General Instructions and

Instructions for Phase 1

General Instructions

Welcome to the experiment. Do *not* click the Next button until instructed to do so. Please read these instructions carefully and wait for the experiment to begin. Do not communicate during the experiment. If you have any questions raise your hand, and a lab assistant will assist you.

You can earn money in this experiment. The amount of money you earn is determined by the choices you make throughout the experiment. For the duration of the experiment, your earnings will be calculated in tokens. After the experiment, your earnings will be converted into Danish kroner (DKK) at the exchange rate of 60 to 1.

> **60 tokens = 1 DKK**

Note that your earnings will be paid to you immediately after the experiment in private and in cash.

In the experiment, you take the role of a homeowner who must decide whether to invest in an adaptation method to secure your house against a potential flood, the method is not specified, but it could be something like establishing a rampart, resizing the drains or switching asphalt for grass.

Please read the rest of the booklet before starting the experiment. Once you have completed Phase 1, read the booklet for Phase 2 before proceeding with the experiment. Always read the booklet that corresponds to the phase you are about to complete before proceeding.

Instructions for Phase 1

The experiment has 7 phases. Each period consists of a sequence of events as shown in the diagram below. There are 3 periods in each phase (except for phase 4, which has 5), i.e. the experiment consists of 23 periods in total. A period in Phase 1 comprises the following events: information on individual risk, decision on whether to invest in adaptation measures, a random event in which there is a possibility that a flood may take place and feedback on the results of the period.
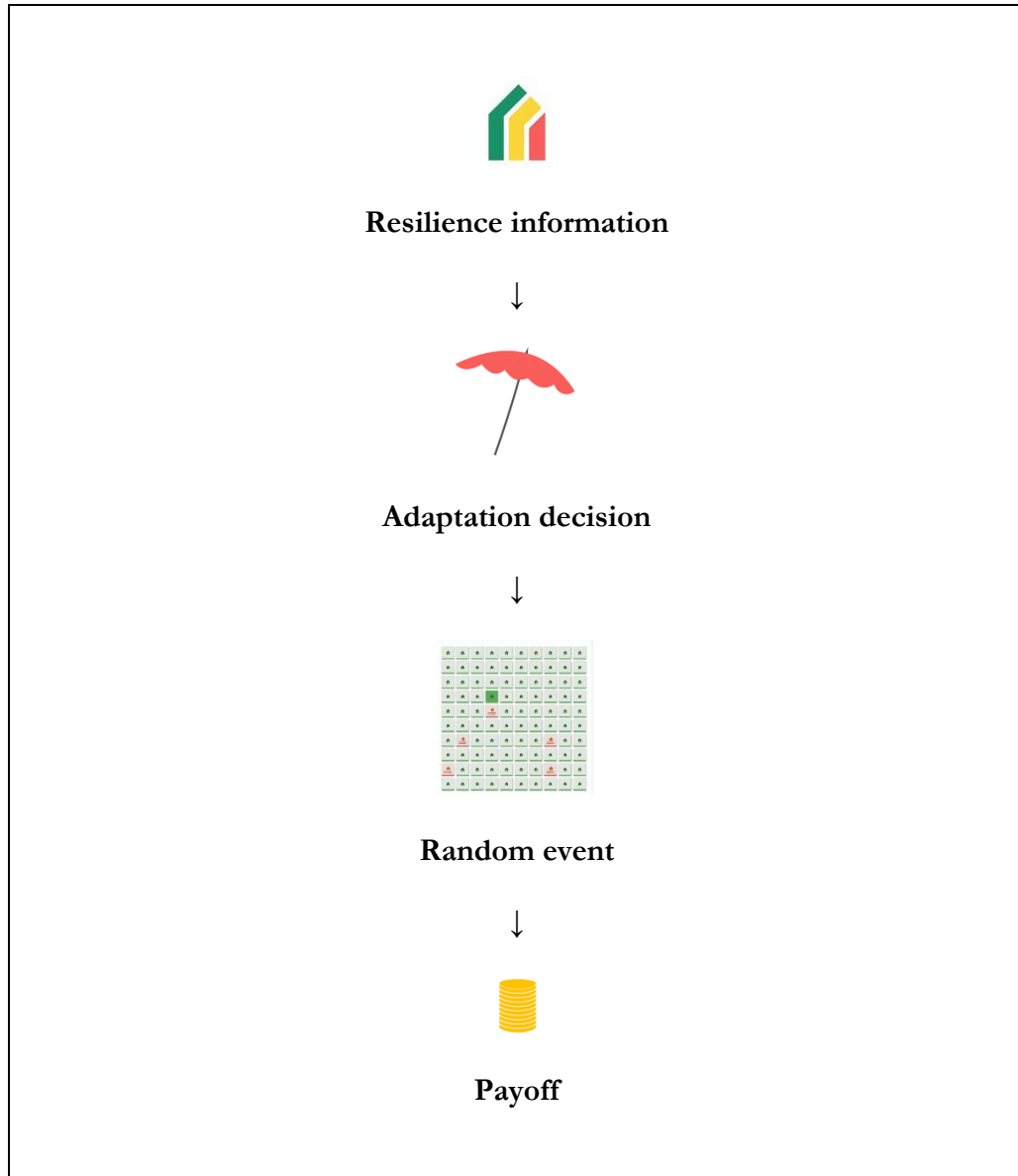
Resilience information

