

AEJMicro-2010-0142

“Truth and Consequentiality: Theory and Field Evidence on Discrete Choice Experiments”

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Online Appendix: Experiment Instructions

The material appendix comprises instructions for the four treatments as well as the three surveys used. The presentation of the material is sequential, meaning that the surveys are integrated in the instructions to reflect where they were distributed in the instruction process. To avoid repetition, the complete instructions with integrated surveys are presented for the first treatment only. At the end of those complete instructions, the material that differs (instruction and surveys) between treatments is also presented.

The four treatments are:

1. Real payment, independent lottery policy function (RP-IND)
2. Real payment, aggregate lottery policy function (RP-AGG)
3. Real payment, unknown policy function (RP-UNK)
4. Stated preference (SP)

An important word of caution: The material presented is an English translation of the original French instructions. Questions of interpretation should be resolved using the original French documents.

INSTRUCTIONS

Economic assessment of tree plantings as windbreak and along water bodies

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Overview of how we will proceed

1. General introduction and context of the study
2. Information on tree planting options (windbreak hedges and near bodies of water (riparian hedges))
3. Information relative to surveys you will be asked to complete as we proceed
 - 3.1 Initial survey
 - 3.2 Voting, method for selecting the outcome of votes and vote counting
 - 3.3 Final survey



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1. General introduction and context

Thank you for accepting to be participants in this study on the economic assessment of tree planting projects.

This study is conducted by university-based researchers and its results will be transmitted to the sponsoring government agencies and made public.

The research protocol for this project was reviewed and approved by University Laval's ethics review board and it complies with all ethics rules for research involving human participants.

Today's session should last approximately 90 minutes.



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General explanation

In this study, you will be asked to vote in favour or against a series of real tree-planting projects, and to complete survey questionnaires.

The questionnaires contain questions on your preferences as well as questions of a social and demographic nature that will later be used to analyze and interpret the results of the study



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Confidentiality

All of the answers you provide will remain anonymous and treated with absolute confidentiality.

The database resulting from this study will not contain any information that would make it possible for anyone to identify you.

It will never be possible, even for us researchers, to match your name with the answers you provide.



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Context

- We will now give each of you an envelope containing \$100.
- Depending on the outcome of today's session, you could be required to give a portion of the \$100 for the actual implementation of a tree-planting project.
- Whether or not a tree-planting project will be implemented will be determined by your votes combined with the votes of the other participants who are here today.



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Context

Today, a single project may be selected according to rules that will be explained in a few minutes. It is important to remember that each project that will be presented to you is independent from the others and could be selected for implementation as presented.

If the votes submitted by this group of participants result in the implementation of a tree-planting project, you will be required to pay an individual cost that you can pay from the \$100 that you have already received.

If the votes submitted by this group of participants does not result in the implementation of a tree-planting project, you will leave at the end of the session with the full sum of \$100 that you have received.



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Tree-planting projects

You will therefore be asked to vote in favour or against a number of tree-planting projects.

Each project will be defined by four (4) different characteristics:

1. the length of the planting
2. the width of the planting
3. the location of the planting (either along a body of water or in a field)
4. the cost (varying across projects between \$10 et \$75) that you will really have to pay for this project if it is selected and implemented.



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Those are real projects!



- If your choices today lead to the implementation of one of the projects, trees will really be planted under the supervision of Mr. André Vézina, professor à l'Institut de technologie agroalimentaire de La Pocatière.

Institut
de technologie
agroalimentaire
Québec 



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Real projects!

- Money collected for the implementation of a project will be sent along with a letter from us describing precisely the project that you have chosen.
- Note that if your votes do not lead to the implementation of the selected project, **this project will not otherwise be implemented.**



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2. Information about planting trees as windbreak rows or along streams



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Information: windbreak hedge

- **A windbreak hedge:** is a line of trees in a field or along a road.
- The windbreak hedge:
 - Protects against the loss of soils caused by high winds.
 - Enhances the aesthetics of the landscape.
 - Can help retain winter snow, notably, keeping it off the roads.



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Information: riparian hedges (along a body of water)

A riparian hedge: is a line of trees planted at the edge of a stream, river, lake or wetland.

- The riparian hedge
 - Protects the shore from erosion
 - Offers a natural barrier against some pollutants
 - Enhances the aesthetics of the landscape
 - Helps regulate water temperature
 - Can enhance the habitat of small animals (fish, birds, etc.)



