THE CARIBBEAN CLIMATE RESILIENCY GAME PUERTO RICO AND US VIRGIN ISLANDS

MODERATOR GUIDE

INTRODUCTION

PREMISE: Each player, which may be an individual or team, represents a farm in the US Caribbean, Puerto Rico or the US Virgin Islands. Players must make decisions that impact their farm's ability to generate income while balancing its ability to mitigate the impacts of climate change as well as to recover from natural disasters. The choices that farmers make will determine the economic and climate resilience, measured in cash and soil health tokens.

PURPOSE: The purpose of this game is to prompt critical thinking by players on how their decisions affect their land, community, and livelihoods, as well as how these are expected to change under current global warming trends.

HOW TO WIN: The player with the most Cash and Soil Health Tokens after four rounds wins the game, but the real winners of the game are those who learn about climate resilience.

KEY THEMES: Throughout the game, moderators should expect to discuss the following key themes:
1. **Land Use Decisions** and their impacts on natural resources and sustainable livelihoods in the future;
2. Tradeoffs between profits today and longer-term **climate change resilience**
3. **Soil Health** and their associated costs and benefits for communities

GAME SET-UP

MODERATOR(S):
- Distribute Cash and Soil Health Tokens to players
- Keep record of token counts for each player in the score table at the bottom of the document
- Facilitate Player discussions on natural resource management and land use decisions – This will happen in a discussion at the end of the game

PLAYERS (3):
- Represent a farm as an individual or a team
- Make decisions based on maintaining the agronomic and economic health of their farm/land area

EQUIPMENT:
- Game Board
- Land Use Activities Reference Sheet
- Resilience Activities Reference Sheet
- Cash and Soil Health tokens
- Land Use and Resilience Activities Game Pieces
- Community Chance Cards
- Agricultural Chance Cards
- Game Dice

KEY CONCEPTS

CASH TOKENS: Represent money/income. Players earn cash tokens from land use or chance cards and spend them on land use changes, livelihood needs, security activities, to avert disasters, mitigate impacts of chance cards, or improve soil health.

SOIL HEALTH TOKENS: Represent the soil health of a player's farm. Soil health is defined as the soil's capacity to maintain its essential functions and encompasses nutrient cycling, structure, filtration, and the sustenance of plant and animal life. Players receive a fixed number of tokens from the moderator each round and otherwise can gain or lose them from land uses, resilience activities, or chance cards.

LAND USE CARDS: Represent the five land use options available to farmers in this game. Players begin the game with four land uses and must pay cash tokens in order to switch in subsequent turns. A player's land uses positively or negatively impact their soil health tokens.

RESILIENCE ACTIVITY CARDS: Represent seven potential resilience-enhancing activities. Each generates resilience, whether in mitigating the impact of disasters (through each turn's dice roll) on the player's farm, or from other climate risks through improved agricultural practices that maintain the health of the farm's soil. Purchasing these requires a one-time cash token cost, as stated on each card.

DISASTER DICE: Each turn, the players are affected by a disaster which strikes the island. This disaster is determined through a dice roll, in which the moderator rolls a die to determine which disaster (flood, drought, or hurricane) will affect the players. In order to mitigate the impacts of the disaster, players must meet a minimum number of resilience points specific to the disaster, acquired through resilience activities. If the player does not meet resilience requirements, there are repercussions in the form of lost soil health and cash token impacts according to the table in the instructions. With a normal six-sided die, the numbers 1 and 2 represent hurricane, 3 and 4 drought, and 5 and 6 flood.

COMMUNITY CHANCE CARDS: These represent large scale environmental, political, social, or other events that impact all farmers once per turn and can have positive or negative impacts on income and soil. The moderator draws one card per round which applies to all players.

AGRICULTURAL CHANCE CARDS: These represent environmental, political, social, or other events that impact a farm individually and can have positive or negative impacts on income and soil. Each player/team draws one card per round.

The table below summarizes some of the game's key concepts, showing how players can gain or lose tokens or resilience points through chance cards and their decisions:

CONCEPT	EARNINGS/BENEFITS	COSTS/IMPACTS
CASH TOKENS	Land uses, chance cards	Switching land uses, adding soil health activities, chance cards, disasters, community livelihood costs
SOIL HEALTH TOKENS	Soil budget, land uses, soil health activities, chance cards	Land uses, chance cards, disasters, community livelihood needs
RESILIENCE POINTS	Soil health activities	Can only be lost through switch to a less resilient land use

MODERATOR INSTRUCTIONS

SETTING UP:

1. **Introduction:** In this initial phase, set up the initial game mechanics with land uses, resilience activities, and cash and soil health tokens. While doing so, be sure to describe the game to players, touching on the key learning objectives, and the key themes that run through the game. Emphasize that players will need to balance cash and their soil health tokens through their decision-making.

2. **Team Names:** Have players choose farm/team names if desired, which are recorded on the score table.

3. **Equipment set-up:** Distribute a game board to each player along with the four standard land uses that every player starts with.

4. **Token distribution:** Distribute 10 cash and 20 soil health tokens to each player for the initial turn. Remember to distribute soil health tokens at the beginning of each round.

5. **Rounds:** explain to players that every round follows multiple steps: land use selection, resilience activities, disaster, and chance cards.

ROUNDS 1-4:

Run through the steps below, tracking any decisions or notes in the score table as needed.

1. **Soil Health:** At the beginning of each turn, distribute a fixed number of soil health tokens to each player, explaining that this represents their general soil health. The number of tokens distributed each round will decrease to represent uncertainty and the potential impacts of climate change, which should be explained to players:

ROUND 1	ROUND 2	ROUND 3	ROUND 4
20	18	16	14

2. **Land Uses:** In Round 1, all players start with an assigned set of four Land Use cards. In the following rounds, players may choose to purchase land uses using their cash tokens to replace current ones. Players can have a maximum of four land uses at a time. Note changes in land use in the score table and distribute the appropriate card(s) afterward.

3. **Land Use Earnings and Deductions:** Based on each player's selected land uses, hand out cash tokens and soil health tokens generated by their land use combinations, which is explained on each land use card.

4. **Resilience Activities:** Explain that players can choose whether to invest in any Resilience Activities to avoid potential disaster impacts and earn soil health tokens (see next step). Distribute soil health tokens gained from Resilience Activity cards purchased in previous rounds as well as any new Resilience Activity cards to each player. Collect cash tokens for the cost of any purchased Resilience activities. Record any resilience activities purchased by each player and their associated resilience points in the score table.

5. **Disaster:** Each round, roll the dice to determine which disaster impacts players. Players can avoid the impacts of the disaster with accrued resilience points from their resilience activity cards. Explain that resilience points needed to avoid disasters increases each round to represent the growing impacts of climate change, as do the negative impacts on soil health and cash tokens. If a player does not have the necessary resilience points to avoid the disaster that round, collect the soil health and cash tokens corresponding to the table:

	ROUND 1	ROUND 2	ROUND 3	ROUND 4
Resilience points to avoid each disaster (hurricane, drought, or flood)	+3	+4	+5	+6
Negative impact on both soil health and cash tokens if resilience points not met	-3	-4	-5	-6

6. **Community Chance Cards:** Draw one community chance card which applies to all players and record the result. Explain that these cards require players to exchange tokens. Help player(s) exchange tokens accordingly.

7. **Agricultural Chance Cards:** Each player draws an agricultural chance card applicable solely to their farm. Collect or distribute tokens accordingly. Record which chance card each player drew in the score table.