↓

Adaptation decision

↓

Random event

↓

Payoff

![house icon] **Resilience information**

At the beginning of each period, you are informed of your individual risk. This may be 1, 5 or 10 percent, depending on how vulnerable your home is to climate change disasters.

↑   ↑   ↑
1   5   10   percent risk
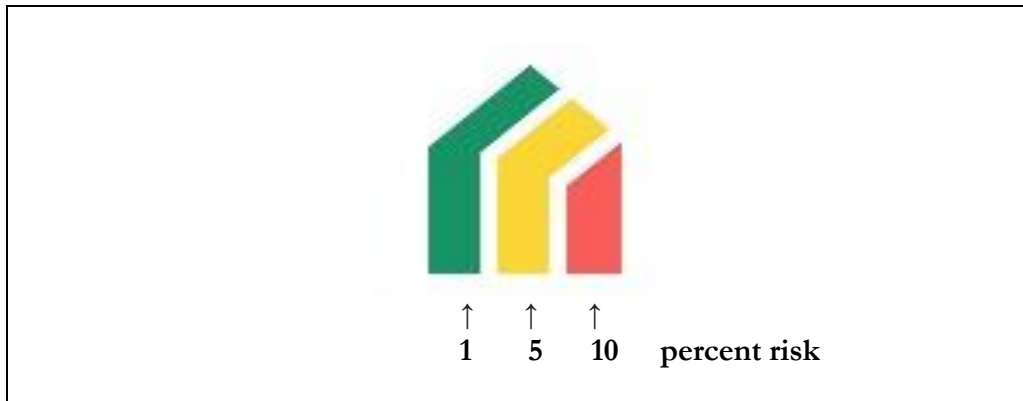
![icons] **Random event**

A random event may occur, in the form of flooding. In each period your risk of flooding may be 1, 5 or 10 percent. For example, imagine that your risk is 5 percent. That is, the risk you run of having your house flooded. You will have to click on a matrix with 100 blank squares that will reveal 100 houses when you click on it, 5 will be flooded and 95 will be intact. The square you randomly clicked on will determine the random event for the period. If it is a flooded house, your payoff is 50 tokens and if it is an intact house your payoff is 500 tokens.
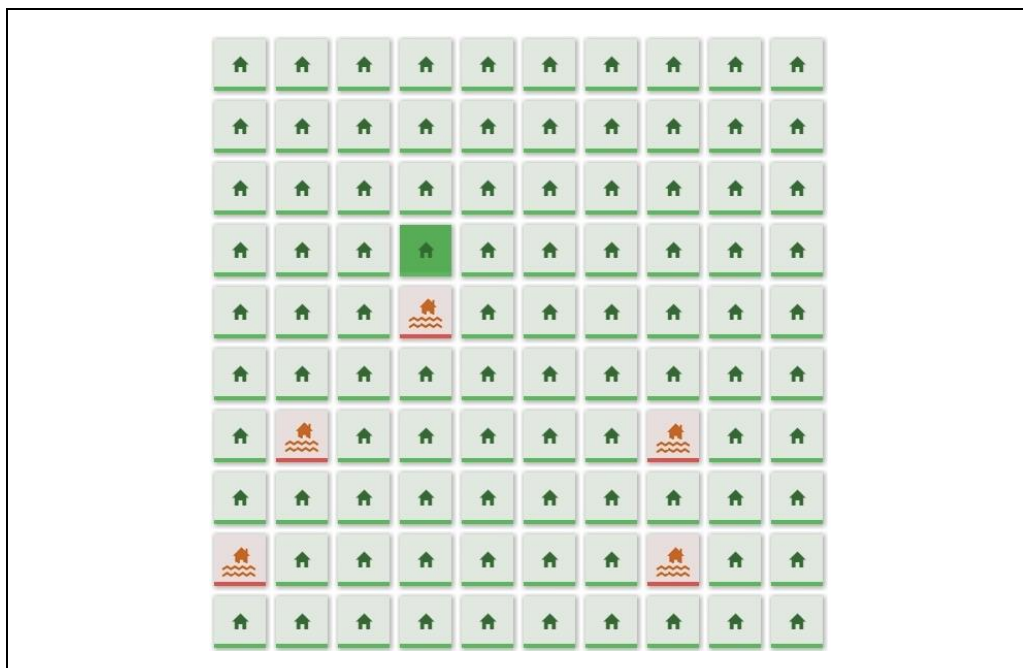
☂ Adaptation decision

