**Instructions to participants in English, Thai and Spanish.**

## Forest game

We would like to thank you for accepting this invitation. We will spend about three hours explaining the activity, playing and answering a short survey at the end. Let's start.

The following exercise is a different and entertaining way to actively participate in a project about individual decisions and natural resources. Besides participating in this exercise and earning money, you will participate in a workshop in the coming days in order to jointly discuss the exercise as well other topics about natural resources. The funds to cover these expenses have been donated by a scientific body.

In this exercise it is intended to recreate a situation in which a group or family must make decisions about the use of a forest. You have been selected to participate in a five person group recruited from a group of people who have been subscribed to be willing to participate.

This exercise is different than experiments in which other persons in this community have played already. Therefore, comments you have heard from other persons do not apply necessarily to this exercise.

You will play several rounds equivalent, for example, to years or wood harvest seasons.
Let's pretend this group has an area of forest with 100 initial resource units. Each round you have to make a decision about how many resource units you want to harvest. You can harvest a maximum of 5 units and minimum of 0 units of the resource.

[Visual explanation; we have a number of magnets on the board which represent the forest units. The instructor shows what happens if a number of units are harvested]

Between the rounds the resource is regrowing. For each ten units of the existing resource, one new unit is added for the next round.

[visual explanation; the monitor shows with the magnets that for each row of 10 magnets one new magnet is added to the forest, use rows of 10 magnets on the board]. The forest cannot grow to more than 100 units.

Each participant makes a harvest decision. Each harvest unit is equivalent to $1. For example, if you harvest 100 units during 20 rounds you will receive $100.

When the size of the resource is less than 25 units, the maximum harvest is less than 5 units.

In the MAXIMUM HARVEST LEVEL TABLE, that is green, which will be distributed now [MONITOR distributes the MAXIMUM HARVEST LEVEL TABLE at the same time he shows a poster on the wall of the same table]. I will announce the maximum quantity of units you can harvest according to the size of the resource at the beginning of the round and post it on the wall.

In order to make decisions in each round you must write down your decision on your YELLOW DECISION SHEET, a number between 0 and the MAXIMUM HARVEST LEVEL depending on the current resource level. [MONITOR shows the yellow decision sheet at the same time that shows a poster on the wall with the same card]. Please check your player number on the yellow decision sheet. This will be your player number from now on.

Observe that the sheet has a row with the round number. Next there is a row marked with "my harvest decision", in this space you will write down the harvest level you decided in this round.

It is very important to know that you must make your decisions privately. Therefore, you need to write down the numbers on the decision sheet in private and you can not show them to the rest of the group members. The MONITOR will collect the YELLOW DECISION SHEETS from all of you and she or he will sum the total of units the group decided to harvest. When the monitor announces the group harvest total I will write on the board the new resource level. You will then get the decision sheets back for the next round.

Let us explain this with an example (Use visual explanation).

Suppose the current size of the resource is 68. Each of you decided to harvest 3 units, and thus a total of 15 units. The resource size reduces to 53 (68-15) and then 10% of 53, which is 5 units, is added, which leads to 58 units. Thus 15 units are harvested, and the size of the resource, after regrowth, is reduced with 10 units. And each participant earned 3 points during this round.

For each 10 units of resource 1 unit is added. If there are no 10 units of resource we do not increase the resource, it means if there are less than 10 units we do not add 1 unit more. If the resource is less than 5 units, no units can be harvested any more. Now let's continue with the next round. Now the current size of the resource is 58 units. It means that the maximum harvest allowed remains 10 units according to the MAXIMUM HARVEST LEVEL TABLE.

Again, each player decides how many units to harvest and again we calculate the resource decreasing and its increase in a 10% for new level of the resource.

Now we are going to explain the PLAYER CALCULATION SHEET, the white sheet the MONITOR has handed in to you.

[Before we start the monitor will announce one additional rule for this group.]

To start the first round of the game we will organize the seats and desks in a circle where each of you face outwards. The monitor will collect in each round your YELLOW DECISION SHEET. Finally, to get ready to play the game, please let us know if you have difficulties reading or writing numbers and one of the monitors will seat next to you to assist you with these. Also keep in mind that from now on no conversation or statements should be made by you during the game unless you are allowed to.

