

## UPSTREAM DOWNSTREAM: Rules

***This is a step-by-step guide for facilitating the game Upstream/Downstream. Initial concept created by the Red Cross Climate Center and redesigned by Antidote Games.***

### **Game Goal**

The goal of Upstream Downstream is to have the most amount of wealth by investing wisely in one's farm. Will you have a prosperous farm, or will drought and floods be your downfall?

### **Number of Players**

The game was tested most thoroughly with 6-8 players. It should be scaleable to 12, but after 12, it may be good to break people into two or more smaller games running concurrently.

### **Game Pieces**

- Player Board — 1 per 2 players
- 18 Farm Improvement cards
- 4 Standard (six-sided) dice

### **Per Player Board:**

- 24 Tree tokens
- 82 Maize markers
- 4 dam markers
- 6 Foundation markers
- 4 Well markers
- 2 Point markers, one for each player

### **Setup**

Players play across from each other. Each player has one side of a player mat that is their farm area. The player boards should have an Upstream and a Downstream direction marked by arrows.

(For each set of 4-6 players, print and cut out one set of Farm Improvement Cards.)  
(1 per every 2 players. example: for 6 players, use 3 player mats. )

### **Initial Explanation**

Have each player find a place to sit around the table.

If you have an odd number of players, one player will play by themselves. Remove 5 trees from the unplayed farm across from the single player. Place this player in the middle of the table so they'll have 2 neighbors. (At the end, they'd only have 1, and that would be not so great for them)

Explain the difference between Upstream and Downstream farms:

- Upstream farmers are further away from development, and will have last pick at Farm Improvements.
- Downstream farmers are further away from the rainfall, and will have first pick of Farm Improvements.
- Upstream farmers get first pick at water to sustain their farms.
- Downstream farmers have to take whatever water is left from other farmers upstream.

Explain the three phases:

- Building Phase, where players will have 4 chances to pick improvements they'd like on their farm

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- Water Phase, where players will allocate the amount of water coming down the river to maintain crops, livestock, and other improvements.
- Money Phase, where points are counted and a winner is determined.

The player who has the most money at the end of the game wins!

Have players find and shake hands with their neighbors.

- A Player's neighbors are the player directly across from them, and the players directly to the left and right of them.
- A player in the middle of the table has 3 neighbors. A player at the end of a table has 2.

A neighbor's farm can affect your own.

### Phase 1: Building Phase

In this phase, Players will either

- Pick one Farming Improvement card
- Build a Well, Foundation, Dam, or plant a field of Maize.

There will be 4 hands of cards to pick from.

The number of cards in each hand is equal to the number of player mats +2.

*For an eight person game, each hand has 6 cards. For a four player game, each hand has 4 cards.*

A player cannot build a foundation, well, dam, or plant maize *and* pick a card. Foundations must be built a turn before placing an advanced building on them. Players must watch Downstream to see what cards are coming on the turn before you get them.

Show the first hand to the Downstream farmers. Talk through each card:

- What is a building? What is a foundation? How do they interact?
- What are livestock? How do you get Livestock?
- If you don't want to take a card, you may always build a Well, Dam, Foundation, or plant some Maize.

*The first pair of players may look at the next hand of cards coming up.*

The set of players next in line may build a Foundation, Well, Dam, or Plant some Maize before they pick their cards. This gives them a chance to build a foundation and buy an advanced building on their next turn

Have the first two players pick a card or action, and have the next two players build a well, foundation, dam, or plant some Maize if they so choose.

### Points

You gain points from three sources:

- Every time someone cuts down a tree, they gain one money from selling the wood.
- Each card has a certain number of money you gain from owning it.
- Advanced cards' points go up and down based on what your neighbors do.
- Spaces closest to the water give the players +2 points. The second row of the farm gives +1 point. The back row furthest away from the water gives no bonus points.

After the points are added up, and put on the player point tracks next to their farms, pass cards:

1. Pass down the first set of cards to the second set of players.
2. Reveal the next set of cards, and give them to the first set of players.

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The third set of players may now build foundations, wells, dams, or plant maize.

Play continues until all hands of cards reach the furthest upstream players. After all players have build their farms, the Water Phase begins.

### Phase 2: Water Phase

The water phase consists of three steps:

1. Rolling the amount of rainfall. (see **Rain Probabilities and Forecast** below)
2. Passing the water from farm to farm so all players get a chance to use the water.

These two steps are repeated 4 times.

The Facilitator rolls the first set of dice. Normal rainfall is 3D6 (or 3 standard, six-sided dice). That amount

Players get to use the water. The first step is determining whether there is a water shortage or flood.

1. Determine if there is a flood:
  - a. Players on the same player mat (neighbors across) add up their total number of trees.
  - b. If the dice are greater than the number of trees, there is a Flood.
2. If no flood, allocate water:
  - a. Each Improvement has a water cost. Add up all water costs per player.
  - a. If the water costs per player are greater than the amount of water, there is a Water Shortage.
3. Finally, after resolving Floods and Water Shortages if there is one, Pass the dice on to the next group.

### Floods

The severity of the flood is determined by the difference between the number of trees and the amount of water.

- a. If the water is 1-3 over the number of trees, the first row of each farm is flooded.
- b. If the water is 4-6 over the number of trees, the first and second row of each farm is flooded.
- c. If the water is 7+ over the number of trees, the entire farms are flooded.
  2. Any tiles totally covered by the flood waters are removed. Reduce that player's points by their cost.
  3. Tiles partially covered by flood waters are damaged, and reduce that player's points by 2. Those tiles stay on the farm.
  4. Increase the amount of water by one.

### Water Shortage

1. A player with a water shortage must remove Improvements from their farm if those improvements do not have enough water.
2. Any tiles removed because of a water shortage reduce the player's points.
3. A player may save a whole Improvement by permanently reducing the amount of water available by one. Those Improvements are then not removed.
4. A player may choose which Improvements to save, and which get discarded.

If there isn't too much or too little water, Nothing gets removed, the farm runs as expected, and the water amount dice get passed downstream.

### Phase 3: Money Phase

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After all four rounds of water usage are finished, players reassess their points.  
Ask who has a certain amount of points, and start low: “Who has [5, 10, 15] points?”

Verify that the number of points that a player has is actually the number of points they have.  
There are many ways to miscount.

A player is determined a winner! If there are players who are tied in points, those players are co-winners!

### Possible Discussion Questions

- What happens to farmers who cut down all their trees and their farm got flooded? (They may have some money from cutting trees, but how will they survive next season?)
- Who did the best? Why?
- What types of decisions should you have made in the game?
- Where does this game mirror reality? Where does it waver from it?

### Design Notes

We created the two main phases in such a way so that players would gain lots of points, thing they are doing well, then have to subtract their points as floods or droughts wiped them out. Seeing something that you labored over get destroyed because of your own, or your upstream neighbor's, bad decisions is the empathic learning moment for the game.

### Rain Probabilities and Forecast

Upstream Downstream is balanced to have about 10-11 water available a turn. These metrics can be tweaked to produce different results. Using 3D6, there is a 25% chance to roll a 10 or 11, and a 48% chance to roll a 9-12. These numbers will produce about the right amount of water for all players. But, we can put in some Rain forecasting as well.

Before the game begins, let players know that it usually rains about 10 or 11 rain.

Roll Method	Average Score from Roll	Game Description
3D6	10 or 11	Average Rainfall
4D6 Remove Lowest Die	12, 13, or 14	Above Average Rainfall
4D6 Remove Highest Die	8, 9, or 10	Below Average Rainfall
2D6	7	Far Below Average Rainfall
4D6	14	Far Above Average Rainfall

To keep the game fair-ish, you should avoid using the Far Below Average and Far Above Average categories, and stick to the ones above. More than likely, you'll roll something that is too much or too little even with Above or Below average rainfall. Also as likely, many players cut down trees, so there is a high probability of flooding even with average rainfall.