Prior to the random event, you can decide whether you would like to take some adaptation measures. If you decide to adapt, you pay 200 tokens to cover the cost, and thereby you avoid any risk of a loss.

If you choose *not* to take adaptation measures your earning will depend on the risk of clicking on a flooded house. For example, if your risk is 5 percent, then in 5 of every 100 cases the house is flooded, and your payoff is 50 tokens. In 95 out of 100 cases the house is intact, and your payoff is 500 tokens.

If you *do* take adaptation measures your payoff will be 300 tokens, regardless of which square is clicked.

| Earnings *without* adaptation measures		Earnings *with* adaptation measures	
🏠〰	50 tokens	🏠〰	300 tokens
🏠	500 tokens	🏠	300 tokens

🪙 Result

At the end of each period you are informed of the result of the random event, and your payoff for the particular period.

This sequence makes a period and in each phase, you will play three periods.

Instructions for Phase 2

Instructions for Phase 2

You have completed Phase 1 and will now start Phase 2. The setup is the same; with the exception that now you do not know what your risk is, it could be 1, 5 or 10 percent.

? ?

No risk information

↓

Adaptation decision

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Random event

↓
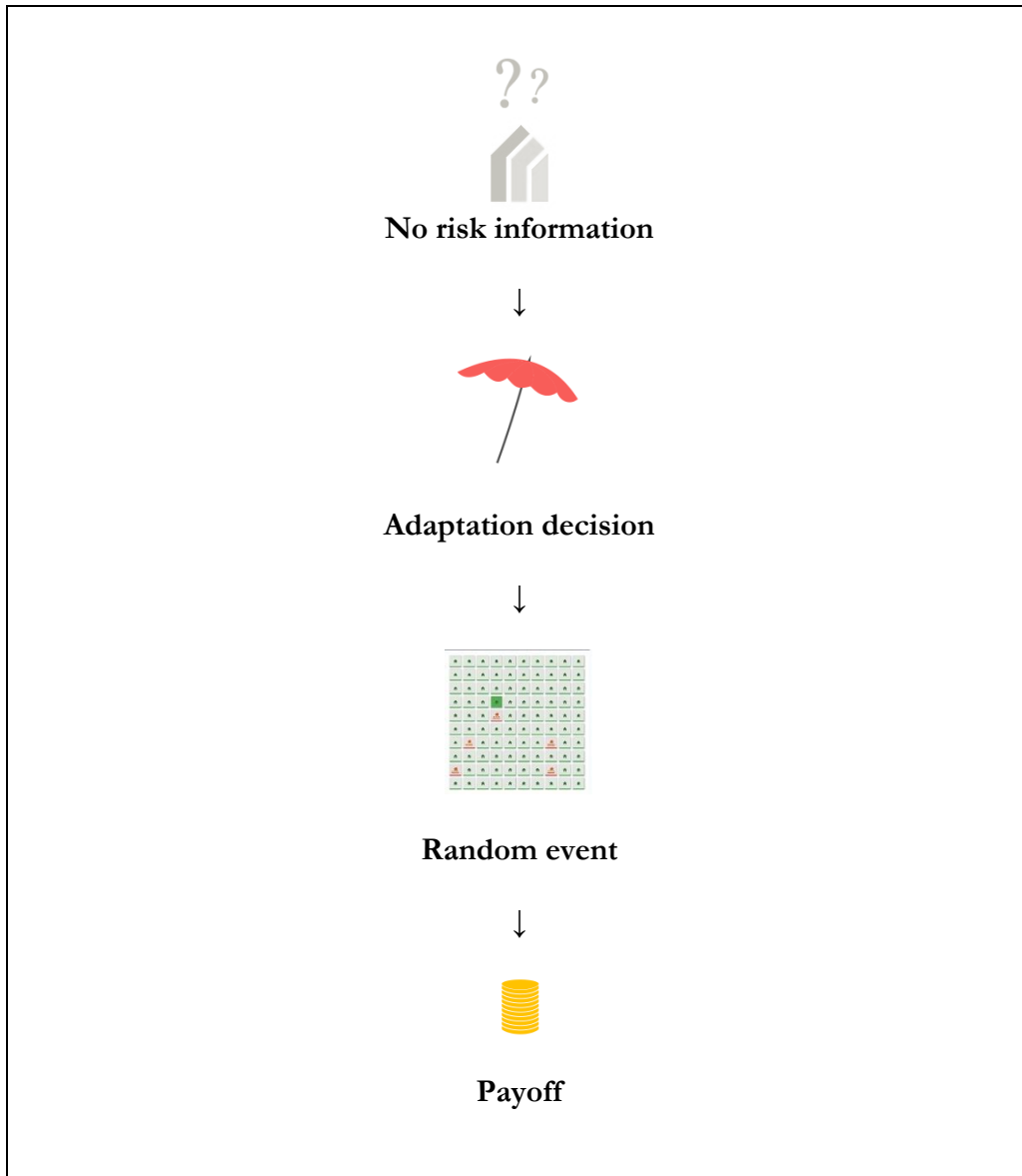
Payoff

The rest of the period progresses as in Phase 1. That is, the random event, adaptation decision and payoff stages are the same.

Instructions for Phase 3

Instructions for Phase 3

You have completed Phase 2 and will now start Phase 3. The setup is the same as in Phase 1, with the exception that now the costs are as follows:

☂ Adaptation decision

You have 500 tokens. Prior to the random event, you can decide whether you would like to take some adaptation measures. If you decide adapt, you pay 200 tokens.

If you choose *not* to adapt your losses will depend on the risk of clicking on a flooded house. For example, if your risk is 5 percent, then in 5 of every 100 cases the house is flooded, and you incur a loss, you lose 450 tokens. In 95 out of 100 cases the house is intact, and you lose nothing.

If you *do* take adaptation measures your loss will be 200, regardless of which square is clicked on.

Cost *without* adaptation measures	Cost *with* adaptation measures
🏠〰 450 tokens	🏠〰 200 tokens
🏠 0 tokens	🏠 200 tokens

Instructions for Phase 4

Instructions for Phase 4

You have completed Phase 3 and will now start Phase 4. The setup is the same as in phase 1, with the exception that now your adaptation decision is binding for 5 periods, where the risk is constant throughout, and you are not allowed to revisit your choice between each random event.