We will have first a few rounds of practice that will NOT count for the real earnings, just for practicing of the game.

[up to three practice rounds are performed and questions are addressed during the practice]

The initial size of the resource is 100 units

[After the practice rounds announce that the initial size of the resource is again 100 units and that the decisions are now real and affect the earnings]

**INSTRUCTIONS FOR THE FOREST GAME**
**SECOND STAGE**

[After 10 real rounds we let the participants vote for one of three rules.]
We give you the opportunity to start over the game with a different rule. I will describe three rules and you write down on your VOTING CARD your favorite rule. The monitor will collect the votes and count them. [If two rules get 2 votes, we do a new voting round with only these to rules]
The rule which derives the most votes will be implemented.

**Rule 1.** With this rule only two participants can harvest each round. Who is allowed to harvest is determined by drawing two cards with players numbers. The instructor writes down the player numbers who are allowed on the board.
When someone harvest, but is not allowed to, this participant may get a penalty. Every round we throw a dice after the decisions are made and the yellow sheets are turned in. If we throw a six an inspector is in the forest and will catch the rule breakers, the participants who harvested in a turn it was not allowed to. In that case the participant has to payback the harvest plus an extra 3 units. If the dice shows any other number everybody keeps its earnings and we pass to the next round.

**Rule 2.** With this rule each participant will have its turn to extract forest unit. Only two participants can harvest each round. In this way it will be a rotation scheme to extract forest units. Each participant will be assigned randomly a turn card to extract forest units: The extraction order is:
Round 1: extracts wood the player **A, B**
Round 2 extracts wood the player **C, D**
Round 3: extracts wood the player **E, A**
Round 4: extracts wood the player **B, C**
Round 5: extracts wood the player **D, E**
Round 6: extracts wood the player **A, B**
Round 7: extracts wood the player **C, D**
Round 8 extracts wood the player **E, A**
Round 9: extracts wood the player **B, C**
Round 10: extracts wood the player **D, E**

(explain explicitly that after this rule is chosen, players get randomly a character A, B, C, D or E. player 1 may for example get turn D)

When someone harvest, but is not allowed to, this participant may get a penalty. Every round we throw a dice after the decisions are made and the yellow sheets are turned in. If we throw a six an inspector is in the forest and will catch the rule breakers, the participants who harvested in a turn it was not allowed to. In that case the participant has to payback the harvest plus an extra 3 units. So, if participant whose turn is A is writing down on the decision sheet to harvest 3 units when only the player with turn C is allowed to harvest, we throw a dice, and when we throw a six, participant with turn A do not get the points on its decision sheet, and we subtract an extra 3 from the total collected points of player with turn A. If the dice shows any other number everybody keeps its earnings and we pass to the next round.

**Rule 3.** Each of you can harvest legally 0, 1 or 2 units per round. If a participant writes a higher amount than 2 on its game card, he or she can be caught by the inspector and has to pay a penalty. In every round we throw a dice. And when we throw a six, and the participants who harvest more than 2 units in that round, do not get the points it wrote down on its game card, and we subtract an extra 3 points from it's total so far.

Summary:
Rule 1: only 2 persons, randomly determined, allowed to harvest in each round.
Rule 2: only 2 persons, predetermined sequence, allowed to harvest in each round

Rule 3; a maximum of 2 units can be harvested in each round by any person

Do you have any questions about the rules?

Write down your favorite rule on the VOTING CARD, by writing a 1, a 2 or a 3. And turn it in to the monitor

[When we determine the results of the voting the participants fill in the survey on the rules;
When we are determining the voting results, we ask you to fill in this survey about the rules we just described].

**INSTRUCTIONS FOR THE IRRIGATION GAME**
**FIRST STAGE**

We would like to thank you for accept this invitation. We will spend about three hours explaining the activity, playing and answering a short survey at the end. Let's start.

The following exercise is a different and entertaining way to actively participate in a project about individual decisions and natural resources. Besides participating in this exercise and having the chance of earn money, you will participate in a workshop in the coming days in order to jointly discuss the exercise as well other topics about natural resources. The funds to cover these expenses have been donated by a scientific body.