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Information on windbreak and riparian hedges

- The planting of windbreak and riparian hedges could provide you with several benefits:
 - Enhance the environment in which you live and the aesthetics of the landscape around you.
 - Eliminate or obscure unsightly areas.
 - Enhance the opportunities to observe certain species of wild animals.
 - Attenuate unpleasant odours, sounds and the wind.
 - Increase the number of animal species in a given area.



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Information on windbreak and riparian hedges

- Important characteristics determining the environmental benefits of tree plantings for the environment:
 - Length
 - Width
 - Location



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Information on windbreak and riparian hedges

First, the length, width and location of a tree plantation all have a visual impact on the landscape.

The following pictures illustrate how a landscape can be transformed visually given different characteristics of the planting project.



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Information on windbreak and riparian hedges

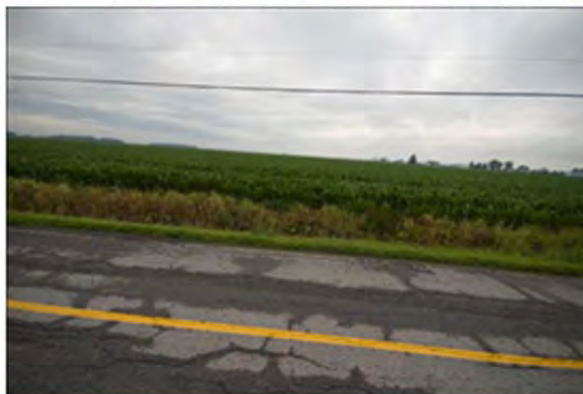
- Here are examples of landscape modifications resulting from the planting of windbreak hedges.



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Information on windbreak and riparian hedges

- Here is a photo of a field where there is no windbreak hedge



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Information on windbreak and riparian hedges

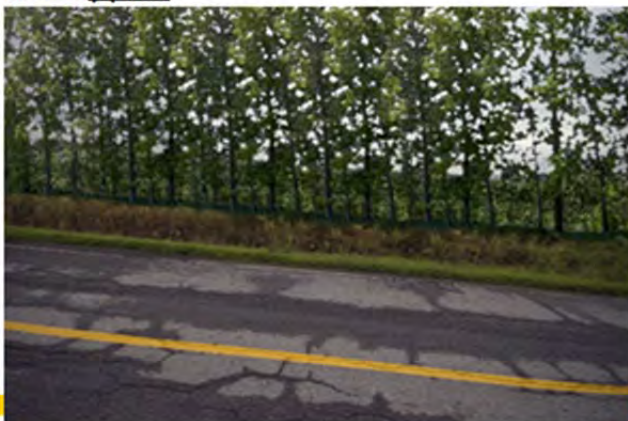
- This shows the same view after the planting of a windbreak with a width of (1) row.



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a windbreak with a width of (1) row.



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Information on windbreak and riparian hedges

- Here is a before and after comparison when a windbreak hedge with a width of **1 row** is planted.



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Information on windbreak and riparian hedges

- Here is a before and after comparison when a windbreak hedge with a width of **3 rows** is planted.



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Information on windbreak and riparian hedges

- Here is a comparison of two windbreak hedges, one with **1 row** and the other with **3 rows** of trees.



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Information on windbreak and riparian hedges

- Now, here is a side view of a field without a windbreak hedge.



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a windbreak with a width of (1) row and a length of 300 meters.



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a windbreak with a width of 3 rows and a length of 300 meters.



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a windbreak with a **width of (1) row** and a **length of 1000 meters**.



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a windbreak with a **width of 3 rows** and a **length of 1000 meters**.



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Information on windbreak and riparian hedges

- The next few slides provide examples of landscape modifications resulting from the planting of riparian hedges.



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Information on windbreak and riparian hedges

- Here is a view of a small river without a riparian hedge



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a riparian hedge with a width of (1) row.



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Information on windbreak and riparian hedges

- This shows the same view after the planting of a riparian hedge with a width of (3) rows.



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Information on windbreak and riparian hedges

- Here is a view of a small river without a riparian hedge



Information on windbreak and riparian hedges

- This shows the same view after the planting of a riparian hedge with a width of **(1) row**.



Information on windbreak and riparian hedges

- This shows the same view after the planting of a riparian hedge with a width of **(3) rows**.



Information on windbreak rows and riparian hedges

The benefits of alternative widths:

- The width of a hedge is defined by the number of rows of trees that are planted side by side.
- A greater number of rows results in greater environmental benefits (biodiversity).