Resilience information

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Adaptation decision

↓

× 5

**Random event**

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Payoff
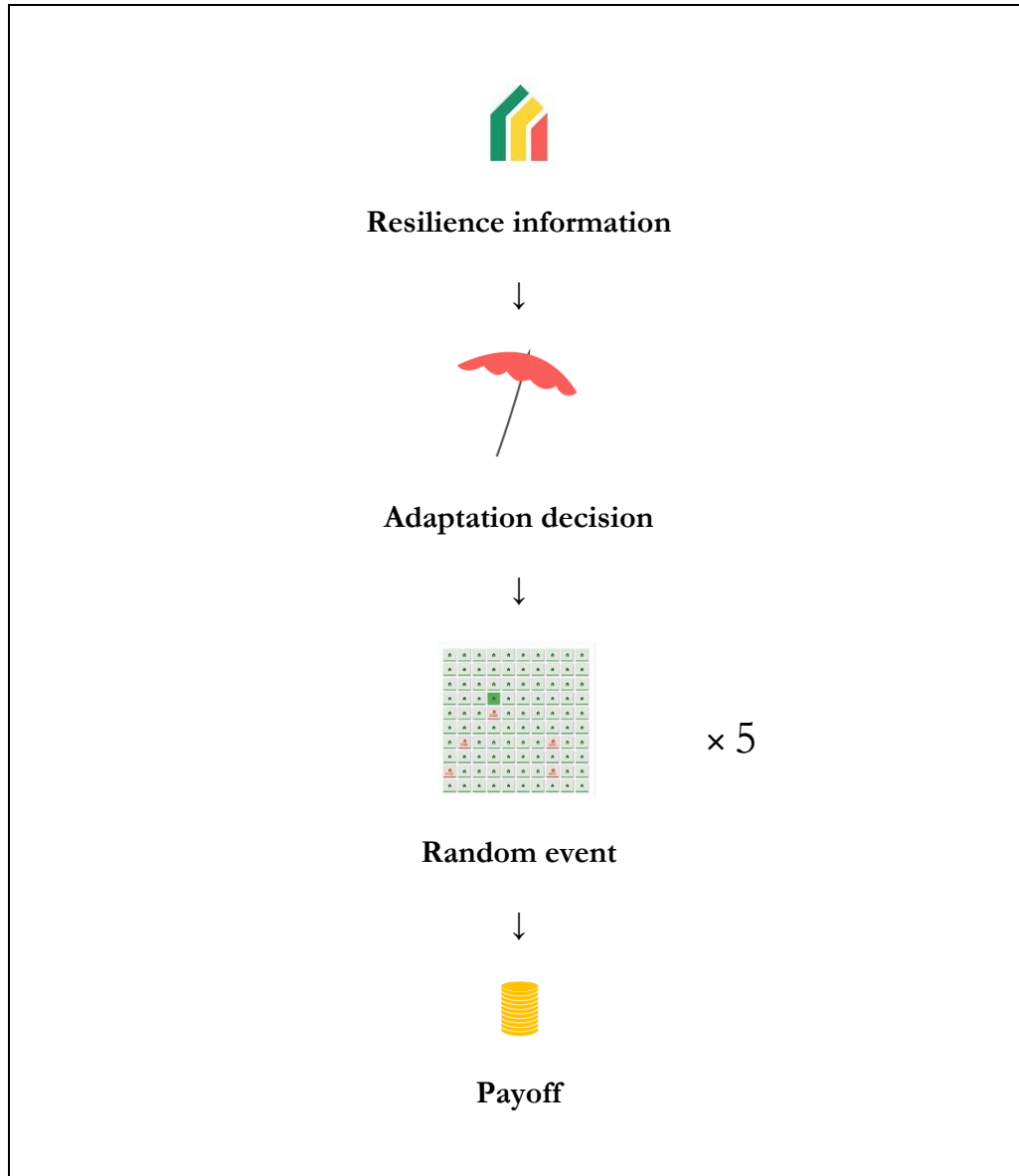
Instructions for Phase 5

Instructions for Phase 5

You have completed Phase 4 and will now start Phase 5. The setup is the same as in the first phase, except that now you will be in groups of three. Within your group you can see each other's risk. You will vote on whether you wish to collaborate in adaptation or not. If the group decision is to collaborate, you incur a lower adaptation cost. If the decision is *not* to collaborate, you make your individual adaptation choice as in Phase 1.
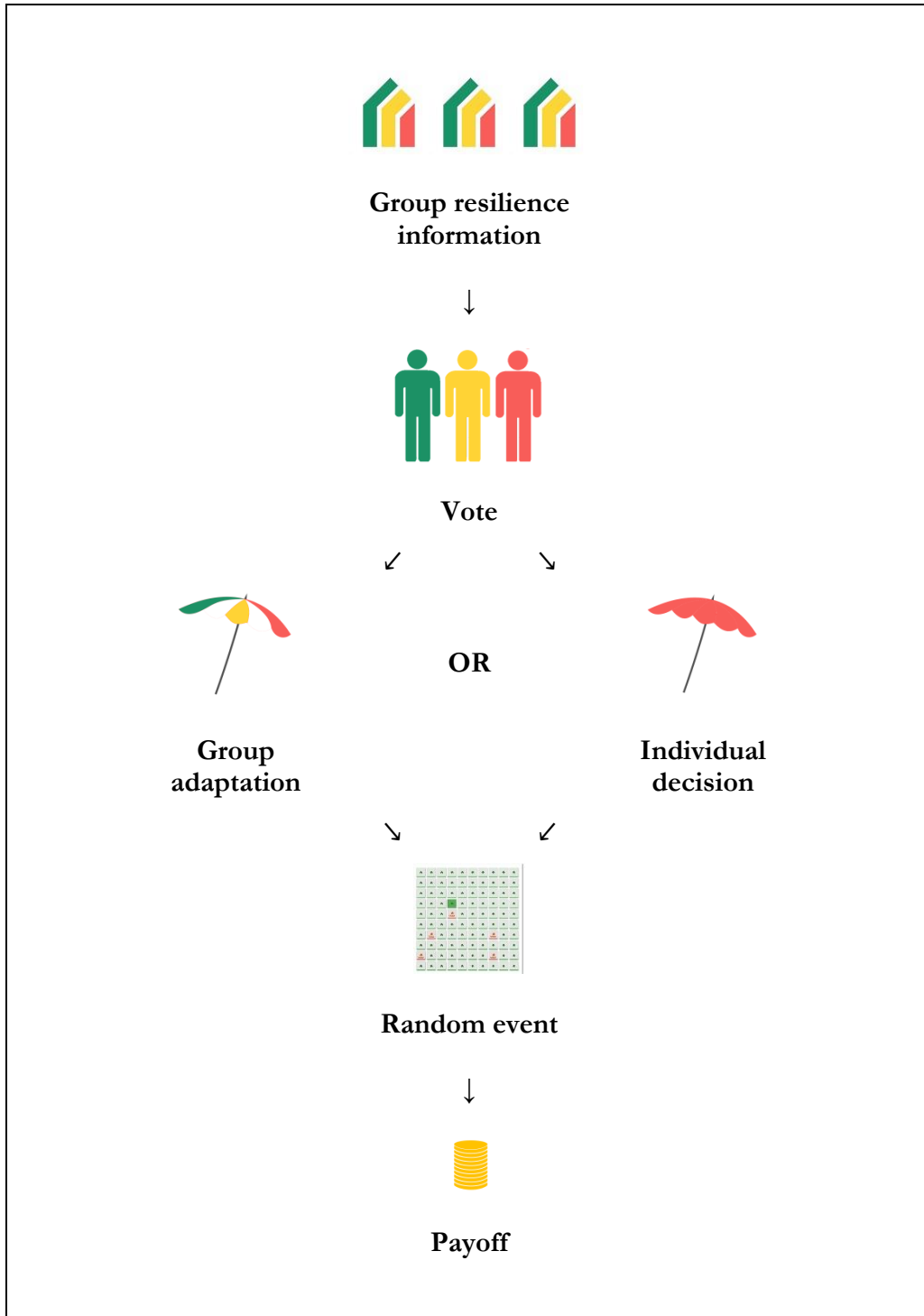
Group resilience information

↓

Vote

↙   ↘

Group adaptation   **OR**   **Individual decision**

↘   ↙

Random event

↓

Payoff

🏘 Group resilience information

At the beginning of each period, you are informed of your individual risk. You are also informed of the risk incurred by the other group members. This may be 1, 5 or 10 percent, depending on how vulnerable each individual home is to climate change.

| 1 pct risk | 5 pct risk | 10 pct risk |
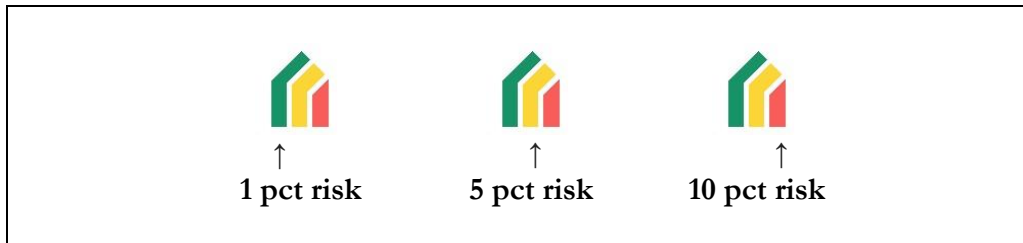
🌴 Vote and group adaptation

You and two other homeowners can now vote on whether you would like to collaborate in taking an adaptation measure. If *all* three vote for collaborative adaptation, then you take adaptive measures in the current period. The cost of collaborative adaptation is 100 tokens for each group member, regardless of whether a flood occurs or not. Note that if at least one votes for *no* collaborative adaptation then you move on to the individual adaptation decision as in Phase 1.