In this exercise it is intended to recreate a situation in which a group or family must make decisions about the use of water to irrigate its plots. You have been selected to participate in five persons group among persons who have been subscribed to participate. This exercise is different to others in which others persons have played already in this community. Therefore, comments you have heard from other persons do not apply necessarily to this exercise. You will play several rounds equivalent, for example, to years or irrigation seasons.

Each round consists of two decisions. First, each of you decide how much to contribute to a public fund in order to maintain irrigation canals. The sum of the contributions will affect the amount of water units available for the five players. The next decision is for each player to take some part of the water units available. Each unit you collect during the game is equivalent to $1. For example if you get 100 units during 20 rounds of the game you will receive $100.

We now discuss the first decision in detail. Each round you have 10 units to spend. You can spend some of it in the public fund, or you can keep the rest. You can think of this as the amount of labor you invest in the maintenance of the irrigation system. The level of this effort is between 0 and 10. On the green TABLE OF AVAILABLE WATER QUANTITY and the poster we show how much water will be available for the group of five players depending on the total contributions.
[the MONITOR shows TABLE OF AVAILABLE WATER QUANTITY in the poster and distribute the table to participants].

This table contains the information that you need to calculate the resulting size of the public fund available depending on your contribution and those of the other 4 players. The decision of the contribution is written down on the yellow DECISION SHEET like I will show you right now and provided to the monitor [the Monitor shows the yellow decision sheet on the board].

The monitor calculates the level of the public good and posts this amount on the board. The Monitor will collect the yellow DECISION SHEETS of 5 participants and he will sum the total units that the group decided to contribute to the public fund. We will write on the board the new current size of the public fund.
[explanation: we may use coins or magnets to explain the allocation of the 10 tokens. We may use as an illustration a pink pig where subjects put in their coins and the instructor can define the total investment]

For example, everybody invest 2 units in the maintenance of the irrigation system, and keep the 8 other units for themselves. In that case no water is available to be distributed among the players. As a result everybody ends up with 8 units at the end of that round.

Another example is that everybody invests 10 units in the maintenance of the irrigation system, which leads to 100 units of water to be allocated among the 5 players.

Remember decisions are made private and everybody can decide on how much they want to invest in maintenance.

After the first decision is made, the monitor collects the yellow sheets, and decides the total amount of water available. This amount will be written on the board. Next, all the players get back their yellow decision sheets.

The next decision is to take **a quantity of water for irrigation**. Everybody has the same size of land for irrigation. The money you earn is directly dependent on the water you take from the public pool. Each one of you will receive, FOR ALL THE ROUNDS, randomly a card marked with the following characters: A, B, C, D and E. The player who obtains character A will be the first to decide how much water she/he takes to irrigate her/his plot. It means that characters on the cards define the order in which the properties of each player are situated through an irrigation canal [the monitor shows a draw in the board that represents the situation].

The player who has the card with the letter A decides how much water to take and writes down his/her decision on the YELLOW DECISION SHEET. [Monitor shows the allocation decision spot on the yellow decision card on the poster on the wall]. The Monitor will subtract the collected water from the available water and write the remaining amount of water on a WHITE piece of paper to show this to player B, who has the second option to make a decision. This process continues until player E has made a decision.

[example: given is an amount of water, represented as an amount of coins/magnets. The instructor shows what happens if first player A takes from the pool, then B, etc.]

Then the next round starts with first turning in the contribution to the public good.

It is very important to remember always that the decisions are absolutely individual, it means, the numbers you write down on the game sheets are private and you must not show them to the others members of the group. Are there any questions about this? [MONITOR: pause to resolve questions.]
Remember that the points you earn depend on your own decisions and will become money at the end of the exercise.

[Before we start, the monitor will announce one additional rule for this group.] To start the first round of the game we will organize the seats and desks in a circle where each of you face outwards. The monitor will collect in each round your YELLOW DECISION SHEETS. Finally, to get ready to play the game, please let us know if you have difficulties reading or writing numbers and one of the monitors will seat next to you to assist you with these. Also keep in mind that from now on no conversation or statements should be made by you during the game unless you are allowed to.

We will have first a few rounds of practice that will NOT count for the real earnings, just for practicing of the game.

Now we will distribute the cards with the letters from A to E which we draw randomly from a bag.

