

Promoting Adaptation to Changing Coasts

Promouvoir l'Adaptation aux Changements Côtiers









Promoting Adaptation to Changing Coasts

Development / implementation of new tools for observation and socio-economic assessment

Results of the survey of visitors / residents carried out in the Saâne valley in the summer of 2022

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Preface







The main objective of the PACCo project is to demonstrate that it is possible to carry out preventive climate change adaptation in estuarine areas, working with all relevant stakeholders, leading to a range of benefits for the populations of these coastal areas.

The project has a budget of \in 27.2 million, of which \in 18.8 million is funded by the European Regional Development Fund through the Interreg France (Channel) England programme. The main outcome will be the production of a practical transferable guide to influence policy makers at national and international level and to promote climate change adaptation for other sites.

The project focuses on two pilot sites: the Lower Otter Valley in Devon, England and the Lower Saâne Valley in Normandy, France.

For more information, see Promoting Adaptation to Changing Coasts (paccointerreg.com)

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Special thanks to Alex NOGUEIRA who carried out the data collection work and to Thomas DROUET who analysed the results. Thanks to Myriam HILBERT, Delphine JACONO and Kendal ARCHER for the exchanges and advice on the methodology and the development of the questionnaire.

Introduction

The objective of the PACCo project is to propose a management model so that territories can embark on a process of adaptation to climate change, the impacts of which will be particularly marked in estuarine areas.

The PACCo cross-border project aims to address several territorial challenges focused on two valleys with similar morphological characteristics: the Saâne Valley in France and the Otter Valley in England. The studies will feed into the development of a practical guide common to both valleys for the promotion of this type of unique and innovative approach to other territories facing similar conditions and problems on the Channel coast.

The user perception survey of the Lower Saane Valley is part of the second work package of the PACCo (Promoting Adaptation to Changing Coasts) project. Led by the East Devon Pebblebed Heaths Conservation Trust (EDPHCT), this module entitled "New transferable methodology for improved and sustainable socio-economic use of estuaries" addresses the socio-economic aspects and benefits of such a project on the two pilot sites.

The perception survey in the Saâne valley should therefore be comparable to the one in the Otter valley carried out in autumn 2021 in terms of methodological tools, number of questionnaires, etc. The results of these two surveys will be fed into a joint summary document.

1. Context

One of the main objectives of the survey is to identify the uses present in the lower Saâne Valley, and the knowledge of the territory, its natural risks and the Basse Saâne 2050 territorial project by the valley's users. This first survey is being carried out during the implementation phase of the Saâne territorial project. It will allow us to study the perception of the site's users regarding the benefits and advantages of the Basse Saâne 2050 territorial project, both from the point of view of the quality of the ecosystems and from the socio-economic point of view. At the same time, the results of this survey will help to improve the awareness of the site's users about adaptation to climate change and natural coastal risks. This will be done by asking additional questions about users' perceptions of climate change and natural coastal hazards. Do they feel threatened? Are they concerned? Are they aware of all the natural risks that threaten the lower Saâne valley? All these questions will be addressed in the survey.

Before starting this methodological report, it is necessary to define the terms of the subject:

- Perception: Corresponds to the apprehension of an object by a subject (Oliveira et al. 2007). Specific to each individual, it depends on individual cultures (socio-professional categories, values, level of income, diplomas, etc.);
- User: A person who usually uses a public domain. In this survey, users include local residents and visitors;
- Resident: A person who lives in a particular place for an extended period of time or who was born there. They consist of primary and secondary residents;
- Visitor: Tourist, traveller, visiting a particular place.

In January 2022, a first version of the French questionnaire was developed on the basis of the English questionnaire and the results obtained. The first phase of this internship consisted in finalising the questionnaire and the methodology.

In order for the methodological elements to be relevant, it was necessary to immerse oneself in the territory by carrying out test days. They allowed us to study certain elements of the methodology:

- Clarity of questions: use of technical terms, precision of questions to focus answers;
- The duration of the questionnaire;
- The relevance or not of the predefined sectors (see the section on target sectors);
- Response refusal rate;
- The methods of handover.

The test days (piloting of the survey) were carried out on the Quiberville seafront on Thursday 28 April 2022 and Wednesday 04 May 2022. This is where many families, walking groups and fishermen used to go for a walk to recharge their batteries. A total of seven questionnaires were collected on these two days. These days allowed us to identify, among other things the small number of users in the streets of Longueil and Sainte-Marguerite-sur-Mer, apart from a few fishermen in Longueil. One of the fishermen also advised that the questions should be more closed, with fairly simple answer choices, to avoid too much complexity in the analysis. This advice was taken into account when reorganising the questionnaire.

The objective of these test days was to be able to establish a possible sample by quotas, a method that is more representative of the respondents: the interviewer should aim to represent the main characteristics of the population by sampling a proportional quantity of each. However, these days were not sufficient to create a representative sample given the low attendance in the communes of Sainte-Marguerite-sur-Mer and Longueil.

In addition, they were able to enrich certain points of the questionnaire which proved to be incomplete, particularly with regard to the choice of answers. These tests were carried out at times of the day when people were most likely to come (early afternoon in particular) and when the weather was good, and were representative of the public present on the site during the school holidays in zone C (local regulars, holidaymakers passing through, etc.).

2. Methodology

2.1 Sampling

ABP-Mer, the English service provider recruited to carry out the Lower Otter Valley survey on behalf of the EDPHCT, set a target of at least 400 questionnaires, online and/or in the field, of which at least 20% should be face-to-face. As the Saâne Valley is very similar to the Otter Valley in terms of demographics, the target of 400 questionnaires, of which 20% were face-to-face, has been met.

During May and June, a first version of the sample was developed, using the quota method. It was built on INSEE data by separating main, secondary and visitor residents and dividing them by age and gender. However, we do not have precise figures on secondary residents or visitors (distribution in number, age and gender). We therefore considered an estimate based on the data available for main residents. Unfortunately, the number of second homes is so high in the valley (they represent more than 50% of the dwellings in the communes of Quiberville and Sainte Marguerite) and the population is certainly different from the main residents (notably in terms of age distribution and the number of people per dwelling), the sample constructed using this method would have been very different from reality. According to the mayor of Quiberville, Jean-François Bloc, the population is multiplied by 4 to 5 in the summer period, which is not the case in the calculations made with this approximation.

Furthermore, our objective was to interview nearly ³/₄ of the local inhabitants. However, during the summer, more than half of the people interviewed were visitors from the surrounding communes of the lower Saâne valley (Luneray, Avremesnil, Dieppe...) and regularly came to Quiberville to buy seafood or simply to go for a walk. The other visitors were holidaymakers, mainly staying at the Quiberville municipal campsite. For these visitors, there was no data to break down into age groups or gender. An approximation using data on secondary residents had been envisaged.

After all these observations, it was therefore decided to redefine a new sampling based only on the number of main and secondary residents as well as the number of visitors (Table 1: Number of questionnaires to be carried out according to the type of user). As the objective is to collect the perceptions of people who have a good knowledge of the valley, the main target is the residents (main and secondary).

Table 1: Number of questionnaires to be carried out according to the type of user

Type of users	Residents	Visitors	TOTAL
Number of questionnaires to be carried out	265	135	400

2.2 Study areas

In order to ensure that the questionnaires are administered in person, it is essential to define several target sectors within the perimeter covered by the Basse Saâne 2050 territorial project (Quiberville, Longueil, Sainte-Marguerite-sur-Mer). The towns of Saint-Denis d'Aclon and Ouville-la-Rivière, municipalities bordering Longueil, will be included in the awarding perimeter as both municipalities are an integral part of the territorial project for the sewerage works and border on Longueil, and therefore the strict perimeter of the Basse Saâne 2050 project. These communes, which are potentially vulnerable to natural risks, are certainly close to the three main communes of the project (Figure 1: Map of the different locations where the questionnaire was administered).

The redefinition of the study perimeter will make it possible to know if the retro-littoral communes situated in the same inter-municipality as Quiberville and Longueil (Sainte-Marguerite-sur-Mer being part of the Dieppe Agglomeration Community) have a similar knowledge of the project and feel vulnerable to the main natural coastal risks, in particular to the possible overflows of the river, which also passes through their communal territories.

Despite the enlargement of the boundaries of the investigation, the investigation will be mainly concentrated on the three communes of Quiberville, Sainte-Marguerite-sur-Mer and Longueil, which form the geographical perimeter of the territorial project.



Figure 1: Map of the different locations where the questionnaire was administered

Summary of face-to-face testing areas :

In the lower valley :

- The GR paths (Longueil and Sainte Marguerite)
- Waterfront (Quiberville)

Around the lower valley:

• Town centres of Saint Denis d'Aclon, Ouville-la-Rivière

2.3 Data collection methods

In parallel with the choice of sectors for the questionnaires, it is necessary to identify the precise methods for collecting data. In order to collect as much data as possible, it was deemed appropriate to combine a face-to-face survey (face-to-face with the interviewer), an online survey, and a free paper survey. The third method (free paper) consists of making questionnaires available in the town halls of Quiberville, Longueil and Sainte-Marguerite-sur-Mer, as well as at the Quiberville tourist office, so that everyone can complete the questionnaire on the spot and alone. These questionnaires are returned or left in these different places and collected by the interviewer either regularly or at the end of the survey period.

Incomplete questionnaires, for which one of the themes or questions essential to the survey has not been answered, will be removed from the database. In person, groups (hikers, families, etc.) will not be questioned, since the analysis must allow perceptions to be analysed according to the profile of the respondent (age, gender, socio-professional category). Moreover, the influence of the group could modify the spontaneity and choice of individual responses. On the other hand, couples can be interviewed in the following way: the interviewer fills in the questionnaire for the first person, while the second person fills in the questionnaire for the first person, while the second person fills in the questionnaire or to the free paper version, where more than one person can answer the same questionnaire.

A real support by the communication tools will also allow to have a significant number of results. In order to facilitate the distribution of the online questionnaire, a link and a QR code will be accessible to all and will be present in the letters of the Saâne, the wall newspapers and the Facebook pages of the Quiberville tourist office, the Communauté de Communes Terroir de Caux and the Basse Saâne 2050 project. The wall newspapers are a set of eight 180cm*120cm panels set up outside in the three communes of the lower valley: at the Quiberville and Sainte-Marguerite-sur-Mer seafronts, and in Longueil (near the restaurant "La Petite Pause"). They present the progress of the territorial project in concrete terms and are renewed quarterly. "Les lettres de la Saâne" are newsletters sent quarterly to all the inhabitants of the communes involved in the territorial project. They mention the progress of the project, as with the wall papers. Also, the

- Entrance to the municipal campsite (Quiberville)
- Fishermen's sales point (Quiberville)
- Car parks (Quiberville)

paper questionnaires have a QR code so that those who wish to do so can complete them directly online. People who do not wish to fill in the questionnaire or who come to the site for the first time will be redirected to the communication tools for information on the Saâne territorial project (dynamic press kit1, wall newspapers and Saâne newsletters).

2.4 Provisional planning

The online survey will be launched during the months of June and July with the possibility of extending this period if the response rate is insufficient. The "LimeSurvey" software will provide instant access to the results of the online survey by studying the characteristics of the respondents, the number of responses, etc. All the data obtained will be analysed statistically via the same software and Excel at the beginning of the project. All the data obtained will be statistically analysed via the same software and Excel at the beginning of August. As for the face-to-face surveys, they will also be carried out during the summer period, which is a busy time in the valley. For several days in June and July, I will be staying in a hotel to facilitate access to the site from early morning until late in the day, as the Conservatoire du Littoral headquarters is a two-hour drive from the site. The longer time frame will allow me to be as close as possible to the respondents in order to interview as many of them as possible for as long as possible.

The analysis of the results collected on the "Lime Survey" software will take place at the end of the data collection phase, from the end of July. Of course, we will be able to look at the results in real time from June onwards and observe the different results that emerge the most. The second part of the study will consist of proposing avenues for improvement and a post-project survey of the Saâne territory. This second part will be carried out during the month of August.

The schedule on the following page (Figure 2) shows the main stages from May to August, from the test days to the recommendations and limits of the survey.

¹ https://basse-saane-2050.com/

Retro Planning from 01/05 to 31/0	18	
Task	Legend	
Development and drafting of the methodology		
Putting the questionnaire online		
On-site data collection (duration in days)	18,5	
Data capture and analysis		
Writing the internship report		
Post-project survey proposals		
4 pages (summary for the Cdl)		

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Figure 2: Survey planning

2.5 Development of the questionnaire

The questionnaire is based on the version developed by the English service provider ABP-Mer for the Otter Valley survey in 2021. Although several questions and topics have been retained from the Otter Valley questionnaire, some changes have been made.

1. Climate change and coastal risks

This theme was not present in the English questionnaire. On the Saâne side, questions on this central theme of the project were added. We want to know the level of awareness of the respondents regarding the effects of climate change. Questions on the natural coastal risks threatening the communes of the lower valley, on biodiversity and on the degree of overall knowledge of climate change were therefore added to the questionnaire.

2. Map of the location of the respondent's dwelling

For the residents of the lower valley, it was planned to place the location of each surveyed resident on a map. The results would then be imported into the QGIS mapping software in the form of points, and geolocated. This would have made it possible to see the correlation between the location of the dwelling and knowledge of natural coastal risks.

However, this mapping cannot be done with an online survey because the software does not offer the possibility of indicating the location of the respondent's dwelling by a point on a map. However, it is possible to display a map showing several housing zones defined according to vulnerability to natural hazards. These zones were delineated on the mapping software QGIS with the 2015 ortho map as a database (Figure 3). The vulnerability of these areas to natural coastal hazards was defined on the basis of expert judgement and not on the basis of scientific documents already produced (Table 2).

Zones Risks	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Erosion	+++	++	++	+	0	++	++	+	+++	0	0	0	0	0
Runoff	0	++	0	+++	+++	+++	+	+++	0	++	+++		+++	+
River flooding	0	+++	0	0	0	+++	0	+	0	0	++	+++	+++	0
Submergence marine	0	+++	0	0	0	+++	0	0	0	0	0	0	0	0

 Table 2: Vulnerability of geographical areas defined for each natural hazard

+++= very high risk

+= moderate risk

++ = high risk

0= no or negligible risk



Figure 3: Distribution map of the inhabited areas defined in the lower Saâne valley according to risks

3. Reorganisation of the questionnaire

The first task of this internship was to critically analyse the results and methodology of the user perception survey of the lower Otter valley. This study of the English results allowed several modifications to be made to the Saâne questionnaire:

Withdrawal of questions when results in the Otter Valley were not significant

As the comparative table (Appendix 1) shows, some questions asked in the Otter Valley were not included in the Saâne questionnaire because they did not show conclusive results. The rate of non-response and "don't know" responses was very high. Thus, questions 7, 8a and 8b were not conclusive in view of the low response rate: 184 responses for question 8a and 147 for question 8b out of 346 questionnaires.

Withdrawal of the "competition" (Question 32a of the English questionnaire)

It is possible that the prospect of winning the draw may have skewed participation on the English side. This could partly explain the large number of people who answered "don't know" to several questions. On the Saâne side, the choice was made to disseminate information about the questionnaire via the Saâne letters, the QR code on the wall papers and social networks without offering a reward.

Organization of the questions diversified for a better flow

The closed question form makes it easier for the respondent to express his or her answer than an open question. This makes the questionnaire easier for the respondent and limits the effort required. Thus, several open-ended questions constructed during the first phase of creating the questionnaire were modified, such as question n°22 "In your opinion, what would be the best solution for adapting to climate change? This question proved to be complex for some of the respondents interviewed during the test days, resulting in no response. It was therefore modified to offer four response options.

In addition, several questions remain open-ended and allow respondents to be more specific about the answers they give and to personalise their response. In addition, the addition of the sub-question "Why?" to several questions makes it possible to collect more precise answers to explain a particular response choice to a question asked. For example, for question 19, "Do you think that the road dike provides sufficient protection against the risk of marine flooding?", we added the sub-question "Why?" in order to understand precisely the different opinions of each respondent about the road dike and its usefulness.

On the advice of Myriam HILBERT², the visitor profile section was placed at the end of the questionnaire, and not at the beginning as was the case in the initial version.

Discriminating question at the beginning of the questionnaire (question n°1 of the French questionnaire)

Given the objective of the survey, we decided to include a discriminating question at the beginning of the questionnaire in order to continue the questionnaire only with people who have knowledge of the valley. The question "Have you ever visited the Saâne Valley?" therefore allows us to select people who have already been to the valley. People who do not know the site will be directed to the communication tools of the territorial project in order to obtain a lot of information (project actions, partners...).

As a result of these changes, the Saâne Valley questionnaire (Annex 2) is structured around four parts:

- 1. The valley site and its economic and leisure uses
- 2. Climate change and natural coastal risks
- 3. The territorial project: its benefits, advantages and disadvantages and the knowledge of the respondents interviewed about this project
- 4. The visitor's profile, his or her sociological background (social and educational trajectory)

² Doctoral student at the University of Paris 1 Panthéon la Sorbonne, and working on a survey in the framework of another climate change adaptation programme called adapto

3. Results

The choice was made not to retain questionnaires where the respondent answered "No" to question 1: *"Have you ever visited the Saâne Valley?"* (only in the case of online or free paper questionnaires).

Questionnaires with only one or two missing answers were kept, as this did not prevent an efficient analysis of the results.

This section presents the results, question by question. The first question of the survey was intended to keep only the answers of respondents with knowledge of the valley. It is therefore not dealt with here.

3.1 Number of questionnaires retained

The survey was carried out using three methods, online, face-to-face and on plain paper, available at the Quiberville tourist office, in the town halls and also dropped off at the Quiberville school.

A total of 347 questionnaires were analysed:

- 96 questionnaires completed online,
- 5 questionnaires on plain paper,
- 246 questionnaires completed in person.





Direct solicitation to conduct the survey face-to-face was the most effective method. Of the 669 contacts made, 288 people agreed to complete the questionnaire, or approximately 42% (Appendix 3). The remaining 381 people include those who refused to answer the survey, as well as those who answered "no" to the first question.

Direct solicitation also makes it possible to obtain a more complete questionnaire for a better analysis of the results, and to collect additional comments and information to feed this study or improve the methodology for a future survey phase.

The target of 400 questionnaires was not reached, but the data collection was based on a single interviewer, and unlike the survey conducted on the English side, more than 70% were collected face-to-face rather than online (Figure 4). The target of 20% face-to-face questionnaires was therefore largely met.

Section 1: The lower Saâne valley site and its uses

In order to better understand the uses and frequency of visits to the Saâne Valley, this first section looks at the activities of each resident or visitor interviewed. The analysis of the responses begins with question 2 of the survey questionnaire.

3.2 How often do you visit the Saâne Valley each year?

Of the 346 responses obtained, 37 people stated that they came to the valley daily or even several times a day. This represents 10.7% of the respondents. If we add the people who come once to three times a week, we arrive at 37.9% of the respondents. Two thirds of the questionnaires were therefore filled in by more occasional users.

These results also indicate that the questionnaire reached many local users and residents of the lower valley, although they do not necessarily consider their use as a "visit" to the valley.



Figure 5: Number of visits to the valley per year

3.3 What are the points of interest on this site in your opinion?

The 347 users who responded to the questionnaire indicated their interest in various features of the valley, including the river, the beaches at Quiberville and Sainte

Marguerite and the cliffs. As far as the beaches and cliffs are concerned, they are the most popular with tourists in the summer and very popular with local residents. Together with the river, they represent the main locations for leisure activities, particularly hiking and foreshore fishing, which were specifically mentioned in some questionnaires.



Wetlands are also mentioned as a point of interest in the lower Saâne valley.

Figure 6: Points of interest in the lower Saâne valley

The Saâne Valley's attractiveness to tourists is based on its varied landscape, which allows for a variety of outdoor activities. In question 6 "What are the main activities you do in the valley?", the most cited outdoor activities are walking, beach and wildlife watching.

3.4 Why did you come to the valley?

Of the 347 responses, 62.8% indicated that they were residents (218).



Figure 7: Purpose of presence in the lower valley

Questions 41 and 43 indicate a total of 209 residents, both primary and secondary. The 'residents' in this question 4 include secondary residents, as well as annual campers and residents of neighbouring municipalities. This question was therefore not clear enough to obtain conclusive results on this point.

For the rest of the study of the results of this survey, the number of residents retained will be that of the analysis of questions 41 and 43, i.e. 209 residents. This represents 60% of the questionnaires completed. Another objective set for the Saâne Valley survey was that ³/₄ of the questionnaires should be completed by residents (main and secondary). This objective was therefore not achieved.

3.5 If you are on holiday, are you staying nearby or just visiting the site for the day?

Of the 67 holidaymakers (question 4) visiting the valley, almost 85% report spending at least one night in the valley. On average, they spend 12.3 nights in the valley (the median is 10 nights).



Figure 8: Location of accommodation for visitors on holiday in the lower valley

The results to this question are probably strongly influenced by the users of the Quiberville municipal campsite. Indeed, this tourist facility attracts annual users: about sixty families come each year to spend several months of the year at the Plage (beach) campsite. In addition, there are many second homes on the seafront. It is therefore likely that this question is not representative of non-sedentary tourist use (of the three holidaymakers in the "Other" category, two indicate "They are also very aware of the history of the valley and of the disasters.) On the other hand, these annual users are also very aware of the history of the valley, of the catastrophic events and are also very interested in the territorial project because they are affected by the relocation of the Quiberville tourist facility.

3.6 What are the main activities you carry out there?

Of the 347 responses to this multiple choice question, over 80% of respondents cited walking as their main activity. This percentage is certainly linked to the presence of several long-distance hiking trails (GR21 and GR212) and loops around the valley to discover the

river, the Ailly lighthouse, the cliffs, the beach and the area's built heritage. Almost 65% also mentioned the beach. As the survey was carried out during the summer, it seems logical that these two activities are the most frequently mentioned.

The third activity mentioned is the purchase of fish products. This is an important socio-economic activity for the territory as it provides a living for several local families and contributes to the maintenance of traditional knowledge and local heritage.

The quality of the natural and landscape heritage is also important for the users of the site. Indeed, almost 50% cite the observation of fauna and flora as their main activity and 28% cite photography.



Figure 9: Main activities cited by users of the lower valley

Answer options (translated): Walk, Walking the dog, Running, Cycling, Paragliding, Yoga, massage, Beach, Water sports, Kayak, Observation of fauna / flora, Photography, Hunting, Fishing, Buying fish products, Other food shopping, Restaurant, Work, Camping, Other

3.7 How long do you spend in the valley?

When visiting the valley, more than 80% of the 347 people interviewed said they stayed between one and four hours at the site.

Many outdoor activities are favoured by the natural and landscape setting highlighted in question 3 "What do you think are the points of interest on this site?



Figure 10: Time spent in the valley

This distribution of responses corresponds to the main activities cited by users (question 6):

- Walking, beach and wildlife viewing require between one and four hours on site;
- The purchase of fish products generally takes less time (response (e.g. "up to one hour").

3.8 In general, who do you visit the site with?

Less than a third of the respondents visit the site alone. Most come with their spouses and family members. Only 11% said they also visited the site with friends.

This underlines the fact that the users of this valley are mainly residents or holidaymakers who come to the lower valley with their families. This is in line with the results obtained in question 37, which show that only 11% of the respondents are in the 18-29 age group.



Figure 11: Who do you visit the site with?

3.9 To what extent do you agree with the following statement?

"I will definitely come back here"

Of the 337 responses obtained, it was interesting to make a specific analysis of the responses of the 138 non-resident users of the valley. Almost 91% of them indicated that they would like to return to the site, and only three people disagreed with the statement "I will definitely come back here".

	Non-residents Residents					
	Number of occurrences	Frequency of quote	Number of occurrences	Frequency of quote		
I don't agree at all	2	1,4%	1	0,5%		
I don't agree	1	0,7%	0	0,0%		
I more or less agree	6	4,3%	0	0,0%		
l agree	22	15,9%	21	10,0%		
I fully agree	103	74,6%	181	86,6%		
No response	4	2,9%	6	2,9%		
TOTAL	13	8	209			

Table 3: Distribution of responses t	o the statement "I will	definitely come back here"
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The wording of this question did not allow for more detail to understand the choice of answers, especially for the answer "I strongly disagree" chosen by one resident.

3.10 Name 3 words that come to mind to characterise the valley

1008 words were cited to characterise the lower valley by 340 people. The most frequently cited words were "natural" and "nature", which occurred 131 times (38.5% of respondents).



Translation (top to bottom): Cliffs, Wildlife, Clean, Fishing, Beautiful, Quiet, Hiking, Natural Landscapes, Sea, Beach, Restful, River, Stroll.

Figure 12: Cloud of words characterising the valley according to the respondents

The respondents mainly emphasise the naturalness of the valley, its landscape and outdoor activities such as walking. The well-being felt by the users of the valley is reflected in this question.



Figure 13: Words cited by at least 5% of respondents

Almost all the words or expressions quoted are positive (see translation above). The most frequently cited negative word was the dam (13 people). Then, very occasionally, the lack of activities, pollution, over-tourism, developments (impact on the landscape), the culvert, car traffic and the lack of a cycle path were mentioned.

3.11 What do you like most about the Saâne Valley?

Out of the 211 answers obtained for this question, the same words stand out as for the word cloud: nature, calm, sea, beach, countryside, landscapes, summer atmosphere, outdoor activities (hiking), ...

3.12 What don't you like about the Saâne Valley?

Of the 141 responses received, various elements were targeted: the lack of cycle paths, the presence of the concrete road-dike, the over-tourism in summer and its consequences (pollution, waste), the dangerous traffic (sharing of traffic lanes by cars, bicycles and pedestrians), the lack of activities or restaurants.

3.13 To what extent do you agree with the following statement?

"The Saâne valley as it is now is natural."

Almost 88% of the 341 respondents to this question believe that the valley as it is today is natural.

	Number of occurrences	Frequency of citation
I don't agree at all	5	1,47%
I don't agree	13	3,81%
I more or less agree	23	6,74%
l agree	121	35,48%
I fully agree	179	52,49%
Total	341	100%

Table 4: Distribution of responses on the naturalness of the Saâne valley

This ties in with questions 10 and 11 where respondents cite the natural character of the valley.

"The valley is overcrowded in the summer months."

Less than 30% of the 333 respondents to this question felt that the valley is over-visited in summer.



Figure 14: Distribution of responses on the over-tourism in the valley in summer

When the answers of the valley residents to this question are compared with the location of their homes, it can be seen that the quotes indicating over-tourism in the valley are those of residents of the areas close to the seafront, where the infrastructures and leisure and catering facilities are located. Conversely, the inhabitants of the lower valley located on the plateaux or in the back-coast (commune of Longueil) do not emphasise this over-tourism in summer (Table 5).

 Table 5: Distribution of responses from residents who specified their area of residence on the over-tourism in the valley during the summer period

In number of citations and frequency of citation (%)	Not at all overcrowd ed	Not very crowded	Moderately over-used	Over- frequented	Very crowded	TOTAL
Inhabitants of Longueil and the plateaux of Quiberville and Sainte-Marguerite (zones 5 and 7 to 14)	27 14%	49 26%	25 13%	12 6%	3 2%	116 60%
Inhabitants of the Quiberville and Sainte Marguerite waterfront areas (zones 1, 2, 3, 4, 6)	2 1%	7 4%	13 7%	30 16%	24 13%	76 40%

"The valley is quiet and rejuvenating, I feel good here."

More than 95% of the 344 responses obtained underline the well-being felt by the users of the Saâne Valley.

Table 6: Distribution of responses on the well-being felt by valley users

	Number of occurrences	Frequency of citation
I don't agree at all	1	0,29%
I don't agree	5	1,45%
I more or less agree	7	2,03%
l agree	78	22,67%
I fully agree	253	73,55%
Total	344	100,00%

This ties in with questions 10 and 11 where respondents cite the natural, quiet and restful character of the valley.

3.14 How do you rate the quality of the water?

Of the 347 completed questionnaires, 237 people rated the quality of the river water and 256 people rated the sea water. Slightly more than 40% of respondents rated the quality of the river water as "good" or "very good" compared with almost 50% for marine waters.



Figure 15: Assessment of the water quality of the Saâne and the sea

Conclusion Section 1

This first section highlighted the attachment of users to the valley in its current configuration. It is a site which mainly attracts a family audience, attached to the landscape, the beach and the naturalness of the valley, which practises various leisure and daily life activities (activities linked to the seaside, hiking and walking, food shopping, etc.).

This attachment can be a positive point for the dissemination of the themes of adaptation to climate change, restoration of natural dynamics and ecological continuity. Indeed, the knowledge of the history of events, populations of animal and plant species and the impact of the effects of climate change by the users can lead to the acceptance of the project and a strong interest in the spatial recomposition and the territorial project as a whole. However, this can also be a hindrance to the implementation of the project if the attachment to the valley's landscapes is accompanied by a refusal to reconnect to the sea and a denial of the effects of climate change on the territory.

Most of the users of the Saâne valley are found around the tourist facilities, in the direct vicinity of the beach and the GR hiking trails. Many residents of the lower valley come regularly to the seafront. On the other hand, there are few trips upstream in the valley where the activities are essentially based on leisure fishing and walking. As far as walking is concerned, the inhabitants of Longueil and Sainte-Marguerite-sur-Mer mainly stay in the sector of their respective communes. On the other hand, visitors to the valley stay on the seafront, along the cliffs on the GR21 and GR212 or on the beach. They have little knowledge of the commune of Longueil and hardly ever visit it.

Longueil is the gateway to the seafront. This year there has been an increase in traffic, particularly cyclists, which poses safety problems because the existing roadway, which is of narrow gauge, does not allow for a calm sharing of the road with motorists and camper vans. Measurements carried out by the Terroir de Caux Community of Municipalities indicate that just under 1000 vehicles use the coastal route linking Longueil to Quiberville, every day during the summer.

In addition, this year the number of visitors to the Quiberville municipal campsite was much higher than in previous years (including 2019). This increase can be attributed to a post-COVID effect: the search for naturalness and health constraints when travelling internationally have led the French to seek out holiday areas close to their places of residence.

Section 2: Your perception of natural hazards and adaptation to climate change

The objective of this section is to better understand the perceptions of the valley's users regarding natural hazards and adaptation to climate change, as well as their knowledge of natural hazards and the vulnerability of the lower valley.

3.15 How much do you think you know about climate change?

Almost 50% of the 334 respondents to this question felt they had good or very good knowledge about climate change. Only one person felt they had no knowledge. This shows that the media are well aware of this issue, well beyond the territorial project. Indeed, it is a topical issue that affects the whole of France and not just the coast.



Figure 16: Level of knowledge of users on climate change

However, there are still almost 52% who feel that they do not have good knowledge on the subject. Although the results of this question are rather positive for the implementation of the project, efforts to raise awareness of climate change through various communication tools are still necessary. Awareness of the extent of the phenomenon is still growing, and the Saâne project should serve as an example of a solution to climate change.

3.16 In your opinion, are the communes of the lower Saâne valley subject to one or more natural risks?

The first part of the question asks whether the respondents consider that the lower valley is subject to one or more natural risks.

Nearly 90% of the 345 respondents believe that the lower Saâne valley is subject to one or more natural risks. It is likely that some of them have already experienced an event themselves, as many of the respondents are residents of the lower valley.



Figure 17: Vulnerability of the lower Saâne valley to natural risks

The second part of the question aims to specify the natural risks identified by the users of the Saâne valley.

Of the 345 people who answered this question, only 17 (4.9%) believe that there is no natural risk in the lower Saâne valley. 20 (5.8%) did not comment on the presence of natural risks in the Saâne valley.

Of the 308 respondents who believe that the Saâne Valley is subject to one or more natural hazards, only 56 did not specify a natural hazard.

Of the remaining 252 respondents (those who indicated natural risk(s)), 87.3% cite flooding. Some specifically mention the river, others are more evasive. One person mentions overflowing water tables. 27.8% mention coastline recession (including cliff slides), often indicated in conjunction with sea level rise (mentioned in 6.0% of questionnaires). One in five respondents cited run-off, flooding and flooding. With regard to erosion, cited in 20.6% of the questionnaires, it is possible that some people link this phenomenon to cliff erosion or run-off.



Figure 18: Natural hazards affecting the lower Saâne valley

Given recent events in the valley - flooding in the 1990s and 2018 and the endangerment orders for houses on the Quiberville cliffs - it is not surprising that the natural risks of 'flooding' and 'retreating coastline' are the most cited. This also underlines the results of questions 41 and 43 which showed that almost 60% of the questionnaires were completed by residents of the valley. This memory of events in the valley tends to indicate that residents have been present for several decades, although it may also be supported by the flood markers placed at various locations in the valley which indicate the water levels during the 1995 and 1999 floods.

3.17 The same question applies to your home if you live in the lower Saâne valley. Is it subject to one or more risks?

This question is specifically addressed to residents of the lower valley. Of the 209 residents identified (questions 41 and 43), 202 people answered this question. Approximately 37% felt that their homes were not affected by natural hazards, compared to 60% who felt that they were affected or could be affected by natural hazards.



Figure 19: Vulnerability of Lower Valley residents' homes to natural coastal hazards

Finally, of the 71 questionnaires where natural risks were identified (32.7% of the 217 who answered this question), almost 50% of them identify the risk "Flooding".



Figure 20: Natural hazards cited by Saâne Valley residents that would affect their homes

3.18 How long do you think it will be before your home is affected by one of these risks?

This question is also addressed to the 209 residents identified in questions 41 and 43.

Of the 199 responses obtained to this question, approximately 11% consider that their dwelling is not subject to any of the four major natural risks identified in the Lower Saâne Valley (river flooding, marine submersion, erosion and run-off) and will never be. 15% believe that at least one of these natural risks will impact their home, but not before 2100.

These results should be cross-checked with the location of residents' dwellings, in order to better understand their awareness of climate change and their knowledge of the vulnerability of their dwellings to natural hazards (question 44).


Figure 21: Vulnerability of the dwellings of the residents of the lower Saâne valley to natural risks in the more or less long term

3.19 Do you think that the road dike provides sufficient protection against the risk of marine flooding?

This question focuses on the perception of the valley's users with regard to the sea defence structure that is the road dike.

Of the 311 responses obtained, a very large majority (over 80%) consider that the dyke does not fulfil a protective role against the risk of marine submersion.



Figure 22: Protection capacity of the dyke against the risk of marine submersion

In the "no" responses, 10% refer to historical events to justify their choice of answer.

Of the 60 people who answered "Yes", 9 added a comment.

Table 7: Comments from 9 respondents who answered 'Yes' to question 19

When reading these comments, two of them, although indicating that the road dike provides sufficient protection against the risk of marine submersion, consider that the valley should be returned to its natural state so that it can regulate itself by removing the road dike.

- Yes for the moment, but it is weakened with cracks
- It holds the pebbles
- It looks quite solid
- Yes, considering the situation of my house
- Yes, because it is protected by the pebble "wall
- Today, yes, but in the future???
- Logically, if there is a dike, it must protect well
- Dikes tend to alter the natural course of things. A valley that is left natural tends to regulate itself
- We have to learn to live with these risks as the sea level rises, so we might as well remove the road dike and adapt now

3.20 Do you think this site is vulnerable to climate change?

Of the 332 responses to this question, 312 people consider the Saane Valley to be vulnerable to climate change.



Figure 23: Vulnerability of the valley to climate change

Most of the people interviewed said that this vulnerability is due to the proximity of the lower valley to the sea. These people mention in particular the rise in sea level which intensifies the phenomena already present. According to them, storms and marine submersion will become more frequent and more violent. Some people also spoke of the configuration of the lower valley (with the culvert) which does not allow for adaptation to climate change.

3.21 Are you aware of any historical events related to these risks in the lower Saâne valley?

More than 65% of the 324 people who answered this question were aware of historical events related to these natural hazards. Of these 211 respondents, only 169 could name at least one.

The most significant event was the 1999 flood, which was cited by 55% of the 211 people who indicated historical events. It is also, along with the 1995 flood, one of the floods indicated on the flood markers in the valley.

The 2018 flood event is the second most cited, probably because it is much more recent than the other floods, although the number of citations for the 1995 and 2000 floods are roughly the same.

The episode of the fall of the Sainte Marguerite bunker is a singular enough event to be retained. It is occasionally cited without any indication of the date.

In the 23% of responses where the events are not precisely dated, the flooding of the campsite and the valley in general are strongly cited.

Table 8: Historical events cited

	Number of event citations	Frequency of citing the event among the 211 responses
Sea flooding in 1977	1	0,5%
Flood of 1991	1	0,5%
Flood of 1995	12	5,7%
Fall of the Sainte Marguerite bunker in 1995	12	5,7%
Storm and flood of 1999	116	55,0%
Flood of 2000	14	6,6%
Flood of 2001	2	0,9%
Flood of 2005	1	0,5%
Storm of 2016	1	0,5%
Flood of 2018	16	7,6%
Event not precisely dated by the respondent	49	23,2%
Total	225	

3.22 What do you think would be the best solution to adapt to climate change?

Of the 290 responses obtained, almost 47% were in favour of letting nature take its course. It should be noted that nearly 31% remain in favour of maintaining the sea defences and groynes. 20% of the respondents were in favour of relocating populations and services, i.e. spatial recomposition.



Figure 24: Best option for adaptation to climate change

It is interesting to see that the number of people who are in favour of maintaining the coastline by means of the dike and groynes is greater than the number of people who are convinced that the road dike provides sufficient protection against the risk of marine submersion (question 19). One can imagine that these people would count on a reinforcement of the dyke, or even a raising of the structure, so that it would regain a sufficient protective function according to them.

In their view, the structure should be raised to a sufficiently protective level. Of the 7 'Other' responses, 4 emphasised the need to replant trees, hedges and rely on the resilience of nature.

3.23 In a few words, can you explain why this solution is the most effective?

Of the 290 respondents to the previous question, only 102 specified their response in this question 23. The comments were studied by "climate change adaptation solution" to draw a synthesis. The people who chose "Leave it to nature" in the previous question were the ones who most wanted to specify their choice in this question 23.



Figure 25: Comments collected for each climate change adaptation option

Spatial recomposition

Of the 59 people who chose this answer (in question 22), 26 specified their choice in question 23. The answers are fairly unanimous: this solution will make it possible to protect homes and property in the long term because nature is stronger. However, the question of the cost of these moves also came up regularly.

Maintenance of the coastline (dikes, groynes)

The 31 people (out of the 89 who chose this answer to question 22) mainly argue that maintaining the coastline by means of structures such as the dyke will make it possible to protect property and homes, but also economic activities. Some people directly targeted their homes, which would benefit from this protection. Several people acknowledge that nature will still take over.

Let nature take its course

Of the 135 people who chose this answer (in question 22), 45 specify their choice in question 23. They believe that the fight against nature is futile, that it is necessary to

remove the sea defence structure. This would help in particular with flood protection. This return to a natural historical situation would also be less costly than maintaining the structures (groins, dyke, culvert).

3.24 Are you aware of any climate change adaptation projects related to flood risk?

Of the 318 responses, over 81% were negative.



Figure 26: Knowledge of climate change adaptation projects

There is still little awareness of climate change adaptation projects. These pilot projects would require more communication to the general public.

Of the 59 positive responses, only 4 people mentioned projects outside the Basse Saâne 2050 and PACCo projects: the ADAPTO programme was mentioned twice, as well as the Brusseau3 project in Brussels (once) and canal work in the Netherlands (once).

3.25 What do you think are the two best characteristics of a good quality environment?

346 responses were obtained to this multiple choice question (two environments to choose from). The aim was to better understand the perception of the users of the Saâne valley regarding the notion of a good quality environment and its representation. All the proposed environments are present in the Saâne valley.

³ The Brusseau project invites residents to work with researchers and field actors to develop a diagnosis and development proposals to reduce the risk of flooding in Brussels. (<u>Brusseau 2017-2019 - Brusseau</u>).



Translation (left to right): A pebble beach, a poplar grove, a wetland, a slikke (mudflat), a meadow

Figure 27: Illustrated proposals for different environments in the Saâne valley

In total, 661 photos were selected by the 346 respondents. The most cited environments are the wetland and the poplar grove. This is in line with the results of question 13, where 88% of the 341 users who answered the question consider the valley to be natural. Valley users are indeed very attached to the trees and woodland in the valley.



Figure 28: Frequency of quotation of each proposal out of all the responses obtained

In the context of the renaturation of the Longueil poplar grove, it might be interesting to communicate on the planting of poplars in wetlands. Similarly, as part of the work to reconnect the Saâne to the sea, it could be interesting to specify the functional interests of the slikkes, schorres and pebble beaches, in connection with the hydraulic functioning of the valley, but also for biodiversity and carbon sequestration.

3.26 To what extent do you think the biodiversity of the Saâne Valley is being impacted by the effects of climate change?

286 responses were obtained to this question. More than $\frac{3}{4}$ of the respondents believe that the valley's biodiversity is impacted or strongly impacted by the effects of climate change. Only 6% consider that the impact will be low.



Figure 29: Level of impact of climate change effects on biodiversity in the valley

These responses indicate that valley users are well aware of the erosion of biodiversity due to climate change. The high media profile of this issue worldwide has probably contributed to this awareness, although the residents of the Saâne are also aware of the species present in the valley and their decline.

Conclusion Section 2

This section aims to measure the knowledge of the users of the lower valley with regard to climate change and the natural risks present in the territory. These results are important for the continuation of the project, as they will allow us to provide the public meetings and communication tools with the most relevant information regarding the knowledge of the users of the valley and their concerns regarding the opening up to the sea. Recourse to sea defences is still firmly anchored in people's minds, even in a lower valley that has been engaged in a spatial recomposition project for the last ten years. In other areas where this issue has not yet been tackled in a concrete way, efforts to raise awareness and educate will be essential to bring about similar projects.

The lower Saâne valley, although a tourist area with many second homes, is aware of the historical events of the last 30 years. The media coverage of catastrophic events and the setting up of tools to maintain the memory of these events (flood markers) are complementary means to the personal memory of residents. These elements will be relevant to maintain in the valley.

The idea of a project emerged following the floods and storms of the 1990s. These events are also used in the hydraulic modelling for the dimensioning of the opening to the sea and the structure to be built at the mouth. It is therefore essential to maintain this memory of catastrophic events in areas vulnerable to natural hazards such as the lower Saâne valley. It is on this basis that the justification for the projects is built, and the archive images have been able to feed and clarify the modelling of flood levels.

Section 3: The Saâne territorial project

This section aims to establish the level of knowledge of the users of the lower valley with regard to the Basse Saâne 2050 project, its actors, its operations and its objectives.

3.27 Have you ever heard of the Lower Saâne Valley territorial project?

Of the 347 responses received, almost 79% were positive, while just over 18% were negative.



Figure 30: Are valley users aware of the Saâne territorial project?

The existence of the Saâne territorial project, which is already 10 years old, is well known to the users of the Saâne valley and goes beyond the circle of residents (274 "Yes" against 209 residents identified in questions 41 and 43). This may be due to various factors:

- The communication tools put in place on site are relevant,
- The local and national media that reported on the project reached these users well,
- The relay of information by the municipal councillors and the tourist office,
- The public meetings and information meetings that have taken place over the last 10 years,
- Word of mouth among the residents of the valley are discussing this project around them.

The following questions aim to explore further the level of knowledge of the respondents.

3.28 Do you know who is managing this project and who the main partners are?

Of the 274 people who answered "Yes" to question 27, only 171 (62.4%) said they knew of one or more project partners. Of these, only 131 (just under 48% of the 274 people who answered "Yes" to question 27) gave the name of at least one project partner.



Figure 31: Project partners identified by interviewees

The Terroir de Caux Community of Municipalities, the municipalities and the Conservatoire du Littoral are the three most cited project partners. They represent a total of nearly 65% of the quotes. Next come the project's financial partners, with the Department of Seine-Maritime and Europe (7% to 8% of quotes). Then come the Normandy Region, the Syndicat Mixte des Bassins Versants Saâne Vienne Scie and the Seine-Normandie Water Agency (around 5% of citations).

The most cited partners are part of the Franco-British PACCo project. This is probably related to the fact that the constructions carried out within this framework are ongoing, which gives them greater visibility and focuses the interest of the media and users of the valley. It is likely that when the reconnection to the sea operation is implemented, the missions of the partners in this operation will be better known and recognised.

Some of the project's partners are not mentioned, such as the Etablissement Public Foncier de Normandie, the Dieppe Agglomeration and the user representatives (AAPPMA, farmers, riparian associations, etc.), even though they are invited to the project's various governance meetings (technical committees and steering committees)

3.29 To what extent do you agree with the following statements?

This question is intended for the 274 people who said they were aware of the existence of the Saâne territorial project. Each of the statements allows us to better define the knowledge, awareness and acceptance of the project.

"I know the details of the operations of the territorial project.

Around 38% feel that they know the details of the operations of the territorial project. However, around 37% feel that they do not know the details of the operations.



Figure 32: Knowledge of the details of the territorial project operations

"I understand the objectives and purpose of this project."

More than 60% believe that they understood the objectives and purpose of the project. Only about 18% said the opposite.



Figure 33: Understanding the objectives and purposes of the Saâne project

These proportions are rather positive and underline that the general approach of the project and its key messages are well transmitted and understood by the general public.

"I agree with this project."



About 63% are in favour of the project, against about 16%.

Figure 34: Acceptance of the project

"Thanks to the territorial project, I am more informed about climate change and its impacts on coastal municipalities".

Around 45% feel that they have a better knowledge of climate change and its impacts on coastal municipalities thanks to the territorial project. On the contrary, 22% say they are not better informed on this issue thanks to the territorial project.



Figure 35: Raising awareness of climate change and its consequences on the coastline through the territorial project

3.30 Now that you know more about this project and its likely benefits, to what extent do you agree with the following statements?

This question is addressed to all users of the valley and follows a brief presentation of the Basse Saâne 2050 project describing the objectives and operations.

"From now on, I will visit the site more often by the end of 2025."





Figure 36: Responses to the statement "From now on I will visit the site more often by the end of 2025".

Even though many of the respondents are residents of the valley, this shows an interest in the operations that will be carried out in the valley and that will strongly modify the landscape that they know and appreciate.

"I will come to the site more frequently after the project."



260 people answered this question, of which 70% agreed with this statement.

Figure 37: Responses to the statement "I will come to the site more frequently after the project".

The evolution of the environment, fauna, flora, habitats and landscape will be gradual and significant. This willingness to come back after the implementation of the project may indicate an interest in monitoring these changes and even in assessing this process of adaptation to climate change.

"The landscape of the Saane Valley will be more attractive as a result of the implementation of this project."

293 people responded to this question, of which more than 80% agreed with this statement.



Figure 38: Responses to the statement "The landscape of the Saâne valley will be more attractive as a result of the implementation of this project".

This result is interesting when compared with question 25 on the representations of good quality environments: only 24% of the people who answered this question 25 had selected the representations of slikke and schorre, which will nevertheless be environments that will develop following the reconnection to the sea, to the detriment of the freshwater wetlands currently present in the lower valley.

"The Saâne territorial project will be beneficial for the local economy."



291 people answered this question, 78% of whom agreed with this statement.

Figure 39: Responses to the statement "The Saâne territorial project will be beneficial for the local economy".

The closure of the current municipal campsite, although replaced by a new facility, could have led to a higher proportion of negative responses. Indeed, the distance to the sea (the main tourist asset of the current municipal campsite) is greater and the opening of an economic activity is a challenge because it is necessary to reach its commercial target in order to achieve profitability. The modification of the service offer of the future tourist facility could also be perceived as a competition with the local economic activities.

"The Saâne territorial project will be beneficial for the security of the territory."

289 people responded to this question, of which more than 80% agreed with this statement.



Figure 40: Responses to the statement "The Saâne territorial project will be beneficial for the security of the territory".

Only 11% of respondents believe that the project will not have a beneficial effect on reducing the vulnerability of the area, and 8% are not convinced. This low proportion underlines the fact that the communication actions and consultation workshops carried out during the development of the project have made it possible to raise awareness and reassure the inhabitants of the lower valley about the aims of the project. The evolution of mentalities with regard to the need to adapt to climate change, a theme that is increasingly covered by the media, also contributes to this result.

"The Saâne territorial project will benefit biodiversity".

293 people responded to this question, with over 90% agreeing with this statement.



Figure 41: Responses to the statement "The Saâne territorial project will benefit biodiversity".

The various statements refer to the three main areas of work of the territorial project: reducing the vulnerability of the territory to natural risks, maintaining socio-economic activities and improving biodiversity and landscapes. Questioning the valley's users allows us to assess their perception of how the territorial project takes these three themes into account. According to them, this project seems to be aimed, above all, at the benefits for biodiversity.

3.31 Do you have any concerns about this project?

Of the 319 responses received, 76% felt that they had no concerns about the Lower Saâne Valley project.



Figure 42: Concerns about the Saâne territorial project

Of the 76 people who answered "Yes", 68 specified their concerns.



Figure 43: Categories of comments specifying concerns about the Saâne territorial project

Many questioned the economic benefits of the project through this new facility, which targets a different clientele than the current municipal campsite. Many comments on this point indicate that it was the users of the campsite who responded to the survey. Similarly, the ecological benefits of the project remain to be demonstrated according to the respondents, particularly because the species present in the valley will be impacted by the reopening to the sea. According to the respondents, this reopening could also allow tropical diseases to develop.

Another important point concerns the supposed over-tourism in the valley, which would then lose the authenticity that makes it attractive, and would accentuate the problems of road traffic and conflicts of use with cyclists and pedestrians.

3.32 What benefits do you think this project could bring to the Saâne Valley in the near and distant future?

Only 150 responses were obtained to this question, of which 139 specified benefits. These have been classified into different categories.



Figure 44: Categories of project benefits for the Saâne Valley

It is the improvement of the quality of ecosystems that is mainly cited (66 out of 139 people, i.e. almost 48%). Tourism benefits are cited second (53 people, i.e. 38%), which can be associated with the benefits for the local economy (21 quotes, i.e. 15%). In third place, the reduction of vulnerability to natural hazards is cited (36 people, or 38%). This corresponds to the three work areas of the Saâne territorial project.

3.33 How did you hear about the project?

347 responses were obtained to this question.

Within the framework of the territorial project, a communication strategy was set up in order to transmit information on the project as widely as possible. Various tools have been developed, in particular the "lettres de la Saâne" (quarterly newsletters) and the wall newspapers (newspapers printed on four 180*120cm panels and placed in the three communes of the lower valley). The summer exhibitions are also displayed in the three communes and consist of 12 panels (180*120cm) presenting information and illustrations on a particular theme (in 2022, it focused on the species inventoried in the fauna-flora-habitat study commissioned by the Syndicat Mixte des Bassins Versants Saâne Vienne Scie). These are the tools most frequently mentioned by the people interviewed and whose implementation (timetable, content, distribution) depends entirely on the project partners.



Figure 45: Media cited as source of information about the project

The television news was cited by 89 people (26% of those interviewed). The Basse Saâne 2050 project has indeed received regular television coverage in addition to the local press. Since this survey was carried out, new reports have been broadcast on the television news on several national channels (TF1, France 2, France 3, France 5).

Word of mouth is obviously an important means of spreading information about the project (cited by 84 people, or 24%). However, there is a risk of information being distorted.

In contrast, websites and social networks are the least effective communication tools. This can be explained by the age groups that are most represented in the lower Saâne valley (see question 37), and which are less consumers of this type of media.

3.34 What are the most effective communication methods in your opinion?

347 responses were obtained to this question. Wall newspapers and summer exhibitions came out on top (188 quotes or 54% of the 347 responses), followed by letters from the Saâne (27%) and then television news (19%).



Figure 46: Most effective methods of communication

These results are similar to those in question 33. They highlight the relevance of the tools put in place as part of the project's communication strategy.

3.35 Please use this text box if you wish to share other ideas or comments (on the project, communication, work operations ...):

Only 13 comments were received.

- No idea, but if you all agree, it might go a little faster
- Could you communicate on bicycle accessibility? This type of facility is sorely lacking in our region, even though it is required by law. Our future must be organised around more ecological means of travel and our safety is important if we want holidaymakers and residents to take this route.
- I am interested in working with you on this project from a cultural perspective!
- Conferences in the surrounding villages
- In the event of other roadworks, it would be wise (it seems to me) not to "attack" all the roads in order to limit the inconvenience for local residents and perhaps information by post or e-mail would allow anticipation in the event that it is impossible to leave a property by vehicle.
- Ideally, there should be a bicycle path between Longueil and the beach at Quiberville

- It would be interesting to go faster (completion before 2050) and further (removal of the road dike) because at the rate of climate change, these developments are inevitable.
- I think that there were multiple studies for this project that cost a lot of money to come up with a smaller project and that there could have been savings made
- The installation of wildlife observation posts could be a plus for visitor awareness
- Problem of pedestrians living together with cars in rue de la mer (coast road)
- That the works do not block us from coming to Quiberville
- What is the Saâne Letter?
- Meetings or conferences in the surrounding villages

Traffic (active transport and sharing the road between cyclists, pedestrians and motor vehicles) was mentioned twice. Two people mentioned the inconvenience caused during the works with problems of access to the seafront or to houses. Two people suggested interventions in neighbouring villages to present the project.

Finally, two people felt that the project, after all these years of study, should be more ambitious than it is.

Conclusion Section 3

In addition to being keenly interested in the work that is underway and that will be carried out between now and 2025 (with the reconnection of the Saâne to the sea), the users of the valley seem interested in the future of the site and the assessment that can be made of this process of adaptation to climate change. They are largely convinced of the advantages of the project, particularly from an environmental point of view, although questions still remain about the economic benefits and the safety of goods and people.

However, climate change adaptation projects are still very low profile in the media. Few people are aware of projects. And the Saâne project still requires communication efforts, particularly on the details of the operations and the changes that will take place, especially in terms of landscape and hydraulic functioning. Indeed, these are points that are eagerly awaited by the river's residents. The assessment of this project, a few years after its implementation, will also be an essential element and will make it possible to highlight the evolutions in the three themes dealt with by the project (socio-economic, vulnerability of the valley to natural risks and biodiversity and landscapes).

The purpose of the project is well perceived and understood by the users of the site. Communication and media coverage have helped to convey these important messages, mainly at local level. The acceptance of the project by the users of the site is all the more reliable as it is based on a knowledge of the objectives and purposes of the project.

For all the partners in the project and for other territories and elected representatives who would like to embark on this type of approach, this question of the acceptability of a project is essential. The fact that the population living in the area is in favour of the project is a strong point for its success.

This communication and awareness-raising is carried out using various tools and methods of relaying information: local and national media, tools developed as part of a communication strategy for the project, public meetings, etc. Direct exchanges with local residents and users of the site, through municipal councillors, the tourist office or the project owners, are also very important. The multiplication of communication tools and sources of information can also lead to a risk of loss of information quality. It is therefore essential to maintain written communication tools (paper, panels or online) that serve as a resource for all.

Section 4: Visitor Profile

This last section aims to find out more about the socio-professional profile of the respondents, as well as the location of their homes.

3.36 To which gender do you belong?

52% of the 345 questionnaires for which a response was indicated to this question were completed by women. The parity is therefore almost respected and corresponds to the distribution of the residents of the lower valley according to the INSEE data of 2018 (Appendix 4).





Figure 47: Gender of respondents

Figure 48: Gender of residents in the three communes of the lower Saâne valley (INSEE, 2018)

Of the 347 completed questionnaires, we can see that the gender distribution is even.

3.37 What age group do you belong to?

Of the 346 responses to this question, the most represented age group is 45-59 (33% of respondents). 31% of respondents were over 60 years old, compared to 36% under 44 years old.



Figure 49: Age distribution of respondents

The INSEE 2018 data of the residents of the three communes of the lower valley show some differences in distribution.



Figure 50: Age distribution of residents in the lower valley (INSEE, 2018)

The most represented age group is the 60-74 age group, with about 24% of the residents in the valley. The 75+ age group is also more represented among residents than among respondents.

The 30-44 and 45-59 age groups are more represented in the survey. This can be explained by several factors:

- As the survey was carried out during the summer period and mainly near the seafront, almost 20% of the questionnaires were carried out among holidaymakers (see question 4), with a probably younger average age;
- The survey was conducted mainly between 10am and 4pm. There are fewer elderly residents among those interviewed, who probably prefer early mornings and evenings for their outings on the site;
- The effect of COVID has also changed the resident populations of the coastal municipalities, with an upsurge in teleworking / homeworking allowing a younger working population to move to the countryside or to the coast (INSEE data from before COVID).

3.38 What is your highest degree?

Of the 341 responses obtained, the levels of education are varied and fairly evenly distributed, with the exception of those with a doctorate or certificate or equivalent.



Figure 51: Highest degree of respondents

More than 90% of respondents are almost equally divided between the "Baccalaureate or equivalent", "BTS or licence", "Professional diploma" and "Master, Engineer, DESS". This shows that the site attracts users from a variety of socio-professional backgrounds.

These figures reflect the results indicated by INSEE (see biblio)

3.39 What is your professional status?



Of the 344 responses obtained, the most common occupational status is "Full-time employee" (159 quotes or 46% of responses).



This is consistent with the population that frequents the valley:

- Few young people were interviewed, so few students are represented in the survey;
- 31% of respondents are over 60 years old, and 24% are retired;
- 58% of the respondents were between 30 and 59 years old, which corresponds to the working population represented by full-time and part-time employees and the self-employed (68% of respondents).

3.40 Are you involved (time/money) in an organisation working for nature conservation?

Of the 347 people who answered this question, 90% are not invested in an organisation working for nature conservation. Only 26 people (7%) donate time or money to nature conservation.



Figure 53: Involvement in a nature conservation organisation

On a national scale, the rate of volunteering (donating time) in an association acting in favour of the environment is less than 3% (France Bénévolat, 2019). Although the commitment (in time as well as in money) is increasing - 17.4% increase in the amount of donations between 2019 and 2020 (Recherches Solidarités, 2021) - the main cause supported by the French remains "social, charitable".

3.41 What is your commune of residence?

Of the 346 responses to this question, 101 communes or postal codes were indicated. Only 5 respondents were not French, i.e. less than 2% of the respondents. Of the 341 remaining responses, a very large majority (274) came from Normandy (around 80%).



Figure 54: Regions of residence of French users of the lower valley

The majority of visitors to the site come mainly from the north-western quarter of France. Of the 274 people from Normandy, 97.8% (i.e. 268 people) are from the Seine-Maritime region, of which 33% are not residents of the lower valley, and only 2% (6 people) come from other departments in Normandy.



Figure 55: Seine-Marine users of the Saâne Valley interviewed

As the survey was only presented in English in its online form, few foreigners were able to respond. In addition, focusing the survey on people who had already visited the valley limited the representation of the remote areas of the Saâne.

However, 64% of the people from Normandy who visit the lower Saâne valley come from the territory of the Terroir de Caux Community of Municipalities. Sainte Marguerite is located in the Dieppe Agglomeration, but it seems that users of this territory prefer other low valleys to that of the Saâne, which is a site at the western end of the territory. Quiberville-sur-Mer is the only coastal commune in the Terroir de Caux Community of Communes, many of whose communes are close to the Saâne coastal river, making its mouth (and beach) more attractive to the inhabitants of this community, as it offers diversified leisure activities linked to the coast (water sports, paragliding, swimming).

3.42 How long have you lived there?

Of the 337 responses to this question, the average is nearly 20 years. Of the 209 residents of the lower Saâne valley (who indicated 'Quiberville', 'Longueil' or 'Sainte Marguerite sur Mer' in question 41 or 'Yes' in question 43 on second homes in the lower valley), the average is just over 21 years.



Figure 56: Number of years in the Municipality of residence (all questionnaires combined)

Figure 57: Number of years in the commune of residence (inhabitants of the lower Saâne valley)

There is no significant difference between the residence time of the inhabitants of the lower valley in the three communes (Quiberville, Longueil and Sainte Marguerite) and that of all the people interviewed (all communes of origin taken together).

3.43 If you are not a permanent resident in the valley, do you have a second home there?

Of the 347 questionnaires, 138 do not have an answer to this question. However, questions 4, 41, 42 and 44 make it possible to complete or correct the database. In total, 209 primary and secondary residences are indicated in this question.



Figure 58: Number of primary and secondary residents of the lower valley surveyed

These results are different from those obtained in question 4 of the survey where 218 people indicated that they were residents of the lower valley.

It can also be seen that among the residents (main and secondary) of the lower valley, the most represented commune is Quiberville, with 77 respondents, followed by Longueil, with 76 respondents, and finally Sainte Marguerite with 51 respondents.

3.44 If you are a primary or secondary resident, can you specify the area corresponding to your accommodation on this map?

This question makes it possible to locate more precisely the 209 primary and secondary residences of the respondents in the lower valley. The location is done by zoning (Figure 3). Nine people had indicated their commune of residence (main or secondary) in the lower valley (question 43), but did not specify the zone corresponding to their dwelling.

Municipality	Zone number	Number of residences	
	1	7	
Quiberville	2	14	
	3	21	
	4	19	
	5	15	
Sainte Marguerite-sur-Mer	6	16	
	7	2	
	8	6	
	9	6	
	10	18	
Longueil	11	10	
	12	27	
	13	24	
	14	10	
Area number not specified		14	
TOTAL	209		

Table 9: Number of residences by housing area

The vulnerability of these areas to the natural coastal hazards identified in the lower valley has been assessed based on knowledge of recent historical events. The objective is to gain a better insight into the perception of the vulnerability of the properties by the residents of the valley.

Conclusion Section 4

The profiles of the respondents are very diverse and cover all ages, levels of education and professional activities. The comparison of the results of this survey with the INSEE data shows that the summer users of the site are younger than the annual resident population. Since the first question in the survey selects those who have knowledge of the lower valley, this means that the regular users of the site are also very diverse. Almost 70% of the Lower Valley residents have been present for at least 10 years. This underlines the attachment to the site already demonstrated through questions 10, 11 and 12 as well as the fears about the loss of authenticity cited in question 31.

Few foreigners were able to answer this questionnaire, which was only in French and aimed at people who had already visited the site. This also concentrated the responses around residents of the valley but also the people of Normandy who live near the site, mainly in the territory of the Terroir de Caux Community of Municipalities (see question 41).

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Biblio

OLIVEIRA R., DNEBOSKA M., PINTO CORREIA T., 2007, "FROM LANDSCAPE PERCEPTION TO LANDSCAPE ACTION. THE IN BERLAN-DARQUE M., LUGINBÜHL Y., TERRASSON D. (DIR.), PAYSAGES : DE LA CONNAISSANCE A L'ACTION, PARIS, EDITION QUAE, P.226 A 237

HELLEQUIN, A.P., et al, 2013, "Perceptions du risque de submersion marine par la population du littoral languedocien : contribution a l'analyse de la vulnerabilite cotiere ", IN Natures Sciences Societes (vol. 21), pp 385-399

SEBASTIEN, L., 2016, "L'ATTACHEMENT AU LIEU, VECTEUR DE MOBILISATION COLLECTIVE ? ", IN NOROIS CONFLITS DE LIEUX, PP 23-41

FRANCE BENEVOLAT, 2019. THE EVOLUTION OF VOLUNTEER INVOLVEMENT IN FRANCE, FROM 2010 TO 2019 FRANCE BENEVOLAT / IFOP STUDY MARCH 2019 WITH THE SUPPORT OF RECHERCHES & SOLIDARITES AND THE SUPPORT OF CREDIT

MUTUEL - MARCH 2019 STUDY Voluntary work in 2019 DEF.pdf (francebenevolat.org)

Recherches et Solidarites, 2021. La generosite des français face au COVID, 26th edition - November 2021. https://recherches-solidarites.org/wp-content/uploads/2021/11/La-generosite-23-11-2021.pdf

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		Questions from French questionnaire	Equivalence in the English questionnaire	English questions no recoveries
		1	5	2b
		2	ба	4a
	ses	3		7
	sn s	4		8a
	dit	5	4b	8b
	an	5a.	4c	12b
	site	6	1	15d
	eV	7	2a	15f
	vall	8	За	17a
	ne	9	6b	17b
	Saâ	10		18
	/er	11	9a	19
	o	12	9b	26
	-he	13a	10	29
	÷	13b		30a
	u	13c		30b
	ecti	14a		31a
	Ň	14b	3b	32a
	C	15		
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		28	11b	
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	itor	29b		
	err	29c		
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	20	30a	15a	
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	Pr King	37	23	

Appendix 1: Comparative table of English and French questionnaires

	38	24	
	39	25	
	40	27	
	41	28	
	42		
	43		
	44		

Appendix 2: Questionnaire for the Saâne Valley survey

	🗆 Visite sur la journée (a effectu	é le trajet de son domicile)	
Enquête sur la basse vallée de la Saâne	🗆 Autre :	1	
	Quelles sont les principa	les activités que vous y effectuez ? (Veuillez cocher toutes les rép	nses
Dans le cadre du projet territorial de la Saâne et du projet PACCo (Promouvoir l'Adaptation aux Changements Côtiers), le Conservatoire du littoral a élaboré un questionnaire visant à identifier vos	pertinentes)		
usages de la basse vallée de la Saâne et votre connaissance du territoire, de ses risques naturels et du proiet territorial Basse Saâne 2050.	Marche	□ Achat de produits de la pêche	
fe nuestinnnaire est strictement annume et sera à comuléter inscru'au 31 iuillet	Promenade du chien Course à nied/iogging/marche	□ Plage ranide □ Shorts nautiones/nlaisance	
2022.	Observation de la faune/ flore	 Parapente Parapente 	
La version en ligne est également disponible via le QR-code ci-contre :	 Photographie 	□ Chasse □ Autre :	
Section 1: le site de la basse vallée de la Saâne et ses usages	7) Combien de temps pass	22-vous dans la vallée ? (Veuillez cocher la case appropriée)	
 Avez-vous déjà visité la vallée de la Saâne? 			
a Oui a Non	Jusqu'à quatre heures	o Jusqu'à six heures	
2) A quelle fréquence annuelle visitez-vous la vallée de la Saâne ? (Veuillez cocher l'option qui	🗆 Jusqu'à douze heures	o Autre :	
correspond le mieux à votre cas)	8) De manière générale, av	ec qui visitez-vous le site ? (Veuillez cocher la case appropriée)	
Moins d'une fois par mois (2 – 5 visites par an)			
\Box Une fois par mois (6 – 15 visites par an)	Suis seul(e) Avec (des ami(e)s Avec de la famille/des enfants	
2 à 3 fois par mois (16 – 40 visites par an)	Avec des amis et de la famille	En couple De Autre :	
□ 1 à 3 fois par semaine (41 – 180 visites par an)			
I tous les jours (sou - sos visites par an) Plus d'une fais par jour (365 visites ou plus par an)	 Uans quelle mesure ete diversard¹¹ et 5 "la cuis s 	s-vous d'accord avec l'attirmation suivante (1 "Je ne suis pas di atticrement d'accord" 2 (Amillos accorder la chiffee)	tout
n Autre :	מ מררחות פרחי הב התוא	interentien a accord 1 (veatures encertrer te cuiff) el	
		"Je reviendrai certainement ici"	
 a) quels sont les points a interiets sur ce site seron-vous r D'falaises D'fages 	1 2	3 4 5 🗆 🗆 Ne sais pas	
Zones humides a Rivières/cours d'eau	in the second seco		
Patrimoine culturel, historique et bâti	10) Citez 3 mots qui vous vi	ennent à l'esprit pour caractériser la vallée	
 Patrimoine naturel (géologie et biodiversité) 			Γ
a Autre:			
 Pourquoi êtes-vous venus dans la vallée ? 	11) Qu'est-ce qui vous plaît	e plus dans la vallée de la Saâne ?	
🗆 Résident 👘 Achat Alimentaire			
D Vacances D Travail			1
a Loisirs a Autre:			ĥ
5) (Si vous cochez la case "vacances") Séjournez-vous à proximité, ou visitez-vous simplement le	12) Qu'est-ce que vous n'ap	préciez pas dans la vallée de la Saâne ?	
site pour la journée ?			1
Séjour d'une nuit au minimum (hébergement de vacances, amis, famille) Veuillez préciser la durée du séjour : jours			1
	13) Dans quelle mesure ête	s-vous d'accord avec l'affirmation suivante ? (1 signifie « Je ne s	.9
	pas du tout d'accord » e	t 5, « Je suis entièrement d'accord ») (Veuillez entourer un chiffr	1

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2

	"La vallée	de la Saâne tel	le qu'elle est act	uellement (st naturelle."	
1	2	з	4	Ŋ	In Ne sais pas	18) D'après vous, d'ici combien de temps votre logement pourrait être affecte par un de ces ricense 2
	٦.	a vallée est sur	-fréquentée en p	nériode esti	vale."	
1	2	3	4	S	Ne sais pas	L'inondation
	"La	vallée est calme	: et ressourçante	, je m'y ser	is bien."	🗆 II l'est déjà 🗆 avant 2050 🗆 avant 2100 🗖 après 2100 🗇 Jamais
1	2	s	4	S	Ne sais pas	La Submersion marine
						🗆 II l'est déjà 🛛 avant 2050 🛛 entre 2050 et 2100 🕞 après 2100 🕞 Jamais
14) Com	ment jugez-vo	us la qualité de	l'eau ? (1 signifie	« mauvaist	a » et 5 « très bonne »)	Ľérosion
(Veu	iillez entourer u	in chifte)				🗆 Il l'est déjà 🗆 avant 2050 🗆 entre 2050 et 2100 🛛 après 2100 🛛 Jamais
1	Rivière 2	ŝ	4	Ś	□ Ne sais pas	Le Ruissellement
1	Mer 2	m	4	S	Ne sais pas	🗆 II l'est déjà 🗆 avant 2050 🗆 entre 2050 et 2100 🛛 a après 2100 🛛 Jamais
Sect	tion 2 : Votre	perception de	is risques natur	els et de l'	adaptation au changement	19) Pensez-vous que la digue-route protège suffisamment contre les risques de submersion marine ${\it P}$
			climatique			Dourquoi :
15) A qu	uel degré esti	imez-vous votr	e niveau de co	nnaissance	par rapport au changement	20) Pensez-vous que ce site est vulnérable dans un contexte de changements climatiques ?
clim	atique ? (1 sign	nifie « aucune co	onnaissance » et	o tres bor	ines connaissances »)	a Oui a Non
1	2	3	4	5	In the sais pase	Pourquoi :
16) Seloi risau	n-vous, les con les naturels ? S	imunes de la Bá il oui, letslouelfe	sse Vallée de la S	aâne sont-e	elles soumises à un ou plusieurs	21) Avez-vous connaissance d'événements historiques liés à ces risques dans la basse vallée de la Saêne ? (Si oui, préciser les événements historiques que vous connaissez)
						a Oui a Non
			2			Si oui :
Pour les p	ersonnes habit	'ant à l'extérieu	r du site, passez	à la questic	n 19	22) Selon vous, quelle serait la meilleure solution d'adaptation au changement climatique ?
	Les	s risques nature - S	ls dans la basse v ubmersion marit	allée de la S	aâne :	le maintien du trait de côte (digue, épis) de déplacement des populations et des services d'alsser-faire" la nature d'alsser-faire" la nature. 233 En quefouse mots, pouvez-vous m'expliquer pourouoi cette solution est la plus efficace?
		12	 Inondation Érosion de falais Ruissellement 	¢۵		
17) Mên	ne question po	vur votre logem	ent si vous résid	ez dans la	basse vallée de la Saâne. Est-il	24) En lien avec le risque de submersion/inondation, avez-vous connaissance de projets d'adaptation au changement climatique ? (Si oui, préciser lesquels)
soun	nis à un ou plu	sieurs risques ?				Dui Don
					28	Si oui, le(s)quel(s) :
					m	4

16, des actions ont été r catives ont été réalisé pprofondies ont été me	e-sur-Mer ; i du pont-cadre, ainsi q puration et le raccordei	Denis d'Aclon et Ouvil enjeux du projet perme lité de vie et la résilien		ares probables fou, cor	cord avec les affirmat rement d'accord ») (Ve		Ne sais pas	n Na caic nac	nise en œuvre de ce	Ne sais pas		In the sais passing of	O Ne sais pas		Ne sais pas		
sance) a Saâne en 20: ancées signifi t financières al	air à Quibervill nt l'installatior cet ouvrage ; ine station d'é	ongueil, Saint- ation avec les e enforcer la qua		t de ses avants	ètes-vous d'ac « Je suis entiè		5	Ľ	a suite de la n	5 Somia locala "		ک urité du territ	'n	diversité."	2	jet 7	
n avez pas comuns la basse vallée de l nondation, des av ides techniques et s du projet :	ôtellerie de plein a sr, avec notamme 'eau en amont de ngueil, qui inclut u	communes de Lo ,, Brachy ; erritoire en adéqui liversité, afin de re		ios de ce projet el	quelle mesure é ut d'accord » et 5,	nt d'ici la fin 2025	4	après le projet " A	plus attrayant à l	4 Affense noue Pácos	cjique pour r	4 éfique pour la séc	4	éfique pour la bio	4	r rapport à ce proj	non 🗆
projet si vous it et ojet territorial de l tion des risques i oncière, et des étu oncière, complexe	n équipement d'h du fleuve à la me ı tracé du cours d' inissement sur Lo	ogements sur les inneville, Gueures on paysagère du ti milieux et la biod		savez plus à pror	aviez déjà), dans e ne suis pas du to	e site plus souver	e S	us fréquemment	de la Saâne sera	3 In Crâne cerr hán		з la Saâne sera bén	e	la Saâne sera bén	ß	réoccupations pa	réciser) :
l'adoption du Pr l'adoption du Pr vre, pour la gest e d'acquisition fo e sur les aspects	La création d'ur La reconnexion modification du Le projet d'assa	de nombreux Rivière, Thil-Ma La recompositio de restaurer les	la basse vallee.	ant due vous en	ce que vous s s ? (1 signifie « Ju · les unleurs corre	ais, je visiterai i	2	drai sur le site pl 7	age de la vallée	2 at territorial de l		د د territorial de ا	2	et territorial de l	2	Avez-vous des p	🗆 Oui (Veuillez p
Depuis en œur matière à terme	••••	٠		Mainten	tenu de suivante	"Désorn	., i	"Je vien	"Le pays projet."	1 "Le nroi	5.4.5	1 "Le proj	F	"Le proj	1	31)	
nement de bonne quaite selon- tives)	he slikke	liée de la Saâne est impactée par tée » et 5, « fortement	□ Ne sais pas		e vallée de la Saâne ?	□ Ne sais pas	sont les principaux			rd avec les affirmations s entièrement d'accord »		Ne sais pas		□ Ne sais pas	□ Ne sais pas	ngement climatique et ses	Ne sais pas
trations d'un environnement de bonne qualité selon- r les plus représentatives)	one humide Une slikke Une prairie	biodiversité de la vallée de la Saâne est impactée par signifie « pas impactée » et 5, « fortement	4 5 🗆 🗆 Ne sais pas		Saâne territorial de la basse vallée de la Saâne ?	a Non a Ne sais pas	gêre ce projet et qui sont les principaux			ure êtes-yous d'accord avec les affirmations ccord » et 5, « je suis entièrement d'accord »		t projet territorial." 1 5 ⊡ Ne sais pas	de ce noviet "	4 5 a loss	4 5 🛛 🗠 Ne sais pas	nformé(e) sur le changement climatique et ses	4 5 🛛 🗆 A sais pas
s deux meilieures representations d'un environnement de bonne qualité selon- er celles qui vous semblent les plus représentatives)	Uhe peupleraie Uhe sone humide Uhe slikke Uhe prairie	esure pensez-vous que la biodiversité de la vallée de la Saâne est impactée par angement climatique ? (1 signifie « pas impactée » et 5, « fortement uillez entourer le chiffre)	3 4 5 🗆 🗠 Ne sais pas		projet Territorial de la Saâne entendu parler du projet territorial de la basse vallée de la Saâne ?	Non I Nos I N	titon 27) : Savez-vous qui gêre ce projet et qui sont les principaux			ttion 27) Dans quelle mesure êtes-vous d'accord avec les affirmations ignifie « je ne suis pas d'accord » et 5, « je suis entièrement d'accord »	rer le chijtre)	détalls des opérations du projet territorial." 3 d 5 DNe sais pas	lac obligatific at la filmulité da ca moiat "	an organization of the project. 3 4 5 ⊡ Ne sais pas	ord avec ce projet." 3 4 5 ⊡ Ne sais pas	et territorial, je suis plus informé(e) sur le changement climatique et ses	:communes littorales" 3 4 5 ⊐ Ne sais pas
25) Quelles sont les deux melleures représentations d'un environnement de bonne qualité selon- vous ? (Entourer celles qui vous semblent les plus représentatives)	Uhe plage de galet Uhe peuplerate Uhe zone humide Uhe slitke Uhe gratife	26) Dans quelle mesure pensez-vous que la biodiversité de la vallée de la Saâne est impactée par les effets du changement climatique ? (1 signifie « pas impactée » et 5, « fortement impactée » (Veuillez entourer le chiffre)	2 3 4 5 🗆 Ne sais pas		Section 3 : Le projet Territorial de la Saâne 27) Avez-vous déjà entendu parler du projet territorial de la basse vallée de la Saâne ?	a Oui a Non a Ne sais pas	28) (Si oui à la question 27) : Savez-vous qui gère ce projet et qui sont les principaux	partenaires ?	Oui (Veuillez préciser) : Non	29) (Si oui à la question 27) Dans quelle mesure êtes-vous d'accord avec les affirmations suivantes 7 (1 signifie « je ne suis pas d'accord » et 5, « je suis entièrement d'accord »	(veurilez entourer le chiffre)	"Je connais les détails des opérations du projet territorial." 2 3 4 5 ⊡ Ne sais pas	"la commande les chiactifs et la finalità de ce acciet "	ze cumprume ne e cu junume ue ce projec. 2 3 4 5 ⊡ Ne sais pas	"Je suis en accord avec ce projet." 2 3 4 5 ⊡ Ne sais pas	"Grâce au projet territorial, je suis plus informéle) sur le changement climatique et ses	impacts sur les communes littorales" 2 3 4 5 🛛 Ne sais pas

mises es en enées

- ue la ment ment le-la-ttant ce de ce de tions uillez

"Je viendr	ai sur le site pl	us fréquemmen.	t après le projet	2	
7	2	£	4	5	In the sais pase
"Le paysa projet."	ge de la vallée	de la Saâne ser	a plus attrayant	à la suite de la m	ise en œuvre de ce
4	2	З	4	5	In Ne sais pas
"Le projet	territorial de l	a Saâne sera bé	néfique pour l'éi	conomie locale."	
F	2	æ	4	5	□ Ne sais pas
"Le projet	territorial de l	a Saâne sera bé	néfique pour la :	sécurité du territo	ire."
H	2	ю	4	5	O Ne sais pas

32) Quels sont, selon vous, les bé	ânéfices que pourrait apporter ce projet, dans un avenir proche	D Non binaire	
et lointain, pour la vallée de l	la Saâne ? (Veuillez préciser)	u Je préfère ne pas répondre	
		37) A quelle tranche d'âge apparter	ez-vous ? (Veuillez cocher la case appropriée)
		0 18-29 0 30-44	
Veuillez ne répondre aux questions restauration de la basse vallée de la 5	i dans cette section que si vous êtes au courant du Projet de Saâne avant auiourd'hui. Si vous n'en aviez nas entendu parler.	□ 45-59 □ 60-74	
veuillez passer à la question 35		□ 75 ou plus □ Je préferene	pas répondre
33) Comment avez-vous eu conni	aissance du projet ?	38) Quel est votre diplôme le plus é	ievé ? (Veuillez cocher le niveau ou l'équivalent le plus proche)
🗆 Lettre de la Saâne		Brevet ou équivalent	Baccalauréat ou équivalent
 Presse écrite préci- 	iser :	BIS ou licence (bac +2 +3) Destruction	D Master, Ingenieur, DESS (bac +5)
Dournal télévisé		D Autre:	u upionne proressionnei Die préfère ne pas répondre
Site Web (Conservatoire du	Jittoral ou PACCo)	39) One lest votre statut profession	nel ? (Veuillez cocher la case annronciée)
n Réimions mubliques			
J'y ai assisté (à au moins un	he réunion) □ Je n'y suis pas allé(e)	🗆 Employé à temps plein	🗆 Employé à temps partiel
		Sans emploi (à la recherche d'un emp	oi) 🛛 Sans emploi (ne cherche pas d'emploi)
Exposition (panneaux dispo	osés en extérieur sur les 3 communes de la basse vallée)	🗆 Indépendant, libéral	🗆 Retraité
 J'y suis alle(e) 	Den'y suis pas alle(e)	Bénévole	🗆 Étudiant
🗆 Bouche à oreille (famille, ar	mis)	🗆 Autre :	I e préfère ne pas répondre
🗆 Autre :		40) Êtes-vous investi(e) (temps/arg	ent) dans un organisme agissant en faveur de la conservation
		de la nature ? (Veuillez cocher l	i case appropriée)
34) Quelles sont les mèthodes de	e communication les plus efficaces selon vous ? (Veuillez cocher	a Oui a Non	Le préfère ne pas répondre
toutes les réponses pertinente	(sa		
Article de journal	🗆 Journal télévisé	41) Quelle est votre commune de r	ssidence ? (Préciser au moins le département d'origine si vous
🗆 Lettre de la Saâne	Site internet	ne souhaitez pas indiquer votre	commune)
Réseaux sociaux	🗆 Panneaux exposés en extérieur		
Réunion(s) publique(s)	a Autre :		
35) Vanillaz utilisar cetta zona de	s texte si vous souhaites partager d'autres idées ou	42) Depuis combien de temps y viv	2-vous ?
commentaires (sur le projet, i	la communication, les opérations de travaux) :		
		Pour les personnes habitant à l'extér	eur de la vallée, merci de passer directement à la section 2
		43) Si vous n'êtes pas résident pern	anent dans la vallée, y avez-vous une résidence secondaire ?
Section 4 : Profil du visiteu			 Je préfère ne pas répondre
36) Vous êtes : (Veuillez cocher la	a case appropriée)	44) Si vous êtes résidents princ concensation à voite l'organisme	paux ou secondaires, pouvez-vous me précisez la zone
D Homme			
Femme			
	7		8



Les informations que vous nous avez transmises ne seront utilisées que dans le contexte de cette étude. Merci infiniment de votre participation à cette enquête pour le projet PACCo (Promouvoir l'Adaptation aux Changements Côtiers). 6

Appendix 3: Conducting face-to-face surveys

Date	Location	Number of completed questionnaires	Number of refusals	Respon se rate	Weather	Duration o o	f presence n site
28-Apr	Quiberville / Longueil	3	6	33%	sunny	whole day	1
04-May	Quiberville / Longueil	4	10	29%	sunny	whole day	1
14-June	Quiberville	15	18	45%	sunny	after noon	0,5
21-June	Ouville-la- Rivière	3	13	19%	rainy / cloudy	morning	0,5
22-June	Quiberville	8	9	47%	cloudy	morning	0,5
23-June	Quiberville	15	19	44%	cloudy	whole day	1
28-June	Quiberville	18	22	45%	sunny	whole day	1
29-June	Quiberville	17	26	40%	sunny	whole day	1
01-Jul	Quiberville	15	23	39%	sunny	whole day	1
05-Jul	Quiberville / Longueil	24	30	44%	sunny	whole day	1
06-Jul	Quiberville	19	22	46%	cloudy	whole day	1
08-Jul	Quiberville	15	15	50%	sunny	whole day	1
13-Jul	Quiberville / Longueil	17	21	45%	sunny	whole day	1
19-Jul	Quiberville	12	32	27%	heatwave	whole day	1
20-Jul	Quiberville	23	19	55%	rainy / cloudy	whole day	1
21-Jul	Quiberville	16	25	39%	sunny / cloudy	whole day	1
26-Jul	Quiberville / Longueil	14	23	38%	sunny	whole day	1
27-Jul	Quiberville	11	20	35%	sunny	whole day	1
28-Jul	Quiberville	18	22	45%	sunny	whole day	1
05-August	Quiberville	14	13	52%	sunny	whole day	1
TOTAL		281 Of which 246 were usable	388	42%			18,5

Annex 4: Distribution of the resident population of each commune in the lower valley

	Hommes	%	Femmes	%	
Ensemble	261	100,0	286	100,0	
0 à 14 ans	35	13,3	40	14,0	
15 à 29 ans	28	10,6	28	9,7	
30 à 44 ans	45	17,3	46	16,1	
45 à 59 ans	60	23,1	64	22,2	E
60 à 74 ans	75	28,6	77	26,9	R
75 à 89 ans	17	6,7	29	10,0	R
90 ans ou plus	1	0,4	3	1,1	L

Figure 1: Distribution of the population of Quiberville by age and gender

1		1968(*)	1975(*)	1982	1990	1999	2008	2013	2018
2	Ensemble	394	397	437	483	508	594	563	587
9	Résidences principales	122	140	162	173	197	239	255	267
D	Résidences secondaires et logements occasionnels	258	233	257	302	287	343	291	308
1	Logements vacants	14	24	18	8	24	12	16	11

Source: INSEE data, 2018

Figure 2: Distribution of the population of Longueil by age and gender

	Hommes	%	Femmes	%									
Ensemble	284	100,0	277	100,0									
0 à 14 ans	52	18,3	49	17,7									
15 à 29 ans	45	16,0	28	10,0									
30 à 44 ans	46	16,3	50	18,1		1968(*)	1975(*)	1982	1990	1999	2008	2013	201
45 à 59 ans	58	20,4	74	26,6	Ensemble	207	222	241	249	253	271	290	30
60 à 74 ans	58	20,5	44	16,0	Résidences principales	181	183	198	198	205	217	239	233
75 à 89 ans	23	8,2	30	10,9	Résidences secondaires et logements occasionnels	21	27	24	38	35	44	43	52
90 ans ou plus	1	0,4	2	0,7	Logements vacants	5	12	19	13	13	10	8	13

Source: INSEE data, 2018

Figure 3: Distribution of the population of Sainte-Marguerite-sur-Mer by age and gender

	Hommes	%	Femmes	%								
Ensemble	231	100,0	241	100,0								
0 à 14 ans	50	21,6	34	14,0								
15 à 29 ans	15	6,6	23	9,7								
30 à 44 ans	32	13,7	42	17,4		1968(*)	1968(*) 1975(*)	1968(*) 1975(*) 1982	1968(*) 1975(*) 1982 1990	1968(*) 1975(*) 1982 1990 1999	1968(*) 1975(*) 1982 1990 1999 2008	1968(*) 1975(*) 1982 1990 1999 2008 2013
45 à 59 ans	51	22,0	44	18,2	Ensemble	Ensemble 233	Ensemble 233 324	Ensemble 233 324 381	Ensemble 233 324 381 372	Ensemble 233 324 381 372 395	Ensemble 233 324 381 372 395 416	Ensemble 233 324 381 372 395 416 426
60 à 74 ans	62	26,9	59	24,6	Résidences principales	Résidences principales 88	Résidences principales 88 99	Résidences principales 88 99 148	Résidences principales 88 99 148 173	Résidences principales 88 99 148 173 192	Résidences principales 88 99 148 173 192 214	Résidences principales 88 99 148 173 192 214 209
75 à 89 ans	20	8,8	36	14,8	Résidences secondaires et logements occasionnels	Résidences secondaires et logements occasionnels 145	Résidences secondaires et logements occasionnels 145 216	Résidences secondaires et logements occasionnels 145 216 210	Résidences secondaires et logements occasionnels 145 216 210 190	Résidences secondaires et logements occasionnels 145 216 210 190 194	Résidences secondaires et logements occasionnels 145 216 210 190 194 185	Résidences secondaires et logements occasionnels 145 216 210 190 194 185 204
90 ans ou plus	1	0,4	3	1,3	Logements vacants	Logements vacants 0	Logements vacants 0 9	Logements vacants 0 9 23	Logements vacants 0 9 23 9	Logements vacants 0 9 23 9 9	Logements vacants 0 9 23 9 9 16	Logements vacants 0 9 23 9 9 16 13

Source: INSEE data, 2018