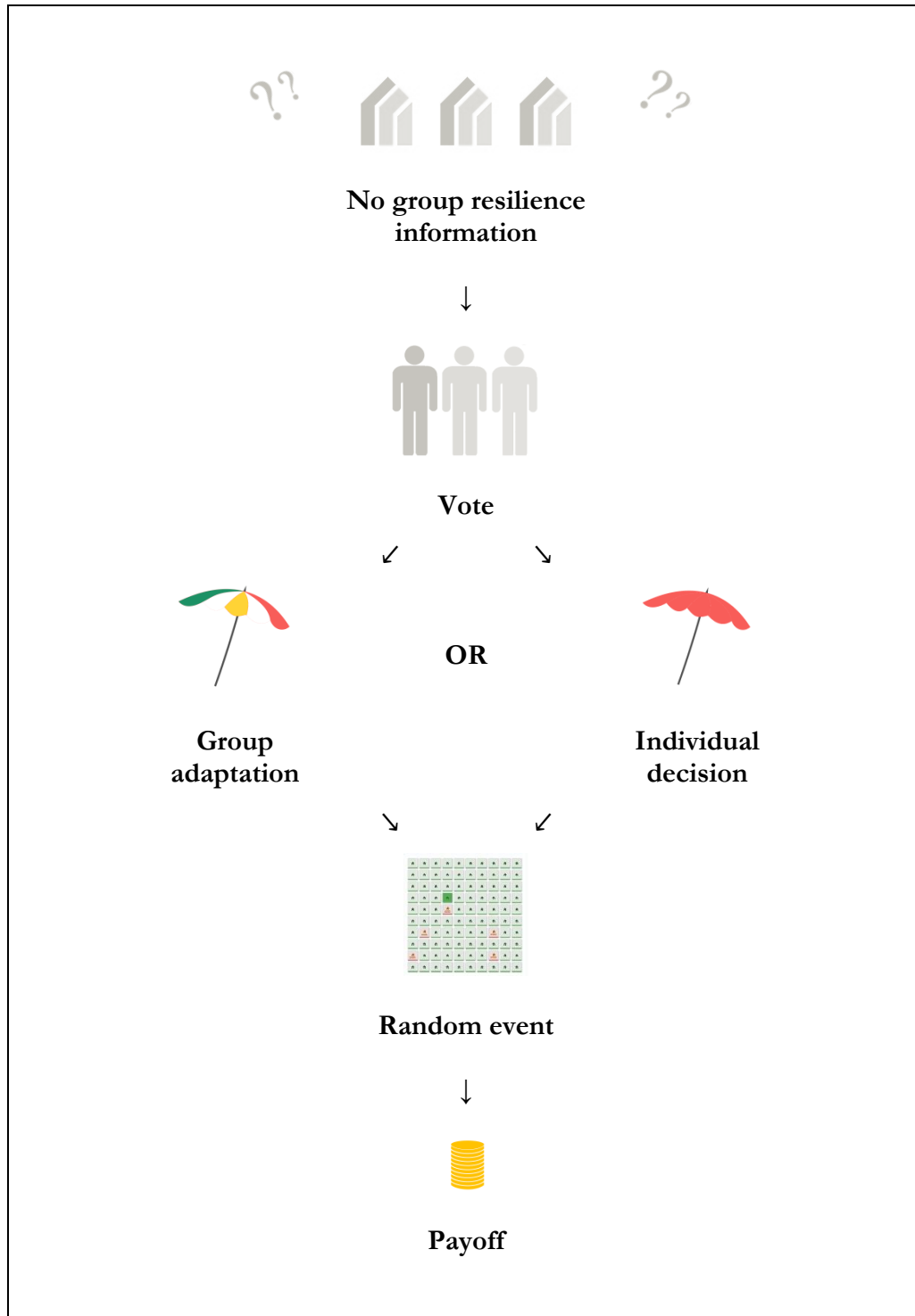| 400 tokens | 400 tokens | 400 tokens |

☂ Individual adaptation decision

If the group does not reach a unanimous result to collaborate you can still decide whether you would like to adapt on your own. Then, it is as in Phase 1.

Earnings *without* adaptation measures	Earnings *with* adaptation measures
🏠〰 50 tokens	🏠〰 300 tokens
🏠 500 tokens	🏠 300 tokens

Instructions for Phase 6

Instructions for Phase 6

You have completed Phase 5 and will now start Phase 6. The setup is the same as in the previous phase with the exception that now you do not know what your risk or the risk faced by the other group members is. All you know is that it could be 1, 5 or 10 percent.