**INSTRUCTIONS FOR THE IRRIGATION GAME**
**SECOND STAGE**
After 10 real rounds we let the participants vote for one of three rules to take water for irrigation. We give you the opportunity to start over the game with a different rule. I will describe three rules and you write down on your VOTING CARD your favorite rule. The monitor will collect the votes and count them. [If two rules get 2 votes, we do a new voting round with only these to rules]
The rule which derives the most votes will be implemented.

**Rule 1**. In this rule we draw for each round, after you have contributed to the maintenance of the irrigation system, and the monitor has announced the size of the water available, the order in which you can take water for irrigation will be assigned randomly.
**[5 color cards with player numbers 1-5 will be drawn from a non-transparent plastic bag]**

**Rule 2**. There will be a fixed rotation in which you can collect water. This order is a 5 round rotation system:
Round 1: ABCDE
Round 2: BCDEA
Round 3: CDEAB
Round 4: DEABC
Round 5: EABCD
Round 6: ABCDE
Round 7: BCDEA
Round 8: CDEAB
Round 9: DEABC
Round 10: EABCD

**Rule 3**: Each of you has a right of 20% of the water of the irrigation system. This amount is calculated after the available water is announced. The order to extract water remains the same for all the rounds: ABCDE. A dice is thrown in each round. When 6 is thrown, an inspector arrives and will check the water extraction. The subject pays back the extra amount taken, and an extra amount of 6 units if more than 20% is taken.

Summary:
Rule 1: randomly determined turn when to take water
Rule 2: rotating turns to take water
Rule 3: equal water rights

Are there any questions about the rules? [The Monitor pauses to answer questions]
Write down your favorite rule on the voting card, by writing a 1, a 2 or a 3. And turn it in to the monitor.

**INSTRUCTIONS FOR THE FISHERY GAME**
**FIRST STAGE**

We would like to thank you for accepting this invitation. We will spend about three hours explaining the activity, playing and answering a short survey at the end. Let's start.

The following exercise is a different and entertaining way to actively participate in a project about individual decisions and natural resources. Besides participating in this exercise and having the chance of earn money, you will participate in a workshop in the coming days in order to jointly discuss the exercise as well other topics about natural resources. The funds to cover these expenses have been donated by a scientific body.

This exercise is intended to recreate a situation in which a group or family must make decisions about the use of a fishery resource. You have been selected to participate in a group of five persons among those who have been registered to participate. This exercise is different to others in which others persons have played already in this community. Therefore, comments you have heard from other persons do not apply necessarily to this exercise. You will play several rounds equivalent, for example, to years or fishing seasons.

The resource is spread in two locations A and B. Each round you have to make a choice which location to harvest, and whether to put in 0, 1 or 2 levels of effort. The resulting harvest from the effort put in harvesting depends on the condition of the resource. The state of the resource depends on the condition in the previous round and the amount of effort invested in the previous round.

Depending on the condition of the resource the amount of fish is defined by the PAYOFF TABLES for conditions LOW and HIGH. To be able to play you will receive the blue
PAYOFF TABLE equal to the one shown in the poster. [MONITOR: show PAYOFF TABLE in poster and distribute PAYOFF TABLE to participants]. This table contains all the information that you need to calculate the amount of resource units available depending on the current resource level and the quantity of units harvested by the 5 participants of the group. Each participant makes a harvest decision. Each harvest unit is equivalent to $2. For example, if you harvest 50 units during 20 rounds you will receive $100.

When you chose to put your effort in a location with a high payoff situation, you can harvest 0, 7 or 8 depended whether you put in 0, 1 or 2 units of effort. The resource condition can change in each fishing place. The condition depends on the decisions of others. The HIGH condition can move to a LOW condition when FIVE or more units of effort are invested in a location. A LOW condition can move to a HIGH condition when not more than ONE unit of effort are allocated in the same fishing place for two successive rounds.

For example a HIGH PAYOFF TABLE will be a LOW PAYOFF TABLE in the next round when 6 units of effort are applied in one location. A LOW PAYOFF TABLE will move into a HIGH PAYOFF TABLE when no effort is invested in the location for two rounds.

