedness will shout Hero! - and will sit down. This represents having used drought insurance. In this game, insurance perfectly covers losses from damage. If there is no player who has invested in drought protection, that entire district is in trouble. All players shout: Oh no! (encourage them to be loud) and sit down. In reality, this means people are not protected and are suffering. This team receives one imaginary humanitarian crisis.   Note: a team can experience more than one crisis in a year. The same mechanics apply for flood insurance.

3. Important Note: Insurance is just one of many options for managing risks… we of course know that they know that there are plenty of non-insurance things that can be done to REDUCE the potential impact of an extreme event before it happens.

4. Play through the practice round and get players to experience the consequences of their decisions. Then, tell them they can reset and discuss with their team members how they would like to invest for the coming year. Play the game following the sequence of information described on the next page.

Option 2: Regular Room Setting

1. Describe what is known about probabilities of extreme rainfall to inform decisions in the coming decade (see next page).

2. With the information received, each player individually decides how to invest their ten beans. Each bean can be allocated to 'protective investments' (umbrella or bucket), or 'regular / prosperity investments' (central part of the board). Remember to impose time pressure.

3. After the investment deadline, each team rolls the rains ten consecutive times, representing the rainfall in 10 districts in one year. Every time a flood happens in a province, the player must remove a "flood protection" bean from the umbrella portion of the board and place it to the side of their board. This is no longer in the game. Similarly, every time a drought happens in a province, the player must remove a "drought protection" bean from the bucket area of the board. Whenever an extreme event happens and no protective beans are available, a "crisis" occurs: All 'prosperity investment' beans are lost (removed from the central part of the board), and a red stone must be placed on the board. A province may get more than one crisis per decade.

4. If no crisis takes place by the end of the year, the beans that were allocated to "regular investment" for that year are counted as 'prosperity points' (the number of beans can be written on the central part of the board).

Sequence of information for each year:

1. Year 1: play with the 6-sided die. Give players some time to strategise before and highlight some interesting things at the end.

2. Year 2: start with the 6-sided die, but after 3 rolls of the die announce there will be a surprise. Has anyone every heard of climate change? The historical probability of rainfall is no longer accurate. We will replace the 6-sided die by an 8-sided die, as the probability of certain extreme events has increased. A 1 still represents a drought, however now a 6, 7, or 8 represents a flood. There will likely be more humanitarian crises in this round. Keep encouraging players to shout: "Oh no!" before they sit down, if their team is in trouble.

3. Year 3: Start with the 8-sided die, announcing that for this entire round, the 8-sided die will represent the new probability.

4. After the third round the game is over. Announce the winner(s).

Throughout the round facilitator can share remarks about observed behaviour.

Debrief:

The debriefing is a crucial part of the game experience as this is where the shared learning takes place. Example questions:

1. What emotions and insights did you experience during this game?

2. How does what you experienced link to your reality?

3. What is one important way in which this game is different from reality?

4. What (finance) systems could be improved to better deal with our chaning climate?

Acknowledgements:

This game was developed with support from Climate KIC.

This game in an expansion / adaptation of a game previously developed with support from the American Red Cross (International Services Team), and is a substantially simplified version of a game on deep uncertainty and robust decision making, designed for the World Bank Chief Economist for Sustainable Development.

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