No group resilience information

↓

Vote

↙ ↘

OR

Group adaptation   **Individual decision**
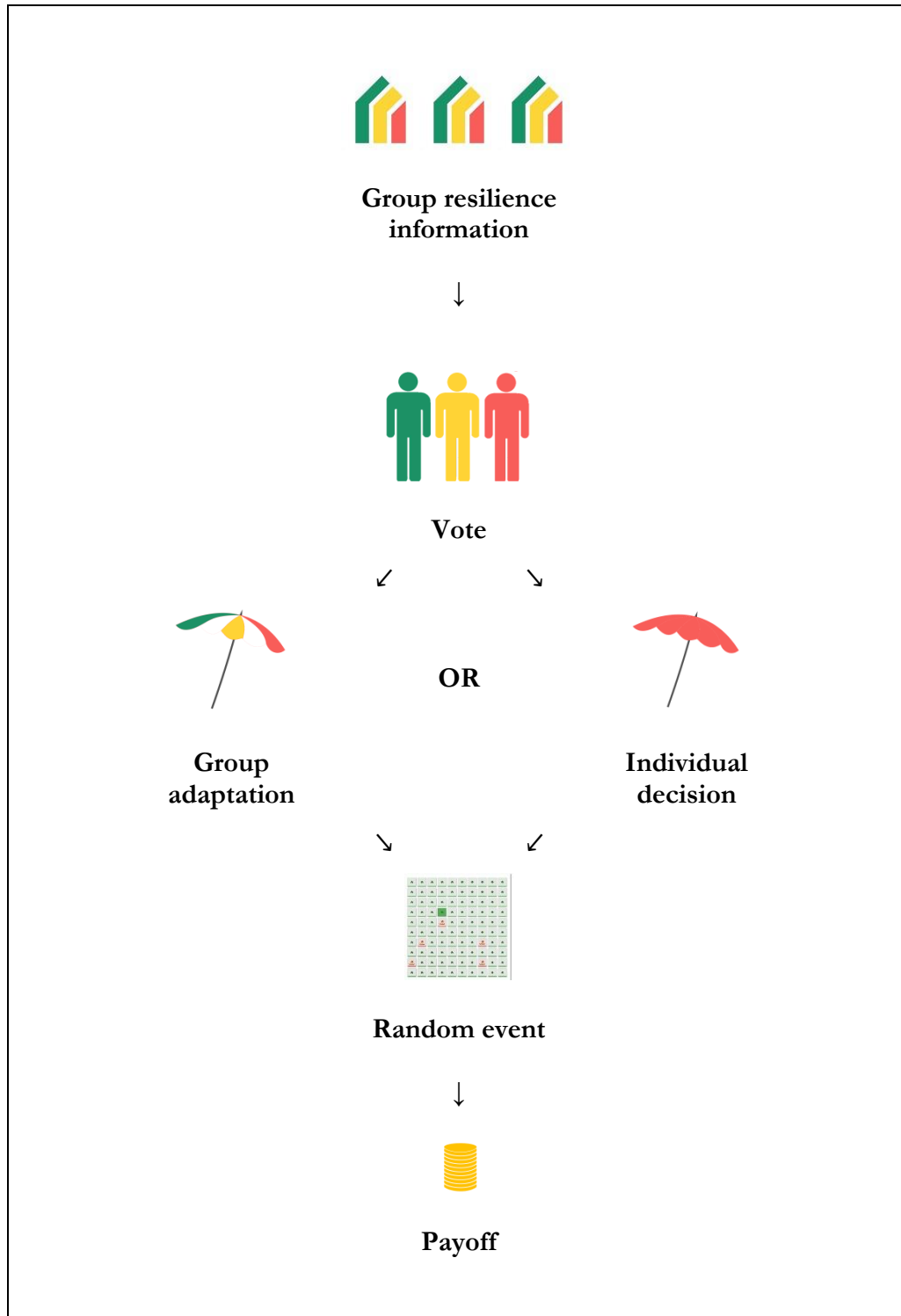
↘ ↙

Random event

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Payoff

The rest of the period progresses as in Phase 5. That is, the random event, adaptation decisions and payoff stages are the same.

Instructions for Phase 7

Instructions for Phase 7

You have completed Phase 6 and will now start Phase 7. The setup is the same as in Phase 5 except now you use a chat box to communicate with the two other group members before making a decision. Please wait for all to have communicated, before making a decision.

Group resilience information

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Vote

↙   ↘

OR

Group adaptation   **Individual decision**

↘   ↙

Random event

↓

Payoff

The rest of the period progresses as in Phase 5. That is, the random event, adaptation decisions and payoff stages are the same.