At the beginning of each round, the monitor will announce the condition of the resource at each of the two fishing locations. To play in each round you must write your decisions, a character A or B , and a number 0, 1 or 2 on the YELLOW DECISION SHEET like the one I am about to show you. […. MONITOR: show **yellow decision sheets** and show in the poster…]

It is very important that we keep in mind that the decisions are absolutely individual, that is, that the numbers we write in the game card are private and that we do not show them to the rest of members of the group. The monitor will collect the 5 sheets from all participants, and will define the harvest for each individual and the condition of the resource in the next round.

When the monitor announces the harvest in each location and the conditions of the resource at each location, we will write these conditions on the boards so that you know which payoff table to use.

Remember that the points you earn depend on your own decisions and will become money at the end of the exercise.

Let us explain this with an example.
[here we run a round with an example]

Are there any questions about this? [MONITOR: pause to resolve questions.]

Before we start, and once all players have understood the game completely, the monitor will announce one additional rule for this group. To start the first round of the game we will organize the seats and desks in a circle where each of you face outwards. The monitor will collect in each round your yellow GAME CARDS. Finally, to get ready to play the game, please let us know if you have difficulties reading or writing numbers and one of the monitors will seat next to you to assist you with these. Also keep in mind that from now on no conversation or statements should be made by you during the game unless you are allowed to.

We will have first a few rounds of practice that will NOT count for the real earnings, just for practicing of the game.

In the first round you use the HIGH PAYOFF TABLE in each location.

Suppose total fishing effort in a location is more than 4 in a high payoff table, then the payoff table drops to a low payoff table. In case of a low payoff table, if two subsequent rounds of less then 2 units of investment, the system flips back to the high payoff table.

**INSTRUCTIONS FOR THE FISHERY GAME**
**SECOND STAGE**
[After 10 real rounds we let the participants vote for one of three rules.]
We give you the opportunity to start over the game with a different rule. I will describe three rules and you write down on your VOTING CARD your favorite rule. The monitor will collect the votes and count them. [If two rules get 2 votes, we do a new voting round with only these to rules]

The rule which derives the most votes will be implemented.
**Rule 1.** With this rule we draw randomly for each player a location the player is allowed to fish. When we throw a 1, 2 or a 3 you can harvest in A. Otherwise you can harvest in B. Then you can fill in your location and your effort on the yellow DECISION SHEET. We throw a dice each round. When you harvest in a location which you are not allowed to, the result of the dice throwing affect your payoff. When we throw a six an inspector comes to the region and check on your locations. If you are located in a place you are not allowed to, you have to pay back the harvest points. For example if the player harvests in the place A with 2 effort units when the allowed place to fish is B and the dice yield 6, the player pays back the harvest.

**Rule 2.** Only one location is allowed to be fished in each round. There is a rotation AABBAABBAABBAA of a ban where you are not allowed to harvest. It means that:
Round 1 ban in A
Round 2 ban in A
Round 3 ban in B
Round 4 ban in B
Round 5 ban in A
Round 6 ban in A
Round 7 ban in B
Round 8 ban in B
Round 9 ban in A
Round 10 ban in A

Thus in the forth round you are not allowed to harvest in location A. When you harvest, but are not allowed to, the throwing of a dice determines whether you need to pay a penalty. If we throw a six, the penalty is to return back the harvest plus.

**Rule 3:** Each of you can put an effort of 0 or 1 per round. We throw a dice every round. If we throw a six, an inspector comes to the region to check on your effort levels. If a participant writes 2 units of effort on its game card, and the inspector is present, the participant does not get the points it wrote down on its decision sheet.

Summary:
Rule 1: randomly determined location where to fish
Rule 2: rotating turns where to fish
Rule 3: maximum of 1 unit of effort per round.

Do you have any questions about the rules?
Write down your favorite rule on the VOTING CARD, by writing a 1, a 2 or a 3. And turn it in to the monitor.

**Forms that will be used to document informed consent and assent (e.g., written consent form, written assent, cover letter).**

# CONSENT FORM

**Participant No.: ___**

**Place and Date: _____ Time of the exercise: ___:___ AM/PM**

You have been invited to participate in an exercise that is part of a research about management of natural resources. Due to your experience with managing natural resources, your participation is very important for this research. The exercise and the following workshop will give important information for all of us including your community. The funding for this project came from International Organizations and the Andes University.

