



## **CATO-2 Deliverable WP5.1-D14**

Report on surveys among residents: results and implications for public communication (West Netherlands)

### **What do Barendrecht residents know about and think of the CO<sub>2</sub> storage plan and about the information and decision-making about this plan?**

### **Results of a survey in May 2010 among more than 800 residents**

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## 1 Executive Summary

This deliverable reports on a survey that was conducted to examine the local public's awareness, attitudes, and beliefs concerning the proposed CCS project in Barendrecht. The survey was developed by Leiden University and executed by TNS-NIPO in May 2010 (i.e., a few months before it was decided to cancel the project). The survey was administered by telephone to a sample of 811 residents. The sample was representative of the adult population in Barendrecht (except for age; there was a slight overrepresentation of people over 50 years old). The survey was introduced to the respondents as a survey into neighborhood satisfaction instead of as a survey into the Barendrecht CCS project in order to avoid selective participation. The main results as described in the report include the following (the full report is provided as Annex 1, it is a translation of a Dutch report in English).

Virtually all Barendrecht residents (97%) were aware of the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region (here simply referred to as "the CO<sub>2</sub> plan"). Of those who indicated to know of the CO<sub>2</sub> plan, 85% found the plan "very bad" or "quite bad". A number of additional questions were included to further examine respondents' attitudes toward the CO<sub>2</sub> plan, which all indicate that the large majority of Barendrecht residents evaluated the plan as negative to very negative. Furthermore, the CO<sub>2</sub> plan was seen an important issue by most Barendrecht residents (e.g., 80% of the respondents considered the plan personally "quite important" or "very important" and 73% of the respondents worried about the plan every now and then). In terms of public beliefs about aspects of the CO<sub>2</sub> plan, 80% of the respondents believed that storing CO<sub>2</sub> under Barendrecht would be "very unsafe" or "quite unsafe"; 62% of the respondents believed that CO<sub>2</sub> transport through the region would be "very unsafe" or "quite unsafe"; and 84% of the respondents thought that scientists disagreed about the safety of the CO<sub>2</sub> plan. Also, 72% of the respondents considered it "very likely" that the CO<sub>2</sub> plan would lead to a fall in the value of houses in Barendrecht. With regard to the decision-making about the CO<sub>2</sub> plan, most respondents felt that the people of Barendrecht (85% of the respondents) and the town council of Barendrecht (82% of the respondents) had too little influence when it comes to deciding on whether to go ahead with the CO<sub>2</sub> plan. Shell and the national government (which both were trusted significantly less than the town council of Barendrecht and the local activists group CO<sub>2</sub>isNee) were generally perceived as having too much influence. A large majority (86% of the respondents) perceived the decision-making process about the CO<sub>2</sub> plan as "quite unfair" or "very unfair". Concerning information provision, 66% of the respondents were satisfied with the possibilities of obtaining information about the CO<sub>2</sub> plan and 62% of the respondents had no need for additional information about the plan.

In addition, a scientific article has been written about the survey (see Annex 2). Besides the descriptive statistics described above, the article presents a more advanced statistical analysis that was done to identify which factors (e.g., safety concerns, perceptions of the decision-making process, etc.) have had the strongest influence on local attitudes toward the proposed CO<sub>2</sub> plan in Barendrecht. Furthermore, the article discusses the implications of the survey. A multiple regression analysis was performed to examine how much variance in public attitudes toward the local CO<sub>2</sub> plan could be explained by the various factors that were included in the survey. Indicators of issue involvement (e.g., worry and personal relevance) were excluded from this analysis because these are not logical to include as predictors of people's attitude toward the plan. The multiple regression analysis revealed that all factors together explain 53% of the variance in the local public's attitudes toward the CO<sub>2</sub> plan (multiple  $R = .74$ ,  $R^2_{adj} = .53$ ), which is substantial. Perceived (un)safety of CO<sub>2</sub> storage explained most unique variance in people's attitudes toward the CO<sub>2</sub> plan ( $\beta = .37$ ). The other statistically significant predictors were the level of trust in the decision-making authorities, expectations concerning the likelihood that the CO<sub>2</sub> plan would cause a fall in local property value, perceived influence of the people of Barendrecht, perceived (un)fairness of the decision-making process, and perceived influence of Shell. On the

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other side, how desirable respondents found it was to have measures that help to combat global warming, how likely they thought it was that the CO<sub>2</sub> plan would help to combat global warming, and how satisfied they were with the possibilities of obtaining information about the CO<sub>2</sub> plan, did not explain unique variance in the local public's attitudes toward the CO<sub>2</sub> plan (all *p*-values > .01). The same holds for perceived safety of CO<sub>2</sub> transport, although this does not mean that respondents were light-hearted in this respect. That is, perceived safety of CO<sub>2</sub> transport and perceived safety of CO<sub>2</sub> storage were highly correlated (*r* = .65), which is why perceived safety of CO<sub>2</sub> transport explains little variance in local public attitudes over and above the variance already explained by perceived safety of CO<sub>2</sub> storage. The survey results imply that both safety concerns and socio-political issues have led to the primarily negative attitudes toward the proposed CCS project in Barendrecht among the local public. This suggests that not-in-my-backyard (NIMBY) sentiments may have played a role, but by no means fully account for the mainly negative attitudes of the local public. That is to say, anti-process sentiments also have played a role, most notably perceived procedural unfairness and lack of public trust in decision-making authorities and project proponents. Implications and challenges for future CCS project are discussed.

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(this section shows the historical versions, with a short description of the updates)

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## 2 Applicable/Reference documents and Abbreviations

### 2.1 Applicable Documents

(Applicable Documents, including their version, are documents that are the “legal” basis to the work performed)

	Title	Doc nr	Version
AD-01a	Beschikking (Subsidieverlening CATO-2 programma verplichtingnummer 1-6843	ET/ED/9078040	2009.07.09
AD-01b	Wijzigingsaanvraag op subsidieverlening CATO-2 programma verplichtingennr. 1-6843	CCS/10066253	2010.05.11
AD-01c	Aanvraag uitstel CATO-2a verplichtingennr. 1-6843	ETM/10128722	2010.09.02
AD-01d	Toezegging CATO-2b	FES10036GXDU	2010.08.05
AD-01f	Besluit wijziging project CATO2b	FES1003AQ1FU	2010.09.21
AD-02a	Consortium Agreement	CATO-2-CA	2009.09.07
AD-02b	CATO-2 Consortium Agreement	CATO-2-CA	2010.09.09
AD-03a	Program Plan 2009	CATO2-WP0.A-D.03	2009.09.17
AD-03b	Program Plan 2010	CATO2-WP0.A-D.03	2010.09.30
AD-03c	Program Plan 2011	CATO2-WP0.A-D.03	2010.12.07

### 2.2 Reference Documents

(Reference Documents are referred to in the document)

	Title	Doc nr	Issue/version	date
	N/A			

### 2.3 Abbreviations

(this refers to abbreviations used in this document)

SP	Sub-program
WP	Work Package
EB	Executive Board
N/A	Not applicable

## Annex 1.

**Report entitled “What do Barendrecht residents know about and think of the CO<sub>2</sub> storage plan and about the information and decision-making about this plan? Results of a survey in May 2010 among more than 800 residents”**

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## 1. Summary

The most important results of a telephone survey, developed by Leiden University and executed by TNS-NIPO in May 2010, are described below. The 811 respondents represent the adult population of Barendrecht quite accurately.

### Evaluation of the CO<sub>2</sub> plan as a whole

Over two-thirds of the Barendrecht residents surveyed (69%) believe that the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region ("the CO<sub>2</sub> plan") is "very bad". In addition, 16% of the respondents regard the CO<sub>2</sub> plan as "quite bad". A very small minority (4%) believes the plan is "quite good" or "very good". The remaining 10% is neutral ("neither bad nor good"). A large majority of people in Barendrecht (86%) indicated that they find the CO<sub>2</sub> plan unacceptable (14% find it acceptable).

Slightly more than half the respondents (52%) are "certainly" willing to sign a petition against the plan if asked to do so. More than a quarter (27%) stated that they had already signed a petition against the CO<sub>2</sub> plan (12% is "perhaps" willing to sign such a petition, and 9% "certainly not"). The evaluation of the CO<sub>2</sub> plan by most people in Barendrecht is thus negative to very negative.

### Familiarity with the CO<sub>2</sub> plan and knowledge of some aspects of the plan

Almost all the people interviewed in Barendrecht (97%) know about the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region ("the CO<sub>2</sub> plan"). Only just over 3%<sup>1</sup> had never heard of it. Almost half of the Barendrecht residents (48%) said they know "a little" about the CO<sub>2</sub> plan, the other half (49%) said they know "quite a lot" about the plan.

Using multiple-choice questions, knowledge about three aspects of the CO<sub>2</sub> plan was tested. Four-fifths of the respondents (80%) correctly indicated that the CO<sub>2</sub> that may possibly be stored under Barendrecht would come from a refinery in Pernis. The same percentage (83%) knew that any storage of CO<sub>2</sub> would be done in an empty gas field. However, fewer people are aware of the depth at which the CO<sub>2</sub> will be stored should the plan proceed. Only two out of five Barendrecht residents (41%) correctly indicated that any storage of CO<sub>2</sub> would be at a depth of more than 1500 meters; a similar percentage (39%) admitted to not knowing. A total of 20% of respondents chose a wrong answer (CO<sub>2</sub> storage at depths of 500 meters and less).

### Opinions and expectations about aspects of the CO<sub>2</sub> plan

Two-thirds (67%) of respondents said that measures that help to combat global warming are "very desirable". At the same time many people reckoned the chance of the Barendrecht CO<sub>2</sub> plan helping to combat global warming was not high. Only one in five Barendrecht people (19%) said it was "very likely" that the CO<sub>2</sub> plan would help with this (41% considered this "a little likely" and 40% "not at all likely").

More than seven out of ten respondents (72%) regarded it as "very likely" that the CO<sub>2</sub> plan would lead to a fall in the value of houses in Barendrecht.

Eight out of ten Barendrecht people (80%) think that storing CO<sub>2</sub> under Barendrecht is unsafe (52% very unsafe, 28% quite unsafe), two-tenths regarded such storage as safe (16% quite safe, 4% completely safe).

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<sup>1</sup> The order of the results reported in this summary differs from the sequence of questions in the survey. For example, early in the survey a question was asked about familiarity with the CO<sub>2</sub> plan. Naturally, the 3% of respondents who indicated they had never heard of the CO<sub>2</sub> plan were then asked no further questions.

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Six in ten Barendrecht residents (62%) feel that the transport of CO<sub>2</sub> in the Barendrecht region is unsafe (30% very unsafe, 32% quite unsafe), four-tenths considers the transport as safe (30% quite safe, 8% completely safe).

### The extent to which the CO<sub>2</sub> plan is an issue among the people of Barendrecht

At the beginning of the survey the respondents did not know yet that it was about the CO<sub>2</sub> plan. At that time 14% of the respondents spontaneously indicated that the CO<sub>2</sub> plan affects their satisfaction with the neighborhood (84% of respondents are satisfied or very satisfied with the neighborhood). Especially those people in Barendrecht who expect their neighborhood to deteriorate in the coming years (i.e., 32% of all respondents), relatively often spontaneously named the CO<sub>2</sub> plan (33% of this group) as (one of) the reason(s) for this.

In response to direct questions about the extent to which the plan is an issue for them, four-fifths of the Barendrecht residents (80%) indicated that they consider the CO<sub>2</sub> personally quite or very important. Two-thirds (65%) occasionally talk to others about the plan and one-fifth (22%) does so often. Nearly one quarter (24%) are "often" worried about the CO<sub>2</sub> plan, almost half (48%) worry "occasionally" and over one quarter (27%) are "never" worried about the plan. All in all, it is clear that the CO<sub>2</sub> plan is an issue among the people of Barendrecht.

### The decision-making process with respect to the CO<sub>2</sub> plan and trust in the parties involved

Over four-fifths of respondents in Barendrecht thought that the people of Barendrecht (85%) and the town council of Barendrecht (82%) have too little influence when it comes to deciding on whether the CO<sub>2</sub> plan will be implemented. Also, almost 9 out of 10 respondents (88%) felt that Shell has too much influence in the decision-making process and nearly three-quarters (74%) felt that the national government has too much influence. Nearly 9 in 10 residents of Barendrecht (86%) believe the decision process on the CO<sub>2</sub> plan is quite or very unfair. Also, more than half of the respondents (55%) do not trust those who ultimately will take the decision about whether to implement the CO<sub>2</sub> plan (35% have "a little" trust in these decision-makers and 10% trust them "quite a lot" or "very much"). Over two-thirds (69%) of the Barendrecht residents have considerable or complete trust in the town council of Barendrecht when it comes to the CO<sub>2</sub> plan, a percentage that is similar to that for the CO<sub>2</sub>isNEE Foundation. Only a small minority trust Shell (14%) or the national government (12%) quite a lot or completely. Environmental organizations, the Environmental Protection Agency Rijnmond (DCMR) and scientists are clearly more trusted than the national government and Shell, but less than the town council of Barendrecht and the CO<sub>2</sub>isNEE Foundation.

### Expectations about and acceptability of the final decision on the CO<sub>2</sub> plan

Nearly three-quarters of the Barendrecht residents (73%) expect that the decision will be taken to store CO<sub>2</sub> under Barendrecht, while more than one quarter (27%) expect that the decision will be that no CO<sub>2</sub> storage will take place under Barendrecht. More than one in five respondents (22%) said they would "certainly not" accept the final decision whatever that decision might be and 16% said they would "probably not" accept that decision. On the other side more than an eighth (14%) said they were certainly prepared to accept the final decision and a quarter (25%) is probably prepared to accept this. The remaining 23% were unsure about their own willingness to accept the final decision.



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### **Information about the CO<sub>2</sub> plan: information provision, information need and information sources**

Two-thirds of the people surveyed (66%) are satisfied with the possibilities of obtaining information about the CO<sub>2</sub> plan. A similar proportion (62%) has no need for additional information on the CO<sub>2</sub> plan (24% do have a clear need for more information and 14% have a little need). Almost half of the respondents (47%) indicated that they had seen the Zembla broadcast on 28th March 2010 on the CO<sub>2</sub> plan; more than a quarter (28%) indicated they had seen the Netwerk program on 6th April 2010 about the CO<sub>2</sub> plan in Barendrecht and a quarter (25%) said they had been to the "Infopunt CO<sub>2</sub> opslag" in the Carnisse-Veste shopping mall to get information about the CO<sub>2</sub> plan. A fifth of respondents (21%) stated that they had been to one of the information evenings organized by the town council of Barendrecht in "Het Kruispunt" theatre and 10% of respondents said they had visited Shell's website as a source of information on the CO<sub>2</sub> plan. The Zembla program on the CO<sub>2</sub> plan had, in the view of the respondents, been relatively the most helpful in determining their opinion of the plan.

### **Relationships between variables**

We examined whether there are any relationships between the evaluation of the CO<sub>2</sub> plan (how good or bad the plan is regarded) on the one hand and opinions about aspects of the plan (e.g., expected fall in the value of houses, perceived safety, the importance that is attached to the CO<sub>2</sub> plan, perceived fairness of the decision making) and background variables (e.g., respondents' gender, age, education, neighborhood and zip code, rented or owner-occupied home, household with or without children) on the other hand. The results are given in Section 3.8.



## 2. Research Design

The study was conducted by the University of Leiden<sup>2</sup>. The survey was conducted by telephone and was executed by interviewers from TNS NIPO over the five days from 17th to 21st May 2010. The sample consisted of 811 residents and represented the adult population of Barendrecht quite accurately (see Appendix A for a detailed discussion of factors that increase or diminish the extent to which the sample reflects the population of Barendrecht. Also the reliability of the results is discussed in this appendix).

In order to obtain an accurate picture of what people in Barendrecht know and think about the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region the interviewer did not state at the beginning of the phone call that the survey was about this topic. The respondents were told that the survey would be about "satisfaction with your neighborhood and a plan that was currently being discussed in the region that may add or detract from your satisfaction with your neighborhood." This way of introducing the survey prevented Barendrecht residents with a strong opinion on CO<sub>2</sub> storage being overrepresented in the sample (see Appendix A for further explanation of this aspect of the survey). After three questions about satisfaction with the neighborhood, it was made clear to respondents that any further questions would be about the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region.

In this report the phrase "the CO<sub>2</sub> plan" will frequently be used to refer to the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region. While conducting the survey, the interviewers used this full description of the plan several times, which they subsequently also abbreviated to "the CO<sub>2</sub> plan". The reason why the plan is described in this way is that (should the plan proceed) the CO<sub>2</sub> will be captured in the Shell refinery in Pernis and from there transported through the region (not only within the boundaries of the municipality of Barendrecht) to the storage location under Barendrecht. For that reason it was decided to include 58 residents of the adjacent residential area Portland in Rhoon (7.2% of the total sample), who would be involved in the CO<sub>2</sub> plan because this district lies along the proposed CO<sub>2</sub> transport pipeline. On key measurements such as the evaluation of the CO<sub>2</sub> plan as a whole, there appeared to be no significant differences between residents of Barendrecht and those of Portland (as described in Appendix A, and as is shown in Table C22). The results presented in this report therefore relate to the information collated from both groups together.

Topics covered in the survey were familiarity with the CO<sub>2</sub> plan and knowledge of aspects of the plan, opinions and expectations about aspects of the CO<sub>2</sub> plan and evaluation of the CO<sub>2</sub> plan as a whole; the extent to which the CO<sub>2</sub> plan is an issue among the people of Barendrecht, the decision-making process with respect to the CO<sub>2</sub> plan and trust in the parties involved, expectations about and the acceptability of the final decision, information about the CO<sub>2</sub> plan (information provision, information need and sources of information).

The text of the questions and the specific order of questions can be found in Appendix D, in which the full questionnaire is included. In the results section and in the summary the order is largely, but not entirely, identical to the sequence in the questionnaire. Completion of the survey took an average over 20 minutes.

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<sup>2</sup> Leiden University (Faculty of Social Sciences, Working Group on Energy and Environmental Research) has been conducting fundamental and applied research into (factors that) affect the public perception of CO<sub>2</sub> capture, transport and storage in the Netherlands since 2001 (see Appendix E for a selection of publications).

### 3. Results

#### 3.1 Familiarity with the CO<sub>2</sub> plan and knowledge of aspects of the plan

Almost all the people interviewed in Barendrecht (97%) know about the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region ("the CO<sub>2</sub> plan"). Only just over 3%<sup>3</sup> had never heard of it. Almost half of the Barendrecht residents (48%) said they know "a little" about the CO<sub>2</sub> plan, the other half (49%) said they know "quite a lot" about the plan. Using multiple-choice questions, knowledge about three aspects of the CO<sub>2</sub> plan was tested. Four-fifths of the respondents (80%) correctly indicated that the CO<sub>2</sub> that may possibly be stored under Barendrecht would come from a refinery in Pernis. The same percentage (83%) knew that any storage of CO<sub>2</sub> would be done in an empty gas field. However, fewer people are aware of the depth at which the CO<sub>2</sub> will be stored should the plan proceed. Only two out of five Barendrecht residents (41%) correctly indicated that any storage of CO<sub>2</sub> would be at a depth of more than 1500 meters; a similar percentage (39%) admitted to not knowing. A total of 20% of respondents chose a wrong answer (CO<sub>2</sub> storage at depths of 500 meters and less). Detailed data are shown in this section and in Appendix B (Tables B1-B7).

#### Familiarity with the CO<sub>2</sub> plan

The respondents were asked whether they know about the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region (the "CO<sub>2</sub> plan"), and, if so, how much they know about this plan.

The results for this question show that almost all respondents (97%) are aware of the existence of the CO<sub>2</sub> plan, few respondents (3%) report never having heard about the CO<sub>2</sub> plan. About half of respondents (48%) also stated they knew a little about the plan, while the other half (49%) indicated they have considerable knowledge of the plan (see Table 1).

Table 1. Familiarity with the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region.\*

Answer	Percentage
1. No, never heard of it	2.6%
2. Yes, a little	48.4%
3. Yes, quite a lot	48.9%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B1 and B2 in Appendix B.

<sup>3</sup> The order of the results reported in this summary differs from the sequence of questions in the survey. For example, early in the survey a question was asked about familiarity with the CO<sub>2</sub> plan. Naturally, the 3% of respondents who indicated they had never heard of the CO<sub>2</sub> plan were then asked no further questions.

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### Knowledge about some aspects of the CO<sub>2</sub> plan

To identify whether the extent to which respondents indicate knowing about the Barendrecht CO<sub>2</sub> plan corresponds with their actual knowledge, the respondents were asked three multiple-choice questions about basic aspects of the CO<sub>2</sub> plan. These were questions about the origin of the CO<sub>2</sub>, about the storage location and about the depth of the storage reservoir (see Table 2).

The results show that 8 out of 10 respondents (80%) correctly indicated that the CO<sub>2</sub>, which may be stored under Barendrecht would come from a refinery in Pernis. Furthermore, more than four-fifths of respondents (83%) correctly stated that any storage of CO<sub>2</sub> would take place in an empty gas field. However, far fewer people are aware of the depth at which the CO<sub>2</sub> will be stored should the plan proceed. Only two out of five Barendrecht residents (41%) correctly indicated that any storage of CO<sub>2</sub> would be at a depth of more than 1500 meters; a similar percentage (39%) admitted to not knowing. Besides this, 20% of respondents think that the CO<sub>2</sub> will be stored underground at a depth of about 500 meters or (much) less (for a list of all percentages, see Table 2).

It is also important to note that respondents who previously indicated knowing quite a lot about the CO<sub>2</sub> plan were indeed significantly better able to correctly answer the questions about the aspects of the CO<sub>2</sub> plan than respondents who indicated knowing a little about the plan. Respondents who reported knowing quite a lot about the CO<sub>2</sub> plan answered on average 2.27 out of three knowledge questions correctly, while respondents who said they had a little knowledge about the CO<sub>2</sub> plan answered an average of 1.78 questions correctly (for details see Tables B6 and B7 in Appendix B).

In short, the results show that knowledge about the depth at which the CO<sub>2</sub> will be stored (should the plan proceed) is considerably less than knowledge about the origin of the CO<sub>2</sub> and the storage location. Respondents who said they know quite a lot about the CO<sub>2</sub> plan (about half of all respondents) do indeed appear to be more aware of these three aspects of the CO<sub>2</sub> plan than respondents who said they know a little about the plan.

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Table 2. Knowledge about some aspects of the CO<sub>2</sub> plan. Correct answers are shown in bold.\*

Question	Answer	Percentage
If the CO <sub>2</sub> plan goes ahead, where does the CO <sub>2</sub> come from that will be stored under Barendrecht?	1. This CO <sub>2</sub> is captured from the flue gases of a coal-fired power station	2.2%
	<b>2. This CO<sub>2</sub> comes from a refinery in Pernis</b>	79.7%
	3. This CO <sub>2</sub> comes from the greenhouses of the glasshouse horticulture in the Westland area	0.3%
	4. I do not know	17.9%
If the CO <sub>2</sub> plan goes ahead, where will the CO <sub>2</sub> then be stored?	1. In a large empty oil tank	2.5%
	<b>2. In an empty gas field</b>	82.6%
	3. In CO <sub>2</sub> -absorbing coal seams	3.2%
	4. I do not know	11.7%
If the CO <sub>2</sub> plan goes ahead, how deep in the ground under Barendrecht will the CO <sub>2</sub> then be stored?	1. Approximately 50 meters deep	1.8%
	2. Between 90 and 115 meters deep	7.3%
	3. Approximately 500 meters deep	11.0%
	<b>4. Deeper than 1500 meters</b>	41.4%
	5. I do not know	38.5%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B3-B5 in Appendix B.

### 3.2 Opinions and expectations about aspects of the CO<sub>2</sub> plan

Two-thirds (67%) of respondents said that measures that help to combat global warming are "very desirable". At the same time many people reckoned the chance of the Barendrecht CO<sub>2</sub> plan helping to combat global warming was not high. Only one in five Barendrecht people (19%) said it was "very likely" that the CO<sub>2</sub> plan would help with this (41% considered this "a little likely" and 40% "not at all likely"). More than seven out of ten respondents (72%) regarded it as "very likely" that the CO<sub>2</sub> plan would lead to a fall in the value of houses in Barendrecht. Eight out of ten Barendrecht people (80%) think that storing CO<sub>2</sub> under Barendrecht is unsafe (52% very unsafe, 28% quite unsafe), two-tenths regarded such storage as safe (16% quite safe, 4% completely safe).

Six in ten Barendrecht residents (62%) feel that the transport of CO<sub>2</sub> in the Barendrecht region is unsafe (30% very unsafe, 32% quite unsafe), four-tenths considers the transport as safe (30% quite safe, 8% completely safe). Detailed data that support this conclusion are shown in this section and in Appendix B (Tables B8-B13).

#### The CO<sub>2</sub> plan and global warming

Two-thirds (67%) of respondents said that measures that help combat global warming are "very desirable". At the same time only 1 in 5 respondents (19%) indicated that they thought it very likely that the Barendrecht CO<sub>2</sub> plan would help with this. Four-tenths of respondents (40%) however considered it not at all likely that the CO<sub>2</sub> plan would help to combat global warming, and four-tenths (41%) considered this a little likely (see Table 3).

#### The CO<sub>2</sub> plan and the expected fall in value of houses

More than seven in ten respondents (72%) said they thought it very likely that the CO<sub>2</sub> plan would lead to a fall in the value of houses in Barendrecht (see Table 4). About 5% indicated this is not at all likely and almost one quarter (23%) found it a little likely.

Table 3: Desirability of measures that help to combat global warming, and the likelihood that the CO<sub>2</sub> plan will help to combat global warming.\*

Question	Answer	Percentage
How desirable do you think it is to have measures that help to combat global warming?	1. Not at all	8.4%
	2. A little	24.8%
	3. Very desirable	66.8%
How likely do you think it is that the CO <sub>2</sub> plan will help to combat global warming?	1. Not at all	39.6%
	2. A little	41.0%
	3. Very likely	19.4%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B8 and B9 in Appendix B.

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Table 4. Probability that the CO<sub>2</sub> plan will lead to a fall in the value of houses in Barendrecht.\*

Question	Answer	Percentage
How likely does it seem to you that the CO <sub>2</sub> plan will lead to a fall in the value of houses in Barendrecht?	1. Not at all	4.8%
	2. A little	23.1%
	3. Very likely	72.1%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Table B10 in Appendix B.

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### The CO<sub>2</sub> plan and safety

With regard to the safety of CO<sub>2</sub> transport and storage it is noticeable that more than half of the respondents (52%) indicated that they felt that the storage of CO<sub>2</sub> under Barendrecht was very unsafe, while 30% of respondents indicated that they think that the transport of CO<sub>2</sub> in the Barendrecht region is very unsafe (see Table 5). In total more than 6 in 10 respondents (62%) said that the transport of CO<sub>2</sub> was quite or very unsafe, while 80% of respondents regarded CO<sub>2</sub> storage under Barendrecht as quite or very unsafe. Comparison of mean scores on these questions (see Appendix B, Table B13) shows that indeed people regard the storage aspect of the CO<sub>2</sub> plan on average significantly less safe (mean score of 3.28 on a scale from 1 = *completely safe* to 4 = *very unsafe*) than the transport aspect of the CO<sub>2</sub> plan (mean score of 2.87).

It is also striking that more than 8 in 10 respondents (84%) think that scientists who are experts in the field of CO<sub>2</sub> capture, transport and storage have differences in opinion about the safety of the CO<sub>2</sub> plan. A very small minority (7%) think on the contrary that scientists agree that the CO<sub>2</sub> plan is safe. One-tenth of the respondents (9%) believe that experts agree that the CO<sub>2</sub> plan is unsafe.

Table 5. Estimates of the safety of the CO<sub>2</sub> plan.\*

Question	Answer	Percentage
How safe do you think it is to transport CO <sub>2</sub> by pipelines in the Barendrecht region?	1. Completely safe	8.3%
	2. Quite safe	29.5%
	3. Quite unsafe	31.8%
	4. Very unsafe	30.4%
How safe do you think it is to store CO <sub>2</sub> under Barendrecht?	1. Completely safe	4.3%
	2. Quite safe	15.7%
	3. Quite unsafe	28.3%
	4. Very unsafe	51.7%
Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage ...	1. Agree that the Barendrecht CO <sub>2</sub> plan is safe	7.3%
	2. Agree that this CO <sub>2</sub> plan is not safe	9.2%
	3. Have differences in opinion about the safety of the CO <sub>2</sub> plan	83.5%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B11, B12 and B14 in Appendix B.



### **3.3 Evaluation of the CO<sub>2</sub> plan as a whole: How good or bad do people think the CO<sub>2</sub> plan is?**

*Over two-thirds of the Barendrecht residents surveyed (69%) believe that the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region ("the CO<sub>2</sub> plan") is "very bad". In addition, 16% of the respondents regard the CO<sub>2</sub> plan as "quite bad". A very small minority (4%) believes the plan is "quite good" or "very good". The remaining 10% is neutral ("neither bad nor good"). A large majority of people in Barendrecht (86%) indicated that they find the CO<sub>2</sub> plan unacceptable (14% find it acceptable).*

*Slightly more than half the respondents (52%) are "certainly" willing to sign a petition against the plan if asked to do so. More than a quarter (27%) stated that they had already signed a petition against the CO<sub>2</sub> plan (12% is "perhaps" willing to sign such a petition, and 9% "certainly not"). The evaluation of the CO<sub>2</sub> plan by most people in Barendrecht is thus negative to very negative. Detailed data that support this conclusion are shown in this section and in Appendix B (Tables B15-B20).*

The results in Table 6 show that over two-thirds of respondents (69%) regard it a very bad idea to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region. Only a very small minority (4%) think the CO<sub>2</sub> plan is quite good or very good. In total, 86% of respondents are quite or very negative about the CO<sub>2</sub> plan, most of who are very negative.

When asked whether the CO<sub>2</sub> plan is all in all acceptable or unacceptable, 86% of respondents found the plan unacceptable (compared with 14% to whom the plan is acceptable). Additionally, the respondents were quite good at estimating how other Barendrecht residents thought about the CO<sub>2</sub> plan: respondents who regard the CO<sub>2</sub> plan as unacceptable estimated that 8 out of 10 Barendrecht residents (81%) would feel that the CO<sub>2</sub> plan is unacceptable, and respondents who themselves regard the CO<sub>2</sub> plan as acceptable estimated that a minority of Barendrecht residents would find the CO<sub>2</sub> plan acceptable (for exact percentages see Table B17 in Appendix B).

The respondents were also asked whether they would sign a petition against the CO<sub>2</sub> plan if they were asked to do so. Over half of the respondents (52%) indicated they would certainly be willing to sign a petition against the CO<sub>2</sub> plan. More than a quarter (27%) indicated they had actually already signed a petition. Only 1 in 10 respondents (9%) said they were certainly not willing to sign such a petition (see Table 6).

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Table 6. Public opinion with respect to the CO<sub>2</sub> plan.\*

Question	Answer	Percentage
How good or bad do you find the plan to capture, transport and store CO <sub>2</sub> , or carbon dioxide, in the Barendrecht region?	1. Very bad	69.4%
	2. Quite bad	16.4%
	3. Neither bad nor good	9.9%
	4. Quite good	3.4%
	5. Very good	0.9%
All in all, do you regard the CO <sub>2</sub> plan as acceptable or unacceptable?	1. Acceptable	13.7%
	2. Unacceptable	86.3%
Would you be prepared to sign a petition against the CO <sub>2</sub> plan if you were asked to do so? **	1. No, certainly not	9.2%
	2. Perhaps	11.6%
	3. Yes, certainly	52.0%
	4. I have already done so	27.3%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B15, B16 and B18 in Appendix B.

\*\* In answering this question, the respondents may have been thinking of the petition organized by the CO<sub>2</sub>isNEE Foundation, but also for example of other initiatives such as the campaign run by the Barendrecht section of the GroenLinks political party at local shopping centers in 2009 where about one thousand standard objections were collected (for a discussion of the reliability of the results see Appendix A).

The results also show that respondents who are certainly willing to sign a petition or who said that they had done so, do indeed evaluate the CO<sub>2</sub> plan on average more negatively (with mean scores of 1.19 and 1.23 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who might perhaps be willing to sign such a petition (mean score of 2.28 on the same scale) and than respondents who are certainly not willing to do so ( mean score of 3.03, see Table B19 in Appendix B). Also, those respondents that regard the CO<sub>2</sub> plan as unacceptable are on average more negative about the plan (mean score of 1.24 on the scale from 1 = *very bad* to 5 = *very good*) than respondents that find the CO<sub>2</sub> plan acceptable (mean score of 3.13, see Table B20 in Appendix B).

These results show that respondents are predominantly negative towards the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region. More than two-thirds of the respondents (69%) regard it as a very bad idea, 86% consider the plan unacceptable and 8 in 10 respondents (79%) are prepared to sign a petition against the plan or has done this already.

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### 3.4 The extent to which the CO<sub>2</sub> plan is an issue among the people of Barendrecht

*At the beginning of the survey the respondents did not know yet that it was about the CO<sub>2</sub> plan. At that time 14% of the respondents spontaneously indicated that the CO<sub>2</sub> plan affects their satisfaction with the neighborhood (84% of respondents are satisfied or very satisfied with the neighborhood). Especially those people in Barendrecht who expect their neighborhood to deteriorate in the coming years (i.e., 32% of all respondents), relatively often spontaneously named the CO<sub>2</sub> plan (33% of this group) as (one of) the reason(s) for this. In response to direct questions about the extent to which the plan is an issue for them, four-fifths of the Barendrecht residents (80%) indicated that they consider the CO<sub>2</sub> personally quite or very important. Two-thirds (65%) occasionally talk to others about the plan and one-fifth (22%) does so often. Nearly one quarter (24%) are "often" worried about the CO<sub>2</sub> plan, almost half (48%) worry "occasionally" and over one quarter (27%) are "never" worried about the plan. All in all, it is clear that the CO<sub>2</sub> plan is an issue among the people of Barendrecht. Detailed data that support this conclusion are shown in this section and in Appendix B (Tables B21-B26).*

#### Spontaneous mention of the CO<sub>2</sub> plan

To properly determine the extent to which the CO<sub>2</sub> plan is an issue for local people, the survey was not introduced to respondents as a survey about the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region but was introduced as a survey on "satisfaction with your neighborhood and a plan that is currently ongoing in the region that may add or detract from your satisfaction with your neighborhood." Then they were asked to indicate their degree of satisfaction or dissatisfaction with their neighborhood. The purpose of this procedure was to avoid overrepresentation of Barendrecht residents with a strong view on the CO<sub>2</sub> plan. After all, if the respondents were to be asked at the very beginning of the survey about the CO<sub>2</sub> plan then those Barendrecht residents who feel strongly involved in the subject would probably have participated, while residents who feel less involved in the CO<sub>2</sub> plan might possibly have been less likely to participate in the study. The opinions expressed in the survey would then not properly reflect the opinions of the total population. By asking about satisfaction with the neighborhood that possibility is excluded and the study produces more valid results. By asking respondents about their expectations about whether their neighborhood will improve or deteriorate over the next five years (or will remain the same) and allowing them to explain why they expect this, it is possible to map out how often people spontaneously mention the CO<sub>2</sub> plan (as an indicator of the extent to which the plan is an issue among the residents of Barendrecht).

The results show that over four-fifths of respondents (84%) are satisfied or very satisfied with their neighborhood. Over half (54%) said they expect that their neighborhood will remain the same in the next 5 years and one-third (32%) indicated they expect the neighborhood will deteriorate. Finally, 14% of respondents expect that their neighborhood will improve (for exact percentages and other results with respect to these questions, see Tables B21 and B22 in Appendix B).

Respondents were then asked *why* they think that their neighborhood would improve/deteriorate/remain the same over the next 5 years (the question depended on the answer given by respondents). This question was intended to determine how many people would spontaneously mention the CO<sub>2</sub> plan, as an indication of how much of an issue that is. The answers given by respondents were classified by the TNS NIPO interviewers in predetermined response categories. One of the response categories was: "CO<sub>2</sub> (CO<sub>2</sub> capture, CO<sub>2</sub>

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transport/transportation, CO<sub>2</sub> storage, greenhouse gas, Shell, empty natural gas field, Minister Cramer, Minister van der Hoeven)". Other response categories included "public space", "the level of facilities", "other residents" and "traffic and transport" (for details see Appendix D).

The questions on satisfaction with the neighborhood were designed to determine how many people would spontaneously mention the CO<sub>2</sub> plan as an indicator of how much of an issue this subject is. That is, at this point in the survey respondents had no idea it was a really a survey about the CO<sub>2</sub> plan. It was only after the questions about satisfaction with the neighborhood that it was made clear to the respondents that questions would follow about the CO<sub>2</sub> plan. The extent to which respondents spontaneously mentioned the CO<sub>2</sub> plan, thus without the interviewer asking about it, is an important indicator of the extent to which the issue of the CO<sub>2</sub> plan is current in Barendrecht.

The results show that 14% of all respondents spontaneously mentioned the CO<sub>2</sub> plan in their explanation of what they expect to happen in their neighborhood. As Table 7 shows, the percentage is markedly higher among those who expect their neighborhood to deteriorate over the next five years (33%) than among respondents who expect that their neighborhood will improve or will remain the same (respectively 0% and 6%). For comparison, a slightly higher percentage of respondents (38%) named "other residents" (interaction with other residents, neighbors, new residents, loitering teenagers) in their explanation of why they expect their neighborhood to decline over the next five years. Other reasons (e.g., crime and urban renewal) are less frequently mentioned (percentages "named" less than 16%).

Table 7. Percentages for how often the CO<sub>2</sub> plan is mentioned spontaneously.

<b>Expectations for neighborhood over the next 5 years (number of respondents)</b>	<b>Percentage</b>
1. Improve ( <i>N</i> = 105)	0.0%
2. Deteriorate ( <i>N</i> = 250)	33.2%
3. Remain the same ( <i>N</i> = 423)	5.7%

## Direct questions

The CO<sub>2</sub> plan is thus spontaneously mentioned by one-third of respondents as a reason why the neighborhood will decline over the next five years, but when asked more directly about it, it also appears that the CO<sub>2</sub> plan is an issue among Barendrecht residents. Table 8 shows that 4 in 5 respondents (80%) personally regard the CO<sub>2</sub> plan as quite or very important. Only 5% of respondents regard it as completely unimportant. In addition, two thirds (65%) indicated that they occasionally talk to other people about the CO<sub>2</sub> plan and more than 1 in 5 respondents (22%) said they often talk about it. Finally, almost half of respondents (48%) indicated that they occasionally worry about the CO<sub>2</sub> plan and nearly one-quarter of respondents (24%) often worry. Only one-quarter of respondents (27%) are never worried about the CO<sub>2</sub> plan.

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Table 8. Indicators of the extent to which the CO<sub>2</sub> plan is an issue.\*

Question	Answer	Percentage
The CO <sub>2</sub> plan is a subject that some people regard as more important than others. How important is the CO <sub>2</sub> plan for you personally?	1. Completely unimportant	5.0%
	2. Quite unimportant	15.3%
	3. Quite important	43.4%
	4. Very important	36.4%
How often do you talk to others about the CO <sub>2</sub> plan?	1. Never	12.4%
	2. Occasionally	65.4%
	3. Often	22.2%
Do you ever worry about the CO <sub>2</sub> plan?	1. Never	27.3%
	2. Occasionally	48.3%
	3. Often	24.4%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B24-B26 in Appendix B.

### **3.5 The decision-making process with respect to the CO<sub>2</sub> plan and trust in the parties involved**

*Over four-fifths of respondents in Barendrecht thought that the people of Barendrecht (85%) and the town council of Barendrecht (82%) have too little influence when it comes to deciding on whether the CO<sub>2</sub> plan will be implemented. Also, almost 9 out of 10 respondents (88%) felt that Shell has too much influence in the decision-making process and nearly three-quarters (74%) felt that the national government has too much influence. Nearly 9 in 10 residents of Barendrecht (86%) believe the decision process on the CO<sub>2</sub> plan is quite or very unfair. Also, more than half of the respondents (55%) do not trust those who ultimately will take the decision about whether to implement the CO<sub>2</sub> plan (35% have "a little" trust in these decision-makers and 10% trust them "quite a lot" or "very much"). Over two-thirds (69%) of the Barendrecht residents have considerable or complete trust in the town council of Barendrecht when it comes to the CO<sub>2</sub> plan, a percentage that is similar to that for the CO<sub>2</sub>isNEE Foundation. Only a small minority trust Shell (14%) or the national government (12%) quite a lot or completely. Environmental organizations, the Environmental Protection Agency Rijnmond (DCMR) and scientists are clearly more trusted than the national government and Shell, but less than the town council of Barendrecht and the CO<sub>2</sub>isNEE Foundation. Detailed data are shown in this section and in Appendix B (Tables B27-B34).*

#### **Perceived influence of parties**

Respondents were asked how they viewed the influence of various parties when it comes to deciding on whether or the CO<sub>2</sub> plan will go ahead. The order in which parties were asked about varied systematically (i.e., to avoid order effects respondents were randomly assigned to one of three predetermined question orders). The series of questions were introduced with: "As you may know there are several parties and organizations involved in the plan to capture, transport and store CO<sub>2</sub> in the Barendrecht region, including the town council of Barendrecht, the national government, Shell, the residents of Barendrecht and the Environmental Protection Agency Rijnmond, or DCMR". Next respondents were asked how they viewed the influence of each of these parties when it comes to the decision about whether the CO<sub>2</sub> plan will go ahead.

The results show that over four-fifths of respondents in Barendrecht felt that the people of Barendrecht (85%) and the town council of Barendrecht (82%) have too little influence when it comes to deciding on whether the CO<sub>2</sub> plan will be implemented. Also, almost 9 out of 10 respondents (88%) felt that Shell has too much influence in the decision-making process and nearly three-quarters (74%) felt that the national government has too much influence (see Table 9).

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Table 9. Influence of parties on the decision on whether to continue the CO<sub>2</sub> plan.\*

Party	1. Too much influence	2. Exactly right	3. Too little influence
Residents of Barendrecht	3.7%	11.6%	84.7%
The town council of Barendrecht	4.6%	13.3%	82.2%
The national government	74.1%	14.4%	11.5%
Environmental Protection Agency Rijnmond (DCMR)**	21.9%	26.8%	51.3%
Shell	87.6%	9.7%	2.7%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Table B27 in Appendix B.

\*\* When asked about the Environmental Protection Agency Rijnmond (DCMR), respondents could also choose from a fourth response category, namely "I did not know that the Environmental Protection Agency Rijnmond or DCMR was involved in the CO<sub>2</sub> plan". A total of 240 respondents chose this option.

## Fairness of the decision-making process and trust in those making the decision

Nearly 8 in 10 residents of Barendrecht (86%) believe the decision process on the CO<sub>2</sub> plan is quite or very unfair. Also, more than half of respondents (55%) do not trust those who ultimately make the decision about whether to continue the CO<sub>2</sub> plan. In terms of trust, 10% of respondents said they have "quite a lot" or "very much" trust in those who ultimately make the decision (see Table 10).

Table 10. Perceived fairness of the decision-making process and trust in those making the decision\*

Question	Answer	Percentage
How fair or unfair is the decision making about the CO <sub>2</sub> plan according to you?	1. Very fair	0.9%
	2. Quite fair	12.7%
	3. Quite unfair	41.5%
	4. Very unfair	44.9%
Do you trust those who ultimately decide whether to go ahead with the CO <sub>2</sub> capture, transport and storage plan in the Barendrecht region?	1. Not at all	55.4%
	2. A little	34.5%
	3. Quite a lot	8.3%
	4. Very much	1.8%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B28 and B29 in Appendix B.



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### Trust in parties involved in the CO<sub>2</sub> plan

The survey also asked respondents about their trust in six specific parties involved in the CO<sub>2</sub> plan. There were six versions of the questionnaire and each version contained one question about trusting one of the six parties. Respondents were randomly assigned to one of these versions. Table 11 lists the parties that were asked about in the trust question and the results relating to the trust that respondents have shown in these parties.

The results clearly show that with a mean score of 3.06 (on a scale from 1 = *party is not trusted at all* to 4 = *party is completely trusted*) the town council of Barendrecht is the most trusted of the six parties. More than 4 in 10 respondents (42%) indicated that they completely trusted the town council of Barendrecht, while a further 28% have considerable trust in the town. Respondents have the least trust in the national government and Shell (with average scores of 1.57 and 1.60, respectively). Only a small minority has considerable or complete trust in Shell (14%) or the national government (12%). Environmental organizations, the Environmental Protection Agency Rijnmond (DCMR) and scientists who are experts in the field of CO<sub>2</sub> capture, transport and storage are significantly less trusted than the town council of Barendrecht, but more than the national government and Shell (see Appendix B, Table B31). Percentages and means are shown in Table 11.

Table 11. Trust in parties involved in the CO<sub>2</sub> plan\*

Party	1.	2.	3.	4.	Mean
	Not at all	A little	Quite a lot	Complete	
Town council of Barendrecht	5.8%	24.5%	28.1%	41.7%	3.06
The national government	57.0%	31.3%	9.4%	2.3%	1,57
Shell	57.9%	28.0%	10.3%	3.7%	1.60
Environmental organizations	16.1%	42.6%	32.3%	9.0%	2.34
Environmental Protection Agency Rijnmond (DCMR)	19.4%	42.7%	26.2%	11.7%	2.30
Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage	18.7%	49.6%	22.0%	9.8%	2,23

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B30 and B31 in Appendix B.

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It thus appears that the most trusted party—the town council of Barendrecht—in the eyes of respondents has too little influence on the decision on whether or not to proceed with the CO<sub>2</sub> plan, while the parties that are least trusted—the national government, Shell—have too much influence in the eyes of those interviewed. The high level of trust in the town council of Barendrecht could be related to the respondents feeling that the town council shares and represents the interests of the local population regarding the CO<sub>2</sub> plan. The survey therefore asked whether the respondents expect that parties are for or against the CO<sub>2</sub> plan. The responses indeed showed that most people (87%) think that the town council of Barendrecht opposes the CO<sub>2</sub> plan (for details see Table B32 in Appendix B). Although this suggests that trust in the town council of Barendrecht has to do with the idea that the town council represents the interests of the local residents on the CO<sub>2</sub> plan, it is good to note that the existence of such a relationship cannot be statistically confirmed by using the chi-square test. This has to do with the limited range of responses with respect to the stance expected of the town council (i.e., almost all respondents believe that the town council opposes the plan) in combination with the limited range of responses regarding the level of trust in the town council (almost all respondents trust the town council at least to some extent). This means that the statistical assumption of a minimum cell size of 5 for a chi-square test was not met.

Finally, all respondents were asked whether they knew about the CO<sub>2</sub>isNEE Foundation and if so, to what extent do they trust this party when it comes to the CO<sub>2</sub> plan (see Appendix B, Tables B33 and B34). The results show that more than three-quarters of respondents (77%) are familiar with the CO<sub>2</sub>isNEE Foundation. Also, the results show that the CO<sub>2</sub>isNEE Foundation enjoys a very substantial level of trust among these respondents (mean score of 3.10 on a scale from 1 = *party is not trusted at all* to 4 = *party is completely trusted*), which is comparable to the trust shown in the town council of Barendrecht and significantly higher than trust in the national government and Shell.

### 3.6 Expectations about and acceptability of the final decision

Nearly three-quarters of the Barendrecht residents (73%) expect that the decision will be taken to store CO<sub>2</sub> under Barendrecht, while more than one quarter (27%) expect that the decision will be that no CO<sub>2</sub> storage will take place under Barendrecht. More than one in five respondents (22%) said they would "certainly not" accept the final decision whatever that decision might be and 16% said they would "probably not" accept that decision. On the other side more than an eighth (14%) said they were certainly prepared to accept the final decision and a quarter (25%) is probably prepared to accept this. The remaining 23% were unsure about their own willingness to accept the final decision. Detailed data are shown in this section and in Appendix B (Tables B35-B36).

#### Expectations about the final decision

Respondents were asked about their expectations about what the final decision on CO<sub>2</sub> storage under Barendrecht will be. As shown in Table 12, nearly three-quarters of the Barendrecht residents (73%) expect that the decision will be taken to store CO<sub>2</sub> under Barendrecht, while more than one quarter (27%) expects that the decision will be not to store CO<sub>2</sub> under Barendrecht.

Table 12. Expectations about what the final decision on CO<sub>2</sub> storage under Barendrecht will be \*

Answer	Percentage
1. CO <sub>2</sub> will be stored under Barendrecht	73.2%
2. There will be no CO <sub>2</sub> storage under Barendrecht	26.8%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Table B35 in Appendix B.

#### Acceptability of the final decision

Respondents were also asked how much they were prepared to accept the final decision on the CO<sub>2</sub> plan, whatever the decision will be. As shown in Table 13, more than 1 in 5 respondents (22%) indicated they would certainly not accept such a decision and 16% would probably not accept this decision. On the other side more than one eighth (14%) said they were certainly prepared to accept the final decision and one quarter (25%) would probably be prepared to accept it. The remaining 23% indicated they might perhaps be prepared to accept it, but might also perhaps not be prepared to do so.

Table 13. Answers to the question "If a decision is made soon on whether or not to implement the CO<sub>2</sub> plan, are you willing to accept this decision regardless of what the decision might be?"\*

Answer	Percentage
1. Certainly not	22.3%
2. Probably not	15.8%
3. Maybe, maybe not	23.2%
4. Probably	25.1%
5. Certainly	13.6%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Table B36 in Appendix B.

**3.7 Information about the CO<sub>2</sub> plan:  
 Information provision, information need and sources of information**

*Two-thirds of the people surveyed (66%) are satisfied with the possibilities of obtaining information about the CO<sub>2</sub> plan. A similar proportion (62%) has no need for additional information on the CO<sub>2</sub> plan (24% do have a clear need for more information and 14% have a little need). Almost half of the respondents (47%) indicated that they had seen the Zembla broadcast on 28th March 2010 on the CO<sub>2</sub> plan; more than a quarter (28%) indicated they had seen the Netwerk program on 6th April 2010 about the CO<sub>2</sub> plan in Barendrecht and a quarter (25%) said they had been to the "Infopunt CO<sub>2</sub> opslag" in the Carnisse-Veste shopping mall to get information about the CO<sub>2</sub> plan. A fifth of respondents (21%) stated that they had been to one of the information evenings organized by the town council of Barendrecht in "Het Kruispunt" theatre and 10% of respondents said they had visited Shell's website as a source of information on the CO<sub>2</sub> plan. The Zembla program on the CO<sub>2</sub> plan had, in the view of the respondents, been relatively the most helpful in determining their opinion of the plan. Detailed data are shown in this section and in Appendix B (Tables B37-B43).*

**Information provision and information need**

Two-thirds of the people surveyed (66%) are satisfied with the opportunities for obtaining information about the CO<sub>2</sub> plan. A tenth (10%) are dissatisfied and a quarter (24%) are neither dissatisfied nor satisfied. In respect of a need for information, more than three-fifths (62%) indicate that they have no need for additional information on the CO<sub>2</sub> plan, while nearly one quarter (24%) does. The response percentages for satisfaction with information provision and information need are shown in Table 14.

Table 14. Satisfaction with information provision and need for information.\*

<b>Question</b>	<b>Answer</b>	<b>Percentage</b>
To what extent are you satisfied with the possibilities of obtaining information about the CO <sub>2</sub> plan?	1. Dissatisfied	9.6%
	2. Neither dissatisfied nor satisfied	24.4%
	3. Satisfied	66.0%
Do you have a need for additional information about the CO <sub>2</sub> plan?	1. Yes	24.1%
	2. A little	13.5%
	3. No	62.4%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Tables B37 and B38 in Appendix B.

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Respondents were also asked about the hypothetical situation where they would receive a brochure with the advantages and disadvantages of the CO<sub>2</sub> plan in the mail. On average, respondents indicated that it is quite likely they would read such a brochure from beginning to end (mean score of 4.23 on a scale from 1 to 5, see Table B39 in Appendix B). The results also show that respondents would be slightly more interested in reading the information about the disadvantages (mean score of 4.14 on a scale of 1 to 5) than the information about the advantages (mean score of 3.45 on a scale of 1 to 5, see Table B39 in Appendix B). This is especially the case with respondents who regard the CO<sub>2</sub> plan as very or quite bad (see Appendix B, Table B40).

### Sources of information

The respondents asked, for some specific sources of information, whether they had used that source. Based on practical considerations (especially keeping down the length of the survey), a selection was made from all possible sources. It was finally decided to only include sources that give specific information about the Barendrecht CO<sub>2</sub> plan (and thus not about CO<sub>2</sub> capture, transport and storage in general, such as the website [www.CO<sub>2</sub>afvangenopslag.nl](http://www.CO2afvangenopslag.nl)). In addition it was decided to select information that was as current and specific as possible (for example, the Zembla program on the CO<sub>2</sub> plan in Barendrecht, Barendrecht but not the weekly "De Schakel" because it was unclear which reports on the CO<sub>2</sub> plan people had read). The sources of information around which the questions were based on the basis of this procedure were limited to five in total: (A) an information evening in "Het Kruispunt" theatre, (2) the "Infopunt CO<sub>2</sub> opslag" in the Carnisse-Veste shopping mall, (3) the Zembla broadcast on 28th March on the CO<sub>2</sub> plan, (4) the Netwerk program on 6th April on the CO<sub>2</sub> plan and (5) the Shell website. The results are shown in Table 15.

The results show that almost half of respondents (47%) had seen the Zembla broadcast on 28th March 2010 on the CO<sub>2</sub> plan in Barendrecht. This is thus the most frequently used source of information. Over one quarter of respondents (28%) indicated having seen the Netwerk program on 6th April 2010 on the CO<sub>2</sub> plan in Barendrecht plan. One-fourth (25%) further indicated having paid a visit to the "Infopunt CO<sub>2</sub> opslag" in the Carnisse-Veste shopping mall to get information about the CO<sub>2</sub> plan. Furthermore, one-fifth of respondents (21%) have at some time attended an information evening held by the town council in "Het Kruispunt". The website of Shell was consulted by the fewest people as a source of information on the CO<sub>2</sub> plan (10%).

On average, the respondents used slightly more than 1 (1.29 to be exact) of the 5 selected sources of information. About three-tenths (31%) of the respondents had used none of the sources. Less than 1% of the respondents had used all five sources (see Table B42 in Appendix B).

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Table15. Use of information sources.\*

Question	Yes	No
Have you ever been to an information evening organized by the town council about the CO <sub>2</sub> plan in "Het Kruispunt" theatre?	21.1%	78.9%
Have you ever paid a visit to the "Infopunt CO <sub>2</sub> opslag" in the Carnisse-Veste shopping mall to get information about the CO <sub>2</sub> plan?	24.7%	75.3%
Did you see the Zembla program on Sunday March 28 about the CO <sub>2</sub> plan in the Barendrecht region?	46.9%	53.1%
Did you see the Netwerk program on 6th April about the CO <sub>2</sub> plan in the Barendrecht region?	28.2%	71.8%
Have you ever looked on Shell's website to get information about the CO <sub>2</sub> plan?	9.9%	90.1%

\* Percentages in this table are calculated across all respondents who actually answered the question. Results including (numbers and percentages of) non-responses are shown in Table B41 in Appendix B.

After the respondents had indicated which of the five information sources they had consulted, those who had consulted one source were asked how helpful the information they had acquired through that source of information had been when forming their opinion about the CO<sub>2</sub> plan (1 = *very*, 2 = *a little*, 3 = *not at all helpful*). When two or more sources of information had been consulted by respondents, this question was also asked, but only after they had indicated which source of information had been most helpful to them when forming an opinion. In this case only one question was asked about their most important source of information. The mean scores for each source of information are shown in Table 16. The results show that the information sources have on average helped the respondents a little in forming their views on the CO<sub>2</sub> plan. The Zembla program on Sunday 28th March was in the view of the respondents relatively the most helpful when determining their own opinion about the CO<sub>2</sub> plan.

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Table 16. Mean scores to the question "You just mentioned <information source>. How helpful was the information you received in determining your opinion of the CO<sub>2</sub> plan? "(1 = very, 2 = a little, 3 = not at all helpful).

<b>Information source</b>	<b>Mean perceived helpfulness of information (number of respondents)</b>
An information evening in "Het Kruispunt"	2.13 (N = 89)
"Infopunt CO <sub>2</sub> opslag"	2.03(N = 87)
Zembla	1.87(N = 268)
Netwerk	2.00 (N = 72)
The Shell website	2.13 (N = 30)

*Note.* For respondents who had consulted more than one source (N = 321) this question concerned the source of information that they regarded as the most helpful when forming their opinion (respondents were first asked to indicate this source, then the question was asked).



### 3.8 Relationships between variables

This section examines to what extent the respondents' evaluation of the CO<sub>2</sub> plan (i.e., the answer to the question "How good or bad do you think the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region is?") is related to:

- Familiarity with the CO<sub>2</sub> plan
- Opinions and expectations about aspects of the CO<sub>2</sub> plan
- The extent to which the CO<sub>2</sub> plan is an issue among the people of Barendrecht
- Information provision about the CO<sub>2</sub> plan
- Judgments about the decision-making process with respect to the CO<sub>2</sub> plan
- Background variables such as gender, age, education, etc.

Detailed information on the tested relationships is given in Appendix C.<sup>4,5</sup> It is important to emphasize that, for all relationships tested, if a statistical relationship exists between two variables, this does not necessarily say anything about the direction of the relationship. That is, it could be that Variable A affects Variable B, but it could also be that Variable B affects Variable A. For example, if people who had seen the Zembla program on 28th March on the Barendrecht CO<sub>2</sub> plan evaluate the CO<sub>2</sub> plan more negatively than those who had not seen this program, this does not prove that the Zembla broadcast caused a more negative opinion about the CO<sub>2</sub> plan. After all, it is also possible that—more than people who evaluate the plan neutrally or positively—it were primarily the people who already regarded the CO<sub>2</sub> plan as a very bad that found it interesting to watch the Zembla broadcast. In short, a statistical relationship does not necessarily mean that there is also a *causal* relationship.

#### **The relationship between how people evaluate the CO<sub>2</sub> plan and the extent to which they claim to be familiar with the plan**

There is no correlation<sup>4</sup> between familiarity with the CO<sub>2</sub> plan and how the plan is evaluated (see Appendix C, Table C1). Respondents who say to know a little about the plan are on average just as negative about the plan (with a mean score of 1.55 on the scale from 1 = *very bad* to 5 = *very good*) as respondents who claim to know quite a lot about the CO<sub>2</sub> plan (with a mean score of 1.45 on this scale).

#### **The relationship between how people evaluate the CO<sub>2</sub> plan and their opinions and expectations about aspects of the CO<sub>2</sub> plan**

There is no relationship between the desirability of measures that help to combat global warming and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C2). The results described in Section 3.2 shows that two-thirds of respondents (67%) regard measures to help combat global warming as highly desirable. These respondents are however just as negative about the CO<sub>2</sub> plan (mean score of 1.49 on the scale from 1 = *very bad* to 5 = *very good*) as respondents who regard such measures as slightly desirable (mean score of 1.55) or not at all desirable (mean score of 1.36).

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<sup>4</sup> When the text talks about "no relationship" then this means that there is no statistically significant relationship between two variables. See Appendix C for an explanation of the statistical tests and criteria used.

<sup>5</sup> When the strength of a relationship ('weak', 'moderate' and 'strong') is given, this is based on the criteria formulated by Cohen (1988), as explained in Appendix C.

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There is a "weak"<sup>5</sup> relationship between how likely people think it is that the Barendrecht CO<sub>2</sub> plan will help to combat global warming and how they evaluate the CO<sub>2</sub> plan (see Appendix C, Table C3). Respondents who regard it as very likely or somewhat likely that the CO<sub>2</sub> plan will help to combat global warming are slightly less negative about the plan (mean scores of respectively 1.63 and 1.56 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who think this is not at all likely (mean score of 1.35). In short, the more likely people find it that the CO<sub>2</sub> plan helps to combat global warming, the less negative their evaluation of the plan.

There is a "strong"<sup>5</sup> relationship between how likely people think it is that the CO<sub>2</sub> plan will lead to a fall in the values of houses in Barendrecht and how they evaluate the CO<sub>2</sub> plan (see Appendix C, Table C4). This relationship is equally strong for tenants and homeowners (see Appendix C, Table C4, footnote 2). From previously reported results (see Section 3.2) it appears that over 7 in 10 respondents (72%) think it is probable that, if the CO<sub>2</sub> plan is implemented, the houses in Barendrecht will fall in value. These respondents are on average more negative about the CO<sub>2</sub> plan (with a mean score of 1.29 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who think a fall in the value of houses is a little likely (mean score of 1.84) and those who think it is not at all likely (mean score of 2.94). In short, the more people think it is likely that the CO<sub>2</sub> plan will result in a fall in value of homes in Barendrecht, the more negatively they evaluate the plan.

There is also a strong relationship between the estimation of the safety of CO<sub>2</sub> transport in the Barendrecht region and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C5). With a mean score of 2.53 on the scale from 1 = *very bad* to 5 = *very good*, respondents who believe that CO<sub>2</sub> transport is completely safe are on average less negative about the CO<sub>2</sub> plan than respondents who think it is quite safe (mean score of 1.85) and than the people who think it is quite unsafe (mean score of 1.30) or very unsafe (mean score of 1.08). In short, the more unsafe the transport of CO<sub>2</sub> is estimated to be, the more negative the CO<sub>2</sub> plan is evaluated.

There is a similar (strong) relationship between the estimates of the safety of CO<sub>2</sub> storage under Barendrecht and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C6). Respondents who think that CO<sub>2</sub> storage is completely safe evaluate the CO<sub>2</sub> plan on average less negatively (mean score of 2.94 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who think that CO<sub>2</sub> storage is quite safe (mean score of 2.52). Respondents who think that CO<sub>2</sub> storage quite unsafe or very unsafe are the most negative about the CO<sub>2</sub> plan (mean scores of respectively 1.48 and 1.08). So, people evaluate the CO<sub>2</sub> plan more negatively as they regard CO<sub>2</sub> storage (and transport) as unsafe.

Finally, there is a "moderate"<sup>5</sup> relationship between the estimation of how scientists assess the safety of the CO<sub>2</sub> plan and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C7). Over four-fifths of respondents (84%) think scientists disagree when it comes to the safety of the CO<sub>2</sub> plan (see Section 3.2). With a mean score of 1.45 (on a scale from 1 = *very bad* to 5 = *very good*) these respondents evaluate the CO<sub>2</sub> plan more negatively than respondents who believe that scientists are in agreement about the safety of the CO<sub>2</sub> plan (mean score of 2.29), but slightly less negatively than respondents who believe that scientists agree that the CO<sub>2</sub> plan is *unsafe* (mean score of 1.19).

### **The relationship between how people evaluate the CO<sub>2</sub> plan and the extent to which the CO<sub>2</sub> plan is an issue**

There is a strong relationship between how important people find the CO<sub>2</sub> plan personally is and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C8). Respondents who regard the plan as

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completely unimportant or quite unimportant are less negative about the plan (mean scores of respectively 2.11 and 2.16 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who consider it is quite important (mean score of 1.53). Those who regard the CO<sub>2</sub> plan as very important to them personally are even more negative (mean score of 1.12). This shows that the more important that people regard the CO<sub>2</sub> plan personally, the more negatively they evaluate the plan.

There is a "moderate" relationship between how often people say they talk to others about the CO<sub>2</sub> plan and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C9). Respondents who never talk to others about the CO<sub>2</sub> plan rate the CO<sub>2</sub> plan on average more positively (mean score of 1.86 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who occasionally talk about it with others (mean score of 1.53) and than respondents who talk about it often (mean score of 1.21). In short, the more often people talk to others about the CO<sub>2</sub> plan, the more negatively they evaluate the plan.

There is a similar (strong) relationship between the extent to which respondents worry about the CO<sub>2</sub> plan and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C10). Respondents who indicate that they never worry about the CO<sub>2</sub> plan evaluate the CO<sub>2</sub> plan less negatively (mean score of 2.11 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who occasionally worry (mean score of 1.38) and often worry (mean score of 1.08) about it. The more often people worry about the CO<sub>2</sub> plan, the more negative they are about the plan.

### **The relationship between how people evaluate the CO<sub>2</sub> plan and their judgments about the decision-making process**

There is a strong relationship between how fair or unfair people find the way the decision-making process on the CO<sub>2</sub> plan is running and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C11). Some 86% of respondents say that the decision-making process is running quite unfair or very unfair in their opinion (see Section 3.5). These two groups are also more negative about the CO<sub>2</sub> plan (mean scores of 1.56 and 1.15 respectively on the scale from 1 = *very bad* to 5 = *very good*) than those who find that the decision-making process is quite fair (mean score of 2.42) or very fair (mean score of 3.33). The more unfair the decision-making process on the CO<sub>2</sub> plan is perceived, the more negatively the CO<sub>2</sub> plan is evaluated.

There is also a strong relationship between the trust that people have in those who will ultimately take the decision of whether or not to proceed with the CO<sub>2</sub> plan and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C12). More than half of the respondents (55%, see Section 3.5) has no trust at all in the decision-makers and this group is also the least positive about the plan (with a mean score of 1.17 on the scale from 1 = *very bad* to 5 = *very good*). Respondents who have a little trust are slightly less negative (mean score of 1.66), those who have quite a lot of trust are even less negative (mean score of 2.62), and respondents who have a lot of trust are somewhat positive about the CO<sub>2</sub> plan (mean score of 3.23). The less trust people have in those making the decision about the CO<sub>2</sub> plan, the more negative the CO<sub>2</sub> plan is evaluated.

### **The relationship between how people evaluate the CO<sub>2</sub> plan and information provision**

There is a weak relationship between satisfaction with the possibilities of obtaining information about the CO<sub>2</sub> plan and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C13). As previous results show (see Section 3.7), two-thirds of respondents (66%) are satisfied with the opportunities to obtain information. This group of respondents evaluates the CO<sub>2</sub> plan on average

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slightly less negatively (mean score of 1.57 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who say they are dissatisfied (mean score of 1.27) or neither dissatisfied nor satisfied (mean score of 1.38) about the opportunities to get information. The more satisfied that people are about the possibilities for obtaining information about the CO<sub>2</sub> plan, the less negatively the plan is evaluated.

There are also (mostly weak) relationships between the sources of information that people say they have consulted and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Tables C14-C18). The Zembla television broadcast on 28th March is the most consulted information source (viewed by 47% of respondents, see Section 3.7, Table 15). Respondents who indicate having seen this program are on average more negative about the CO<sub>2</sub> plan (mean score of 1.33 on the scale from 1 = *very bad* to 5 = *very good*) than respondents who indicate not having seen the broadcast (mean score of 1.66). This is a moderate relationship (see Appendix C, Table C14). The Netwerk program on 6th April shows a weak relationship in a similar direction, although this program has been viewed by fewer people (i.e., by 28% of respondents, see Section 3.7, Table 15). Respondents who indicate having seen the Netwerk program are on average slightly more negative about the CO<sub>2</sub> plan (mean score of 1.31) than respondents who have not seen this program (mean score of 1.59), see also Table C15 Appendix C. There is also a weak relationship between information evenings in "Het Kruispunt" and the evaluation of the CO<sub>2</sub> plan that shows that respondents who say they have attended such evenings are on average slightly more negative about the CO<sub>2</sub> plan (mean score of 1.24) than respondents who say they have not attended an information evening (mean score of 1.56), see Table C16 in Appendix C. There is a reverse (weak) relationship between consulting the Shell website and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C17). Respondents who have at sometime visited Shell's website to get information on the CO<sub>2</sub> plan (10% of respondents, see Section 3.7, Table 15) are slightly less negative about the plan (mean score of 1.73) than people who have never visited this website (mean score of 1.48). Finally, there is no relationship between self-reported visitation of the "Infopunt CO<sub>2</sub>opslag" in the Carnisse-Veste shopping mall to get information about the plan, and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C18).

### **The relationship between how people evaluate the CO<sub>2</sub> plan and background variables**

There is a weak relationship between gender and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C19). Men are on average slightly less negative (mean score of 1.58 on the scale from 1 = *very bad* to 5 = *very good*) about the plan than women (mean score of 1.41).

There further is a moderate relationship between the age of the respondents and how the CO<sub>2</sub> plan is evaluated (see Appendix C, Table C20). Respondents under 30 years old are on average the least negative about the plan, while people aged over 50 evaluate the CO<sub>2</sub> plan on average the most negatively.

There is no relationship between educational attainment and how people evaluated the CO<sub>2</sub> plan; respondents are quite negative about the CO<sub>2</sub> plan, regardless of their level of education (see Appendix C, Table C21).

There is no relationship between the neighborhood where the respondents live and how people evaluate the CO<sub>2</sub> plan (see Appendix C, Table C22). Respondents from Oud-Barendrecht (zip code areas 2991 and 2992) evaluate the plan on average just as negatively as respondents from the Barendrecht-Carnisselande neighborhood (zip code areas 2993 and 2994) and respondents from the Portland neighborhood of Rhoon (zip code area 3162).

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There is also no relationship between being a homeowner or a tenant and people's evaluation of the CO<sub>2</sub> plan (see Appendix C, Table C23). Respondents living in rented accommodation are on average just as negative about the CO<sub>2</sub> plan (mean score of 1.50 on the scale from 1 = *very bad* to 5 = *very good*) as respondents who are homeowners (mean score of 1.50).

Finally, there is no relationship between the presence of children in the household and the evaluation of the CO<sub>2</sub> plan (see Appendix C, Table C24). Respondents with children at home evaluate the plan just as negatively (mean score of 1.47) as respondents who have no children at home (mean score of 1.54).

The strength of the relationships tested as described in this section is summarized in Table C25 in Appendix C. One of the points that come clearly to the fore from the results is that relationships between the evaluation of the CO<sub>2</sub> plan and background variables (e.g., variables such as education and whether people live in a rented house or in their own property) are often absent or weak. Also, the relationships with information provision are relatively weak. The strongest relationships are found in the categories 'opinions and expectations about aspects of the CO<sub>2</sub> plan', 'the extent to which the CO<sub>2</sub> plan is an issue' and 'the decision-making process on the CO<sub>2</sub> plan'.

## Appendix A. Description of the sample and reliability of the results

As discussed in Chapter 2 ("Research design") the telephone survey was conducted over a five-day period, from 17th to 21st May 2010. The survey was not announced in advance. A total of 811 residents from the Barendrecht region aged 18 and over participated in the survey. The respondents for the most part lived in the municipality of Barendrecht (92.8%) while 58 respondents (7.2%) lived in the Rhoon district of Portland that is adjoining. The latter group was approached because the district of Portland will probably in the near future be involved with the Barendrecht CO<sub>2</sub> plan: the district is located along the proposed CO<sub>2</sub> transport line (which should run from the Shell refinery in Pernis to the CO<sub>2</sub> storage location). Residents of Portland are also involved in the communications about the plan (including an information evening held on 12th February 2009). It is not informative to break down the results for the two groups (Barendrecht and Portland residents) because no significant differences were found between the two groups (see Table C22 in Appendix C for illustration).

### Reliability of the results

The results of the study are based on a representative sample (N = 811) of the population and may differ slightly from the results that would have been obtained if the entire population had been interviewed. The size of this possible deviation, the so-called margin of error, depends on the desired degree of certainty and the sample size. If a 95% confidence level of 95% is desired, based on the sample size of the survey (N = ± 800) one should reckon with margin of error of maximally plus or minus 3.5%. What this entails is made clear in the example below.

Suppose that 50% of respondents give an affirmative answer to a yes/no question. Then it is 95% certain that the 'real' percentage (i.e., the percentage of the total population that would answer the question in the affirmative) is between 46.5 and 53.5% ( $50 - 3.5 = 46.5$  and  $50 + 3.5 = 53.5$ ). However, if 90% of respondents give an affirmative answer to this yes/no question, then the corresponding margin of error is lower, namely 2.1%. In that case, it is 95% certain that the real percentage lies between 87.9% and 92.1%.

### The sample as a reflection of the total population

The sample (the 811 survey participants) is a quite accurate reflection of the total population (the Barendrecht residents), see Tables A1, A2, A3 and A4. Choices made in the study design have probably contributed to this. For example it was decided to phone both in the daytime and in the evening during the week of the interviews. By phoning not only in the daytime but also in the evening this prevented underrepresentation of people who work during the day in the sample. By asking in the daytime for the youngest man in the household who was present (and in the evening by asking for the youngest person present) it was possible to ensure that the male/female ratio in the sample is approximately equal to the actual ratio in the population (see Table A1). It was also expected that this would provide a good range of ages of respondents. Although there is a good range in age, the 50-plus age group is somewhat over-represented and younger people (19-39 years) are slightly underrepresented (see Table A2). This can be caused by the fact that only people with a fixed telephone line (and also not registered in the do-not-call register) were approached to take part in the survey, while young people use mobile phones more and are less likely to have a fixed connection. The fact that the mean age in the sample is slightly higher than the mean age in the total population has little effect on the reliability of the results however because (1) no strong relationships were found between age and important



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outcome variables such as how good or bad people think the plan for CO<sub>2</sub> capture, transport and storage in the Barendrecht region is (see Table C20 in Appendix C) and (2) the study design (except with respect to age) further has also not produced a distorted image of the population. The minor influence of the over-representation of older residents on the results is also illustrated in Table A5, in which both the unweighted and weighted (i.e., adjusted for differences in age between the population and the sample) results are shown for how good or bad people feel the CO<sub>2</sub> plan is. This shows that the weighted and unweighted results are very similar: More than two-thirds of respondents (69% unweighted versus 67% weighted) indicated that they regarded the CO<sub>2</sub> plan as "very bad".

### Selective participation and the reliability of the results

Another important aspect of the survey was that it was not introduced as an investigation into what people thought about CO<sub>2</sub> capture, transport and storage in the Barendrecht region, but was introduced as a survey about satisfaction with the neighborhood. This prevented the sample from consisting mainly of people with strong opinions about the plan and avoided the results therefore giving no clear picture of the views of the total population. After all, if the respondents had been told at the very beginning of the telephone interview that the survey was about the CO<sub>2</sub> capture, transport and storage plan, then those Barendrecht residents who feel strongly involved in the subject would probably have participated, while residents who feel less involved in the CO<sub>2</sub> plan might possibly have been less likely to participate in the study. The sample would, in that case, have produced a distorted picture. By introducing the survey as a study about satisfaction with the neighborhood, this possibility was excluded and the survey produced more reliable research results.

### Other aspects concerning the reliability of the results

Further testament to the reliability of the results is the high degree of consistency in the answers given by respondents. Respondents who indicated, for example, knowing a little about the CO<sub>2</sub> plan indeed answered questions about knowledge less well than respondents who claim to know quite a lot about the plan (see Appendix B, Table B7). It is also true that 99% of respondents who stated that the CO<sub>2</sub> plan was "very bad," also regarded the plan as unacceptable (see Appendix B, Table B20).

Nevertheless a comment must be made at this point. The possibility cannot be excluded that on certain items in the survey there is some over-reporting, or that the results based on the sample may overestimate the true percentages. For example, there were several information evenings held on the CO<sub>2</sub> plan in "Het Kruispunt" theatre. Assuming that the information evenings were attended in total by a maximum of 3000 people, then at best approximately 9% of the total Barendrecht population aged 18 and older could ever attend an information evening. Over 21% of respondents to the survey indicated however that they had at sometime attended an information evening in "Het Kruispunt". This discrepancy can partly be explained by some respondents for example, not having physically been present, but rather having seen a broadcast of the evening on television and/or the Internet (think of the RTL news broadcast on 18th February 2009 or the website of the Municipality of Barendrecht). It was also possible to watch the information evening held on 18th February 2009 in "Het Kruispunt" on a screen in the town hall. Nevertheless, the percentage of respondents who said they had been to an information evening in "Het Kruispunt" is remarkably high. The same goes for the number of respondents (25%, see Section 3.7, Table 15) who said they had visited "Infopunt CO<sub>2</sub> opslag" in the Carnisse-



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Veste shopping mall to get information about the CO<sub>2</sub> plan. One possible explanation is that a proportion of respondents who said that they had visited the "Infopunt CO<sub>2</sub> opslag" may not actually have been inside, but rather had visited the website of the information centre to get information about the CO<sub>2</sub> plan or had perhaps passed by the information centre without going inside. However it cannot be excluded that some respondents answered the question in the affirmative for strategic reasons, perhaps because they expected that the influence of someone who says they had been to the "Infopunt CO<sub>2</sub> opslag" to get information about the CO<sub>2</sub> plan would be greater than the influence of someone who had not been. In short, there may be differences between actual visitor numbers and visitor numbers that emerge from the survey. These differences are largely explained, however certain percentages remain remarkably high. Overall, the reliability of the results of this survey is not at stake, but it is essential to continue to be critical with respect to percentages for the sources of information consulted.

Table A1. Distribution of gender within the Barendrecht population aged 18 years and older compared with the distribution of gender within the sample.

Gender	Municipality of Barendrecht population aged 18 + (source: CBS 2010)		Sample (including 58 respondents from the Portland district of Rhoon)	
	Number of residents	Percentage	Number of respondents	Percentage
Male	16856	48.6%	424	52.3%
Female	17821	51.4%	381	47.7%
Total	34677	100%	811	100%

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Table A2. Age distribution within the Barendrecht population aged 18 years and older compared with the age distribution within the sample.

Age	Municipality of Barendrecht population aged 18 + (source: CBS 2010)		Sample (including 58 respondents from the Portland district of Rhoon)	
	Number of residents	Percentage	Number of respondents	Percentage
18/19	1050	3.0%	20	2.5%
20-29	4116	11.9%	41	5.1%
30-39	7023	20.3%	91	11.2%
40-49	8253	23.8%	191	23.6%
50-59	5840	16.8%	141	17.4%
60-69	4401	12.7%	164	20.2%
70-79	2652	7.7%	108	13.3%
80-89	1191	3.4%	48	5.9%
90 +	151	0.4%	4	0.5%
Unknown	0	0.0%	3	0.4%
Total	34677	100%	811	100%

Table A3. Distribution of residents aged 18 years and older throughout the districts of Oud-Barendrecht and Barendrecht-Carnisselande compared with the distribution throughout the districts in the sample.

Oud-Barendrecht/ Barendrecht-Carnisselande*	Municipality of Barendrecht population aged 18 + (source: Gemeente Barendrecht/Onderzoek & Statistiek 1-2010)		Sample (excluding 58 respondents from the Portland district of Rhoon)	
	Number of residents	Percentage	Number of respondents	Percentage
Oud-Barendrecht	19882	57.3%	395	52.5%
Barendrecht-Carnisselande	14801	42.7%	358	47.5%
Total	34683	100	753	100

\* In this report Oud-Barendrecht refers to the neighborhoods Centrum, Noord, Binnenland, Oranjewijk, Buitenoord, Ter Leede, Paddewei, Molenvliet, Nieuweland, Dorpzicht, Lagewei, Vrouwenpolder and Buitengebied Oost. In this report Barendrecht-Carnisselande refers to the neighborhoods Smitshoek, Voordijk, Meerwede, Waterkant, Havenkwartier, Gaatkensoog, Riederhoek, Vrijheidsakker, Vrijenburg and Buitengebied West. The zip code areas 2991 and 2992 fall under Oud-Barendrecht, while zip code areas 2993 and 2994 are included in Barendrecht-Carnisselande.

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Table A4. Distribution of housing in the municipality of Barendrecht (number of owner-occupied versus rented houses) compared with the distribution between owner-occupied and rented within the sample.

Owner-occupied/rented	Municipality of Barendrecht (Source: Gemeente Barendrecht/Onderzoek & Statistiek 1-2010)		Sample (including 58 respondents from the Portland district of Rhoon)	
	Number of houses	Percentage	Number of respondents	Percentage
Owner-occupied	13000	71.1%	584	72.0%
Rented	5286	28.9%	224	27.6%
Unknown			3	0.4%
Total	18286	100	811	100

Table A5. Evaluation of the CO<sub>2</sub> plan: unweighted and age-weighted percentages.

Question	Answer	Unweighted percentage	Weighted percentage
How good or bad do you find the plan to capture, transport and store CO <sub>2</sub> , or carbon dioxide, in the Barendrecht region?	1. Very bad	69.4%	66.7%
	2. Quite bad	16.4%	17.2%
	3. Neither bad nor good	9.9%	11.8%
	4. Quite good	3.4%	3.5%
	5. Very good	0.9%	0.9%

## Appendix B. Tables accompanying Sections 3.1 to 3.7

The percentages in the tables in this appendix are calculated in a slightly different way than the percentages in the tables in Chapter 3. That is, the percentages in this appendix are based on all respondents, including those respondents who did not (wish to) provide a valid answer to the relevant questions.

### Familiarity with the CO<sub>2</sub> plan and knowledge of aspects of the plan (see Section 3.1)

Table B1. "Do you know about the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region? 'No, never heard of it' or 'Yes, I know about it'?"

Answer	Frequency	Percentage of total
1. No, never heard of it	21	2.6
2. Yes, I know about it	789	97.3
Does not wish to say/no answer (non-response)	1	0.1
<b>Total</b>	<b>811</b>	<b>100</b>

Table B2. "Is that a little or quite a lot?"\*

Answer	Frequency	Percentage of total
1. A little	386	48.9
2. Quite a lot	390	49.4
Does not wish to say/no answer (non-response)	13	1.6
<b>Total</b>	<b>789</b>	<b>100</b>

\* Conditional question, asked only if answered "Yes, I know about it" to the preceding question concerning awareness of the plan (see Table B1).

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Table B3. "If the CO<sub>2</sub> plan goes ahead, where does the CO<sub>2</sub> come from that will be stored under Barendrecht?"\*

Answer	Frequency	Percentage of total
1. This CO <sub>2</sub> is captured from the flue gases of a coal-fired power station	17	2.2
<b>2. This CO<sub>2</sub> comes from a refinery in Pernis</b>	<b>624</b>	<b>79.1</b>
3. This CO <sub>2</sub> comes from the greenhouses of the glasshouse horticulture in the Westland area	2	0.3
4. I do not know	140	17.7
Does not wish to say/no answer (non-response)	6	0.8
Total	789	100

\* The correct answer is bold.

Table B4. "If the CO<sub>2</sub> plan goes ahead, where will the CO<sub>2</sub> be stored?"\*

Answer	Frequency	Percentage of total
1. In a large empty oil tank	20	2.5
<b>2. In an empty gas field</b>	<b>649</b>	<b>82.3</b>
3. In CO <sub>2</sub> absorbing coal seams	25	3.2
4. I do not know	92	11.7
Does not wish to say/no answer (non-response)	3	0.4
Total	789	100

\* The correct answer is bold.

Table B5. "If the CO<sub>2</sub> plan goes ahead, how deep in the ground under Barendrecht will the CO<sub>2</sub> then be stored?" \*

Answer	Frequency	Percentage of total
1. Approximately 50 meters deep	14	1.8
2. Between 90 and 115 meters deep	57	7.2
3. Approximately 500 meters deep	86	10.9
<b>4. Deeper than 1500 meters</b>	<b>323</b>	<b>40.9</b>
5. I do not know	301	38.1
Does not wish to say/no answer (non-response)	8	1.0
Total	789	100

\* The correct answer is bold.

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Table B6. Number of multiple choice questions answered correctly as a function of self-reported knowledge of the CO<sub>2</sub> plan.

Number of knowledge questions answered correctly	Frequency “Knowing a little about the CO <sub>2</sub> plan”	Frequency “Knowing quite a lot about the CO <sub>2</sub> plan”
0	40 (10.4%)	9 (2.3%)
1	88 (22.8%)	51 (13.1%)
2	175 (45.3%)	157 (40.3%)
3	83 (21.5%)	173 (44.4%)
Total	386 (100%)	390 (100%)

Table B7. Number of multiple choice questions answered correctly (0-3) as a function of self-reported knowledge of the CO<sub>2</sub> plan (moderate relationship).<sup>6</sup>

	Mean number of multiple choice questions answered correctly (standard deviation)
1. Knowing a little about the CO <sub>2</sub> plan (N = 386)	1.78 (0.90)
2. Knowing quite a lot about CO <sub>2</sub> plan (N = 390)	2.27 (0.77)
Total (N = 776)	2.02 (0.87)

Note: ANOVA  $F(1, 774) = 65.36, p < 0.001, \eta^2 = 0.08$ .

## Opinions and expectations about aspects of the CO<sub>2</sub> plan (see Section 3.2)

Table B8. “How desirable do you think it is to have measures that help to combat global warming?”

Answer	Frequency	Percentage of total
1. Not at all	64	8.1
2. A little	190	24.1
3. Very desirable	512	64.9
Does not wish to say/no answer (non-response)	23	2.9
Total	789	100

Table B9. “How likely do you think it is that the CO<sub>2</sub> plan will help to combat global warming?”

Answer	Frequency	Percentage of total
1. Not at all	275	34.9
2. A little	285	36.1
3. Very likely	135	17.1
Does not wish to say/no answer (non-response)	94	11.9
Total	789	100

<sup>6</sup> See Appendix C for an explanation of the statistical tests and criteria used.

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Table B10. “How likely does it seem to you that the CO<sub>2</sub> plan will lead to a fall in the value of houses in Barendrecht?”

Answer	Frequency	Percentage of total
1. Not at all	36	4.6
2. A little	175	22.2
3. Very likely	546	69.2
Does not wish to say/no answer (non-response)	32	4.1
<b>Total</b>	<b>789</b>	<b>100</b>

Table B11. “How safe do you think it is to transport CO<sub>2</sub> by pipeline in the Barendrecht region?”

Answer	Frequency	Percentage of total
1. Completely safe	61	7.7
2. Quite safe	218	27.6
3. Quite unsafe	235	29.8
4. Very unsafe	225	28.5
Does not wish to say/no answer (non-response)	50	6.3
<b>Total</b>	<b>789</b>	<b>100</b>

Table B12. “How safe do you think it is to store CO<sub>2</sub> under Barendrecht?”

Answer	Frequency	Percentage of total
1. Completely safe	32	4.1
2. Quite safe	118	15.0
3. Quite unsafe	212	26.9
4. Very unsafe	388	49.2
Does not wish to say/no answer (non-response)	39	4.9
<b>Total</b>	<b>789</b>	<b>100</b>

Table B13. Perceived safety of CO<sub>2</sub> transport in the Barendrecht region versus perceived safety of CO<sub>2</sub> storage under Barendrecht (1 = *completely safe*, 4 = *very unsafe*) (strong effect).<sup>6</sup>

	Mean score (standard deviation)
Perceived safety of CO <sub>2</sub> transport in the Barendrecht region (N = 719)	2.87 (0.94)
Perceived safety of CO <sub>2</sub> storage under Barendrecht (N = 719)	3.28 (0.88)

Note: Repeated Measures ANOVA  $F(1, 718) = 207.28, p < 0.001, \eta^2 = 0.22$ .

<sup>6</sup> See Appendix C for an explanation of the statistical tests and criteria used.



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Table B14. "Scientists who are experts in the field of CO<sub>2</sub> capture, transport and storage..."

<b>Answer</b>	<b>Frequency</b>	<b>Percentage of total</b>
1. Agree that the Barendrecht CO <sub>2</sub> plan is safe	55	7.0
2. Agree that this CO <sub>2</sub> plan is <u>not</u> safe	69	8.7
3. Have differences in opinion about the safety of the CO <sub>2</sub> plan	628	79.6
Does not wish to say/no answer (non-response)	37	4.7
<b>Total</b>	<b>789</b>	<b>100</b>

**Evaluation of the CO<sub>2</sub> plan as a whole: How good or bad do people think the CO<sub>2</sub> plan is? (see Section 3.3)**

Table B15. "How good or bad do you find the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region?"

<b>Answer</b>	<b>Frequency</b>	<b>Percentage of total</b>
1. Very bad	538	68.2
2. Quite bad	127	16.1
3. Neither bad nor good	77	9.8
4. Quite good	26	3.3
5. Very good	7	0.9
Does not wish to say/no answer (non-response)	14	1.8
<b>Total</b>	<b>789</b>	<b>100</b>

Table B16. "All in all, do you regard the CO<sub>2</sub> plan as acceptable or unacceptable?"

<b>Answer</b>	<b>Frequency</b>	<b>Percentage of total</b>
1. Acceptable	106	13.4
2. Unacceptable	668	84.7
Does not wish to say/no answer (non-response)	15	1.9
<b>Total</b>	<b>789</b>	<b>100</b>

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Table B17. Estimation of opinions of other Barendrecht residents as a function of respondents' own opinion. The specific question read: "What percentage of people in Barendrecht do you think feel that the CO<sub>2</sub> plan is (acceptable/unacceptable)\*, where 0 per cent means that no one thinks the CO<sub>2</sub> plan is (acceptable/unacceptable)\* and 100 per cent means that all residents think the CO<sub>2</sub> plan is (acceptable/unacceptable)\*. Please give your best estimate of approximately how high that percentage is".

Own answer regarding (un)acceptability of the CO <sub>2</sub> plan (number of respondents)	Estimated percentage of Barendrecht residents that (also) regard the CO <sub>2</sub> plan as acceptable (standard deviation)	Estimated percentage of Barendrecht residents that (also) regard the CO <sub>2</sub> plan as unacceptable (standard deviation)
1. Acceptable (N = 101)	33.4 (19.2)	
2. Unacceptable (N = 670)		80.8 (14.6)

\* The wording of this question depended on the answer of respondents to the question about the perceived (un)acceptability of the CO<sub>2</sub> plan. Respondents who had indicated to regard the plan as acceptable were asked to estimate what percentage of people in Barendrecht (also) regard the plan as acceptable; respondents who had indicated to regard the CO<sub>2</sub> plan as unacceptable were asked to estimate what percentage of people in Barendrecht (also) regard the plan as unacceptable.

Table B18. "Would you be prepared to sign a petition against the CO<sub>2</sub> plan if you were asked to do so?"

Answer	Frequency	Percentage of total
1. No, certainly not	72	9.1
2. Perhaps	91	11.5
3. Yes, certainly	408	51.7
4. I have already done so	214	27.1
Does not wish to say/no answer (non-response)	4	0.5
Total	789	100

Table B19. Evaluation of the CO<sub>2</sub> plan (1= very bad, 5 = very good) as a function of people's willingness to sign a petition against the CO<sub>2</sub> plan (strong relationship<sup>6</sup>).

Respondents' own self-reported willingness to sign a petition against the CO <sub>2</sub> plan	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. No, certainly not (N = 70)	3.03 (1.05) <sup>a</sup>
2. Perhaps (N = 86)	2.28 (1.01) <sup>b</sup>
3. Yes, certainly (N = 401)	1.23 (0.55) <sup>c</sup>
4. I have already done so (N = 214)	1.19 (0.43) <sup>c</sup>
Total (N = 771)	1.50 (0.87)

Note: ANOVA  $F(3, 767) = 211.37, p < 0.001, \eta^2 = 0.45$ ; Pearson correlation  $r = -0.60, p < 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

<sup>6</sup> See Appendix C for an explanation of the statistical tests and criteria used.

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Table B20. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of whether people regard the CO<sub>2</sub> plan as acceptable or unacceptable (strong relationship<sup>6</sup>).

(Un)acceptability of the CO <sub>2</sub> plan	Evaluation of the CO <sub>2</sub> plan					Mean (standard deviation)
	Frequency 1. "very bad" (percentage of column total)	Frequency 2. "quite bad" (percentage of column total)	Frequency 3. "not bad nor good" (percentage of column total)	Frequency 4. "quite good" (percentage of column total)	Frequency 5. "very good" (percentage of column total)	
Unacceptable (N = 100)	532 (99.3%)	109 (87.9%)	21 (29.2%)	2 (7.7%)	0 (0%)	3.13 <sup>a</sup> (0.88)
Acceptable (N = 664)	4 (0.7%)	15 (12.1%)	51 (70.8%)	24 (92.3%)	6 (100%)	1.24 <sup>b</sup> (0.51)
Total (N = 764)	536	124	72	26	6	1.48 (0.86)

Note: ANOVA  $F(1, 762) = 945.34$   $p < 0.001$ ,  $\eta^2 = 0.55$ . Means with different superscripts differ significantly at  $p < 0.05$ .

**The extent to which the CO<sub>2</sub> plan is an issue among the people of Barendrecht (see Section 3.4)**

Table B21. "To what extent are you dissatisfied or satisfied with your neighborhood?"

Answer	Frequency	Percentage of total
1. Very dissatisfied	6	0.7
2. Dissatisfied	35	4.3
3. Neither dissatisfied nor satisfied	88	10.9
4. Satisfied	387	47.7
5. Very satisfied	293	36.1
Does not wish to say/no answer (non-response)	2	0.2
Total	811	100

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Table B22. "Do you think your neighborhood will improve or deteriorate in the next five years?"

Answer	Frequency	Percentage of total	Percentage of valid responses
1. Improve	105	12.9	13.5
2. Deteriorate	250	30.8	32.1
3. Will stay the same	423	52.2	54.4
Does not wish to say/does not know/no answer (non-response)	33	4.1	
<b>Total</b>	<b>811</b>	<b>100</b>	<b>100</b>

Table B23. "You just indicated that you think your neighborhood will (improve in the next five years/will deteriorate in the next five years/will stay the same in the next five years\*). Can you explain this?"

Expectation for neighborhood over the next five years (number of respondents)	Percentage (and number) for how often the CO <sub>2</sub> plan is spontaneously mentioned
1. Improve (N = 105)	0% (N = 0)
2. Deteriorate (N = 250)	33.2% (N = 83)
3. Will stay the same (N = 423)	5.7% (N = 24)
<b>Total (N = 778)</b>	<b>13.8% (N = 107)</b>

\* The wording of this question depended on the answer of the respondents to question about whether they expected their neighborhood to improve or deteriorate in the next five years (see Table B22).

Table B24. "The CO<sub>2</sub> plan is a subject that some people regard as more important than others. How important is the CO<sub>2</sub> plan for you personally?"

Answer	Frequency	Percentage of total
1. Completely unimportant	39	4.9
2. Quite unimportant	120	15.2
3. Quite important	340	43.1
4. Very important	285	36.1
Does not wish to say/no answer (non-response)	5	0.6
<b>Total</b>	<b>789</b>	<b>100</b>

Table B25. "How often do you talk to others about the CO<sub>2</sub> plan?"

Answer	Frequency	Percentage of total
1. Never	97	12.3
2. Occasionally	513	65.0
3. Often	174	22.1
Does not wish to say/no answer (non-response)	5	0.6
<b>Total</b>	<b>789</b>	<b>100</b>

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Table B26. "Do you ever worry about the CO<sub>2</sub> plan?"

Answer	Frequency	Percentage of total
1. Never	214	27.1
2. Occasionally	379	48.0
3. Often	191	24.2
Does not wish to say/no answer (non-response)	5	0.6
<b>Total</b>	<b>789</b>	<b>100</b>

**The decision-making process with respect to the CO<sub>2</sub> plan and trust in the parties involved (see Section 3.5)**

Table B27. "What do you think of the influence of <party> when it comes to deciding on whether or not to go ahead with the CO<sub>2</sub> plan?"

Party	1. Too much influence (Percentage of total)	2. Exactly right (Percentage of total)	3. Too little influence (Percentage of total)	Does not wish to say/no answer (non-response)	Total
Residents of Barendrecht	28 (3.5%)	89 (11.3%)	648 (82.1%)	24 (3.0%)	789 (100%)
The town council of Barendrecht	35 (4.4%)	102 (12.9%)	632 (80.1%)	20 (2.5%)	789 (100%)
The national government	556 (70.5%)	108 (13.7%)	86 (10.9%)	39 (4.9%)	789 (100%)
Environmental Protection Agency Rijnmond or DCMR	101 (18.4%)	124 (22.6%)	237 (43.2%)	87 (15.8%)	549*
Shell	656 (83.1%)	73 (9.3%)	20 (2.5%)	40 (5.1%)	789 (100%)

*Note* \* When asked about the Environmental Protection Agency Rijnmond (DCMR), respondents could also choose from a fourth response category, namely "I did not know that the Environmental Protection Agency Rijnmond or DCMR was involved in the CO<sub>2</sub> plan". A total of 240 respondents chose this option.

Table B28. "How fair or unfair is the decision making about the CO<sub>2</sub> plan according to you?"

Answer	Frequency	Percentage of total
1. Very fair	7	0.9
2. Quite fair	96	12.2
3. Quite unfair	313	39.7
4. Very unfair	339	43.0
Does not wish to say/no answer (non-response)	34	4.3
<b>Total</b>	<b>789</b>	<b>100</b>

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Table B29. "Do you trust those who will ultimately decide whether to go ahead with the CO<sub>2</sub> capture, transport and storage plan in the Barendrecht region?"

Answer	Frequency	Percentage of total
1. Not at all	423	53.6
2. A little	263	33.3
3. Quite a lot	63	8.0
4. Very much	14	1.8
Does not wish to say/no answer (non-response)	26	3.3
<b>Total</b>	<b>789</b>	<b>100</b>

Table B30. "Do you trust <party> when it comes to the CO<sub>2</sub> plan?"

Party	1. Not at all (percentage of row total)	2. A little (percentage of row total)	3. Quite a lot (percentage of row total)	4. Completely (percentage of row total)	Does not wish to say/no answer (non-response)	Total
The town council of Barendrecht	8 (5.6%)	34 (23.8%)	39 (27.3%)	58 (40.6%)	4 (2.8%)	143
The national government	73 (56.6%)	40 (31.0)	12 (9.3%)	3 (2.3%)	1 (0.8%)	129
Shell	62 (57.4%)	30 (27.8)	11 (10.2%)	4 (3.7%)	1 (0.9%)	108
Environmental organizations	25 (15.4%)	66 (40.7%)	50 (30.9%)	14 (8.6%)	7 (4.3%)	162
Environmental Protection Agency Rijnmond or DCMR	20 (16.9%)	44 (37.3%)	27 (22.9%)	12 (10.2%)	15 (12.7%)	118
Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage	23 (17.8%)	61 (47.3%)	27 (20.9%)	12 (9.3%)	6 (4.7%)	129

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Table B31. Mean scores (standard deviation) concerning trust in parties when it comes to the CO<sub>2</sub> plan (1 = no trust at all, 4 = complete trust, strong effect<sup>6</sup>)

Answer	Mean (standard deviation)	N
The town council of Barendrecht	3.06 (0.95) <sup>a</sup>	139
The national government	1.57 (0.76) <sup>b</sup>	128
Shell	1.60 (0.82) <sup>b</sup>	107
Environmental organizations	2.34 (0.86) <sup>c</sup>	155
Environmental Protection Agency Rijnmond or DCMR	2.30 (0.92) <sup>c</sup>	103
Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage	2.23 (0.87) <sup>c</sup>	123
Total	2.21 (1.00)	755

Note: ANOVA  $F(5, 749) = 52.51, p < 0.001, \eta^2 = 0.26$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table B32. "Do you expect that <party> supports or opposes the CO<sub>2</sub> plan?"\*

Party	1. Supports (percentage of row total)	2. Opposes (percentage of row total)	3. I do not know (percentage of row total)	Does not wish to say/no answer (non-response)	Total
The town council of Barendrecht	11 (7.7%)	125 (87.4%)	7 (4.9%)	0 (0%)	143
The national government	111 (86.0%)	8 (6.2%)	9 (7.0%)	1 (0.8%)	129
Shell	104 (96.3%)	2 (1.9%)	2 (1.9%)	0 (0.0%)	104
Environmental organizations	37 (22.8%)	100 (61.7%)	21 (13.0%)	4 (2.5%)	162
Environmental Protection Agency Rijnmond or DCMR	44 (37.3%)	38 (32.2%)	35 (29.7%)	1 (0.8%)	118

Note. \*This question was not asked in the version of the questionnaire which asked about trust in "scientists who are experts in the field of CO<sub>2</sub> capture, transport and storage".

Table B33. "Have you heard of the "CO<sub>2</sub>isNEE" Foundation?"

Answer	Frequency	Percentage of total
1. No, never heard of it	181	22.9
2. Yes, I know about it	604	76.6
Does not wish to say/no answer (non-response)	4	0.5
Total	789	100

<sup>6</sup> See Appendix C for an explanation of the statistical tests and criteria used.



**Barendrecht survey**

Table B34. "Do you trust the CO<sub>2</sub>isNEE Foundation where the CO<sub>2</sub> plan is concerned?"\*

Answer	Frequency	Percentage of total
1. Not at all	15	2.5
2. A little	120	19.9
3. Quite a lot	238	39.4
4. Completely	205	33.9
Does not wish to say/no answer (non-response)	26	4.3
Total	604	100
Mean: 3.10		

\* This question was asked only if respondents had answered "Yes, I know about it" to the preceding question concerning their familiarity with the CO<sub>2</sub>isNEE Foundation (see Table B33).

**Expectations about and acceptability of the final decision (see Section 3.6)**

Table B35. "What do you expect the final decision to be on CO<sub>2</sub> storage under Barendrecht?"

Answer	Frequency	Percentage of total
1. CO <sub>2</sub> will be stored under Barendrecht	544	68.9
2. CO <sub>2</sub> will not be stored under Barendrecht	199	25.2
Does not wish to say/no answer (non-response)	46	5.8
Total	789	100

Table B36. "If a decision is made soon on whether or not to implement the CO<sub>2</sub> plan, are you willing to accept this decision regardless of what the decision might be?"

Answer	Frequency	Percentage of total
1. Certainly not	164	20.8
2. Probably not	116	14.7
3. Maybe, maybe not	170	21.5
4. Probably	184	22.3
5. Certainly	100	12.7
Does not wish to say/no answer (non-response)	55	7.0
Total	789	100

**Barendrecht survey**

**Information about the CO<sub>2</sub> plan: Information provision, information need and sources of information (see Section 3.7)**

Table B37. "To what extent are you satisfied with the possibilities of obtaining information about the CO<sub>2</sub>?"

Answer	Frequency	Percentage of total
1. Dissatisfied	74	9.4
2. Neither dissatisfied nor satisfied	189	24.0
3. Satisfied	511	64.8
Does not wish to say/no answer (non-response)	15	1.9
Total	789	100

Table B38. "Do you have a need for additional information about the CO<sub>2</sub> plan?"

Answer	Frequency	Percentage of total
1. Yes	189	24.0
2. A little	106	13.4
3. No	490	62.1
Does not wish to say/no answer (non-response)	4	0.5
Total	789	100

Table B39. "To what extent do you agree with the following statement" (1 = *strongly disagree*, 5 = *totally agree*).

Statement (number of respondents)	Mean (standard deviation)
If I find a brochure <from party> in my letterbox containing the advantages and disadvantages of the CO <sub>2</sub> plan, I would read this brochure from cover to cover. (N = 776)	4.23 (1.13)
If I receive a brochure<from party> containing the advantages and disadvantages of the CO <sub>2</sub> plan, I would be very interested in the information about the <u>disadvantages</u> of the CO <sub>2</sub> plan. (N = 773)	4.14 (1.11)
If I receive a brochure <from party> containing the advantages and disadvantages of the CO <sub>2</sub> plan, I would be very interested in the information about the <u>advantages</u> of the CO <sub>2</sub> plan. (N = 761)	3.45 (1.41)

*Note.* The alleged source ( i.e., 'party) of the brochure varied between versions of the questionnaire, see Appendix D. Respondents are somewhat more interested in the information about the disadvantages of the CO<sub>2</sub> plan than about its advantages (weak effect <sup>6</sup>), Repeated Measures ANOVA  $F(1, 759) = 182.49, p < 0.001, \eta^2 = 0.19$ .

<sup>6</sup> See Appendix C for an explanation of the statistical tests and criteria used.

## Barendrecht survey

Table B40. Interest in disadvantages versus interest in advantages in the folder (higher scores indicate more interest) as a function of respondents' evaluation of the CO<sub>2</sub> plan (moderate relationship<sup>6</sup>).

Evaluation of the CO <sub>2</sub> plan	Mean score for interest in disadvantages (standard deviation)	Mean score for interest in advantages (standard deviation)	Difference in means
1. Very bad (N = 519)	4.27 (1.08) <sup>a</sup>	3.36 (1.50) <sup>b</sup>	0.91*
2. Quite bad (N = 122)	4.06 (0.91) <sup>a</sup>	3.70 (1.08) <sup>b</sup>	0.36*
3. Neither bad nor good (N = 75)	3.75 (1.15) <sup>a</sup>	3.68 (1.19) <sup>a</sup>	0.07
4. Quite good (N = 25)	3.32 (1.22) <sup>a</sup>	3.28 (1.37) <sup>a</sup>	0.04
5. Very good (N = 6)	4.00 (0.89) <sup>a</sup>	4.33 (0.82) <sup>a</sup>	-0.33
Total (N = 747)	4.15 (1.09) <sup>a</sup>	3.45 (1.41) <sup>b</sup>	0.70*

Note: Repeated measures ANOVA Interaction Evaluation of the CO<sub>2</sub> plan x Interest in disadvantages vs. Interest in advantages,  $F(4, 742) = 11.32$ ,  $p < 0.001$ ,  $\eta^2 = 0.06$ ; Pearson correlation *disadvantages* = -0.20,  $p < 0.001$ ; *advantages* = 0.08,  $p = 0.031$ . For each row, Means with different superscripts differ significantly at  $p < 0.05$  (a significant difference in means is also indicated by \*).

Table B41. Self-reported use of information sources.

Question	Frequency "Yes" (percentage of row total)	Frequency "No" (percentage of row total)	Frequency does not wish to say/no answer (non-response) (percentage of row total)	Total
"Have you ever been to an information evening organized by the town council about the CO <sub>2</sub> plan in "Het Kruispunt" theatre?"	166 (21.0%)	621 (78.7%)	2 (0.3%)	789
Have you ever paid a visit to the "Infopunt CO <sub>2</sub> opslag" in the Carnisse-Veste shopping mall to get information about the CO <sub>2</sub> plan?	195 (24.7%)	594 (75.3%)	0 (0%)	789
Did you see the Zembla program on Sunday 28th March about the CO <sub>2</sub> plan in the Barendrecht region?	365 (46.3%)	414 (52.5%)	10 (1.3%)	789
"Did you see the Netwerk program on 6th April about the CO <sub>2</sub> plan in the Barendrecht region?"	215 (27.2%)	547 (69.3%)	27 (3.4%)	789
"Have you ever looked on Shell's website to get information about the CO <sub>2</sub> plan?"	78 (9.9%)	709 (89.9%)	2 (0.3%)	789

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Table B42. The number of preselected information sources that respondents had consulted (0-5).

Number of information sources used	Frequency	Percentage of total
0	243	30.8
1	225	28.5
2	208	26.4
3	79	10.0
4	29	3.7
5	5	0.6
Total	789	100
Mean score: 1.29		

Table B43. "You just mentioned <information source>. How much help was the information you received in determining your opinion of the CO<sub>2</sub> plan?" (1 = *very helpful*, 2 = *a little helpful*, 3 = *not at all helpful*).

Information source	Mean helpfulness of information (number of respondents)
An information evening in "Het Kruispunt"	2.13 (N = 89)
"Infopunt CO <sub>2</sub> opslag"	2.03 (N = 87)
Zembla	1.87 (N = 268)
Netwerk	2.00 (N = 72)
The Shell website	2.13 (N = 30)

*Note.* For respondents who had consulted more than one source (N = 321) this question concerned the source of information that they regarded as the most helpful when forming their opinion (respondents were first asked to indicate this source, then the question was asked).

## Appendix C. Tables and statistical tests displaying the relationships between variables as described in Section 3.8

In this report, two types of statistical procedures have been used to test for relationships between variables: analysis of variance (i.e., ANOVA) and correlation analysis.

Analysis of variance or ANOVA is a procedure that is used to test whether the mean scores of two or more groups differ. For example, in the current report ANOVA was used to test whether respondents who had indicated to know a little about the CO<sub>2</sub> plan on average also evaluated the plan significantly different (i.e., more positive or more negative), as compared to respondents who had indicated to know quite a lot about the plan (see Table C1). A statistically significant difference between groups occurs when the differences between group means on a certain variable are large enough relative to the dispersion within the groups, causing the test statistic ( $F$  in the case of ANOVA) to differ significantly from zero. In this report (and as is common practice in the social sciences) a significance criterion (i.e.,  $p$ -value) of 0.05 was used. This  $p$ -value means that the probability that an observed difference between groups is due to chance is 5 percent. Below each table in this appendix the relevant ANOVA test statistics are provided, where  $p$ -values less than or equal to 0.05 indicate a statistically significant difference between two or more groups, while  $p$ -values greater than 0.05 indicate that there is no significant difference in group means (described in Section 3.8 as 'no relationship').

ANOVA does not just answer the question whether group means differ significantly, but also whether this is a strong or weak effect (in other words, whether there is a strong or weak relationship between variables). Below each table the strength of relationships is indicated by means of 'eta square' ( $\eta^2$ ), a statistic with values between 0 and 1. Cohen (1988)<sup>7</sup> formulated the following criteria to classify the strength of relationships between variables:  $\eta^2$  values close to 0.01 indicate weak relationships; values close to 0.06 represent moderate relationships; and values close to 0.14 represent strong relationships. The description of the relationships in Section 3.8 as 'weak' / 'moderate' / 'strong' is based on these criteria formulated by Cohen (1988).

Beside the results of the ANOVA, below each table the Pearson correlation  $r$  between the variables under investigation is provided (but only when this analysis is appropriate). The correlation coefficient  $r$  indicates the extent to which two variables are related and always has a value between -1 and +1. A value of -1 or +1 means that there is a perfect linear relationship between two variables, while a value of 0 indicates that there is no linear relationship at all. The more the correlation coefficient differs from 0, the stronger the relationship between variables. As with ANOVA, there is no significant relationship between two variables when the  $p$ -value of a correlation coefficient  $r$  is greater than 0.05.

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<sup>7</sup> J. Cohen (1988). *Statistical Power Analysis for the Behavioral Sciences* (second ed.). Lawrence Erlbaum Associates Inc.; Hillsdale, New Jersey.

## Barendrecht survey

### The relationship between how people evaluate the CO<sub>2</sub> plan and the extent to which they claim to be familiar with the plan

Table C1. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of familiarity with the CO<sub>2</sub> plan (no relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Knowing a little about the CO <sub>2</sub> plan (N = 375)	1.55 (0.85) <sup>a</sup>
2. Knowing quite a lot about the CO <sub>2</sub> plan (N = 390)	1.45 (0.89) <sup>a</sup>
Total (N = 765)	1.50 (0.87)

Note: ANOVA  $F(1, 763) = 2.70$ ,  $p = 0.101$ ,  $\eta^2 = 0.00$ . Means with different superscripts differ significantly at  $p < 0.05$ .

### The relationship between how people evaluate the CO<sub>2</sub> plan and their opinions and expectations about aspects of the plan

Table C2. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of desirability of measures that help to combat global warming (no relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Not at all (N = 64)	1.36 (0.82) <sup>a</sup>
2. A little (N = 187)	1.55 (0.97) <sup>a</sup>
3. Very desirable (N = 502)	1.49 (0.84) <sup>a</sup>
Total (N = 753)	1.49 (0.87)

Note: ANOVA  $F(2, 750) = 1.16$ ,  $p = 0.313$ ,  $\eta^2 = 0.00$ ; Pearson correlation  $r = 0.02$ ,  $p = 0.67$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C3. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how likely people think it is that the CO<sub>2</sub> plan will help to combat global warming (weak relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Not at all (N = 272)	1.35 (0.76) <sup>a</sup>
2. A little (N = 280)	1.56 (0.93) <sup>b</sup>
3. Very likely (N = 133)	1.63 (0.92) <sup>b</sup>
Total (N = 685)	1.49 (0.87)

Note: ANOVA  $F(2, 682) = 6.45$ ,  $p = 0.002$ ,  $\eta^2 = 0.02$ ; Pearson correlation  $r = 0.13$ ,  $p = 0.01$ . Means with different superscripts differ significantly at  $p < 0.05$ .

### Barendrecht survey

Table C4. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how likely people think it is that the CO<sub>2</sub> plan will lead to a fall in the value of houses in Barendrecht (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Not at all (N = 33)	2.94 (1.20) <sup>a</sup>
2. A little (N = 173)	1.84 (1.00) <sup>b</sup>
3. Very likely (N = 541)	1.29 (0.64) <sup>c</sup>
Total (N = 747)	1.49 (0.86)

Note: ANOVA  $F(2, 744) = 94.74$ ,  $p < 0.001$ ,  $\eta^2 = 0.20$ ; Pearson correlation  $r = -0.44$ ,  $p < 0.001$ .<sup>8</sup>  
 Means with different superscripts differ significantly at  $p < 0.05$ .

Table C5. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how safe people think it is to transport CO<sub>2</sub> by pipeline in the Barendrecht region (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Completely safe (N = 60)	2.53 (1.27) <sup>a</sup>
2. Quite safe (N = 213)	1.85 (1.01) <sup>b</sup>
3. Quite unsafe (N = 234)	1.30 (0.59) <sup>c</sup>
4. Very safe (N = 224)	1.08 (0.35) <sup>d</sup>
Total (N = 731)	1.49 (0.88)

Note: ANOVA  $F(3, 727) = 79.96$ ,  $p < 0.001$ ,  $\eta^2 = 0.25$ ; Pearson correlation  $r = -0.48$ ,  $p < 0.001$ .  
 Means with different superscripts differ significantly at  $p < 0.05$ .

Table C6. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how safe people think the storage of CO<sub>2</sub> under Barendrecht is (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Completely safe (N = 31)	2.94 (1.44) <sup>a</sup>
2. Quite safe (N = 114)	2.52 (0.96) <sup>b</sup>
3. Quite unsafe (N = 209)	1.48 (0.69) <sup>c</sup>
4. Very unsafe (N = 388)	1.08 (0.36) <sup>d</sup>
Total (N = 742)	1.49 (0.87)

Note: ANOVA  $F(3, 738) = 194.40$ ,  $p < 0.001$ ,  $\eta^2 = 0.44$ ; Pearson correlation  $r = -0.65$ ,  $p < 0.001$ .  
 Means with different superscripts differ significantly at  $p < 0.05$ .

<sup>8</sup> This relationship is equally as strong for tenants (Pearson correlation  $r = -0.37$ ,  $N = 188$ ) and home-owners (Pearson correlation  $r = -0.46$ ,  $N = 555$ ). This was tested by means of Fisher's Z ( $Z = 1.29$ ,  $p = 0.197$ ).



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Table C7. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of the estimation of how scientists who are experts in the field of CO<sub>2</sub> capture, transport and storage assess the safety of the CO<sub>2</sub> plan (moderate relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage agree that the Barendrecht CO <sub>2</sub> plan is safe (N = 55)	2.29 (1.26) <sup>a</sup>
2. Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage agree that the Barendrecht CO <sub>2</sub> plan is <u>not</u> safe (N = 68)	1.19 (0.47) <sup>b</sup>
3. Scientists who are experts in the field of CO <sub>2</sub> capture, transport and storage have differences in opinion about the safety of the CO <sub>2</sub> plan (N = 619)	1.45 (0.81) <sup>c</sup>
Total (N = 742)	1.49 (0.86)

Note: ANOVA  $F(2, 739) = 30.64$ ,  $p < 0.001$ ,  $\eta^2 = 0.08$ . Means with different superscripts differ significantly at  $p < 0.05$ .

## The relationship between how people evaluate the CO<sub>2</sub> plan and the extent to which the CO<sub>2</sub> plan is an issue

Table C8. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how important people find the CO<sub>2</sub> plan personally is (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Completely unimportant (N = 38)	2.11 (1.33) <sup>a</sup>
2. Quite unimportant (N = 115)	2.16 (1.07) <sup>a</sup>
3. Quite important (N = 335)	1.53 (0.79) <sup>b</sup>
4. Very important (N = 284)	1.12 (0.52) <sup>c</sup>
Total (N = 772)	1.50 (0.87)

Note: ANOVA  $F(3, 768) = 55.70$ ,  $p < 0.001$ ,  $\eta^2 = 0.18$ ; Pearson correlation  $r = -0.41$ ,  $p < 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C9. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how often people say they talk to others about the CO<sub>2</sub> plan (moderate relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Never (N = 87)	1.86 (1.04) <sup>a</sup>
2. Occasionally (N = 509)	1.53 (0.87) <sup>b</sup>
3. Often (N = 174)	1.21 (0.67) <sup>c</sup>
Total (N = 770)	1.50 (0.87)

Note: ANOVA  $F(2, 767) = 18.67$ ,  $p < 0.001$ ,  $\eta^2 = 0.05$ ; Pearson correlation  $r = -0.22$ ,  $p < 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

**Barendrecht survey**

Table C10. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of the extent to which people worry about the CO<sub>2</sub> plan (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Never (N = 202)	2.11 (1.12) <sup>a</sup>
2. Occasionally (N = 377)	1.38 (0.70) <sup>b</sup>
3. Often (N = 191)	1.08 (0.37) <sup>c</sup>
Total (N = 770)	1.49 (0.86)

Note: ANOVA  $F(2, 767) = 95.50$ ,  $p < 0.001$ ,  $\eta^2 = 0.20$ ; Pearson correlation  $r = -0.43$ ,  $p < 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

**The relationship between how people evaluate the CO<sub>2</sub> plan and their judgments about the decision-making process**

Table C11. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of how fair or unfair people find the decision-making process on the CO<sub>2</sub> plan is running (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Very fair (N = 6)	3.33 (1.37) <sup>a</sup>
2. Quite fair (N = 93)	2.42 (1.13) <sup>b</sup>
3. Quite unfair (N = 310)	1.56 (0.83) <sup>c</sup>
4. Very unfair (N = 335)	1.15 (0.49) <sup>d</sup>
Total (N = 744)	1.50 (0.87)

Note: ANOVA  $F(3, 740) = 83.67$ ,  $p < 0.001$ ,  $\eta^2 = 0.25$ ; Pearson correlation  $r = -0.49$ ,  $p < 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C12. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of the trust that people have in those who will ultimately take the decision of whether or not to proceed with the CO<sub>2</sub> plan (strong relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Not at all (N = 418)	1.17 (0.50) <sup>a</sup>
2. A little (N = 258)	1.66 (0.88) <sup>b</sup>
3. Quite a lot (N = 60)	2.62 (1.14) <sup>c</sup>
4. Very much trust (N = 13)	3.23 (1.30) <sup>d</sup>
Total (N = 749)	1.49 (0.87)

Note: ANOVA  $F(3, 745) = 103.06$ ,  $p < 0.001$ ,  $\eta^2 = 0.29$ ; Pearson correlation  $r = 0.53$ ,  $p < 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

**Barendrecht survey**

**The relationship between how people evaluate the CO<sub>2</sub> plan and information provision**

Table C13. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of satisfaction with the possibilities of obtaining information about the CO<sub>2</sub> plan (weak relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. Dissatisfied ( <i>N</i> = 71)	1.27 (0.74) <sup>a</sup>
2. Neither dissatisfied nor satisfied ( <i>N</i> = 185)	1.38 (0.77) <sup>a</sup>
3. Satisfied ( <i>N</i> = 506)	1.57 (0.91) <sup>b</sup>
<b>Total (<i>N</i> = 762)</b>	<b>1.50 (0.87)</b>

Note: ANOVA  $F(2, 759) = 6.04$ ,  $p = 0.002$ ,  $\eta^2 = 0.02$ ; Pearson correlation  $r = 0.12$ ,  $p = 0.001$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C14. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of having watched the Zembla program about the CO<sub>2</sub> plan on Sunday 28th March (moderate relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. Yes ( <i>N</i> = 364)	1.33 (0.68) <sup>a</sup>
2. No ( <i>N</i> = 402)	1.66 (0.99) <sup>b</sup>
<b>Total (<i>N</i> = 766)</b>	<b>1.51 (0.88)</b>

Note: ANOVA  $F(1, 764) = 28.95$ ,  $p < 0.001$ ,  $\eta^2 = 0.04$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C15. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of having watched the Netwerk program about the CO<sub>2</sub> plan on 6<sup>th</sup> April (weak relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. Yes ( <i>N</i> = 214)	1.31 (0.71) <sup>a</sup>
2. No ( <i>N</i> = 534)	1.59 (0.93) <sup>b</sup>
<b>Total (<i>N</i> = 748)</b>	<b>1.51 (0.88)</b>

Note: ANOVA  $F(1, 746) = 15.13$ ,  $p < 0.001$ ,  $\eta^2 = 0.02$ . Means with different superscripts differ significantly at  $p < 0.05$ .

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Table C16. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of having attended an information evening organized by the town council about the CO<sub>2</sub> plan in “Het Kruispunt” theatre (weak relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Yes (N = 164)	1.24 (0.66) <sup>a</sup>
2. No (N = 609)	1.56 (0.90) <sup>b</sup>
Total (N = 773)	1.50 (0.86)

Note: ANOVA  $F(1, 771) = 18.07$ ,  $p < 0.001$ ,  $\eta^2 = 0.02$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C17. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of having visited Shell’s website to get information about the CO<sub>2</sub> plan (weak relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Yes (N = 77)	1.73 (1.17) <sup>a</sup>
2. No (N = 696)	1.48 (0.83) <sup>b</sup>
Total (N = 773)	1.50 (0.87)

Note: ANOVA  $F(1, 771) = 5.81$ ,  $p = 0.016$ ,  $\eta^2 = 0.01$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C18. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of having visited the “Infopunt CO<sub>2</sub> opslag” in the Carnisse-Veste shopping mall to get information about the CO<sub>2</sub> plan (no relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. Yes (N = 195)	1.47 (0.89) <sup>a</sup>
2. No (N = 580)	1.51 (0.87) <sup>a</sup>
Total (N = 775)	1.50 (0.87)

Note: ANOVA  $F(1, 773) < 1$ ,  $p = 0.545$ ,  $\eta^2 = 0.00$ . Means with different superscripts differ significantly at  $p < 0.05$ .

**Barendrecht survey**

**The relationship between how people evaluate the CO<sub>2</sub> plan and background variables**

Table C19. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of gender (weak relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. Male (N = 407)	1.58 (0.97) <sup>a</sup>
2. Female (N = 368)	1.41 (0.73) <sup>a</sup>
<b>Total (N = 775)</b>	<b>1.50 (0.87)</b>

Note: ANOVA  $F(1,773) = 7.84$ ,  $p = 0.005$ ,  $\eta^2 = 0.01$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C20. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of respondents' age (moderate relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. 18/19 (N = 17)	2.18 (0.95)
2. 20-29 (N = 36)	1.83 (1.08)
3. 30-39 (N = 88)	1.52 (0.80)
4. 40-49 (N = 184)	1.60 (0.97)
5. 50-59 (N = 140)	1.39 (0.77)
6. 60-69 (N = 162)	1.32 (0.66)
7. 70-79 (N = 102)	1.58 (1.04)
8. 80-89 (N = 41)	1.32 (0.72)
9. 90+ (N = 3)	1.33 (0.58)
<b>Total (N = 773)</b>	<b>1.50 (0.87)</b>

Note: ANOVA  $F(8, 764) = 3.83$ ,  $p < 0.001$ ,  $\eta^2 = 0.04$ ; Pearson correlation  $r = -0.13$ ,  $p < 0.001$ .

### Barendrecht survey

Table C21. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of highest level of education obtained (no relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
1. No education or primary education (primary school, special primary education (N = 39)	1.44 (0.82)
2. Lower technical and vocational education (N = 69)	1.64 (0.99)
3. Secondary general education (N = 98)	1.32 (0.62)
4. Secondary vocational education (N = 206)	1.49 (0.90)
5. Higher general secondary education (N = 87 )	1.48 (0.90)
6. Higher vocational education (N = 211)	1.54 (0.87)
7. University (N = 50)	1.68 (0.96)
<b>Total (N = 760 )</b>	<b>1.50 (0.87)</b>

Note: ANOVA  $F(6, 753) = 1.48$ ,  $p = 0.181$ ,  $\eta^2 = 0.01$ ; Pearson correlation  $r = 0.04$ ,  $p = 0.230$ .

Table C22. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of zip code area (no relationship).

	Mean score for evaluation of the CO <sub>2</sub> plan (standard deviation)
<b>Oud-Barendrecht</b>	
Zip code 2991 (N = 183)	1.57 (0.91) <sup>a</sup>
Zip code 2992 (N = 195)	1.52 (0.89) <sup>a</sup>
<b>Barendrecht-Carnisselande</b>	
Zip code 2993 (N = 274)	1.43 (0.87) <sup>a</sup>
Zip code 2994 (N = 70)	1.47 (0.79) <sup>a</sup>
<b>Rhoon; Portland district</b>	
Zip code 3162 (N = 53)	1.55 (0.77) <sup>a</sup>
<b>Total (N = 775)</b>	<b>1.50 (0.87)</b>

Note: ANOVA  $F(4, 770) < 1$ ,  $p = 0.492$ ,  $\eta^2 = 0.00$ . Means with different superscripts differ significantly at  $p < 0.05$ .

**Barendrecht survey**

Table C23. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of being a tenant or homeowner (no relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. Lives in a rented house ( <i>N</i> = 205)	1.50 (0.87) <sup>a</sup>
2. Lives in a owner-occupied house ( <i>N</i> = 567)	1.50 (0.87) <sup>a</sup>
<b>Total (<i>N</i> = 772)</b>	<b>1.50 (0.87)</b>

*Note:* ANOVA  $F(1, 770) < 1$ ,  $p = 0.983$ ,  $\eta^2 = 0.00$ . Means with different superscripts differ significantly at  $p < 0.05$ .

Table C24. Evaluation of the CO<sub>2</sub> plan (1= *very bad*, 5 = *very good*) as a function of the presence of children living at home in the household (no relationship).

	<b>Mean score for evaluation of the CO<sub>2</sub> plan (standard deviation)</b>
1. Yes ( <i>N</i> = 430)	1.47 (0.85) <sup>a</sup>
2. No ( <i>N</i> = 344)	1.54 (0.90) <sup>a</sup>
<b>Total (<i>N</i> = 774)</b>	<b>1.50 (0.87)</b>

*Note:* ANOVA  $F(1, 772) = 1.35$ ,  $p = 0.246$ ,  $\eta^2 = 0.00$ . Means with different superscripts differ significantly at  $p < 0.05$ .



**Barendrecht survey**

Table C25. Summary of the strength of the tested relationships between variables\*

Strength of the relationship with 'evaluation of the CO <sub>2</sub> plan'	Variables
No relationship	Respondents' education; zip code area; being a tenant/homeowner; presence of children in the household; relative familiarity with the CO <sub>2</sub> plan (knowing a little versus quite a lot); desirability of measures that help to combat global warming; visit to the "Infopunt CO <sub>2</sub> opslag" in the Carnisse-Veste shopping mall.
Weak relationship	Respondents' gender; how likely people think it is that the CO <sub>2</sub> plan in the Barendrecht region will help to combat global warming; satisfaction with the possibilities to obtain information about the CO <sub>2</sub> plan; attendance of an information evening organized by the city council in 'Het Kruispunt' theatre; watching the Netwerk program on 6 <sup>th</sup> April; visit to Shell's website to get information about the CO <sub>2</sub> plan.
Moderate relationship	The perception that scientists (dis)agree about the safety of the CO <sub>2</sub> plan; how often people talk to others about the CO <sub>2</sub> plan; watching the Zembla program on Sunday 28 <sup>th</sup> March; respondents' age.
Strong relationship	How likely people think it is that the CO <sub>2</sub> plan will lead to a fall in the values of houses in Barendrecht; perceived (un)safety of CO <sub>2</sub> transport; perceived (un)safety of CO <sub>2</sub> storage; how important people feel the CO <sub>2</sub> plan is; how often people worry about the CO <sub>2</sub> plan; perceived (un)fairness of the decision-making process on the CO <sub>2</sub> plan; (lack of) trust in those who will ultimately make the decision of whether or not to proceed with the CO <sub>2</sub> plan.

\* The direction and meaning of these relationships is extensively explained in Section 3.8. The direction of the relationships is also given in Tables C1-C24.

## Appendix D. Questionnaire: literal text and order of questions

The questions posed by the interviewers from TNS NIPO are indicated by Q-numbers. Text blocks that were read by the interviewers are indicated by T-numbers. Instructions to interviewers are marked by means of [INT.].

Q0A: *One answer allowed. A response is required.*

[INT: Read the following text verbatim and clearly, without leaving out any sections]

IF [survey is being conducted during the day]

Good afternoon, this is <...> of TNS NIPO.

We are currently conducting a survey into satisfaction with the neighborhood among people who live in the Barendrecht region. For this, I would talk to the youngest man in the household who is present, but this person must be aged 18 or over.

[INT: DO NOT READ, allocate the answer to the given response categories.]

1.  You (the interviewer) gets a different member of the household on the phone than the person who answered the phone call.
2.  You (the interviewer) do *not* get a different member of the household on the phone, but you are still talking to the person who answered the phone  
(E.g., because the person who answered the phone is indeed the youngest male member of a household, or because that person is home alone or lives alone, or is unwilling to call another member of the household to the phone).
3.  Yes, but make an appointment  
(*End of interview, non-response "A"*)
4.  No, refusal

IF [survey is being conducted in the evening]

Good evening, this is <...> of TNS NIPO.

We are currently conducting a survey into satisfaction with the neighborhood among people who live in the Barendrecht region. For this, I would talk to the youngest member of the household who is present, but this person must be aged 18 or over.

[INT: DO NOT READ, allocate the answer to the given response categories.]

1.  You (the interviewer) gets a different member of the household on the phone than the person who answered the phone call.
2.  You (the interviewer) do *not* get a different member of the household on the phone, but you are still talking to with the person who answered the phone  
(E.g., because the person who answered the phone is indeed the youngest member of a household, or because that person is home alone or lives alone, or is unwilling to call another member of the household to the phone).
3.  Yes, but make an appointment  
(*End of interview, non-response "A"*)
4.  No, refusal

## Barendrecht survey

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**Q0A1:** *One answer allowed. A response is required.*

[INT: Read the following text verbatim and clearly, without leaving out any sections]

*IF (Q0A = 1).*

Good <...>, this is <...> of TNS NIPO.

We are currently conducting a survey into satisfaction with the neighborhood among people who live in the Barendrecht region. The survey takes about 20 minutes and we will raffle an iPod among the participants in the survey. In the survey, I would like to ask you some questions about your satisfaction with your neighborhood. Then I want to ask you a couple of questions about a plan that is currently an issue in the region and that may possibly add something to or on the contrary diminish your satisfaction with your neighborhood. The data from this study will be treated confidentially. May I ask you my questions?

*IF (Q0A = 2).*

Now I would like to tell you a little more about the survey. The survey takes about 20 minutes and we will raffle an iPod among the participants in the survey. In the survey, I would like to ask you some questions about your satisfaction with your neighborhood. Then I want to ask you a couple of questions about a plan that is currently an issue in the region and that may possibly add something to or on the contrary diminish your satisfaction with your neighborhood. The data from this study will be treated confidentially. May I ask you my questions?

1.  Yes, will cooperate now
2.  Yes, but wants to make an appointment  
(*End of interview, non-response "A"*)
3.  No, refusal

**Q0B:** *IF (Q0A1 = 3). One answer allowed. A response is required.*

Is there perhaps another family member present aged 18 or older to whom I could put my questions?

1.  Yes
2.  No

*IF (Q0B = 1): go back to the text under "Q0A1 IF (Q0A = 1)".*

*IF (Q0B = 2) OR (Q0A = 4): non-response "b"*

Then that was my last question. Thank you for your cooperation and have a nice day. *And then the survey ends (quit the survey).*

**Q1:** *One answer allowed. A response is required.*

[INT: note gender: do not ask]

1.  Male
2.  Female

## Barendrecht survey

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**Q2:** *One answer allowed. A response is required.*

Just for verification purposes: According to our records, the four digits of your zip code are <....>, is this correct?

- 1.  Yes
- 2.  No

**Q2A:** *IF (Q2 = 2). Complete box, 4 digits required. A response is required.*

Could I ask what the four digits of your zip code are then?

[INT: Enter the four digits. Type 9999 if the person does not want to say it]

Post Code: ...

*IF Q2A = is not 3162, 2991, 2992, 2993, 2994*

Unfortunately, you fall outside the zip code area in which the survey is being conducted. That is why that was my last question. Thank you for your cooperation and have a nice day.  
*And then the survey ends (quit the survey).*

*IF (Q2A = 9999):* Then that was my last question. Thank you for your cooperation and have a nice day.

*And then the survey ends (quit the survey).*

**Q3:** *One answer allowed. A response is required.*

Let me now ask my first question. To what extent are you dissatisfied or satisfied with your neighborhood?

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Very dissatisfied
- 2.  2. Dissatisfied
- 3.  3. Neither dissatisfied nor satisfied
- 4.  4. Satisfied
- 5.  5. Very satisfied
- 9.  Does not wish to say/Do not know/No answer

**Q4:** *One answer allowed. A response is required.*

Do you think your neighborhood will improve or deteriorate in the next five years?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Improve
- 2.  2. Deteriorate
- 3.  3. Will stay the same
- 9.  Does not wish to say/Do not know/No answer

## Barendrecht survey

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**Q5:** *Multiple answers allowed. A response is required.*

*IF (Q4 = 1)*

You just indicated that you think your neighborhood will improve in the next five years. Can you explain this?

[INT: DO NOT READ, allocate all answers to the given response categories.] Multiple answers allowed. Allow the respondent no more than one minute to answer this question. It may be that respondents state that some aspects of their neighborhood will improve and others worsen. In this case both positive and negative aspects that the respondent mentions should be assigned to the following categories.]

1.  CO2 (CO2 capture, CO2 transport/transportation, CO2 storage, greenhouse gas, Shell, empty natural gas field, Minister Cramer, Minister van der Hoeven).
2.  Level of local amenities (e.g., shops, schools, hospitals, playgrounds, parks)
3.  Public space (e.g., litter, dog dirt, maintenance of parks and gardens, general maintenance of street/pavement))
4.  Other residents (e.g., interaction with other residents, neighbors and new residents, loitering teenagers)
4.  Crime (e.g., theft, drug nuisance, vandalism)
5.  Renovation of houses/urban renewal/new house construction
6.  Noise/odor nuisance (e.g., from traffic, catering establishments, industry)
7.  Traffic and transport (e.g., accessibility, availability of parking, traffic congestion, public transport)
8.  Other, namely...
9.  Do not know/no answer

*IF (Q4 = 2)*

You just indicated that you think your neighborhood will deteriorate in the next five years. Can you explain this?

[INT: DO NOT READ, allocate all answers to the given response categories.] Multiple answers allowed. Allow the respondent no more than one minute to answer this question. It may be that respondents state that some aspects of their neighborhood will improve and others worsen. In this case both positive and negative aspects that the respondent mentions should be assigned to the following categories.]

1.  CO2 (CO2 capture, CO2 transport/transportation, CO2 storage, greenhouse gas, Shell, empty natural gas field, Minister Cramer, Minister van der Hoeven).
2.  Level of local amenities (e.g. shops, schools, hospitals, playgrounds, parks)
3.  Public space (e.g., litter, dog dirt, maintenance of parks and gardens, general maintenance of street/pavement)
4.  Other residents (e.g., interaction with other residents, neighbors and new residents, loitering teenagers)
4.  Crime (e.g., theft, drug nuisance, vandalism)
5.  Renovation of houses/urban renewal/new house construction
6.  Noise/odor nuisance (e.g., from traffic, catering establishments, industry)
7.  Traffic and transport (e.g., accessibility, availability of parking, traffic congestion, public transport)
8.  Other, namely...
9.  Do not know/no answer

## Barendrecht survey

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*IF (Q4 = 3)*

You just indicated that you think your neighborhood will remain the same over the next five years. Can you explain this?

[INT: DO NOT READ, allocate all answers to the given response categories.] Multiple answers allowed. Allow the respondent no more than one minute to answer this question. It may be that respondents state that some aspects of their neighborhood will improve and others worsen. In this case both positive and negative aspects that the respondent mentions should be assigned to the following categories.]

1.  CO2 (CO2 capture, CO2 transport/transportation, CO2 storage, greenhouse gas, Shell, empty natural gas field, Minister Cramer, Minister van der Hoeven).
2.  Level of local amenities (e.g., shops, schools, hospitals, playgrounds, parks)
3.  Public space (e.g., litter, dog dirt, maintenance of parks and gardens, general maintenance of street/pavement)
4.  Other residents (e.g., interaction with other residents, neighbors and new residents, loitering teenagers)
4.  Crime (e.g., theft, drug nuisance, vandalism)
5.  Renovation of houses/urban renewal/new house construction
6.  Noise/odor nuisance (e.g., from traffic, catering establishments, industry)
7.  Traffic and transport (e.g., accessibility, availability of parking, traffic congestion, public transport)
8.  Other, namely...
9.  Do not know/no answer

**Q6:** *One answer allowed. A response is required.*

Do you know about the plan to capture, transport and store CO2, or carbon dioxide, in the Barendrecht region? "No, never heard of it" or "Yes, I know about it"?

[INT: It is NOT the intention that an explanation is given of what these terms (CO2 capture, transport, storage) mean]

1.  No, never heard of it
2.  Yes, I know about it
9.  Does not wish to say/Do not know/No answer

***The following are conditional questions: Only when people are familiar with the CO2 plan (Q6 = 2), then we still have a few questions to ask them. If people are not familiar with the CO2 plan (Q6 = 1) or give no answer (Q6 = 9) than those questions are omitted, and the survey continues at T4.***

**Q6A1:** *IF (Q6 = 2). One answer allowed. A response is required.*

Is that a little or quite a lot?

1.  A little
2.  Quite a lot
9.  Does not wish to say/Do not know/No answer

## Barendrecht survey

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**Q7:** *A response is required.*

[INT: Read the following text verbatim and clearly, without leaving out any sections]

You just indicated that you know about the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region. In the remainder of this survey, I would like to ask in more detail what you know about and think about this plan. I would first like to ask you to say what you know about this plan. Everything you know is good, there are no right or wrong answers.

[INT: Type the answer out just the way the person says it i.e., literally].

1.  ..... (large typing window/typing window with scroll)

**Q8:** *One answer allowed. A response is required.*

How good or bad do you find the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region?

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

1.  1. Very bad  
2.  2. Quite bad  
3.  3. Neither bad nor good  
4.  4. Quite good  
5.  5. Very good  
9.  Does not wish to say/Do not know/No answer

**T1:** [ENQ: *read this text verbatim*]

Because it is a mouthful to always refer to this plan in full as the plan to capture, transport and store CO<sub>2</sub>, or carbon dioxide, in the Barendrecht region, from now on I will use the term "the CO<sub>2</sub> plan" for the plan.

**Q8A:** *Complete box (plenty room for typing). A response is required.*

*IF (Q8 = 1)*

You just indicated that you think the CO<sub>2</sub> plan is very bad. Can you tell me why you think this plan is very bad?

[INT: Type the answer out just the way the person says it i.e., literally].

1.  ..... (large typing window/typing window with scroll)

*IF (Q8 = 2)*

You just indicated that you think the CO<sub>2</sub> plan is quite bad. Can you tell me why you think this plan is quite bad?

[INT: Type the answer out just the way the person says it i.e. literally].

1.  ..... (large typing window/typing window with scroll)

## Barendrecht survey

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*IF (Q8 = 3)*

You just indicated that you think the CO2 plan is neither bad nor good. Can you tell me why you think this plan is neither bad nor good?

[INT: Type the answer out just the way the person says it i.e., literally].

1.  ..... (large typing window/typing window with scroll)

*IF (Q8 = 4)*

You just indicated that you think the CO2 plan is quite good. Can you tell me why you think this plan is quite good?

[INT: Type the answer out just the way the person says it i.e., literally].

1.  ..... (large typing window/typing window with scroll)

*IF (Q8 = 5)*

You just indicated that you think the CO2 plan is very good. Can you tell me why you think this plan is very good?

[INT: Type the answer out just the way the person says it i.e., literally].

1.  ..... (Large typing window/typing window with scroll)

**T2:** *read this text verbatim*

Next I have some questions about the consequences if the CO2 plan goes ahead.

**Q9:** *One answer allowed. A response is required.*

How likely does it seem to you that the CO2 plan will lead to a fall in the value of houses in Barendrecht?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

1.  1. Not at all  
2.  2. A little, or  
3.  3. Very likely  
9.  Does not wish to say/Do not know/No answer

**Q10:** *One answer allowed. A response is required.*

How likely do you think it is that the CO2 plan will help to combat global warming?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

1.  1. Not at all  
2.  2. A little, or  
3.  3. Very likely  
9.  Does not wish to say/Do not know/No answer



## Barendrecht survey

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**Q11:** *One answer allowed. A response is required.*

How desirable do you think it is to have measures that help to combat global warming?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little, or
- 3.  3. Very desirable
- 9.  Does not wish to say/Do not know/No answer

**Q12:** *One answer allowed. A response is required.*

How safe do you think it is to transport CO<sub>2</sub> by pipeline in the Barendrecht region?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Completely safe
- 2.  2. Quite safe
- 3.  3. Quite unsafe, or
- 4.  4. Very unsafe
- 9.  Does not wish to say/No answer

**Q13:** *One answer allowed. A response is required.*

How safe do you think it is to store CO<sub>2</sub> under Barendrecht?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Completely safe
- 2.  2. Quite safe
- 3.  3. Quite unsafe, or
- 4.  4. Very unsafe
- 9.  Does not wish to say/No answer

**Q14:** *One answer allowed. A response is required.*

Scientists who are experts in the field of CO<sub>2</sub> capture, transport and storage...

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Agree that the Barendrecht CO<sub>2</sub> plan is safe
- 2.  2. Agree that this CO<sub>2</sub> plan is not safe, or
- 3.  3. Have differences in opinion about the safety of the CO<sub>2</sub> plan
- 9.  Does not wish to say/no answer

## Barendrecht survey

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**Q15:** *One answer allowed. A response is required.*

If the CO2 plan goes ahead, where does the CO2 come from that will be stored under Barendrecht?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. This CO2 is captured from the flue gases of a coal-fired power station
- 2.  2. This CO2 comes from a refinery in Pernis
- 3.  3. This CO2 comes from the greenhouses of the glasshouse horticulture in the Westland area, or
- 4.  4. I do not know
- 9.  Does not wish to say/no answer

**Q16:** *One answer allowed. A response is required.*

If the CO2 plan goes ahead, where will the CO2 be stored?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. In a large empty oil tank
- 2.  2. In an empty gas field
- 3.  3. In CO2 absorbing coal seams, or
- 4.  4. I do not know
- 9.  Does not wish to say/no answer

**Q17:** *One answer allowed. A response is required.*

If the CO2 plan goes ahead, how deep in the ground under Barendrecht will the CO2 then be stored?

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Approximately 50 meters deep
- 2.  2. Between 90 and 115 meters deep
- 3.  3. Approximately 500 meters deep
- 4.  4. Deeper than 1500 meters, or
- 5.  5. I do not know
- 9.  Does not wish to say/no answer

**Q18:** *One answer allowed. A response is required.*

All in all, do you regard the CO2 plan as acceptable or unacceptable?

- 1.  Acceptable
- 2.  Unacceptable
- 9.  Does not wish to say/no answer

## Barendrecht survey

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**Q19:** A response is required.

*IF (Q18 = 1)*

What percentage of people in Barendrecht do you think feel that the CO2 plan is acceptable, where 0 per cent means that no one thinks the CO2 plan is acceptable and 100 per cent means that all residents think the CO2 plan is acceptable. Please give your best estimate of approximately how high that percentage is.

[INT: Enter percentage. Enter X if the respondent does not know or Does not wish to say]

Percentage (0-100): ...

*IF (Q18 = 2) OR IF (Q18 = 9)*

What percentage of people in Barendrecht do you think feel that the CO2 plan is unacceptable, where 0 per cent means that no one thinks the CO2 plan is unacceptable and 100 per cent means that all residents think the CO2 plan is unacceptable. Please give your best estimate of approximately how high that percentage is.

[INT: Enter percentage. Enter X if the respondent does not know or does not wish to say]

Percentage (0-100): ...

**Q20:** One answer allowed. A response is required.

The CO2 plan is a subject that some people regard as more important than others. How important is the CO2 plan for you personally?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Completely unimportant
- 2.  2. Quite unimportant
- 3.  3. Quite important, or
- 4.  4. Very important
- 9.  Does not wish to say/No answer

**Q21:** One answer allowed. A response is required.

How often do you talk to others about the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Never
- 2.  2. Occasionally, or
- 3.  3. Often
- 9.  Does not wish to say/No answer

## Barendrecht survey

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**Q22:** *One answer allowed. A response is required.*

Do you ever worry about the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Never
- 2.  2. Occasionally, or
- 3.  3. Often
- 9.  Does not wish to say/No answer

**Q23:** *One answer allowed. A response is required.*

Would you be prepared to sign a petition against the CO2 plan if you were asked to do so?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. No, certainly not
- 2.  2. Perhaps
- 3.  3. Yes, certainly, or
- 4.  4. I have already done so
- 9.  Does not wish to say/no answer

**Now there are a few questions about the influence of different parties involved in the CO2 plan. These questions have been ordered in three series (respondents were randomly assigned to a series):**

**Series 1: T3, Q24A, Q24B, Q24C, Q24D, Q24E**

**Series 2: T3, Q24E, Q24D, Q24C, Q24B, Q24A**

**Series 3: T3, Q24C, Q24D, Q24E, Q24A, Q24B**

**T3:** *read this text verbatim*

"As you may know there are several parties and organizations involved in the plan to capture, transport and store CO2 in the Barendrecht region, including the town council of Barendrecht, the national government, Shell, the residents of Barendrecht and the Environmental Protection Agency Rijnmond or DCMR".

## Barendrecht survey

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**Q24A:** *One answer allowed. A response is required.*

What do you think of the influence of the residents of Barendrecht when it comes to deciding on whether or not to go ahead with the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Too much influence
- 2.  2. Exactly right, or
- 3.  3. Too little influence
- 9.  Does not wish to say/no answer

**Q24B:** *One answer allowed. A response is required.*

What do you think of the influence of Barendrecht town council when it comes to deciding on whether or not to go ahead with the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Too much influence
- 2.  2. Exactly right, or
- 3.  3. Too little influence
- 9.  Does not wish to say/no answer

**Q24C:** *One answer allowed. A response is required.*

What do you think of the influence of the national government when it comes to deciding on whether or not to go ahead with the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Too much influence
- 2.  2. Exactly right, or
- 3.  3. Too little influence
- 9.  Does not wish to say/no answer

**Q24D**

What do you think of the influence of the Environmental Protection Agency Rijnmond or DCMR when it comes to deciding on whether or not to go ahead with the CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Too much influence
- 2.  2. Exactly right
- 3.  3. Too little influence
- 4.  4. I did not know that Environmental Protection Agency Rijnmond or DCMR was involved in the CO2 plan
- 9.  Does not wish to say/no answer
- 99.  Respondent indicates he/she is not familiar with this organization

## Barendrecht survey

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**Q24E:** *One answer allowed. A response is required.*

What do you think of the influence of Shell when it comes to deciding on whether or not to go ahead with the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Too much influence
- 2.  2. Exactly right, or
- 3.  3. Too little influence
- 9.  Does not wish to say/no answer

**Q25:** *One answer allowed. A response is required.*

How fair or unfair is the decision making about the CO2 plan according to you?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Very fair
- 2.  2. Quite fair
- 3.  3. Quite unfair, or
- 4.  4. Very unfair
- 9.  Does not wish to say/no answer

**Q26:** *One answer allowed. A response is required.*

Do you trust those who will ultimately decide whether to go ahead with the CO2 capture, transport and storage plan in the Barendrecht region?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Very much
- 9.  Does not wish to say/no answer

## Barendrecht survey

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**Q27:** *One answer allowed. A response is required.*

If a decision is made soon on whether or not to implement the CO2 plan, are you willing to accept this decision regardless of what the decision might be?

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Certainly not
- 2.  2. Probably not
- 3.  3. Maybe, maybe not
- 4.  4. Probably, or
- 5.  5. Certainly
- 9.  Does not wish to say/no answer

**Q28:** *One answer allowed. A response is required.*

What do you expect the final decision to be on CO2 storage under Barendrecht?

[INT: read 1-2 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. CO2 will be stored under Barendrecht, or
- 2.  2. CO2 will not be stored under Barendrecht
- 9.  9.  Does not wish to say/no answer

**Next there is a question about the trust that the respondents have in an organization involved in the CO2 plan. There are six versions of the questionnaire item, in which the questions ask about different organizations. Respondents are randomly assigned to one version.**

**Q29A:** IF (Version = 1) *One answer allowed. A response is required.*

Do you trust the national government when it comes to the CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer

## Barendrecht survey

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**Q29B:** IF (Version = 2) *One answer allowed. A response is required.*

Do you trust the town council of Barendrecht when it comes to CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer

**Q29C:** IF (Version = 3) *One answer allowed. A response is required.*

Do you trust Shell when it comes to the CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer

**Q29D:** IF (Version = 4) *One answer allowed. A response is required.*

Do you trust environmental organizations when it comes to the CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer

**Q29E:** IF (Version = 5) *One answer allowed. A response is required.*

Do you trust scientists who are experts in the field of CO2 capture, transport and storage when it comes to the CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer



## Barendrecht survey

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**Q29F:** IF (Version = 6) *One answer allowed. A response is required.*

Do you trust the Environmental Protection Agency Rijnmond or DCMR when it comes to the CO2 plan?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer

**Q30:** *One answer allowed. A response is required.*

Finally, I would like to ask some questions about the information provision about the CO2 plan. To what extent are you satisfied with the possibilities of obtaining information about the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Dissatisfied
- 2.  2. Neither dissatisfied nor satisfied, or
- 3.  3. Satisfied
- 9.  Does not wish to say/no answer

**Q31:** *One answer allowed. A response is required.*

Have you ever been to an information evening organized by the town council about the CO2 plan in "Het Kruispunt" theatre?

- 1.  Yes
- 2.  No
- 9.  Does not wish to say/no answer

**Q32:** *One answer allowed. A response is required.*

Have you ever paid a visit to the "Infopunt CO2 opslag" in the Carnisse-Veste shopping mall to get information about the CO2 plan?

- 1.  Yes
- 2.  No
- 9.  Does not wish to say/no answer

**Q33:** *One answer allowed. A response is required.*

Did you see the Zembla program on Sunday 28th March about the CO2 plan in the Barendrecht region?

- 1.  Yes
- 2.  No
- 9.  Does not wish to say/no answer

## Barendrecht survey

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**Q34:** *One answer allowed. A response is required.*

Did you see the Netwerk program on 6th April about the CO2 plan in the Barendrecht region?

- 1.  Yes
- 2.  No
- 9.  Does not wish to say/no answer

**Q35:** *One answer allowed. A response is required.*

Have you ever looked on Shell's website to get information about the CO2 plan?

- 1.  Yes
- 2.  No
- 9.  Does not wish to say/no answer

**Participants who have answered "Yes" more than once to questions Q31 to Q35 will now be asked which one of the sources of information they named was the most helpful in defining their opinion (Q36A1). Participants who have answered "Yes" once to questions Q31 to Q35 go directly to Q36A and participants who did not answer "yes" at any time go directly to Q50.**

**Q36A1:** *One answer allowed. A response is required.*

You just mentioned <information sources>. Which of these sources of information helped the most in determining your opinion of the CO2 plan?

**Q36A:** *One answer allowed. A response is required.*

You just mentioned <information source>. How much help was the information you received in determining your opinion of the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Very helpful
- 2.  2. A little helpful
- 3.  3. Not at all helpful
- 9.  Does not wish to say/no answer

**Q50:** *One answer allowed. A response is required.*

Do you have a need for additional information about the CO2 plan?

[INT: read 1-3 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Yes
- 2.  2. A little, or
- 3.  3. No
- 9.  Does not wish to say/no answer

## Barendrecht survey

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***In questions Q51 to Q54 the party that is being asked about in the question depends on which of the six versions of the questionnaire participants have been randomly assigned to. In one of the six versions, these questions do not refer to a party.***

**Q51:** *One possible answer, a response is required.*

To what extent do you agree with the following statement:

If I find a brochure <from party> in my letterbox containing the advantages and disadvantages of the CO2 plan, I would read this brochure from cover to cover.

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Strongly disagree
- 2.  2. Somewhat disagree
- 3.  3. Neither disagree nor agree
- 4.  4. Somewhat agree
- 5.  5. Totally agree
- 9.  Does not wish to say/no answer

**Q52:** *One possible answer, a response is required.*

To what extent do you agree with the following statement:

If I receive a brochure<from party> containing the advantages and disadvantages of the CO2 plan, I would be very interested in the information about the disadvantages of the CO2 plan.

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Strongly disagree
- 2.  2. Somewhat disagree
- 3.  3. Neither disagree nor agree
- 4.  4. Somewhat agree
- 5.  5. Totally agree
- 9.  Does not wish to say/no answer

**Q53:** *One possible answer, a response is required.*

To what extent do you agree with the following statement:

If I receive a brochure <from party> containing the advantages and disadvantages of the CO2 plan, I would be very interested in the information about the advantages of the CO2 plan.

[INT: read 1-5 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Strongly disagree
- 2.  2. Somewhat disagree
- 3.  3. Neither disagree nor agree
- 4.  4. Somewhat agree
- 5.  5. Totally agree
- 9.  Does not wish to say/no answer

## Barendrecht survey

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**Q54:** *One possible answer, a response is required.*

Do you expect that <party> supports or opposes the CO2 plan?

- 1.  1. Supports
- 2.  2. Opposes
- 3.  3. I do not know
- 9.  Does not wish to say/no answer

**Q55:** *One possible answer, a response is required.*

Finally ... Have you heard of the "CO2isNEE" Foundation?

[INT: read 1-2 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. No, never heard of it
- 2.  2. Yes, I know about it
- 9.  Does not wish to say/no answer

**Q56:**

*IF (Q55 = 2) One possible answer, a response is required.*

Do you trust the CO2isNEE Foundation where the CO2 plan is concerned?

[INT: read 1-4 aloud. Also read aloud the numbers that represent the response categories]

- 1.  1. Not at all
- 2.  2. A little
- 3.  3. Quite a lot, or
- 4.  4. Completely
- 9.  Does not wish to say/no answer

**T4:**

*IF (Q6 = 2).*

[INT: Read the following text verbatim and clearly, without leaving out any sections]

We are almost at the end of the survey now. I would like to ask some short questions about yourself.

*IF (Q6 = 1) OR (Q6 = 9)*

[INT: Read the following text verbatim and clearly, without leaving out any sections]

Okay, because you have never heard of the plan to capture, transport and store CO2, or carbon dioxide, in the Barendrecht region, we skipped over a lot of questions. That is why the survey has only taken a few minutes in your case.

I would like to ask some short questions about yourself.

## Barendrecht survey

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**Q60:** *One answer allowed. A response is required.*

*IF (Post code = 2991 OR 2992 OR 2993 OR 2994)*

You live in the municipality of Barendrecht. In what year did you come to live in this municipality?

[ENQ: Enter the four digits: estimate if necessary. Type 9999 if the person does not want to say it]

Year: ...

*IF (Post code = 3162)*

You live in the municipality of Albrandswaard. In what year did you come to live in this municipality?

[INT: Enter the four digits: estimate if necessary. Type 9999 if the person does not want to say it]

Year: ...

**Q61:** *One answer allowed. A response is required.*

Do you live in a rented house or is the house owner-occupied?

- 1.  Rented
- 2.  Owner-occupied
- 9.  Does not wish to say

**Q62:** *One answer allowed. A response is required.*

Are there any children living at home in your household?

- 1.  No
- 2.  Yes
- 9.  Does not wish to say

**Q62A:**

*IF (Q62 = 2).*

How many children are there in the household?

[INT: Type in the number of children living at home. Type 9999 if the person does not want to say it]

Number: ...

**Q63:** *Complete the box, 4 digits. A response is required.*

What year were you born?

[INT: Enter the four digits. Type 9999 if the person does not want to say it]

Year of birth: ...

## Barendrecht survey

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**Q64:** *One answer allowed. A response is required.*

What is your highest level of education for which you obtained a diploma?

[INT: In principle, DO NOT READ, allocate the answer to the given response categories.] If really necessary, response categories 1 - 6 may be named]

1.  No education or primary education (primary school, special education) primary
2.  Lower technical and vocational education (e.g., LTS, LEAO, VMBO)
3.  Secondary general education (e.g., MAVO/MULO/ULO/VMBO-t)
3.  Secondary vocational education (e.g., MBO, MTS, MEAO)
4.  Higher general secondary education (HAVO, VWO, HBS, MMS, Gymnasium)
5.  Higher vocational education (HBO/College/HTS/PABO/HEAO)
6.  University
9.  Does not know/Does not want to say

**Q65:** *One answer allowed. A response is required.*

If elections were being held now for the Second Chamber of parliament, for which party would you vote?

[INT: Only one answer is possible. In principle, DO NOT READ, allocate the answer to the given response categories.] If really necessary, you may name the 11 political parties]

1.  CDA
2.  PvdA
3.  VVD
4.  SP
5.  Partij voor de Vrijheid (PVV)
6.  Groen Links
7.  D66
8.  Christen Unie
9.  SGP
10.  Partij voor de Dieren
11.  Trots op Nederland (TON)
12.  Another party
13.  I would not vote
14.  I would vote with a blank ballot
15.  I do not want to say
16.  Do not know/no opinion

**Q66:** *One answer allowed. A response is required.*

As I said at the beginning, TNS NIPO is raffling an iPod among the participants in the survey. To participate in the draw for the iPod I have to note your name and address details, which will of course be handled confidentially. Do you want to take part in the raffle for this iPod?

1.  Yes
2.  No

## Barendrecht survey

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**Q67:** *IF (Q66 = 1). Fill in the box A response is required.*

Then I would like to note down your name now. What is your first name? And what is your last name? And what is your address?

[INT: Type the first name and last name of the respondent in the window below. Make sure the name is spelled correctly, check this with the respondent. If the respondent will not say, try to note down the first letters of the name, or only the first name. If the respondent really does not want to say it, then type "does not want to say it '].

[INT: note down first name, last name, street name, house number, full zip code and town].

**Q68:** *One answer allowed. A response is required.*

The survey you have taken part in today will be repeated in the coming years. May we approach you in the future to take part again?

1.  Yes
2.  No

*IF (Q68 = 1) note down phone number*

**Q69:** *IF (Q68 = 1) AND (Q66 = 2). Fill in the box A response is required.*

Fine, thank you. I would now like to write your name and address so we can approach you again in the future. Your details will be handled confidentially. What is your first name? And what is your last name? And what is your address?

[INT: note down first name, last name, street name, house number, full zip code and town].

[INT: Type the first name and last name of the respondent in the window below. Make sure the name is spelled correctly, check this with the respondent. If the respondent will not say, try to note down the first letters of the name record, or only the first name. If the respondent really does not want to say it, then type "does not want to say it '].

**T5:**

[INT: Read the following text verbatim and clearly, without leaving out any sections]

Then that was my last question. Thank you very much for your cooperation and for your time. I wish you a pleasant day.

1.  Close the questionnaire

## Appendix E. Some publications of Leiden University on public perception of CO<sub>2</sub> capture, transport and storage (CCS) in the Netherlands

Leiden University has been conducting independent fundamental and applied research into (factors that may influence) public perception about CO<sub>2</sub> capture, transport and storage in the Netherlands for more than a decade now (i.e., since 2001 as part of the NWO/Senter Novem program “Transition to sustainable use of fossil fuel” and since 2004 as part of the CATO program). This research has resulted in several publications, of which a selection is presented below.<sup>9</sup>

De Best-Waldhofer, M., Daamen, D. D. L., & Faaij, A. P. C. (2006). *Public perceptions and preferences regarding large-scale implementation of six CO<sub>2</sub> capture and storage technologies: Well-informed and well-considered opinions versus uninformed pseudo-opinions of the Dutch public*. Leiden University, Faculty of Social Sciences. Research report.

De Best-Waldhofer, M., Daamen, D. D. L., & Faaij, A. P. C. (2009). Informed and uninformed public opinions on CO<sub>2</sub>-capture and storage technologies in the Netherlands. *International Journal of Greenhouse Gas Control*, 3, 322–333.

De Best-Waldhofer, M., Daamen, D. D. L., Hendriks, C., de Visser, E., Ramírez, A., & Faaij, A. P. C. (2008). How the Dutch evaluate CCS options in comparison with other CO<sub>2</sub> mitigation options: Results of a nationwide Information Choice Questionnaire survey. Research report.

Ter Mors, E. (2008). Dealing with information about complex issues: The role of stakeholder perceptions. Dissertation, Leiden University.

Ter Mors, E., Weenig, M. W. H., Ellemers, N., & Daamen, D. D. L. (2010). Effective communication about complex environmental issues: Perceived quality of information about carbon dioxide capture and storage (CCS) depends on collaboration of stakeholders. *Journal of Environmental Psychology*, 30, 347–357.

Terwel, B. W. (2008). Origins and consequences of public trust: Towards an understanding of public acceptance of carbon dioxide capture and storage. Dissertation, Leiden University.

Terwel, B. W., Harinck, F., Ellemers, N., & Daamen, D. D. L. (2009a). Competence-based and integrity-based trust as predictors of acceptance of carbon dioxide capture and storage (CCS). *Risk Analysis*, 29, 1129–1140.

Terwel, B. W., Harinck, F., Ellemers, N., & Daamen, D. D. L. (2009b). How organizational motives and communications affect public trust in organizations: The case of carbon dioxide capture and storage. *Journal of Environmental Psychology*, 29, 290–299.

Terwel, B. W., Harinck, F., Ellemers, N., & Daamen, D. D. L. (2010). Voice in political decision-making: The effect of group voice on perceived trustworthiness of decision makers and subsequent acceptance of decisions. *Journal of Experimental Psychology: Applied*, 16, 173–186.

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<sup>9</sup> The publications are available on request by the first author (Dancker Daamen, e-mail: daamen@fsw.leidenuniv.nl). Some of the publications are also available at the CATO website (<http://www.co2-cato.nl>). →cato2→publications) and at the NWO website ([www.nwo.nl](http://www.nwo.nl)).





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Terwel, B. W., Harinck, F., Ellemers, N., & Daamen, D. D. L. (2011). Going beyond the properties of CO<sub>2</sub> capture and storage (CCS) technology: How trust in stakeholders affects public acceptance of CCS. *International Journal of Greenhouse Gas Control*, 5, 181–188.

## Annex 2

Researchers from Leiden University have written a scientific article about the survey that was conducted to examine the local public's awareness, attitudes, and beliefs concerning the proposed CCS project in Barendrecht. In addition to the descriptive statistics that are presented in the publicly available reports (see Annex 1 and see Deliverable CATO-2-WP5.1-D26), the article presents a more advanced statistical analysis that was performed to identify which factors (e.g., safety concerns, perceptions of the decision-making process, etc.) have had the strongest influence on the local public's attitudes toward the proposed CO<sub>2</sub> project in Barendrecht. Furthermore, the article discusses the implications of the survey.

The article (see the reference and abstract below) can be found at the restricted part of the CATO-2 website (deliverable CATO-2-WP5.1-D18). Please note that this version of the article is the version that we hope to publish in the *International Journal of Greenhouse Gas Control* and may not be the final version of the article (i.e., reviewers may comment on aspects of the article that need revision).

Also note that the article cannot be made publicly available online yet; copyright needs to be transferred to the journal's publisher when the article is accepted for publication in the journal and the copyright agreement does not allow novel articles to be publicly available online. After the article has been accepted for publication in the journal, the final version of the article will become publicly available at the journal's website.

### Reference:

Terwel, B. W., Ter Mors, E., & Daamen, D. D. L. (2011). It's not only about safety: Beliefs and attitudes of 811 local residents regarding the CCS project in Barendrecht. Manuscript submitted for publication in the *International Journal of Greenhouse Gas Control*.

### Abstract:

This paper reports on a public opinion survey designed to examine how the local public thought about the proposed CCS demonstration project in Barendrecht, the Netherlands. The survey was administered to a large sample of the Barendrecht population ( $N = 811$ ) and was conducted before it was decided to cancel the project. The results indicate that most residents were rather negative about the CCS project and found it an important issue. Furthermore, most residents believed that it was unsafe to transport and store CO<sub>2</sub> in the region and thought it was very likely that the project would cause a fall in local property value. These beliefs only partly explained the mainly negative public attitudes. Socio-political factors further contributed significantly to negative attitudes in the local public: Most residents perceived the decision-making process as unfair and mistrusted those who were to decide about whether or not to proceed with the project. They further felt that project developer Shell and the national government (which were trusted much less than the Barendrecht town council and the local activists group CO<sub>2</sub>isNee) had too much influence and that the people of Barendrecht had too little influence. Implications and challenges for future CCS projects are discussed.