*Date of Last Revision: June 30, 2014*

**Title:**

**Decisions for the Decade**

**Description**

In *Decisions for the Decade*, each participant is a provincial governor and small teams make up the governing body of a nation. All participants begin the game with a budget of ten beans (for a ten-year cycle), and seek to maximize the prosperity of their province and country by investing their budget in long-term development. However, floods and droughts can threaten this investment, and governors may choose to allocate a portion of their budget to disaster protection to avoid humanitarian crises. After three ten-year cycles, the winning country is the team with fewst crises, and the winning provinces are the players in that team that have accrued the most Prosperity Points. Importantly, unknown to the players, the object representing rainfall is changed each new decade. As with actual climate projections for much of the world, different players formulate very different interpretations of whether future conditions are likely to become wetter or drier, and as a team they have a chance to reflect on how to manage the emergent deep uncertainty.

**Why This Game?**

Many decision makers in the real world do not initially recognize the risk of disasters as deeply uncertain and plan for the most likely scenarios rather than for extreme events that can bring devastating outcomes. The gameplay experience of “Decisions for the Decade” helps people recognize that there are aspects of the future we do not know, and therefore managing risks may require being prepared for surprises.

**Facilitator Skill Level**

3 out of 5

**Intended Audience**

While particularly suited for government officials at local to national level, this game can be useful to a wide range of stakeholders affected by long-term climate risks.

**Number of Players:**

Ideally 8 to 40 people, in teams of 4 (teams can have 3 to 6 members, and with sound system the game could be played with hundreds of players)

1 Game Facilitator (a support team of 1-3 facilitation assistants can be helpful for larger groups)

**Time Needed for gameplay/discussion**

25 to 45 minutes (depending on experience of facilitator, group size, and desired level

of discussion during gameplay)

**Materials for players**

10 beans

1 normal die (6-sided)

1 blank paper

1 pen and about 10 red stones per team of 4 members

**Game Facilitator’s materials**

1 special (8-sided) die per player

1 ‘cone of uncertaintly’ (see pdf attached)

About 10 red stones

Prizes: two small prizes for winning players, plus one larger prize for winnin team

**Playspace Requirements**

Ideally a room with tables and chairs. The game can also be played without tables, with players rolling the dice on the floor

**Setup**

Ideally one or two teams per table – configuration can be often adapted to existing constraints

**How To Win This Game**

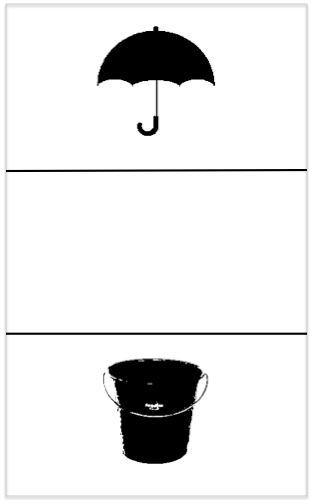
Winning team: Fewest humanitarian crises

Winning players: The two players with most prosperity points (beans) in the winning team

**Game Play**

During the introduction, the facilitator highlights that “Decisions for the Decade” is an intensely interactive game designed to support learning and dialogue about key aspects of long-term investments under uncertainty. The game is a simplified representation of reality (no challenging of rules please), and involves the links between limited information, rapid decisions, and consequences. The activity becomes increasingly fast-paced, and designed to take participants to the edge of tolerable confusion in a context of serious fun.

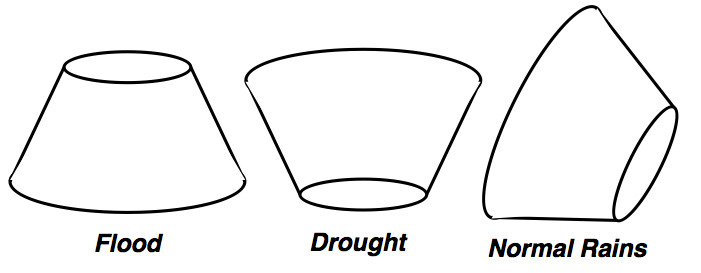
Each player takes on the role of a provincial governor. All particpants share a simple and noble goal: to create a prosperous province and nation over the coming decades. The facilitator explains that game will consist of three decades (each decade consisting of ten years, or rounds), or *until running out of time (note: the game will actually end before the completion of the third decade)*. The winning country will be the team of 4-6 players with the fewest crises (if there’s a tie, the country with most prosperity points). Within each country, the winning provinces will be the two players with the most prosperity points. There are prizes for the winners.

The first task for each player is to create their provincial board 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. Facilitator explains that the middle section represents investments for prosperity. Each player receives a provincial budget of ten beans per decade. Investing all the provincial budget in propserity can be great, if there are no floods or droughts… But on any given year, the rains may may be extreme, so the risk of devastating floods and droughts can be addressed by allocating some of the beans to the umbrella (for protection against too much rain) or to the bucket (for protection against too little rain). If in any given decade the number of extreme events surpasses the investments in flood or drought protection, respectively, all development is lost and a humanitarian crisis occurs. Each time a crisis occurs, the player must stand up, shout “Oh No!”, and get a red stone to represent a crisis. All provincial governors with one or more crises will likely be labeled as losers by their suffering populations…

Within each decade, there is a sequence of four phases: I*nformation, Decisions, Observations,* and *Results.*

1. Information: Facilitator describes of what is known about probabilities of extreme rainfall for the coming decade. Fo a practice decade, the facilitator uses the six sided die (“normal rains based on the past record of precipitation: a 1 represents a drought and a 6 represents too much rain – all other numbers mean good rains for prosperity investments”), and illustrates the game sequence with only two provincial boards (one with one bean in each type of protection, the other with four beans in each type of protection). *Note: each decade will involve different types of information.*
2. Decisions: With the information received, each provincial government player individually decides how to invest their ten beans. Each bean can be allocated to ‘protective investments’ (on umbrella or bucket), or on ‘prosperity investments’ (by placing the bean in the central part of the board). The facilitator imposes a firm, tight deadline for this investment stage (preferably in a way that makes several players feel the pressure: decisions often have to be made faster than desired). After the deadline, beans cannot be reallocated.
3. Observations: After the investment deadline, each player rolls the rains ten consecutive times, representing ten years. 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 to the side of their board. 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. Results: If no crisis takes place by the end of the decade, the beans that were allocated to “development” for that decade are counted as ‘prosperity points’ (the number of beans can be written on the central part of the board). After players document their individual outcomes on the corresponding board, they can briefly discuss the links between information, decisions and consquences before beginning the next decade. When relevant, the facilitator can invite participants to share observed events, insights or questions.

**Sequence of information for each decade**

1. The first decade of actual gameplay uses the same six-sided die (1 is drought, 6 is flood).
2. For the second decade, the facilitator says “the information we have is that conditions have not changed: the 6-sided die represent the risk of floods and droughts based on the past record”. After the end of the ‘decision’ deadline when beans have already been allocated, the facilitator asks to roll only three years. Before the beginning of the fourth year, the facilitator explains that there has been deforestation, environmental degradation and other forms of land use change upstream. This has led to a change in the risk of flooding. This changing climate risks is now represented by an eight-sided die which substitutes the 6-sided die for each province (a 1 is a drought, whereas a flood occurs with a roll of 6, 7 or 8). Players then have to complete the remaining 7 years until finishing the ten rolls for the decade. Of course, the risk of humanitarian crises is higher.
3. The third and final decade involves the “cone of uncertainty” to elicit different estimations of flood and drought probabilities among players (see figure on what outcome represents ‘flood’, ‘drought’ and ‘normal rains’). Facilitator explains that scientists can tell us that the climate is changing, and in some parts of the world they can tell us with some confidence what risks are more likely, but in the fiction of this game, like in many parts of the world, the information that science offers to decision makers is limited – but potentially very useful. With this cone, it seems nearly impossible to confidently estimate the chances of the object falling on the big base (representing floods) or the small base (representing droughts) vs. landing on its side (good conditions). What is clear is that the risks have changed, and that despite insufficient information all stakeholders still need to make decisions.

Game end: The best moment to end the game is during the third decade, right after the “decisions” phase (after the deadline and before tossing the cone of uncertainty). This is one of the moments of most intense thinking and reflection about the challenges of estimating probabilities in a context of deep uncertainty: when players notice how the same information has led to substantially differing decisions. While players will likely insist on wanting to see the flip of the cone, ending the game at this instance allows for the emergence of different opinions about likely risks and how to manage them. It allows for participants to be left with the vivid feeling of deep uncertainty, enabling richer discussion during debriefing.

Upon the facilitator’s decision to end the game, the winning country and provinces are determined, prizes are given out, and a debriefing begins to elicit emotions and insights – preferably regarding uncertainty and risk management given changing climate conditions. After the end of the game, the facilitator can share any additional insights and thank participants for their involvement.

**Designed by**

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**Acknowledgements**

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