This research does not imply experiments with human beings, animals or vegetable material. For that reason your participation will not have any risk for your health.

At the end of the exercise, you will receive an amount of cash depending on your earnings during the exercise. After the exercise is over, you need to answer some questions about the exercise in which you participated today. Also, there will be some questions about your experience as a user of natural resources. What you earned in the exercise and your answers in the survey will be **confidential. This information will be used just for academic purposes.**

In addition to this exercise you may be selected to participate in a workshop to discuss the results of the exercise. The workshop will be held in_____ at _____am/pm.

Your participation in the exercise is completely voluntary. You may leave the exercise at any time. However, if you decide to leave before the exercise is over you will not receive what you earned. The amount of money that you earn during the exercise will be given to you, after you finish answering the questions of the survey.

If you want a copy of this consent form, please ask us for it.

AGREEMENT:

I, _____ state that I understand the information given above and my rights and commitments during the exercise. I also understand that I can leave the exercise at any time declining to receive the money earned in the exercise.

Signed, _____, c.c. _____ of _____

I, Juan Camilo Cardenas/Francois Bousquet, Professor of the Andes University / CIRAD, certify that this information will be use in a confidential manner and only for academic and community educational purposes. I also certify that we will pay to each participant the amount of money earned during the exercise.

Signed, _____, c.c. 79.361.300 of Bogotá / ID number?.

# CONSENT FORM

**Participant No.: ___**

**Place and Date : _____ Time of the exercise: ___:___ AM/PM**

You have been invited to participate in an exercise that is part of a research about management of natural resources. Due to your experience with managing natural resources, your participation is very important for this research. The exercise and the following workshop will give important information for all of us including your community. The funding for this project came from International Organizations and the French Agricultural Research Centre for International Development.

This research does not imply experiments with human beings, animals or vegetable material. For that reason your participation will not have any risk for your health.

At the end of the exercise, you will receive an amount of cash depending on your earnings during the exercise. After the exercise is over, you need to answer some questions about the exercise in which you participated today. Also, there will be some questions about your experience as a user of natural resources. What you earned in the exercise and your answers in the survey will be **confidential. This information will be used just for academic purposes.**

In addition to this exercise you may be selected to participate in a workshop to discuss the results of the exercise. The workshop will be held in_____ at _____am/pm.

Your participation in the exercise is completely voluntary. You may leave the exercise at any time. However, if you decide to leave before the exercise is over you will not receive what you earned. The amount of money that you earn during the exercise will be given to you, after you finish answering the questions of the survey.

If you want a copy of this consent form, please ask us for it.

AGREEMENT:

I, _____ state that I understand the information given above and my rights and commitments during the exercise. I also understand that I can leave the exercise at any time declining to receive the money earned in the exercise.

Signed, _____, c.c. _____ of _____

I, François Bousquet, Researcher of the French Agricultural Research Centre for International Development, certify that this information will be use in a confidential manner and only for academic and community educational purposes. I also certify that we will pay to each participant the amount of money earned during the exercise.

Signed, _____, c.c. ????? of Bangkok.

| Payoff table | | | |
|---|---|---|---|
| Fish available in location | Fishing effort | | |
| | 0 | 1 | 2 |
| High | 0 | 7 | 8 |
| Low | 0 | 2 | 3 |

| Voting card | |
|---|---|
| Player number | **1** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **1** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **2** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **2** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **3** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **3** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **4** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **4** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **5** |
| I vote for the rule number | |

| Voting card | |
|---|---|
| Player number | **5** |
| I vote for the rule number | |

| Player calculation sheet<br>Player no: Time:<br>Place:<br>Date: | | | |
|---|---|---|---|
| Round | A | B | C |
| | My Decisions | | My points |
| | Place (A/B) | Effort (0,1,2) | |
| Practice 1 | | | |
| Practice 2 | | | |
| Practice 3 | | | |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

| Player calculation sheet<br>Player no: Time:<br>Place:<br>Date: | | | | |
|---|---|---|---|---|
| Round | A | B | C | D |
| | My Decisions | | Fine (Y/N) | My points |
| | Place (A/B) | Effort (0,1,2) | | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

