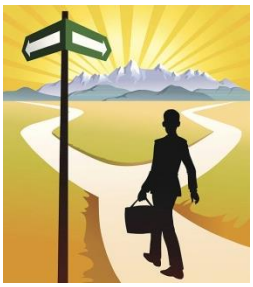

CROSSROADS

A GAME OF DECISIONS AND CONSEQUENCES

ACTIVITY

Participants play a game of scenarios to develop their decision-making skills. Through the various choices posed in the game, players are asked to consider and trade-off social, environmental and economic consequences in making decisions about land- and natural resource-use. The game frames decisions in a form that is fun and participatory, encouraging interaction and discussion. It is often in the discussions that the real learning takes place.

OBJECTIVES

The activity contributes to:

- Developing consequential and critical thinking skills and reasoning skills in the context of land- and natural resource-use decision-making
- Empowering participants to assess different options and make informed decisions
- Building group decision-making skills by encouraging interaction, discussion and agreement
- Raising awareness of the range of benefits (financial and non-monetary) from nature
- Highlighting the importance of considering consequences of decisions over time.

This product was compiled for RESILIM O project as part of the sub-grant "Unlocking conservation-based entrepreneurship to enhance biodiversity conservation and the resilience of ecosystems and people in priority areas of the Olifants River Basin", implemented by the Institute of Natural Resources.

The RESILIM O (Resilience in the Limpopo Basin – Olifants Catchment) project is funded by the U.S. Agency for International Development (USAID) under USAID Southern Africa

RFA-674-12-000016

RESILIENCE IN THE LIMPOPO BASIN PROGRAM (RESILIM)

The project is implemented by the Association for Water and Rural Development (AWARD), in collaboration with partners.

USAID | SOUTHERN AFRICA
FROM THE AMERICAN PEOPLE

award
The Association for Water and Rural Development

Institute of Natural Resources

BACKGROUND

We all make choices every day. Land owners or managers have to make decisions about how land and natural resources are used and managed. These decisions require the skills of consequential and critical thinking, as they have to be based on careful analysis of expected consequences across social, environmental and economic domains both now and in the future. With the various choices presented in this game, players are asked to consider and trade-off economic, social and environmental consequences in making their decisions. The game provides a tool for learning about trade-offs and synergies among the benefits from nature (financial and non-monetary benefits and market and nonmarket values of nature and ecosystem services).

GAME-BASED LEARNING

"Scholars have proposed that games incorporate important learning concepts in their design and inspire intrinsic motivation in players and learners (Malone, 1981). The model of game-based learning uses accepted educational strategies, building on the process of doing, reflecting, understanding, and applying knowledge (Dieleman and Huisingh, 2006; Pivec and Dziabenko, 2004). Games promote active participation by setting a clear goal, offering frequent feedback to users, allowing player control over the process, and heightening curiosity by presenting uncertain outcomes and collaboration and competition (De Freitas, 2006; Foster, 2008; Malone and Lepper, 1987). By contextualizing basic concepts and anchoring new information to experience, games encourage assimilation of ideas and principles in learners (Cordova and Lepper, 1996; Foster, 2008). Most importantly, games are fun. They have been used to educate users and prepare them for taking real-world decisions about a variety of environmental challenges (Ulrich, 1997), including water basin and agricultural land management (Rajabu, 2007; Schulte et al., 2010), landscape planning (Lawson, 2003), habitat connectivity and loss (McIntyre, 2003), and invasive species (Hopwood et al., 2013)." *(Verutes & Rosenthal, 2014)*

PROCEDURE

1. Before doing this activity:

- Read the game instructions in section 5 below.
- Set up the game for each group that will be playing. Each game includes a set of coloured Decision Cards, a set of different coloured Surprise Cards and a coloured dice (reflecting the two colours of the decision and surprise cards).
    - **Decision Cards** present a scenario to the player/team who must then select an option (A) or (B). Each option is associated with a consequence, the consequence is either to move ahead or skip a turn. Attached to each Decision Card is a Consequence Card (this can be placed in envelop with the Decision Card on the outside for ease).
    - **Surprise Cards** instruct the player/team to move ahead or skip a turn, introducing the aspect of uncertainty and unexpected surprises that often need to be dealt with in planning and decision-making.

- Set-up the game area:
  - The game is played by teams of participants (a minimum of 2 teams) moving from table to table with each table representing a position in a sequence from 1 to 6. Place a stack of decision cards and surprise cards on each of the first 5 tables (at least as many for each player/team to select twice). Table 6 is the Finish table where the 'prize' is placed.

Note: The decision scenarios are simplified for the purpose of the game. There are often ways to overcome or mitigate some of the consequences proposed on the cards; these should be discussed during the game. It is a game and it is meant to be fun, it is meant to encourage interaction and discussion. Because society typically prioritizes economic over environmental values, and our objectives to support environmental sensitivity and biodiversity conservation, the cards in this game tend to reward environmental sensitivity that may incur economic costs. If you wish other values to be considered, a new set of Decision Cards can be developed. This could be used an additional activity for the group.

2. Give an introduction to the players/groups relevant to your context (see Background section)

- For example, you could ask participants to describe decisions they have made recently. Have them cite examples of particularly good or poor choices. Why was the choice a good one or a poor one? What considerations are important to you when you make decisions? How can poor choices be a good experience? (We can learn from our mistakes.)
- Introduce and discuss relevant terms, such as,
  - **Land use:** how land within a community or area is used—whether for houses, businesses, agriculture or natural areas
  - **Consequences**: the result or effect, consider short-term and long-term consequences
  - **Benefits:** impacts that make a positive contribution to human well-being
  - **Irreversible:** not possible, or very hard, to undo or change
  - **Trade-off:** a strategic choice made by thinking about the consequences of different options

3. Introduce the game

- Explain that the participants will be playing a game to explore land use decisions. Participants should carefully weigh economic, social, and environmental factors when making their choices.
- Alternatively, you may choose to have participants play first, and then discuss economic, social and environmental factors after the game. The game can then be played again with those factors in mind.

4. Divide the participants into teams to play the game.

- The game must be played by a minimum of two individuals or two teams.

5. Review the **rules of the game** with the participants

- Each player (or team) selects a game piece (e.g. hat) and proceeds to the Start (Table 1). For teams, the team can choose a name and list all the individuals in the team on a poster. Each player/team draws a number from a hat, the player/team with the highest number goes first; play proceeds in a clockwise direction (or alternates if only 2 players/teams).
- The first player/team rolls the die and selects a card from the pile that corresponds to the same colour showing on the die (i.e. the roll of the die indicates whether a Decision or Surprise Card should be selected). The player must read the card aloud, and follow the instructions.
- For a Surprise Card, the player/team is instructed to move ahead or skip a turn based on a hypothetical scenario.
- For a Decision Card, the player/team is presented with a scenario and must choose from option (A) or (B). When playing in teams, the team members must discuss the decision they chose from the 2 options on the card. The player/team announces their decision to the whole group (i.e. the rest of the teams they are playing with). The player/team then opens the Consequence Card and reads it aloud to the whole group. Depending on the option chosen, the Consequence Card will instruct the player/team to move ahead or skip a turn. Discussion must be encouraged and players/teams should be encouraged to voice their opinion even if it contradicts the Consequence Card.
- Once used, cards are returned to the moderator. The moderator may also keep a set of spare cards of each type in case the ones on the tables are 'used-up'.
- The next player/team then throws the dice and play continues until the first team/player reaches the FINISH table and claims their prize!

MATERIALS

- Coloured dice (with 4 sides the colour of the Decision and Consequence cards and 2 sides the colour of the Surprise cards)
- Decision and consequence cards
- Surprise cards
- Player/team game pieces or icons (e.g. different hats) and a matching team poster
- Table numbers
- Extra paper and coloured pens
- Flipchart

SOURCES

Game adapted from the lesson Landopoly (http://jareddahlaldern.net/lessons/Landopoly.pdf) based on the game Hydropoly from WOW! Wonders of the Wetlands from Environmental Concern Inc. (<www.wetland.org>.). Adapted from Fisheries Learning (Http://www.miseagrant.umich.edu/flow) developed by Michigan Sea grant College program, with support from the Great Lakes Fishery Trust.

Verutes, G.M & Rosenthal, A. (2014). Using Simulation Games to Teach Ecosystem Service Synergies and Trade-offs. Research Article, Natural Capital Project. Available at http://www.naturalcapitalproject.org/pubs/ES_Games_Verutes_Rosenthal_2014.pdf .