Information on windbreak rows and riparian hedges

• Initial condition



• (1) Row

• (3) rows



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Information on windbreak and riparian hedges

- One row of trees
 - Allows the return of birds.
 - Helps with the pollination of certain types of plants, therefore favouring the flora of the area..
- Three of trees.
 - Offers the same types of benefits as one row, but at a greater level.
 - Provides habitat for small mammals and ground bird (e.g. hare, partridges).

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Information on windbreak and riparian hedges

The benefits of alternative lengths:

- In this study, we define the length of a planting in terms of the number of metres covered by the hedge.
- A longer hedge results in greater benefits, particularly in terms of visual impact, the protection of soil and crops and from wind-breaks.
- While greater length increases the biodiversity benefits of hedges, the impact of length is not as important as the impact of width.



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Information on windbreak and riparian hedges

• 300 metres



• 1000 metres



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Information on windbreak and riparian hedges

The location of a hedge:

Near a body of water = riparian hedge

At the edge or in a field = windbreak

Several studies have demonstrated that both riparian and windbreak hedge can contribute to enhance biodiversity.

One of the additional benefits of riparian hedges is that they help reduce the risk of water contamination, something that a wind breaker cannot accomplish.

Hence, riparian hedges also favor the aquatic fauna.



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Information on windbreak and riparian hedges

• windbreak hedge



• Riparian Hedge



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Information on windbreak and riparian hedges

- Here is a table that summarizes the impact of each type of hedge on biodiversity

| | Impacts | |
|--|-------------------------|-------------------|
| Width 1 row 3 rows | ✓ ✓ ✓ ✓ | |
| Length 300 metres 600 metres 1000 metres | ✓ ✓ ✓ ✓ ✓ ✓ | |
| Location windbreak Riparian | Ground ✓ ✓ | Water ✓ |



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Information on windbreak and riparian hedges

Do you have questions on the characteristics and benefits of tree plantations?



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3. The Survey



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The Survey

The survey is divided in three parts:

- 1) Questions regarding your preferences and perceptions of rural and agricultural areas in general
- 2) Voting on a number of tree planting projects
- 3) Demographic and other questions



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Survey

- **Part 1: Perceptions and Preferences**

You are asked to answer a number of questions on your preferences, perceptions and habits as they concern rural and agricultural areas in general.

Please provide your answers by checking the appropriate box (or boxes) as they apply to you personally, for each question. Be reminded that all your answers are confidential and anonymous.



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The Survey

Part 1 of the survey will now be distributed.



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FIRST QUESTIONNAIRE

(1) How would you describe your general level of concern regarding environmental and biodiversity issues? (Check one box only)

| | | | | |
|----------|-----|---------|------|-----------|
| Very low | Low | Average | High | Very High |
| | | | | |

(2) What degree of importance do you attach to the presence of trees in your living environment? (Check one box only)

| | | | | |
|----------|-----|---------|------|-----------|
| Very low | Low | Average | High | Very High |
| | | | | |

(3) How would you describe the importance you attach to having the opportunity to observe wild species in your living environment? (Check one box only)

| | | | | |
|----------|-----|---------|------|-----------|
| Very low | Low | Average | High | Very High |
| | | | | |

(4) How often do you have the chance to visit rural areas?
(Check only one box)

| | |
|-------------------------|--|
| Weekly | |
| Monthly | |
| 3 or 4 times per year | |
| Once per year | |
| Less than once per year | |

(5) What are the reasons bringing you to visit rural areas? (Check all boxes that apply)

| | |
|------------------------|--|
| I live in a rural area | |
| Hiking/walking | |
| Commuting | |
| Weekend leisure | |
| Bird watching | |
| Photography | |
| Fishing | |

others : _____

The Survey

- **Part 2: Voting on tree-planting projects**

You will now be asked to make choices that will directly influence the chance that the project will be implemented, and on the portion of the \$100 that you will take home.

- You will have to vote on 12 different projects on the planting of windbreak and riparian hedges of trees.
- From those 12 project proposals, one will be **selected**.
- Depending on how you and other participants vote on the selected project, it will either be implemented or not. The determination of whether it will be implemented will proceed according to rules that we will explain shortly.
- Remember that each project proposal could be implemented.



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The Choice Questionnaire

- You are therefore presented with the opportunity to vote for or against the implementation of actual tree planting projects in Quebec. The precise location of the planting (should this session result in the implementation of a project) is similar to the photos that you have seen during the presentation (agricultural land mostly devoid of trees).
- For each of the 12 projects presented, you must vote either in favor of the project or against it. Each project is independent of the others and any one of them could be implemented as a result of your votes.



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The Choice Survey

The only differences between the different projects that you are asked to consider are variations on their length, width, and location and the cost to you required for its implementation. Any other aspects of these projects would remain unchanged.



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Making choices

- Here is an example of a project that you could be asked to consider:

| Location | Width | Length | Cost to you |
|----------|-------|------------|-------------|
| Riparian | 1 row | 300 metres | \$25 |

Do you vote in favor of this project?
(check the «yes» box or the «no» box according to your preferences).

| | |
|-----|--------------------------|
| Yes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |



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Making choices

- Here is an example of a project that you could be asked to consider :

| Location | Width | Length | Cost to you |
|-----------|--------|-------------|-------------|
| windbreak | 3 rows | 1000 metres | \$75 |

Do you vote in favor of this project?

(check the «yes» box or the «no» box according to your preferences).

| | |
|-----|--------------------------|
| Yes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |



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Making choices

Important: you must indicate a choice for each and every one of the projects that will be presented to you.



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Project selection for possible implementation

- At the very end of the session, one of the projects you were asked to vote on will be randomly selected in order to determine whether the Institut de technologie agroalimentaire will be asked to realize the project. To select a project, we will proceed in the following way:
 - 1) Once everyone has voted on all projects, we will collect the completed survey of choices;
 - 2) From the 12 projects you considered, we will randomly select one of them using a 12-sided dice. As such, each proposed project has an equal chance of being selected.



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Project selection for possible implementation

- 3) For the project selected using the 12-sided dice, we will compute the number of « yes » votes.
 - 4) We will then throw two 10-sided dice to form a number between 00 and 99. We will call this number the « acceptance threshold ».
 - 5) If the % of yes votes for the selected option is **greater than or equal to** the acceptance threshold:
 - **the project will be implemented**
- If the % of yes votes for the selected option is **less than** the acceptance threshold:
 - **the project will NOT be implemented**



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Example #1

- The 12-sided dice is thrown and reveals the number 3. Then, project 3 will be considered for possible implementation.
- For project 3, counting the votes reveals that the percentage of votes in favor is equal to 45%.
- The number obtained from throwing the two 10-sided dices is 25 (this number represents the acceptance threshold for the project).
- Since the percentage of yes votes is greater than the acceptance threshold ($45\% > 25\%$), project 3 will be implemented
- As a result, every participant here today (including those who voted against project 3) will have to pay their individual cost for project 3 as indicated in the choice questionnaire. The trees will be planted in 2009.



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Example #2

- The 12-sided dice is thrown and reveals the number 5. Then, project 5 will be considered for possible implementation.
- For project 5, counting the votes reveals that the percentage of votes in favor is equal to 65%.
- The number obtained from throwing the two 10-sided dices is 75 (this number represents the acceptance threshold for the project).
- Since the percentage of yes votes is smaller than the acceptance threshold ($65\% < 75\%$), project 5 will not be implemented
- As a result, no tree-planting project will be implemented.
- Everyone will leave with the \$100 received (including those who voted in favor of project 5).



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Outcome for the selected project

- In summary, the procedure for determining whether the selected project will be implemented is such that a «yes» vote always increases the chance that the project will be implemented, whereas a «no» vote always decreases the chance of implementation.



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-
- **Are there any questions?**



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If there are no more questions, we will now proceed with the second part of the questionnaire about making choices.

We ask that you remain silent for this phase. If you require assistance, please raise your hand.



QUESTIONNAIRE 2

NOTE: In the original survey, only one choice set was presented per page

In the following pages, we ask you to vote Yes or No on each of twelve tree planting projects. Each project could be realised and is independent from the others. You should therefore vote as if each was the only one presented.

H-1-600-OABI

| Location | Width | Length | Cost to You |
|---------------------|--------------|-------------------|-------------|
| Wind-breaker | 1 row | 600 metres | \$75 |

Do you wish to vote in favor of this project ? (Check either the «yes» box or the «no» box according your preferences)

| | |
|-----|--|
| Yes | |
| No | |

R-3-1000-ZDNL

| Location | Width | Length | Cost to You |
|-----------------------|---------------|--------------------|-------------|
| Riparian hedge | 3 rows | 1000 metres | \$10 |

Do you wish to vote in favor of this project ? (Check either the «yes» box or the «no» box according your preferences)

| | |
|-----|--|
| Yes | |
| No | |

H-3-600-NOPB

| Location | Width | Length | Cost to You |
|---------------------|---------------|-------------------|-------------|
| Wind-breaker | 3 rows | 600 metres | \$25 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

R-3-300-ANVH

| Location | Width | Length | Cost to You |
|-----------------------|---------------|-------------------|-------------|
| Riparian hedge | 3 rows | 300 metres | \$50 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

R-3-600-NUKG

| Location | Width | Length | Cost to You |
|-----------------------|---------------|-------------------|-------------|
| Riparian hedge | 3 rows | 600 metres | \$75 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

H-3-1000-ZGYC

| Location | Width | Length | Cost to You |
|---------------------|---------------|--------------------|-------------|
| Wind-breaker | 3 rows | 1000 metres | \$25 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

R-1-600-VSHJ

| Location | Width | Length | Cost to You |
|-----------------------|--------------|-------------------|-------------|
| Riparian hedge | 1 row | 600 metres | \$25 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

H-1-1000-GQAD

| Location | Width | Length | Cost to You |
|---------------------|--------------|--------------------|-------------|
| Wind-breaker | 1 row | 1000 metres | \$10 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

R-1-300-WIFK

| Location | Width | Length | Cost to You |
|-----------------------|--------------|-------------------|-------------|
| Riparian hedge | 1 row | 300 metres | \$10 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

H-3-300-KRCF

| Location | Width | Length | Cost to You |
|---------------------|---------------|-------------------|-------------|
| Wind-breaker | 3 rows | 300 metres | \$75 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

H-1-300-DPHE

| Location | Width | Length | Cost to You |
|---------------------|--------------|-------------------|-------------|
| Wind-breaker | 1 row | 300 metres | \$50 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

R-1-1000-IQGA

| Location | Width | Length | Cost to You |
|-----------------------|--------------|--------------------|-------------|
| Riparian hedge | 1 row | 1000 metres | \$50 |

Do you wish to vote in favor of this project ?
the «yes» box or the «no» box according your preferences)

(Check either

| | |
|-----|--|
| Yes | |
| No | |

An opportunity to earn additional money

- Before we proceed with the selection of the project with the 12-sided dice, we invite you to complete an additional task from which you could earn additional money.
- For this, we ask you to estimate the results of the votes for each of the 12 projects you had to vote on.



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The questionnaire

- Here is a fictitious example

| Location | Width | Length | Your cost |
|-----------|--------|-------------|-----------|
| windbreak | 3 rows | 1000 metres | \$25 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of __ people in the group today)?

_____ ←



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Questions on the number of yes votes:

- You are asked to indicate for each of the twelve projects your estimate of the number of people who voted yes.
- You will earn additional money based on the accuracy of your prediction.



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Questions on the number of yes votes (cont'd):

- **For the project that will be randomly drawn for possible implementation**, if (among all participants here today) your estimate of the number of « yes » votes is the closest to the real number of yes votes, you will receive \$5
 - If your estimate is the second closest, you will earn \$4
 - If your estimate is the third closest, you will earn \$3
 - If your estimate is the fourth closest, you will earn \$2
 - If your estimate is the fifth closest, you will earn \$1



65

• **Do you have any questions?**



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If there are no more question, we will
proceed with the estimation of the vote

Please do not speak, if you need assistance
raise your hand



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QUESTIONNAIRE 3

H-1-600-OABI

| Location | Width | Length | Cost to you |
|---------------------|---------------|-------------------|-------------|
| Wind-breaker | 1 rows | 600 metres | \$75 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

R-3-1000-ZDNL

| Location | Width | Length | Cost to you |
|-----------------------|----------------|--------------------|-------------|
| Riparian hedge | 3 rowss | 1000 metres | \$10 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

H-3-600-NOPB

| Location | Width | Length | Cost to you |
|---------------------|----------------|-------------------|-------------|
| Wind-breaker | 3 rowss | 600 metres | \$25 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

R-3-300-ANVH

| Location | Width | Length | Cost to you |
|-----------------------|----------------|-------------------|-------------|
| Riparian hedge | 3 rowss | 300 metres | \$50 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

R-3-600-NUKG

| Location | Width | Length | Cost to you |
|-----------------------|----------------|-------------------|-------------|
| Riparian hedge | 3 rowss | 600 metres | \$75 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

H-3-1000-ZGYC

| Location | Width | Length | Cost to you |
|---------------------|----------------|--------------------|-------------|
| Wind-breaker | 3 rowss | 1000 metres | \$25 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

R-1-600-VSHJ

| Location | Width | Length | Cost to you |
|-----------------------|---------------|-------------------|-------------|
| Riparian hedge | 1 rows | 600 metres | \$25 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

H-1-1000-GQAD

| Location | Width | Length | Cost to you |
|---------------------|---------------|--------------------|-------------|
| Wind-breaker | 1 rows | 1000 metres | \$10 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

R-1-300-WIFK

| Location | Width | Length | Cost to you |
|-----------------------|---------------|-------------------|-------------|
| Riparian hedge | 1 rows | 300 metres | \$10 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

H-3-300-KRCF

| Location | Width | Length | Cost to you |
|---------------------|----------------|-------------------|-------------|
| Wind-breaker | 3 rowss | 300 metres | \$75 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

H-1-300-DPHE

| Location | Width | Length | Cost to you |
|---------------------|---------------|-------------------|-------------|
| Wind-breaker | 1 rows | 300 metres | \$50 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

R-1-1000-IQGA

| Location | Width | Length | Cost to you |
|-----------------------|---------------|--------------------|-------------|
| Riparian hedge | 1 rows | 1000 metres | \$50 |

What is your best estimate of the number of people in the group today who voted « yes » for this project? (There is a total of XX people in the group today)?

Draw to select a project for possible implementation

| | |
|----|--------------------------|
| 1 | Riparian, 1 row, 1000m |
| 2 | Windbreak, 3 rows, 600m |
| 3 | Windbreak, 3 rows, 1000m |
| 4 | Windbreak, 1 row, 1000m |
| 5 | Windbreak, 1 row, 300m |
| 6 | Windbreak, 3 rows, 300m |
| 7 | Riparian, 3 rows, 600m |
| 8 | Riparian, 3 rows, 300m |
| 9 | Windbreak, 1 row, 600m |
| 10 | Riparian, 1 row, 600m |
| 11 | Riparian, 1 row, 300m |
| 12 | Riparian, 3 rows, 1000m |



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Determination of whether the project will be implemented or not

Draw using the two 10-sided dices



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While we compute the number of yes votes for the selected project, and identify the winners of the contest on the closest estimate of the number of yes votes, we will distribute the last portion of the questionnaire.

We remind you once again that all your answers are confidential and anonymous.

Please check the appropriate box for each of the questions.



QUESTIONNAIRE 4

(20) When you voted on projects, how much consideration did you give to how other participants in the group might be voting? (Check one box)

| None | Little | Some | A fair amount | Substantial |
|------|--------|------|---------------|-------------|
| | | | | |

(21) If you gave at least a little consideration to the vote of others in your group, how many of your votes would you say have been affected by those considerations? (Check one box only)

| Not Applicable | None | Modified 1 vote | Modified 2 votes | Modified 3 to 5 votes | Modified more than 5 votes |
|----------------|------|-----------------|------------------|-----------------------|----------------------------|
| | | | | | |

(22) To what extent do you believe that your answers will... (check one box per question)

(a) be taken into consideration by public authorities?

| Not at all | Very little | Little | Somewhat | Much | Very much |
|------------|-------------|--------|----------|------|-----------|
| | | | | | |

(b) be used to analyze alternative environmental policies?

| Not at all | Very little | Little | Somewhat | Much | Very much |
|------------|-------------|--------|----------|------|-----------|
| | | | | | |

(c) have a direct short term impact on the environmental policies of the Quebec or Canadian government?

| Not at all | Very little | Little | Somewhat | Much | Very much |
|------------|-------------|--------|----------|------|-----------|
| | | | | | |

(23) Please indicate to what extent you agree with each of the following two statements:

We should manage the environment for future generations?

| Completely Disagree | Disagree | Indifferent | Agree | Completely Agree |
|---------------------|----------|-------------|-------|------------------|
| | | | | |

The planting of windbreak and riparian hedges should be subsidized because they play an important environmental function.

| | | | | |
|---------------------|----------|-------------|-------|------------------|
| Completely Disagree | Disagree | Indifferent | Agree | Completely Agree |
| | | | | |

(24) Who do you think should pay the cost of planting windbreak and riparian hedges? (Check as many boxes as needed)

| | |
|------------------------------------|--|
| Voluntary payments from the public | |
| Governments | |
| Farm owners | |

Others (specuify) : _____

25 (a) In the last 12 months, have you made donations to charities or other non-profit organizations? (check one box)

| | |
|-----|--|
| Yes | |
| No | |

(b) If you answered yes to the previous question, please indicate the type(s) of organizations you have given to? (Check all that apply)

| | |
|--|--|
| United Way | |
| Organizations that help individuals in need (e.g. the blind) | |
| Organizations that support the youths (e.g. sports) | |
| Universities | |
| Religious organizations | |
| Environmental organizations | |
| Organizations that support medical research (e.g. cancer) | |

Other types (Specify): _____

(26) Please indicate your sex?

| | |
|--------|--|
| Male | |
| Female | |

(27) What year were you born? 19_____

(28) Do you live with a spouse?

| | |
|-----|--|
| Yes | |
| No | |

(29) What is your legal marital status? (Check one box)

| | |
|-----------------------|--|
| Single | |
| Married or common law | |
| Widower | |
| Divorced | |

(30) a) How many people, including yourself, are part of your household?

b) How many people in your household are 18 years old or older?

(31) Please indicate the highest level of education you have completed? (Check one box)

| | |
|----------------------------|--|
| Highschool (not completed) | |
| High School Diploma | |
| College degree | |
| Bachelor's Degree | |
| Graduate Degree | |

(32) How would you describe your principal occupation? (Check one box)

| | |
|--------------------|--|
| Employed full time | |
| Employed part time | |
| Self employed | |
| Student | |
| Unemployed | |
| Retired | |
| Home maker | |

Other (Specify): _____

(34) Are you currently employed? (Check one box)

| | |
|-----|--|
| Oui | |
| Non | |

(35) If you are employed, which of the following best describes your occupation? (Check one)

- | | | | |
|------------------------|--------------------------|---------------------------------------|--------------------------|
| Farm owner | <input type="checkbox"/> | Public service employee | <input type="checkbox"/> |
| Artisan | <input type="checkbox"/> | Private sector administrative officer | <input type="checkbox"/> |
| Business owner | <input type="checkbox"/> | Store employee | <input type="checkbox"/> |
| Business executive | <input type="checkbox"/> | Certified tradesperson | <input type="checkbox"/> |
| Liberal profession | <input type="checkbox"/> | Uncertified tradesperson | <input type="checkbox"/> |
| Public service manager | <input type="checkbox"/> | Farm worker | <input type="checkbox"/> |
| Business manager | <input type="checkbox"/> | | |
| Technician | <input type="checkbox"/> | Other (please specify): | |
| Foreman | <input type="checkbox"/> | _____ | |

(36) If you are unemployed, have you worked in the past? (Check one box)

| | |
|-----|--|
| Yes | |
| No | |

If you answered yes, what was your occupation?

(37) Are you a member of an environmental group?

| | |
|-----|--|
| Yes | |
| No | |

If you answered yes, what is the name of the organization?

(38) Because income is an important factor explaining preferences regarding environmental issues, we would like to ask you a delicate question. Remember that your name will never be linked to your answer.

What is your household's annual income before taxes, inclusive of revenue from interests, dividends, pensions, etc...? (Please check one box)

| | |
|------------------------|--|
| Less than \$14 999 | |
| \$15 000 to \$24 999 | |
| \$25 000 to \$34 999 | |
| \$35 000 to \$44 999 | |
| \$45 000 to \$54 999 | |
| \$55 000 to \$64 999 | |
| \$65 000 to \$74 999 | |
| \$75 000 to \$84 999 | |
| \$85 000 to \$94 999 | |
| \$95 000 to \$104 999 | |
| \$105 000 to \$114 999 | |
| \$115 000 to \$124 999 | |
| \$125 000 to \$129 999 | |
| \$130 000 to \$140 000 | |
| \$140 000 or more | |

Conclusion of the experiment

We thank you for participating in this study.

We will now call you individually by participant ID number in order to conclude any transaction if necessary.

**Thank you,
Have a pleasant day!**



Differences in the instructions for the treatments Real payment, aggregate lottery policy function (RP-AGG), Real payment, unknown policy function (RP-UNK) and Stated preference (SP), relative to Real payment, independent lottery policy function (RP-IND)

DIFFERENCES FOR TREATMENT RP-AGG

Project selection for possible implementation

- 1) Once everyone has voted on all projects, we will collect the completed survey of choices;
- 2) For each project, we will count the number of «yes» vote

Each project is associated with a color. In addition, all negative votes will also be given a single color. There will be therefore a total of 13 colors, one for each project (12) and one for all negative votes

Project selection for possible implementation

- 3) For each «yes» vote received for a project, we will add one plastic coin of the color corresponding to the project in a box.

For each «no» vote received for a project, we will add one plastic coin of the color corresponding to the project in a box.

This third step will be repeated for each of the 12 projects present in the questionnaire



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Project selection for possible implementation

- 4) We will then draw a single plastic coin from the box

If the color of the coin drawn is black:

- No project will be implemented
- Everyone will leave with the \$100 received

If the color of the coin drawn is other than black:

- The project corresponding to the color of the drawn coin will be implemented
- As a result, every participants here today (**including those who voted against this project**) will have to pay their individual cost for the selected project, as indicated in the choice questionnaire. The trees will be planted in 2009.



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Fictitious example

Imagine that there are 10 participants and 2 projects.

- Suppose that the color associated with the project «windbreak, 300 m, 1 row, \$5» is blue
- Suppose that the counting of vote for this «blue» project yields:
number of «yes» votes = 5
number of «no» votes = 5
- We would then add to the box
5 blue coins; and
5 black coins



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Fictitious example (cont'd)

- Suppose that the color associated with the project «riparian hedge, 600 m, 1 row, \$500» is green
- Suppose that the counting of vote for this «blue» project yields:
number of «yes» votes = 2
number of «no» votes = 8
- We would then add to the box
2 green coins; and
8 black coins



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Fictitious example (cont'd)

As a result of these votes, we would therefore have a box containing 13 black coins, 5 blue coins and 2 green coins for a total of 20 coins.

If, from the box, a blue coin is randomly drawn, the blue project (here, a windbreak hedge, one row wide and 300 meters long) will be implemented, and each participant will have to pay his/her individual cost for this project.



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We will now proceed to the draw for the outcome of the choice experiment

| | |
|---|-------------------------------|
|  | Riparian hedge, 1 row, 1000m |
|  | Windbreak, 3 row, 600m |
|  | Windbreak, 3 rows, 1000m |
|  | Windbreak, 1 row, 1000m |
|  | Windbreak, 1 row, 300m |
|  | Windbreak, 3 rows, 300m |
|  | Riparian hedge, 3 rows, 600m |
|  | Riparian hedge, 3 rows, 300m |
|  | Windbreak, 1 row, 600m |
|  | Riparian hedge, 1 row, 600m |
|  | Riparian hedge, 1 row, 300m |
|  | Riparian hedge, 3 rows, 1000m |
|  | None |



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DIFFERENCES FOR TREATMENT RP-UNK

[Slides 55 to 59 are removed]

The survey

- Part2: Voting on tree-planting projects

You will now be asked to make choices that will directly influence the chance that a project will be implemented and the portion of the \$100 that you will take home.

- You will have to vote on 12 different projects on the planting of windbreak and riparian hedges of trees
- The result of this session can be that
 - A project is implemented
 - No project is implemented



DIFFERENCES FOR TREATMENT SP

[Slides 9 and 10 are removed]

[Slides 55 to 59 are removed]

[Slides 68 and 69 are removed]

Overview of how we will proceed

1. General introduction and context of the study
2. Information on tree planting options (wind-breaking hedges and near bodies of water (riparian hedges)
3. Information relative to surveys you will be asked to complete as we proceed
 - 3.1 Initial survey
 - 3.2 Voting on various projects
 - 3.3 Final survey

Context

- We will now give each of you an envelope containing \$50 as compensation for participating in tonight's research.



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Context

You are given the opportunity to collect information that could contribute to the realization of tree planting projects in the province of Quebec

You will be invited to vote in favor or against different projects.

It is important to remember that each project that will be presented to you is independent from the others.



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The Survey

- **Part 2: Voting on tree-planting projects**

You will now be asked to vote on projects, as a way to collect information that could contribute to the realization of tree planting projects in the province of Quebec

- You will have to vote on 12 different projects on the planting of wind-breaker and riparian hedges of trees.

We remind you that each project is independent from the others.



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The Choice Questionnaire

- You are therefore presented with the opportunity to vote for or against different scenarios for the planting of trees planting projects in Quebec. The general location of such planting would be similar to the photos that you have seen during the presentation (agricultural land mostly devoid of trees).
- For each of the 12 projects presented, you must vote either in favor of the project or against it.



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