| Maximum harvest table | |
|---|---|
| Current Resource Level | Individual Maximum harvest level |
| 25-100 | 5 |
| 20-24 | 4 |
| 15-19 | 3 |
| 10-14 | 2 |
| 5-9 | 1 |
| 0-4 | 0 |

| | | | | |
|---|---|---|---|---|
| A | B | C | D | E |

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| Player calculation sheet<br>Player no: Time:<br>Place:<br>Date: | |
|---|---|
| Round | My Harvest Decision |
| Practice 1 | |
| Practice 2 | |
| Practice 3 | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

| Player calculation sheet<br>Player no: Time:<br>Place:<br>Date: | | | |
|---|---|---|---|
| Round | A | B | |
| | My Harvest decision | Fine (0 or A+3) | My points (A-B) |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

| Table of available water quantity | |
|---|---|
| Total units invested in the public fund by all 5 players | Water available |
| 0-10 | 0 |
| 11-15 | 5 |
| 16-20 | 20 |
| 21-25 | 40 |
| 26-30 | 60 |
| 31-35 | 75 |
| 36-40 | 85 |
| 41-45 | 95 |
| 46-50 | 100 |

Player calculation sheet

Player no: Time:

Capital letter: Place:

Date:

| Round | My Decisions | | | |
|---|---|---|---|---|
| | A | B | C | D |
| | Contribution | Amount of water extracted | Amount kept = 10-A | Earnings: B+C |
| Practice 1 | | | | |
| Practice 2 | | | | |
| Practice 3 | | | | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

| Player calculation sheet<br>Player no: Time:<br>Capital letter: Place:<br>Date: | | | | |
|---|---|---|---|---|
| Round | My Decisions | | | |
| | A | B | C | D |
| | Contribution | Amount of water extracted | Amount kept = 10-A | Earnings: B+C |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

Player calculation sheet

Player no: Time:

Capital letter: Place:

Date:

| Round | My Decisions | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| | Contribution | Amount of water extracted | Amount kept = 10-A | Fine (0 or B+6) | Earnings: B+C-D |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

Monitor calculation sheet (lottery)

monitor:

Time:

Place:

Date:

| Round | Points table A | Points table B | Dice | Randomly drawn locations | | | | | Decisions (Place / Effort) | | | | | group effort | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | A | B |
| 1 | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | |

Monitor calculation sheet (rotation of banning)

monitor: Time:

Place:

Date:

| Round | Points table A | Points table B | Dice | Banned location | Decisions (Place / Effort) | | | | | Group effort | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | A | B |
| 1 | | | | A | | | | | | | |
| 2 | | | | A | | | | | | | |
| 3 | | | | B | | | | | | | |
| 4 | | | | B | | | | | | | |
| 5 | | | | A | | | | | | | |
| 6 | | | | A | | | | | | | |
| 7 | | | | B | | | | | | | |
| 8 | | | | B | | | | | | | |
| 9 | | | | A | | | | | | | |
| 10 | | | | A | | | | | | | |

Monitor calculation sheet (maximum 1 unit of effort)

monitor: Time:

Place:

Date:

| Round | Points table A | Points table B | Dice (6? Yes or no) | Decisions (Place / Effort) | | | | | Group effort | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | A | B |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |

| Monitor calculation sheet | | Votes | No. Rule | | |
|---|---|---|---|---|---|
| monitor: | Time: | | 1 | 2 | 3 |
| | Place: | Round 1 | | | |
| | Date: | Round 2 | | | |

| Round | Points table A | Points table B | Decisions (Place / Effort) | | | | | C group effort | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | A | B |
| Pract 1 | | | | | | | | | |
| Pract 2 | | | | | | | | | |
| Pract 3 | | | | | | | | | |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |

| Monitor calculation sheet<br>monitor: | Time: | | Votes | Rule numbers | | |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| | Place: | | Round 1 | | | |
| | Date: | | Round 2 | | | |

| Round | Resource size (A) | Maximum individual harvest level | Harvest decisions | | | | | B | C | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | Group total forest | Remaining forest (A-B) | Regrowth of forest (0.1*C) |
| Pract 1 | | | | | | | | | | |
| Pract 2 | | | | | | | | | | |
| Pract 3 | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |

| Monitor calculation sheet (lottery)<br>monitor: Time: | |
|---|---|

Place:

Date:

| Round | Resource size (A) | Maximum individual harvest level | Harvest decisions | | | | | B | C | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | Group total forest | Remaining forest (A-B) | Regrowth of forest (0.1 * C) | Allowed players | Dice |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |

| Monitor calculation sheet (rotation) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| monitor: | | | Time: | | | | | | Capital characters for players | | | | | |
| | | | Place: | | | | | | 1 | 2 | 3 | 4 | 5 | |
| | | | Date: | | | | | | | | | | | |
| Round | Resource size (A) | Maximum individual harvest level | Harvest decisions | | | | | B | C | | D | | | |
| | | | 1 | 2 | 3 | 4 | 5 | Group total forest | Remaining forest (A-B) | | Regrowth of forest (0.1 * C) | Allowed players | | Dice |
| 1 | | | | | | | | | | | | A,B | | |
| 2 | | | | | | | | | | | | C,D | | |
| 3 | | | | | | | | | | | | E,A | | |
| 4 | | | | | | | | | | | | B,C | | |
| 5 | | | | | | | | | | | | D,E | | |
| 6 | | | | | | | | | | | | A,B | | |
| 7 | | | | | | | | | | | | C,D | | |
| 8 | | | | | | | | | | | | E,A | | |
| 9 | | | | | | | | | | | | B,C | | |
| 10 | | | | | | | | | | | | D,E | | |

Monitor calculation sheet (maximum harvest 2)

monitor: Time:

Place:

Date:

| Round | Resource size (A) | Maximum individual harvest level | Harvest decisions | | | | | B | C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | Group total forest | Remaining forest (A-B) | Regrowth of forest (0.1 * C) | Dice |
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |

| Monitor sheet monitor: | calculation<br>Time: | | | | | | Votes | Rule numbers | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Extraction player no. | | | | | | 1 | 2 | 3 |
| | Place: | 1 | 2 | 3 | 4 | 5 | Round 1 | | | |
| | Date: | | | | | | Round 2 | | | |

| Round | Contribution decisions | | | | | Total Fund | Water available | Extraction decisions | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | 1 | 2 | 3 | 4 | 5 |
| Pract 1 | | | | | | | | | | | | |
| Pract 2 | | | | | | | | | | | | |
| Pract 3 | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |

| Monitor calculation sheet (lottery)<br>monitor: Time:<br>Place:<br>Date: | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Round | Contribution decisions | | | | | Total Fund | Water available | Extraction order | Extraction decisions | | | | |
| | 1 | 2 | 3 | 4 | 5 | | | | 1 | 2 | 3 | 4 | 5 |
| 1 | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |

| Monitor calculation sheet (rotation)<br>monitor: Time:<br>Place:<br>Date: | | | | | | | | | | | | | | Extraction player no. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | | | | | | | |
| Round | Contribution decisions | | | | | Total Fund | Water available | Extraction order | | | | | | Extraction decisions | | | | |
| | 1 | 2 | 3 | 4 | 5 | | | 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| 1 | | | | | | | | A | B | C | D | E | | | | | | |
| 2 | | | | | | | | B | C | D | E | A | | | | | | |
| 3 | | | | | | | | C | D | E | A | B | | | | | | |
| 4 | | | | | | | | D | E | A | B | C | | | | | | |
| 5 | | | | | | | | E | A | B | C | D | | | | | | |
| 6 | | | | | | | | A | B | C | D | E | | | | | | |
| 7 | | | | | | | | B | C | D | E | A | | | | | | |
| 8 | | | | | | | | C | D | E | A | B | | | | | | |
| 9 | | | | | | | | D | E | A | B | C | | | | | | |
| 10 | | | | | | | | E | A | B | C | D | | | | | | |

| Monitor calculation sheet (property) monitor: Time: | | | | | | | | | | Extraction player no. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Place: | | | | | | | | | | 1 | 2 | 3 | 4 | 5 |
| Date: | | | | | | | | | | | | | | |
| Round | Contribution decisions | | | | | Total Fund | Water available | 20% of Water | Dice | Extraction decisions | | | | |
| | 1 | 2 | 3 | 4 | 5 | | | | | 1 | 2 | 3 | 4 | 5 |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |