

Data & Analysis

.....

KEY FIGURES “WELL-BEING AND BRETON LANDSCAPES”

(2024 EDITION)





Ms. Aurélie Mestres
President
of the Observatoire
de l'environnement
in Brittany
Deputy Director
of Dreal Bretagne



M. Jérémy Allain
Vice-Chairman of the
Observatoire
de l'environnement
in Brittany
Vice-Chairman of
Lamballe Terre & Mer
- adaptation to climate
change and
contractualisation



Ms. Delphine Alexandre
Vice-President of the
Brittany Region - Health,
water and biodiversity

Preserving the quality of the landscapes that make up Brittany

Known for its emblematic landscapes, Brittany has 264 listed sites that are protected by law for their exceptional character. But above all, our region is an inhabited and attractive territory, made up of so-called "everyday" landscapes: urban, peri-urban, rural, forested, coastal, and etc. Preserving this diversity of landscapes is a social, environmental and economic challenge.

In line with regulations, European and national commitments and local landscape issues, local authorities are responsible for defining landscape quality objectives in their town planning documents, in line with the aspirations of local residents. But these 'everyday' landscapes are appreciated differently by everyone. Preserving high-quality landscapes for everyone means taking these differences in perception into account and developing solutions that reconcile the different issues.

The regional survey on "well-being and Breton landscapes" highlights the variety of points of view in a well-argued way: what people agree on, what contributes to the quality of our landscapes and what is the subject of debate. The 2,271 Breton people who took part in the survey praise nature by showing their attachment to the unique features of the Breton landscape, but also their disappointment, and even concern, about the increasingly rapid and extensive changes to the landscape. They also proposed actions based on the ecological virtues of plants and the principles of sobriety.

Ultimately, the results of the survey provide elected local representatives with a wealth of information to help them identify and implement measures to take account of the aspirations of their constituents. By planning to repeat the survey in 10 years' time, the Observatoire de l'environnement en Bretagne will be able to measure changes in people's perceptions as the landscape changes.

Guaranteeing the quality of landscapes to promote social and individual well-being and to preserve ecosystems is our shared ambition in Brittany. This can be achieved by helping each local authority to preserve the diversity and natural components of its landscapes, and to develop its own policy in line with the expectations of its citizens and stakeholders, and the landscape dynamics at work locally.

DISCLAIMER • DATA AND ETHICS

The data used to produce this document comes from the 2022-2023 edition of the regional "well-being and landscapes in Brittany" survey.

Ethics

All statements are anonymized. Verbatims with an aggressive nature have been analyzed, however, they are not published in this document.

Qualitative Data

Collection : 120 semi-structured interviews were conducted and transcribed by Master's students in "Environment, Territories, and Actors" and "Planning and Local Authorities" from the University of Rennes 2 from December 1, 2022, to March 31, 2023.

Processing : The transcriptions were analyzed by the OEB according to socio-geographic criteria and by theme (description of everyday landscapes, observed changes, desired evolutions, etc.).

Format : Quotes and frequencies.

Quantitative Data

Collection : 3,818 online surveys were filled out by internet users on the OEB website from December 1, 2022, to March 31, 2023 :

- 1,667 surveys are incomplete and therefore not processed.
- 2,151 surveys are fully completed. This is our unadjusted sample.

Processing : Depending on the analysis needs, the sample was processed using 2 methods :

- Unadjusted sample : this sample was not subject to adjustment, it is not representative of the Breton population. The conclusions are not generalizable.
- Adjusted sample: this is a sample that has been weighted according to the characteristics of the Breton population (age, gender, socio-professional category, demographic weight by department). This sample is representative of the Breton population. It is therefore possible to draw probative conclusions concerning the population as a whole.

The weighting was performed by the market research company TRYOM (October 2023).

The analysis of the results is based on a confidence interval (the ratio between the sample size and the deviation between a value and the average of all values).

If the number of respondents to an answer is :	The response will be significant if the value exceeds the mean by :
Less than 50 respondents	10 points more or less
Between 50 and 150 respondents	8 points more or less
Between 150 and 300 respondents	5 points more or less
Between 1,000 and 1,500 respondents	2 to 3 points more or less

Format : Pourcentages et citations (questions ouvertes).

Se repérer dans le document

A title block describes the data used for each visual (map, figure, etc.).

SDI qNAS qAS n = 2 151

SDI : Semi-directive interviews

qNAS : Questionnaire, Non-adjusted sample

qAS : Questionnaire, Adjusted sample

n = 2 151 | Number of respondents to the question

Exemple :

qAS : Questionnaire, Adjusted sample

n = 1 569 | Number of respondents to the question

qAS n = 2 151

SOURCES AND EXTENSIONS



The document is based on data external to the survey (INSEE, Observatoire des territoires, etc.). The sources of these data are available in "Sources and Methodology".



The references mentioned in the document that come from scientific literature or institutional reports are included in the "Bibliography".



Each chapter includes links to web articles and downloadable documents to help you explore the themes covered in greater depth.

CONTENTS

.....

06 > 09

Co-constructing knowledge about Breton landscapes

10 > 21

Chapter 1 : The Landscape Makers Engaged in Brittany

- A survey covering the variety of Breton landscapes
- 2,151 respondents to the online questionnaire
- 120 residents met in the territories
- The operational vision of local elected representatives
- The mobilisation of landscape professionals
- The desire to act among Bretons

22 > 43

Chapter 2 : Everyday Landscapes

- Nature and tranquility, the guarantors of a well-appreciated living space
- A consensus to improve the landscapes of living spaces
- Workplace landscapes, primarily functional landscapes
- The experience of traversed landscapes
- Popular natural leisure areas
- A protectionist view of leisure landscapes
- Between diversity and fragility of Breton landscapes
- The importance of flora and fauna in everyday landscapes

44 > 57

Chapter 3 : Thematic Focus

- The tree with healing virtues
- A diverse and debated agriculture
- Water, the thread of Breton landscapes
- Climate change : a growing awareness
- Little discussed energy landscapes
- Limit the "artificialisation" of land
- Reducing pollution in all its forms
- Brittany through its heritage landscapes

58 >

What's on the horizon ?

59 > 60

Sources and methods – Abbreviations

61 >

Bibliography

CO-CONSTRUCTING KNOWLEDGE ABOUT BRETON LANDSCAPES

Bretons are engaged in Landscape Knowledge.

During the autumn-winter period of 2022-2023, nearly 2,300 residents, elected officials, and landscape professionals from Brittany participated in the regional survey "well-being and Breton landscapes". This significant contribution brings out the first result : the women and men of Brittany engage in the collective construction of landscape knowledge by responding to the study. Analyzing perceptions allows for characterizing and qualifying our landscapes closely, based on everyone's experience. This approach fully corresponds to the notion of landscape as defined in the Landscape Convention of the Council of Europe (2000): it is "a part of territory as perceived by people".

The landscape is an essential element of living environment. For the Council of Europe, it expresses "the will to confront comprehensively and directly the theme of the quality of places where people live, recognized as an essential condition for the well-being (understood in the physical, physiological, psychological, and intellectual senses) of individuals and society" (Council of Europe, 2008). The results of the survey aim to expose the well-being factors that are derived from the characteristics of everyday landscapes.

The First Regional Survey on Landscapes in France !

Because the issue of everyday landscape is recent in public policies, the construction of landscape data is also recent. The network of landscape knowledge actors in Brittany is very active. They wish to develop a science that is created with citizens and experts, a participatory science that can have an effect on public decision-making, particularly in territorial planning. That is why the OEB launched the very first regional survey ever conducted in France and asked residents directly what they think about their everyday landscapes: Do you feel good in your living place within 1 km? What are the well-being landscapes within 1 km of your home? How do you perceive landscapes during your home-to-work commutes? What actions should be implemented

to improve Breton landscapes?

In living places, during daily commutes, at work, or in leisure activities, each of us encounters landscapes. Some landscapes are appreciated, described as calm, beautiful, refreshing. Others are less considered because they are qualified as stressful, noisy, ugly. The results of the survey put words to the landscapes we encounter every day. The originality of the survey lies in the repetition of the approach in 10 years to measure the evolution of perceptions of Breton landscapes.

Defining what makes quality in our everyday landscapes

Based on the results, the said publication aims to answer two questions:

1. What are the characteristics that

make landscapes considered as quality today?

2. What are the challenges to improve the quality of landscapes for the future?

The results aim to help decision-makers understand the feelings of citizens and improve their well-being through actions on the arrangement of public spaces, modes of transportation, and places of conviviality, for example. Also, it is about facilitating democratic debate on the making of our territories by giving citizens access to landscape knowledge.

Results to help define landscape quality objectives

With the 2016 law on the reconquest of biodiversity, nature and landscapes, the definition of landscape quality objectives has become an obligation for local authorities.

According to article L. 333-1 of the French Environment Code and article L. 141-4 of the French Town Planning Code, landscape quality objectives "designate the guidelines aimed at conserving, supporting changes in or generating transformations of landscape structures, making it possible to guarantee the quality and diversity of landscapes on a national scale".

Landscape quality objectives should be formulated as part of an operational strategy through landscape plans, Schémas de Cohérence Territoriale (SCoT) or Regional Nature Park (PNR) charters. In the case of the latter two documents, environmental assessment is a regulatory requirement, backed up by the indicators needed to carry it out.

QUELS SONT LES ESPACES DE CONVIVIALITÉ PROCHES DE CHEZ VOUS ?



Example of a postcard distributed in Brittany to promote the survey
ADEUPa Brest-Bretagne

What Data was Collected?

The OEB employed two survey techniques to, on one hand, reach a broad panel of Bretons and, on the other hand, to cross-reference qualitative and quantitative data.

Online questionnaire

From December 1, 2022, to March 31, 2023, a questionnaire was posted online consisting of around fifty questions, some open-ended and others closed. An additional ten questions were aimed at deepening the understanding of landscapes among local elected officials and landscape professionals (environmental planners, urban planners, farmers, foresters, landscape architects, maintenance workers of green spaces, etc.).

In total, 3,818 individuals participated in the online questionnaire: 2,151 surveys are complete whereas 1,667 incomplete ones were not analyzed.

The large sample size allows for a high level of confidence. The overall sample studied is distributed as follows:

- 1,951 residents,
- 145 landscape professionals,

- 55 local elected representatives.

The overall sample was adjusted to ensure that the study is representative of the Breton population.

For landscape professionals and local elected officials, given the limited sample size, the analysis focuses on the responses of the respondents and is not generalized across Brittany.

Semi-Structured Interviews on the field

Simultaneously, from September 2022 to April 2023, the OEB commissioned two professional workshops from the Master's programs "Environment, Territories, and Actors" and "Planning and Local Communities" at the University of Rennes 2. Nine students met with 120 residents to conduct semi-structured interviews. The interview guide was developed to complement the online questionnaire by refining certain themes such as the temporality of landscapes, changes observed in the landscapes, or concerns for the future.

A total of 1,600 pages of transcriptions were produced. These qualitative data are cross-referenced with the quantitative data from the online questionnaire. They will feed into a major regional collaborative project on the co-construction of landscape indicators.



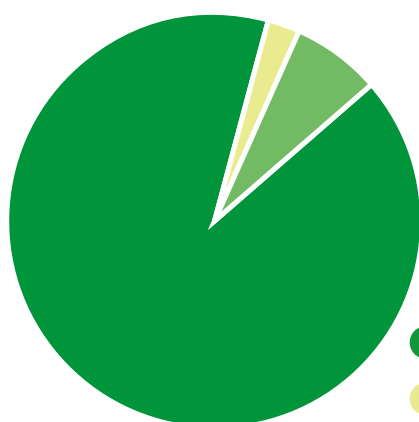
Download data from the regional survey "well-being and Brittany landscapes"

data.bretagne-environnement.fr/datasets/enquete-regionale-bien-etre-et-paysages-bretons

Survey data analysed

On line
2,151 questionnaires analysed

Respondent profiles (%)



- 1,951 inhabitants
- 55 local elected representatives
- 145 landscape professionals

+

In the field
120 Semi-directive interviews



- with inhabitants
- face-to-face or by telephone
- 1,000 pages of interviews transcribed in full

DEVELOPING LANDSCAPE INDICATORS

Integrating landscape into environmental indicators

The OEB monitors the environmental state of Brittany and provides data to territories. These data-related missions aim to facilitate public decision-making and provide access to environmental information to citizens. In this regard, numerous indicators are developed on water, energy, biodiversity, etc.

In 2019, the OEB launched, in partnership with about fifteen Breton institutions, the co-construction of landscape indicators aimed at measuring landscape changes, with a view to maintaining or improving landscape health.

What is an indicator?

An indicator is "a parameter or a value calculated from parameters providing indications on or describing the state of a phenomenon, the environment, or a geographical area" (OECD, 1993).

The construction of an indicator is based on three principles:

- It is a synthesis of qualitative or quantitative data.
- The indicator must be repeatable over time to measure the evolution of a phenomenon.
- The scientific validation of an indicator is determined by the validation of the method of elaboration of the indicator.

An experimental field: Brittany

Since 2016, the issue of landscape indicators has been explored in Brittany. Several professional workshops from the University of Rennes 2 have allowed for structuring a generic framework with landscape actors, creating a methodological procedure, and refining proposals for indicators.

In 2019, the OEB coordinated the project by forming a pilot team with regular meetings. The project is experimental as few studies in France have been conducted on this topic despite European recommendations. Even before the design of landscape indicators, the project team set out to build a custom theoretical framework to assimilate the biogeographic and social aspects of the landscape (table below).

Eleven operational landscape indicators

From 2020 to 2021, the theoretical framework was put to the test by constructing operational indicators. These indicators are developed from existing tools, namely landscape atlases, photographic landscape observatories (OPP), and landscape plans. Each indicator is then contextualized by articles on the OEB website.

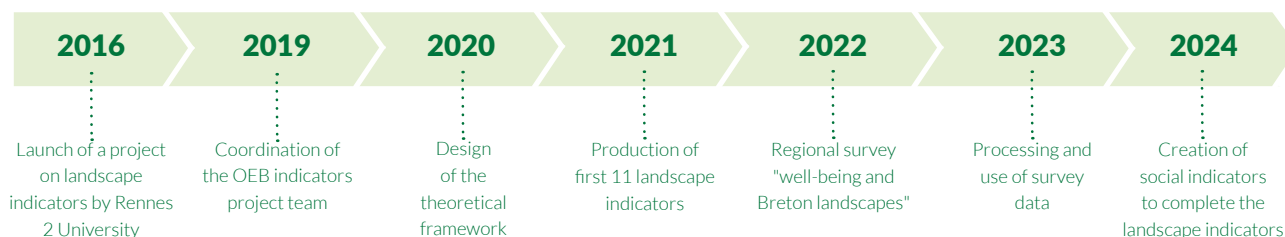
Later, the pilot team wanted to go further by developing the social aspect of Breton landscapes. Having few elements on the issue, the project for the regional survey "well-being and Breton landscapes" was launched with the perspective of creating new long-term data

Landscape indicators in Brittany integrated into a customised conceptual framework

The project team has designed a customised conceptual framework for each issue and each category, highlighting the specific features of the landscape. Each landscape indicator is integrated into this conceptual framework. The social indicators from the survey will also be integrated.

Categories Issues	Amenity	Pressure	Landscape component	Response
Diversity of landscapes				- No. of photo series in the POPP-Breizh - No. of landscape units affected by a landscape atlas
Landscape accessibility	No. of municipalities covered by a landscape plan	No. of landscape units	Monitoring landscape dynamics	Monitoring landscape high stakes
Landscape quality				No. of landscape plans
Citizen involvement	No. of people affected by a landscape plan			- No. of photo contests - No. of landscape photo observatories - No. of photographic observatories of the landscape with inhabitants

Categories	Issues
Amenity : Set of tangible and intangible landscape resources contributing to the amenity of a place and contributing to individual and / or social well-being.	Landscape diversity : Variety (in number) and variation (in organisation) of landscape components.
Pressure : Natural and/or human factors of influence and their interrelationships exerted on territories and perceptions. Pressure doesn't have a negative or positive connotation.	Landscape accessibility : Conditions of physical, visual and cultural access ; the fact of knowing : education, intelligibility of the landscape.
Landscape component : All the material characteristics of the landscape described at different scales of analysis (structure, unit, relief, view cone, composition, etc.).	Landscape quality : The quality of a landscape (or, conversely, its deterioration) in terms of assessment criteria linked to the value systems conveyed by different social groups (including residents, experts, local elected representatives, etc.).
Response : Action, behaviour, feedback. The response includes public policies, projects by residents, private and public institutions and associations in response to the pressures observed, in particular to accompany, correct and amplify their effects.	Citizen involvement : Various forms of interaction between people and landscapes that demonstrate a willingness to invest : appropriation, transmission, mediation, sharing, maintenance, rehabilitation, protection, awareness-raising, creation, etc.



A survey co-constructed with landscape knowledge partners

At the beginning of 2022, the project team worked on constructing the survey. Six meetings took place to debate the purposes, method, and content of the survey. It was noted that in France, large-scale, long-term landscape surveys (reiteration every 10-15 years) remained to be constructed.

In this context of mutual learning, the OEB and the UMR CNRS Espaces et Société 6590 invited cross-border regions as well as privileged partners of landscape issues at national and regional scales to reflect on setting up this survey during the regional cross-border cooperation seminar titled "Towards Quality Landscapes: For Whom? How?" on May 12 and 13, 2022, at the University of Rennes 2.

After a year of work, the online questionnaire and semi-structured interviews were launched during a major communication campaign. The various partners of landscape knowledge promoted the survey in their respective networks to have as many participants as possible, across all of Brittany.

Producing social indicators on breton landscapes

The results presented here are constructed, for the most part, on a regional scale in the form of key figures or qualitative data.

In a second phase, the OEB will develop social indicators on landscapes and the well-being of Bretons to feed into the existing landscape indicators.

The project team behind the survey

- Direction régionale de l'environnement, de l'aménagement et du logement de Bretagne (DREAL)
- Région Bretagne
- Observatoire de l'environnement en Bretagne (OEB)
- UMR CNRS Espaces et Société 6590
- Office français de la biodiversité (OFB)
- Directions départementales des territoires et de la mer du Morbihan et du Finistère
- Conseils départementaux d'Ille-et-Vilaine et des Côtes-d'Armor
- Parcs Naturels Régionaux d'Armorique et du Golfe du Morbihan
- Agence d'urbanisme de Brest-Bretagne (ADEUPa), Agence bretonne de la biodiversité (ABB)



Consult the project on landscape indicators

bretagne-environnement.fr/article/des-indicateurs-de-paysage-en-bretagne

Download the proceedings of the cross-border regional cooperation seminar entitled "Towards quality landscapes: for whom? how? "
bretagne-environnement.fr/notice-documentaire/Actes-seminaire-cooperation-regionale-transfrontaliere-paysage-qualite

Consult landscape indicators

bretagne-environnement.fr/article/jeu-indicateurs-regionaux-paysage-bretagne

Consult Brittany maps platform

carto.bretagne-environnement.fr/#/paysages



THE LANDSCAPE MAKERS ENGAGED IN BRITTANY

.....

Whether we are a inhabitant, local elected official, or landscape professional, each of us contributes in our own way to shape landscapes. Named the landscape makers in this chapter, survey participants played their part as evidenced by the 2,271 contributions analyzed. Thanks to this substantial corpus, the samples related to the online questionnaire and the semi-structured interviews are representative of the Breton populations and the variety of landscapes in the region. Furthermore, every other municipality is represented by at least one participation.

Responses from local elected officials converge towards a shared vision of the landscape, an operational vision where current challenges and tools integrate the landscape dimension into urban planning. As for landscape professionals, they mobilize all the existing tools on the landscape and work closely with other themes (biodiversity, energy, etc.). Residents wish to be more involved in improving everyday landscapes and call for awareness-raising actions on the theme.

- **40 % of elected local representatives consider that the current and future challenge is urban planning.**
- **69 % of professionals try to take landscape into account in their practices.**
- **79 % of inhabitants would like to be more involved in everyday landscapes.**

A SURVEY COVERING THE VARIETY OF BRETON LANDSCAPES

**1 MUNICIPALITY
IN 2
represented**

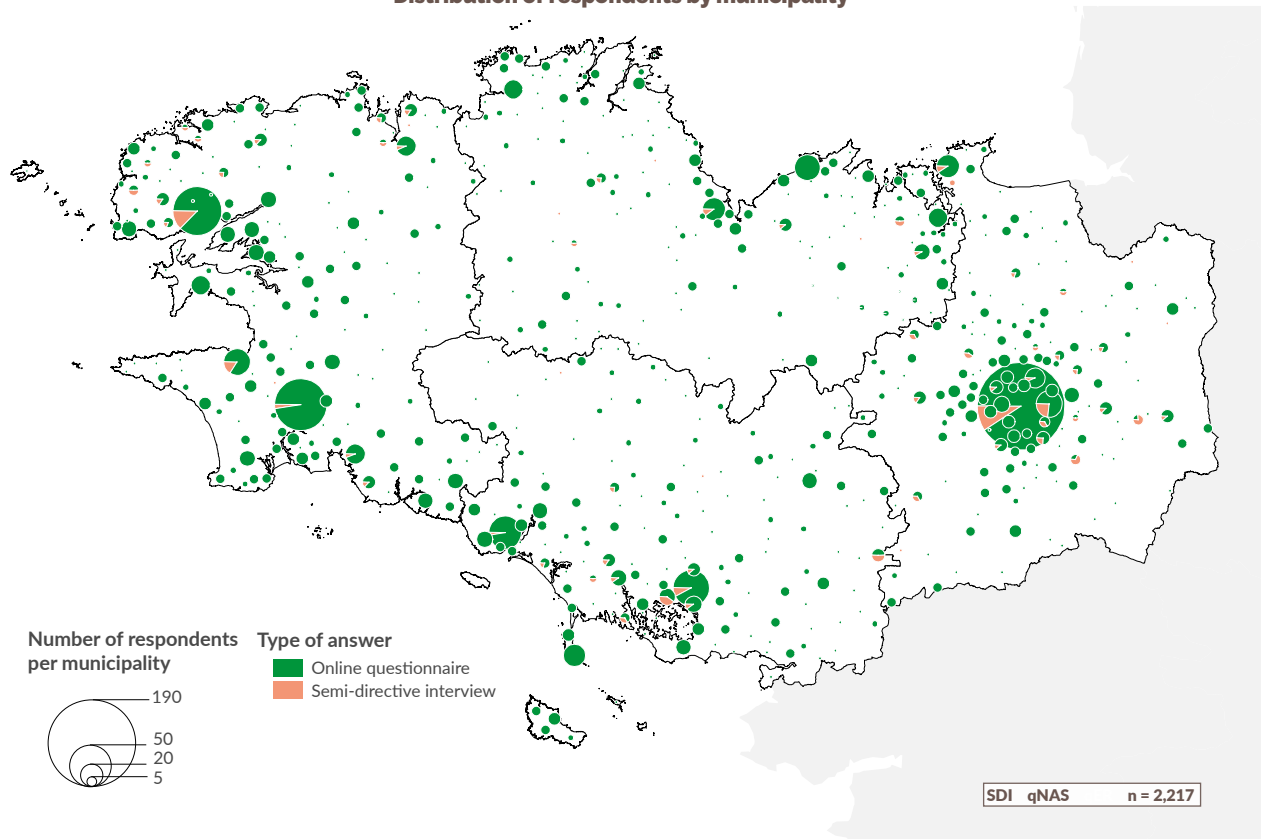
**- 55 % of respondents live
in a rural landscape.
- 45 % of respondents live
in a townscape.**



"I'm starting from a hamlet. We're really in the bocage, so the density of houses and people is very low. Then, after 5-6 km, I come to Châteaugiron, which in 20 years has gone from a town with 5-6,000 inhabitants to one with 11,000" [Amanlis, 35].

The distribution of the 2,271 Bretons who participated in the questionnaire and the semi-structured interviews covers all Breton territories and reflects the variety of everyday landscapes (rural, coastal, urban, agricultural coastal, etc.).

Distribution of respondents by municipality



Distribution of respondents according to administrative scales

The distribution of respondents by department is well balanced as shown in the table opposite.

Of 1,207 municipalities, 632 municipalities are covered by the sample. The 61 EPCI are covered by data to varying degrees, ranging from 382 respondents for Rennes Metropolis to 4 for Poher Community.

There is a concentration of respondents in metropolitan areas and agglomerations as well as on the coastline. 31% of the municipalities listed in the survey are coastal municipalities (compared to 22% in Brittany).

Distribution of respondents by Breton department

Department	Questionnaire*		Interviews		Questionnaire + Interviews		Population by department [%]
	Number	%	Number	%	Number	%	
Côtes-d'Armor	358	17	8	7	366	17	18
Finistère	655	31	33	27	688	31	27
Ille-et-Vilaine	639	31	56	47	695	31	32
Morbihan	445	21	23	19	468	21	23
Totaux	2,097	100	120	100	2,217	100	100

*54 respondents to the questionnaire live outside Brittany.

The coastal municipalities have a high density with 37% of the regional population living near the coasts. In terms of the survey, 39% of respondents live there. The coastal theme is thus well represented.

In central Brittany, the distribution of respondents is fairly homogeneous, which allows for an analysis of perceptions of rural landscapes.

Distribution of respondents according to landscape scale

The sample is distributed over the 7 families of landscape (Le Dû-Blayo *and al.*, 2013):

- 34% of respondents live in cultivated landscapes with ragosses;
- 17% in cultivated landscapes with embankments;
- 13% in urbanized coastal landscapes;
- 12% in wooded and grove landscapes;
- 11% in large-mesh bocage landscapes;
- 8% in dense bocage landscapes on hills;
- and finally 4% in vegetable crop landscapes.

Thus, respondents encounter a variety of landscapes representative of Brittany.

Distribution of respondents according to municipal density

The exercise was also carried out on municipal density. The Observatory of Territories defines 4 categories:

- densely populated spaces,
- intermediate density spaces,
- sparsely populated spaces,
- very sparsely populated spaces.

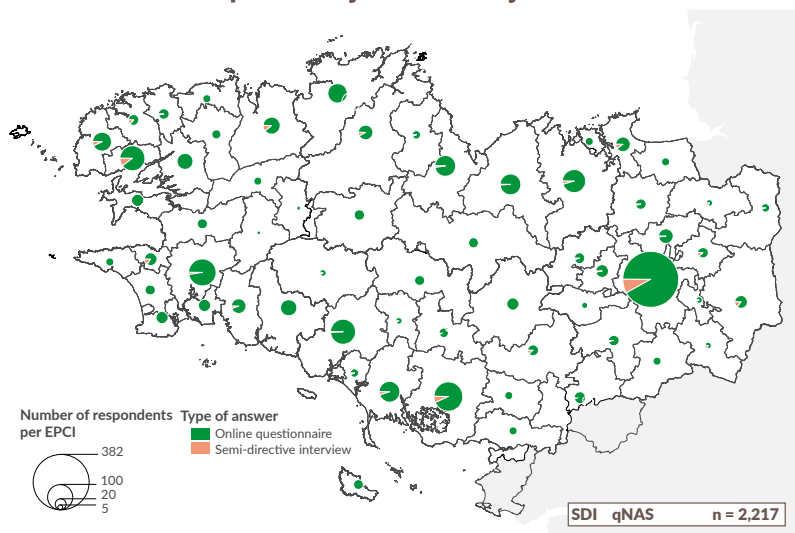
All categories are also well represented in the survey (below).

Local density category	Share of municipalities in the survey	Share of municipalities in Brittany
1. Densely populated area	2 %	1 %
2. Area of intermediate density	16 %	10 %
3. Low-density area	78 %	81 %
4. Very low density area	4 %	8 %

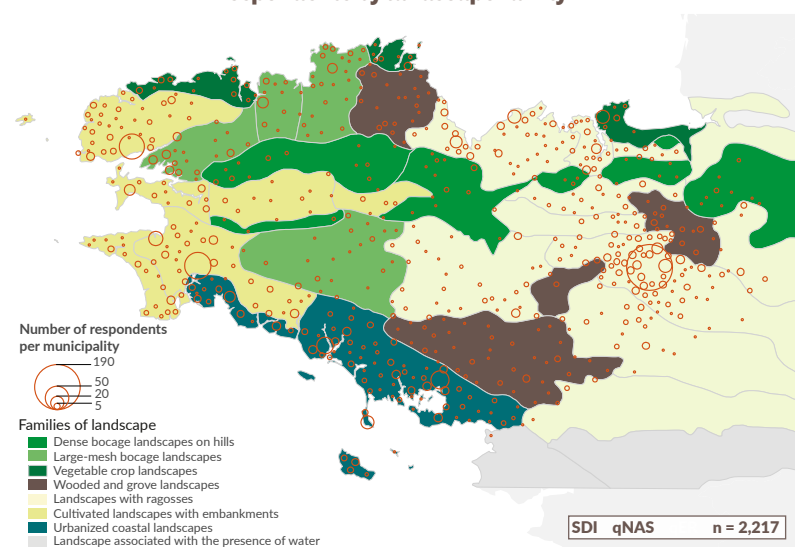
Significant variables

We will see that living in a more or less dense space and/or in a coastal or non-coastal municipality influence the responses given by Bretons.

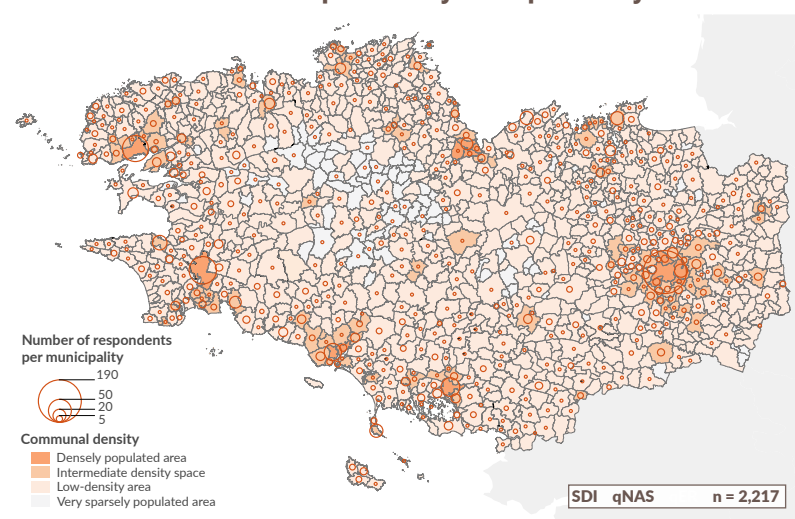
Respondents by local authority (EPCI)



Respondents by landscape family



Distribution of respondents by municipal density



Brittany's landscapes
bretagne-environnement.
fr/notice-documentaire/
paysages-bretagne

Brittany has 8 main families of
landscapes, most of which are rural
bretagne-environnement.fr/collection-
cartographique/paysage-bretagne

VARIETY OF LANDSCAPES IN PHOTOGRAPHY



Dense bocage landscape on a hillside, Hénou (22), 2016
OPP du Pôle d'équilibre territorial et rural du Pays de Saint-Brieuc



Vegetable growing landscape, Roz-sur-Couesnon (35), 2018
OPP du Département et de la Direction Départementale des Territoires et de la Mer d'Ille-et-Vilaine



Cultivated landscape with embankments, Fouesnant (29), 2019
OPP de la Direction Départementale des Territoires et de la Mer du Finistère



River landscape of a small town, Châteaulin (29), 2016
OPP du Parc Naturel Régional d'Armorique



Dune landscape, Locmariaquer (56), 2019
OPP du Parc Naturel Régional du Golfe du Morbihan



Port urban landscape, Lorient (56), 2022
OPP de l'Université du Temps Libre de Bretagne

2,151 RESPONDENTS TO THE ONLINE QUESTIONNAIRE



**THE 61 LOCAL
AUTHORITIES**
covered by the
questionnaire



1 SAMPLE
adjusted from
2,151 respondents



*"Forest, abundant flora and fauna, and all of this
delights me every day of the year! Oops, I forgot, I live
in Finistère, inland in the countryside. I'm extremely
lucky!" [Lopérec, 29]*
to the question "Before getting to the heart of the
matter, what do you think a landscape is?"

The sample relative to the online questionnaire reflects all the geosocial classes of Brittany. Some classes are underrepresented or overrepresented compared to their regional distribution: more women, more executives, and fewer young people. Thanks to the large number of respondents, it is possible to work on the basis of a sample that is representative of the Breton population.

Socially weighted characteristics of the sample

The sample was adjusted for gender as more women participated in the questionnaire (57%) compared to men (41%). The term 'gender' refers to the social construction of sex differences and the social relationships that result from them (Blidon, 2011).

Age was also weighted. Indeed, the age groups at both extremes, i.e., the youngest (16 to 29) and the oldest (over 65), were underrepresented compared to the regional proportion while the 30 to 64 age groups had contributed extensively to the questionnaire.

Regarding socio-professional categories (CSP), executives and higher intellectual professions were overrepresented in the survey with

34% against 8% at the regional level. Conversely, 3 categories were underrepresented: retirees, workers, and unemployed people (including students).

With the adjustment, several CSPs were grouped to obtain robust categories:

- Farmers (category retained since very linked to the landscape question);
- CSP+ (higher and intermediate intellectual professions, executives, craftspeople-traders);
- CSP- (employees and workers);
- Retirees;
- Other non-working persons (including students).

Geographic characteristics of the Sample

The sample has a geographically homogeneous distribution in terms of

municipalities with 621 municipalities represented.

All 61 EPCI are covered by at least 1 respondent and at most 351 for Rennes Metropolis. Indeed, the two Breton metropolises and the large agglomerations are more widely represented. Also, 39% of respondents live in a coastal municipality.

The few discrepancies between the departmental weights of the sample and the actual weights were weighted (see p. 11).

The already well-structured initial sample and the correct balance work in the weighting give us reliable and representative data to study the Breton population.

**Adjustment of social variables
for a representative sample of the Breton population**

Sociological variables	Classes	Weight before weighting	Weight after weighting *
Socioprofessional categories (SPC)	Farmers	1 %	1 %
	Employees	19 %	SPC - 28 %
	Manual workers	2 %	
	Managers and senior professionals	34 %	SPC + 25 %
	Intermediate occupations	13 %	
	Tradesmen and shopkeepers	4 %	
	Retirees	22 %	31 %
	Other people not in employment (including students)	5 %	15 %
Age	16-29 years	8 %	16 %
	30-49 years	38 %	22 %
	50-64 years	35 %	25 %
	65 ans years and over	19 %	36 %
Gender	Male	41 %	49 %
	Female	57 %	51 %

*The weightings after adjustment are proportional to the weight of the regional population.

120 INHABITANTS MET IN THE TERRITORIES



7 FAMILIES
of landscape
represented



"I'm originally from the island of Groix, I've got family in Groix, so we're really a family of fishermen and all that, we've kept the family home in Groix. It's the sea, the little coves..." [Douarnenez, 29].

120 Bretons were selected according to several landscape criteria to interview a group of residents encountering a variety of landscapes representative of Brittany. Three sociological variables were also taken into account in the construction of the sample, namely age, CSP, and gender.

Construction of the sample from 6 socio-geographical variables

In order to reflect different living environments, work was carried out on municipal density with the constitution of two classes:

- "Urban-dominant municipality": densely populated and intermediate density spaces;
- "Rural-dominant municipality": sparsely populated and very sparsely populated spaces.

For rural municipalities, a distribution of people to interview was carried out according to seven families of landscape (Le Dû-Blayo *and al.*, 2013). The number of inhabitants to interview is calculated based on the total proportion of inhabitants in each landscape family.

A final geographical distribution is practiced on the Breton population residing in coastal municipalities.

Age, CSP, and gender were also three variables retained in the constitution of the sample.

A final sample very close to the ideal sample

Subsequently, the nine students from the Master's programs "Environment, Territories and Actors" and "Planning and Local Communities" at the University of Rennes 2 went to 69 municipalities to meet the inhabitants who best matched the set objectives: word of mouth, market exits, and supermarket exits.

The final sample is very close to the ideal sample. We can, however, note two biases: a smaller proportion of workers and a larger proportion of women.

Socio-geographical variables to select inhabitants

Variables	Classes	Final headcount		Ideal headcount*	
		Nombre	%	%	Nombre
Density	Mainly urban municipalities	60	50	47	58
	Mainly rural municipalities	60	50	53	62
Landscape families based on mainly rural municipalities	Urbanised coastal landscape	8	13	12	8
	Cultivated landscape with embankments	9	15	18	11
	Vegetable-growing landscape	4	7	6	3
	Woodland landscape	8	13	13	8
	Landscape of bocage with enlarged mesh	6	10	10	6
	Cultivated landscape with ragosses	20	34	32	21
	Dense bocage landscape on hillside	5	8	9	5
Coastal municipalities or not	Coastal municipalities	44	37	40	48
	Non-coastal municipalities	76	63	60	72
Socioprofessional categories	Farmers	2	1	1	2
	SPC -	29	25	28	34
	Employees	18	15	15	18
	Manual workers	11	10	13	16
	SPC +	32	26	25	29
	Managers and senior professionals	11	9	8	9
	Intermediate occupations	17	14	14	16
	Tradesmen and shopkeepers	4	3	3	4
	Retirees	39	33	31	38
	Other people not in employment (including students)	18	15	15	18
Age	16-29 years	25	21	20	24
	30-49 years	24	20	21	26
	50-64 years	29	22	24	29
	65-74 years	26	24	22	26
	75 years and over	16	13	13	15
Gender	Male	50	42	49	59
	Female	70	58	51	61

*The ideal headcount was calculated as a proportion of the regional data.

THE OPERATIONAL VISION OF ELECTED LOCAL REPRESENTATIVES

55 % of elected representatives surveyed consider that the landscape has deteriorated in recent years.



40 % of elected local representatives surveyed believe that the current and future challenge is urban planning.



To improve the local landscape: "Have a natural flora and more diversity in planting to encourage biodiversity" (Deputy Mayor Environment Mobility and Youth).

Mainly composed of deputy mayors and municipal councilors, local elected representatives who responded have an operational vision of the landscape with the challenge of integrating the landscape into urban planning. The most used tool is the thematic landscape OAP (Orientation for Planning and Programming). The need for training is mostly identified on the themes of "landscape and biodiversity" and "landscape and heritage."

Perceptions of the evolution of breton landscapes

The Breton study took up the national survey "local elected officials and landscape" from 2021 to compare regional results with the national scale. Respondent elected officials consider that the Breton landscape has degraded by 55% compared to 25% at the national level. The evolution of landscapes is perceived more negatively in Brittany than at the national level.

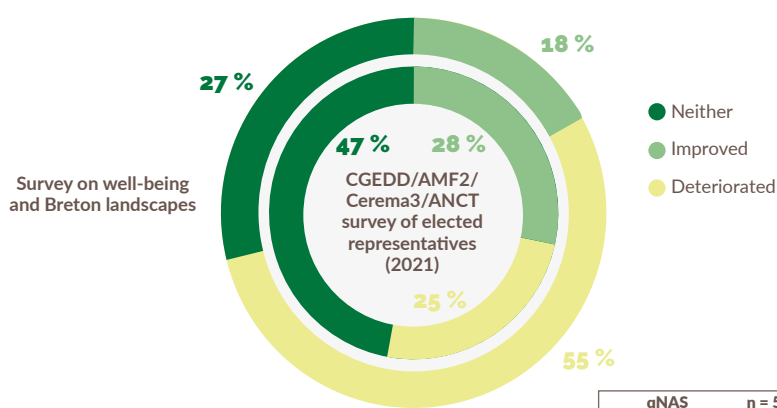
Only 18% of respondents see improvements in the landscapes in Brittany.

Nearly half of local elected representatives nationally have no opinion on the evolution of their landscapes in recent years compared to 27% in Brittany. Ultimately, Breton respondent elected representatives are more strongly interested/sensitized to the landscape and its evolution than the national average.

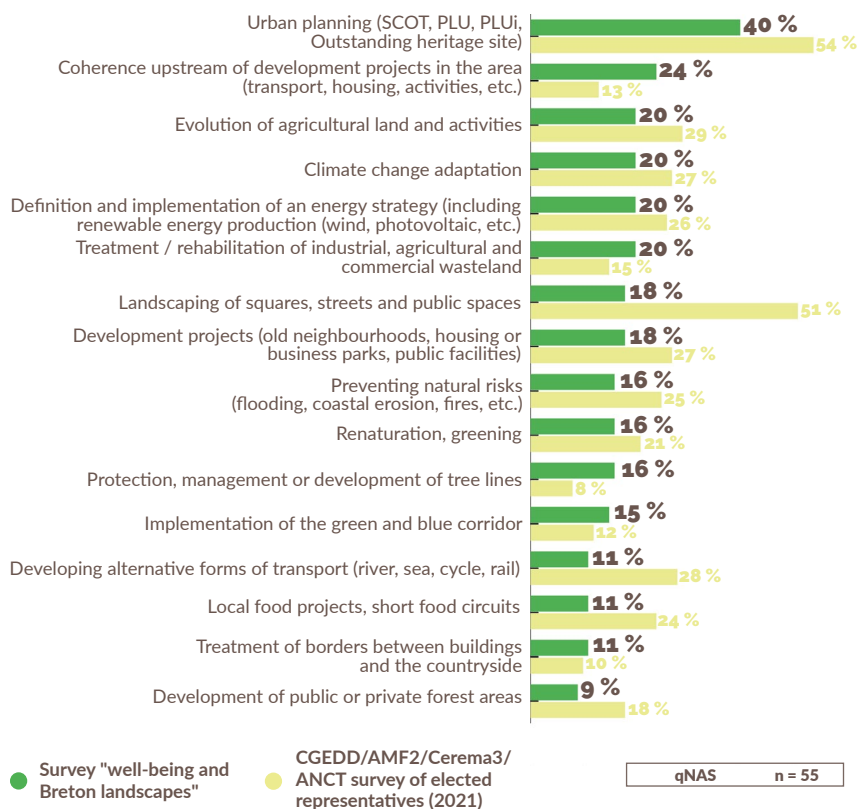
What Contemporary Challenges?

Respondent elected representatives estimate that they are faced with or will face numerous operational challenges related to space treatment in the face of the environmental crisis: urban planning, upstream coherence in development operations, the evolution of space and agricultural activities, the definition and implementation of an energy strategy, adaptation to climate change, and the treatment/rehabilitation of wasteland. At the national level, urban planning and the layout of squares, streets, and public spaces are the two most cited challenges.

Would you say that the landscape in your area has generally deteriorated or improved in recent years ?



What challenges will you face in terms of development operations or initiatives over the next term(s) of the mandate(s) ? (1 to 3 possible choices)



Landscape tools

In line with the challenges expressed, the landscape tools known and used by respondent elected representatives are mainly operational, namely: landscape integration in building permits and development projects, the landscape dimension of urban planning documents, and the thematic landscape OAP.

Of the 55 respondent elected representatives, only a handful are familiar with landscape plans and the definition of landscape quality objectives (regulatory obligation since the law for the reconquest of biodiversity, nature, and landscapes). Also, 11% of respondents are not familiar with all these tools.

Furthermore, respondents were asked if they used these tools. Atlases, plans, and the definition of landscape objectives are not used by the panel of respondents

Les besoins en formation

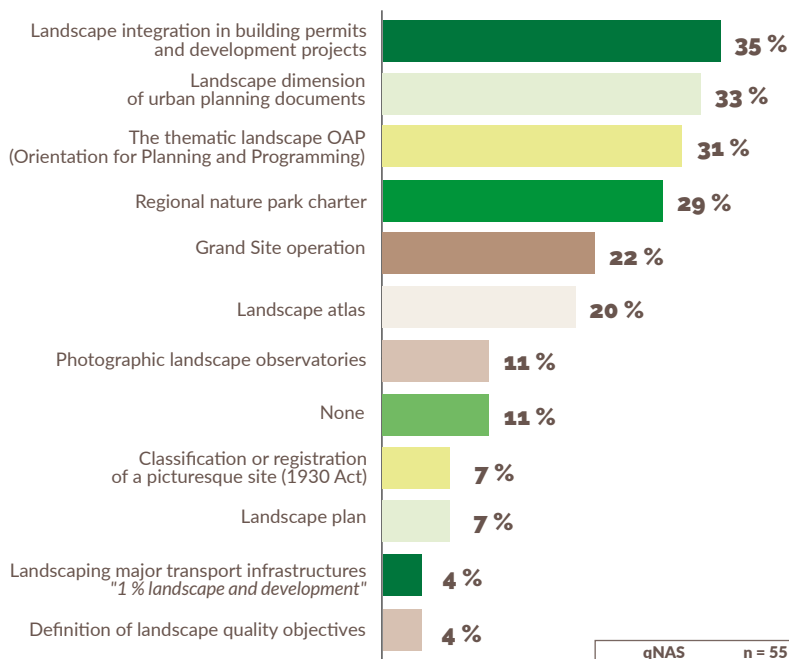
The themes most in demand for training are "landscape and biodiversity" and "landscape and heritage". Ultimately, local elected representatives focus on urbanization with perhaps in view the goal of Zero Net Artificialization, and environmental issues (loss of biodiversity, the issue of integrating renewable energies with the law for accelerating the production of renewable energies, etc.).

The landscape is ultimately an entry point to work on these themes. As a reminder, only 55 local elected officials responded to the survey: is there a need for awareness-raising to mobilize them on the landscape issue? to better make known the landscape tools?

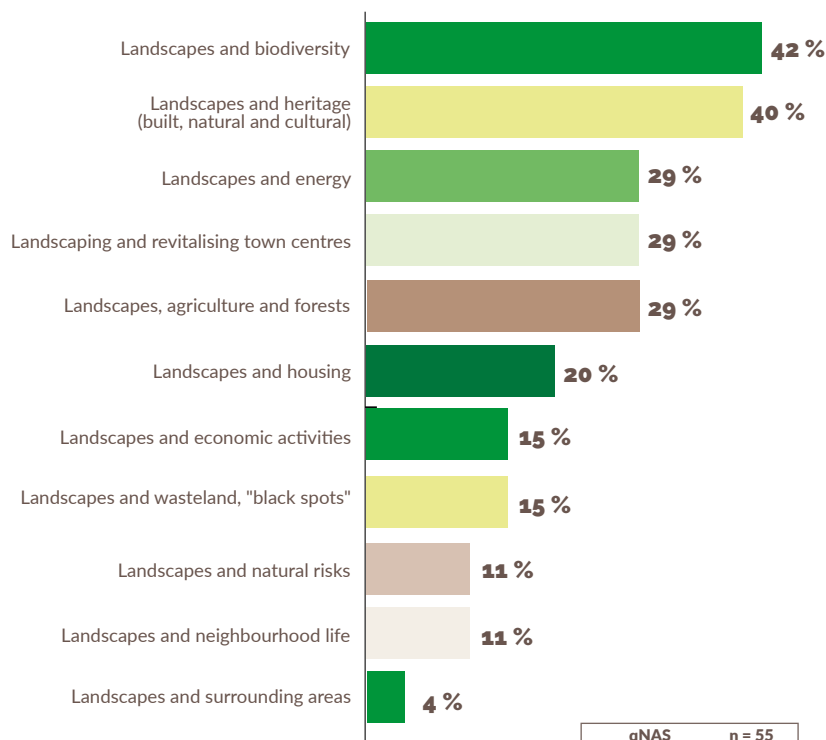


National survey of "elected local representatives and landscape" by CEREMA and the Association of French Mayors (2021)
cerema.fr/fr/actualites/paysage-quelle-perception-elus-comment-approfondir

What public policy tools do you know about landscape ? (1 to 3 possible choices)



What topics would you like to be trained in ? (1 to 3 possible choices)



THE MOBILIZATION OF RESPONDENT LANDSCAPE PROFESSIONALS



69 %
of the professionals surveyed are trying to take account of the landscape in their practices.



45 % of professional respondents use landscape atlases.



Improving the quality of Brittany's landscapes means : *"Tackling the issue of landscapes as an interface between a wide range of public policies (planning, biodiversity, energy, housing, transport, etc.) in order to meet the challenges facing society, while at the same time educating people"* [Renewable energy project manager].

Landscape professional respondents are represented by various professions. They are invested in the landscape issue using many tools like the landscape atlas, the thematic landscape OAP, and the landscape dimension of the urban planning document. Like local elected representatives, professionals want training on the theme of "landscape and biodiversity."

Who are they?

145 landscape professionals responded to the online questionnaire representing numerous profiles: urban planners, farmers, coastal guards, foresters, ecologists, landscape designers, etc. Here are some professions explained by the respondents:

- "As a farmer, I have participated for over 40 years in building and maintaining the landscapes on my farm (training cuts, cuts for firewood, maintenance of hedges and embankments)."
- "Analysis of construction/development projects and verification of compliance with rules, particularly environmental ones. Ability to advise to improve certain projects."
- "Mason in old buildings, thus taking into account the environment around a building to understand previous developments (hedges, embankments, low walls...) to be able to understand why it was created this way and how to restore it."

The place of landscape in practices

Nearly 70% of respondent professionals think that the landscape issue is essential in their profession. They try to take it into account in their practices. However, 16% of professionals consider that the landscape issue is essential but that they have little leverage to take it into account.

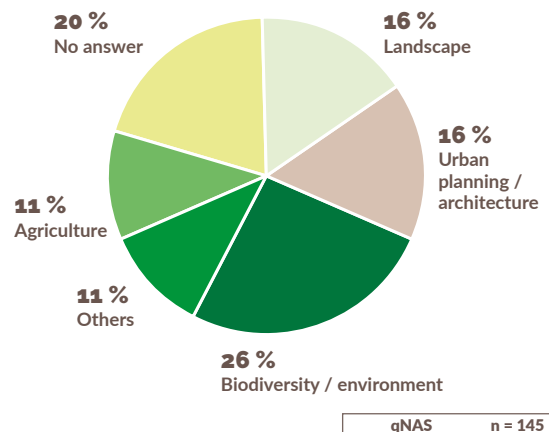
The lack of landscape competence among elected representatives, professionals, and/or residents is highlighted by some and would contribute, according to them, to the difficulties of acting.

Several respondent professionals also express the need for training in the theme and tools of the landscape.

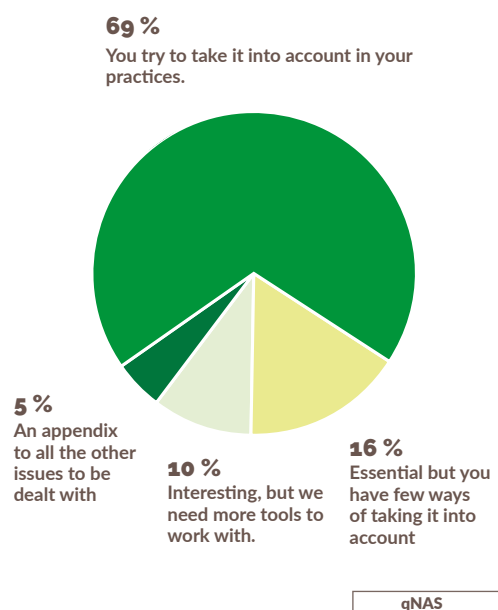
"I work in a land-use planning department. I'm thinking about increasing the team's skills to improve the quality of our work. But there's a big skills gap among project managers that we can't fight. [...] I see the limits to the application of regulatory tools in the need for 'training' for elected representatives, professionals and citizens alike". [SPC +, Trélévern, 22].

"I lack information. Develop communication on these subjects around concrete actions". [SPC +, Carentoir, 56].

What are your functions as a landscape professional ?



The landscape issue in your profession is :



The diversity of tools used

Landscape tools are known by respondents. Those most used are: landscape atlases and the landscape dimension in urban planning documents, thematic landscape OAPs, Grand Site Operations, and landscape plans. Some respondents complete the list proposed in the questionnaire by adding: field visits, taking photos, the Regional Planning, Sustainable Development and Equality Scheme (SRADDET), the Territorial Climate Air Energy Plan (PCAET), the area for enhancing architecture and heritage (AVAP), Natura 2000, Natural Areas of Ecological, Faunistic, and Floristic Interest (ZNIEFF), biotope protection orders (APPB), etc.

In this sense, the landscape theme can be worked on in conjunction with energy themes, green and blue belts, biodiversity, etc.

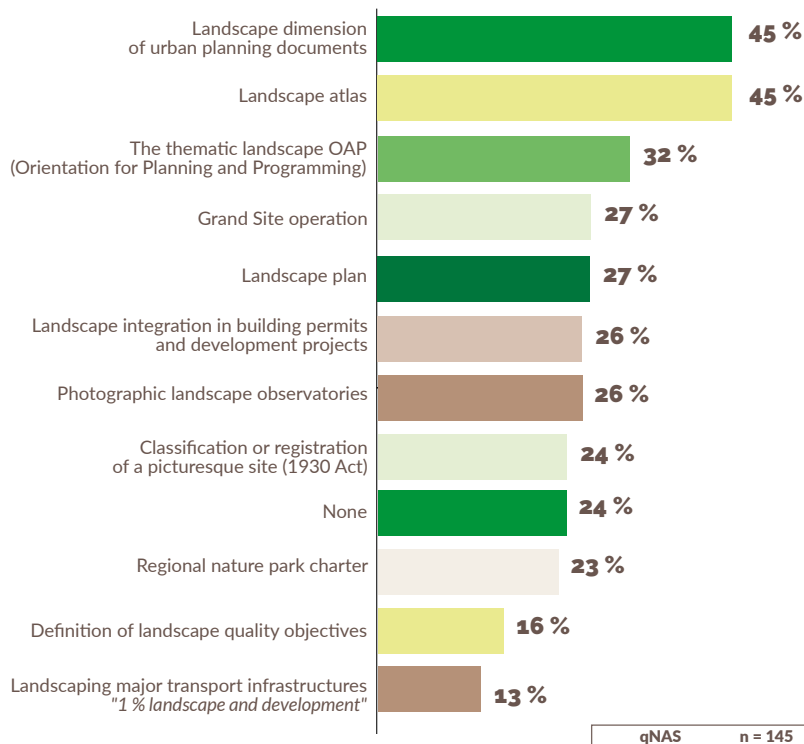
"Landscape integration in building permits and development projects => we have renovated the houses in our hamlet while preserving the unity of the landscape and heritage, and inserted a new unusual dwelling without creating an impact on nature and the landscape (wood, local resources, etc.)". [Local and rural tourism player and farmer].

Training needs similar to those of respondent elected representatives

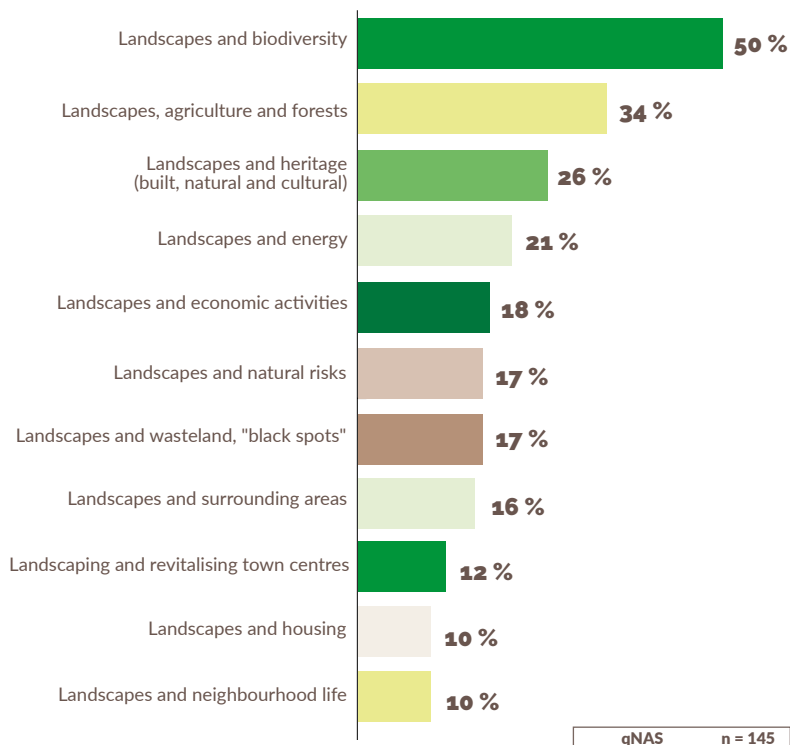
Landscape professionals have training needs that match the responses of local elected representatives: "landscapes and biodiversity" at 50%, "landscapes, agriculture, and forest" at 34%, "landscape and heritage" at 26%, and "landscape and energy" at 21%.

In conclusion, respondent landscape professionals are invested and equipped on the landscape issue. Thematic links, the decompartmentalization of the landscape in sectoral policies, and its operability appear to be the next steps to further democratize the landscape on the public stage.

What public policy tools do you know about landscape ? (1 to 3 possible choices)



What topics would you like to be trained in ? (1 to 3 possible choices)



THE DESIRE TO ACT AMONG BRETONS

37 %
of respondents
are committed
to environmental
causes.



79 %
of Bretons want
to get involved
in their everyday
landscapes.



"I already do it... [...] I maintain the hedges nearby so that birds can nest and feed there. I practice organic gardening, which satisfies a large part of my consumption. I collect rainwater for my personal use, I produce part of my own electricity, etc." [SPC +, Camaret-sur-Mer, 29].

Attached to their place of living, Bretons wish to be more involved in improving everyday landscapes. Also, 19% of respondents call for awareness-raising actions on the landscape issue. Apart from local elected representatives and sometimes farmers, the makers of the landscape (landscape architect, green space maintenance worker, etc.) are rarely identified.

The shared desire to get involved in everyday landscapes

Of all the responses to the online questionnaire, 37% of people are engaged in environmental causes (association, political party, etc.).

"I'm already involved, I'm a volunteer in nature associations and a member of my local biodiversity committee. We're setting up actions to preserve biodiversity in our area, whether it's common or not. I'm doing a "BTS" in Nature Management and Protection" [Student, 56].

The results also show that 79% of residents, who are not already involved, wish to get involved in improving living landscapes. Two reasons are associated with this desire to act:

- People feel concerned about their living environment and wish to act as citizens.
- People wish to defend nature, preserve biodiversity, and the environment: *"The aesthetic quality and living character (biodiversity) of my living place are a daily joy for me" [SPC -, Dinan, 22].*

Note that the landscape is often synonymous with nature and biodiversity among inhabitants.

For those who do not wish to get involved, several reasons are explained :

- lack of time,
- due to advanced age or a deteriorated health state,
- other priorities in terms of commitment,
- not possessing the skills, not feeling legitimate.

Citizens and the management of landscapes on the territories

Finally, 19% of Bretons mention the need to raise awareness among their fellow citizens. People who have knowledge call for educating the younger ones. Respondents who feel they lack knowledge in a field (biodiversity, landscape, etc.), wish to be sensitized and informed. This desire for sensitization also involves ideas for action.

"We could imagine one citizen participation day a month, in a place and instead of a working day, for each inhabitant : cleaning up riverbanks, beaches, roadsides, etc." [SPC -, Saint-Ségal, 29].

Moreover, a handful of respondents question citizen participation in territorial projects.

"Decisions taken by elected representatives are not sufficiently communicated or explained. For example, projects are not submitted upstream to citizens / users / voters" [Retired woman, Bangor, 56].

"We residents experience it [the landscape] on a daily basis and know its qualities and weaknesses. Decision-makers can no longer ignore real consultation and, above all, take it into account when developing projects" [A resident of La Bouëxière, 35].

In addition to questions about consultation, 13% of respondents believe that the priority action to improve landscape quality in Brittany is political. Indeed, many tend to consider local elected representatives, regardless of the type of mandate, as the main responsible for the territories.

Ultimately, apart from local elected representatives and sometimes farmers, respondents rarely identify landscape makers: landscapers, architects, gardeners, construction workers, urban planners, maintenance agents, etc. The territory seems to self-manage.



Field visit with the residents of Logonna-Daoulas (29) organised by the Armorique Regional Nature Park and the OEB on 21 February 2022

This ecosystem of actors is imperceptible in individual and social representations, there is an invisibilization of these practices (Lerichomme, 2023) or a responsibility placed on others.

Indeed, several geosocial classes are targeted by some citizens, raising the question of the distribution of uses and space (tourists, hunters,

disadvantaged classes, homeless people, etc.).

From the analysis of open responses in the questionnaire and the verbatims of the semi-structured interviews, five profiles emerge, allowing us to identify the different perceptions of inhabitants' involvement in everyday landscapes.

**In this double page spread, the data in percentages come from the adjusted from the online questionnaire.*

5 ways of thinking about involvement in improving everyday landscapes

Resident requesting

They ask for improvements to be made to their well-being, but they don't know how to go about it, and they don't get involved.

"We should try to reduce pollution. I'd like to see a healthy habitat. Politicians should pay attention to the environment".



Resident activist

He is defined as someone "who doesn't take any crap from anyone" (Vallon, 2002). He is a connoisseur of the environment, almost an expert, and uses this knowledge to politicise an issue.



"The construction of offshore 'wind farms' (in reality industrial zones) must be banned. They represent a major threat to the quality of the landscape, marine and aerial biodiversity, and the well-being and health of permanent or occasional coastal residents. [Together with [name of association], I am calling for an immediate moratorium on offshore wind farms [...]]."

Resident "little hummingbird"

He refers to the legend of the hummingbird: if everyone does their bit, even a small hummingbird, then action, no matter how small, gets underway and can make a difference on any scale.

"Every hummingbird citizen should feel concerned about the environment, of which the landscape is the showcase. Respecting the landscape means respecting the environment in which we live and, more broadly, respecting the Earth."



Disillusioned resident

He is discouraged by the experience of not being listened to by the public authorities.

"I am involved, but I am not listened to by the public authorities".



Resident citizen

He wants to be more involved in his local area to help improve the landscape "so that I can act as a concerned citizen", because he believes that it is everyone's responsibility to get involved to improve the landscape, to have decision-making power or for the "common good".

"The landscape is our living environment and is essential to our sense of well-being. It must therefore be preserved without disrupting it and by limiting the impact of humans without hindering agricultural activities or the developments needed for housing, transport, businesses and services".





EVERYDAY LANDSCAPES

.....

Everyday landscapes defined by landscapes regularly frequented by Bretons: living space within 1 km around the home, workplace within 1 km around, leisure spaces. Bretons generally appreciate and feel good in their living space landscapes. However, there are contrasts in feelings between residents living in the countryside and those living in urban areas.

The most appreciated leisure places by respondents are predominantly natural landscapes. The landscape quality is an essential motivation to go there. These landscapes are also perceived as sanctuaries where humans should not or hardly intervene.

The workplace landscape is ultimately on the margins of social thought because the workplace is primarily experienced as a constraint. Despite a desire to increase vegetation and spaces for conviviality, the external environment of the workplace remains a functional space without necessarily its own identity.

- **86 % of respondents feel good about where they live.**
- **75 % of inhabitants think that maintaining the bocage is a priority.**
- **39 % of Bretons consider the environment outside their workplace to be pleasant.**

NATURE AND TRANQUILITY, THE GUARANTORS OF A WELL-APPRECIATED LIVING SPACE



86 %
of respondents
feel good
about where
they live.



"It's cold. Buildings are impersonal, grey and austere! There's no place to live, no place to socialise. People come by car and hardly ever see each other" [Manager, Rennes, 35].



"I live in the countryside. So there are all the smells of the countryside. I live next to a farm, so there's the smell of the farm, but there's also the smell of flowers in the spring. Lots of smells all the time" [Worker, Saint-Aubin-du-Cormier, 35].

Depending on their place of residence, Bretons perceive different landscape ambiances: calm, convivial, pleasant, boring, etc. The well-being of Bretons is linked to nature: within 1 km from their home, they predominantly go out for outdoor activities and in natural spaces but these activities vary by age. Also, the less dense the municipality of residence, the more significant the contact with nature and the sense of well-being.

Cleavage between urban, rural, and coastal landscapes

The analysis by the ambience of living spaces allows for invoking "olfaction, touch, taste, movement". It is a "transversal approach at the intersection of the sensible, the social, the built, and the physical" (Thibaud, 2022). From this notion, strong contrasts are observed between rural and coastal landscapes on one side and urban landscapes on the other.

Rural and coastal spaces are presented as open, spacious areas with almost no buildings. A feeling of serenity emanates from them. Proximity to nature reinforces this sense of well-being among inhabitants of these living places.

Sounds and smells contribute to defining landscapes for residents of rural spaces and coastal municipalities. Sounds are predominantly those of animals and agricultural activities. Sounds related to the coast are also widely mentioned (waves, wind, steps on seashells, etc.).

"The noises we're going to hear [...] are the neighbour's tractor and the brushcutter. But alongside that, we have the peaceful sounds of nature with the little birds" [Intermediate occupation, Tressignaux, 22].

"I don't have any noise at home, apart from when tractors, lorries and motorbikes go by, but normally there's hardly any noise. So I can hear nature. That's why I say 'I feel privileged'" [Manager, Amanlis, 35].

As for smells, they are associated with sea wrack, seaweed, and a salty smell when located on the coast.

In the countryside, the smells of manure, flowers, fields, and agricultural activities are dominant. For the majority, the presence of these smells is neither negative nor positive but a logical component of their landscape.

"I love putting my hands in the water to get the temperature of the water. My nose, which doesn't work very well, smells of sea spray and seaweed and I like that. That's why I like being by the sea so much, because I can smell it again" [Intermediate occupation, Arradon, 56].

"At home, it's true that the sense of smell is also very much in demand with the smells of farms, fires and marshes" [Manager, Glénac, 56].

The urban space, in contrast, is described through dense, voluminous, and very present buildings. It is associated with cold or even oppressive atmospheres. According to some respondents, the omnipresence of the mineral contributes to this negative perception of urban space.

However, urban ambiances are also appreciated. Cities arouse interest for the beauty of emblematic places such as the Parliament Square in Rennes. Urban space is described as lively when there is a festive ambiance, spaces for conviviality, and surrounding noise indicating human presence.

The sounds of cities are very different from the previously described sounds; they originate from places of consumption and conviviality. Regarding smells, city dwellers talk about them as nuisances. These smells are the consequence of motorized traffic in city centers.

"It's still quite a confined space, quite oppressive. [...] I don't want to discover it, I don't want to interact with it. [...] It makes me feel bored..." [Student, Rennes, 35].

"It's in Quimper, so it's a lot of roads, a lot of houses, Quimper Cathedral and, well, the covered market. I'm not really into concrete after all" [unemployed, Quimper, 29].

"It's an urban landscape. I find it rather attractive and aesthetic, in the sense that it's a pleasant place to live" [Student, Rennes, 35].

"It's very lively, very lively, friendly! [Worker, Brest, 29].

"There are the smells in town. Depending on the weather, there are more or less smells of pollution, in the busy streets with the buses" [Other worker, Brest, 29].

Sight is a sense widely solicited by respondents to describe their landscape. Paradoxically, it is not the first they mention, but it is the one least associated with nuisances. Respondents who evoke sight do so to describe landscapes that provide them a sense of well-being. Once again, there is a contrast between predominantly urban living places and others. Indeed, residents of coastal and rural municipalities mainly describe natural elements with a small part of anthropic elements (buildings, residential areas, roads, etc.).

In the end, a strong opposition emerges between urban landscapes and rural and coastal landscapes: whereas for the city, the living refers to human presence (without non-humans); elsewhere, life is akin to the presence of humans and non-humans.

Well-being and calm

Bretons feel overwhelmingly good in their place of life, at 86%. They are 78% who find their place of life calm. Indeed, the notion of calm is linked to the notion of well-being since 84% of people who find their environment calm feel good there (if it's calm, it feels good).

Calm and well-being are linked to the way of living, and particularly to the type of housing and density:

- One feels better in a house than in a collective building;
- One feels better in sparsely and very sparsely populated spaces than in densely populated spaces.

Also, the older the age, the more Bretons feel good.

14% of respondents do not feel "neither good nor not very good" or do not feel "not very good" in their place of life. Several socio-geographic variables explain these results:

- The place of life considered as "quite noisy" or "very noisy";
- Living in a collective building and more generally in a city center or neighborhood.

A trend emerges: the 16-29 age group feels the least well compared to other ages of life. This age group also accumulates the above-mentioned geosocial variables.

A further study would be necessary among young people to strengthen the sample.

The less dense the municipality, the more significant the contact with nature

Participating in outdoor activities (70%) and frequenting natural spaces (66%) are part of the practices of a large majority of Bretons. In this sense, being in contact with nature, or simply being outside one's home, contributes to the well-being of residents and this can be achieved within a close perimeter for most of them.

It is observed that Bretons invest their place of life differently depending on gender, age, and living environment. Indeed, women are more numerous in favoring forms of sociability such as going out to meet family or friends and going to structures to engage in leisure activities. The well-being and conviviality spaces frequented

by women also refer to these forms: places of consumption and playgrounds, parks, and gardens. As for men, well-being and conviviality are more related to the frequentation of natural spaces and heritage sites.

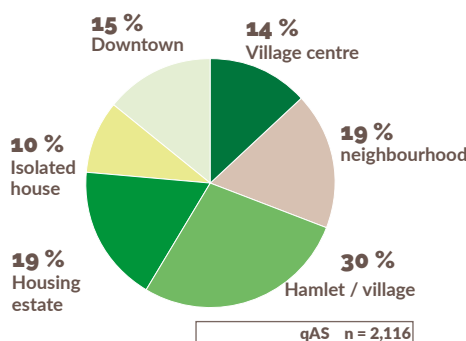
Nuances are observed in the responses through the age of respondents:

- 16-29 year olds go out less in the open air (53%) than other age categories (+21 points) and they are

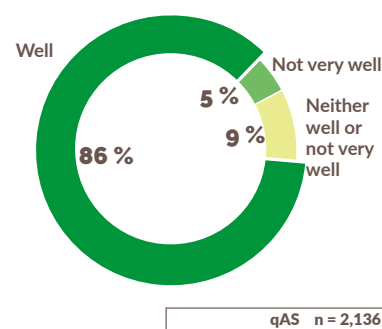
more to not go out or little (15%) than other age brackets (-5 points). The links between physical/mental health and contact with nature, sociabilization, and sports are to be explored.

- 30-49 year olds stay more at home and/or visit their neighbors, frequent playgrounds, parks and public gardens, and places of consumption with the 16-29 year olds.

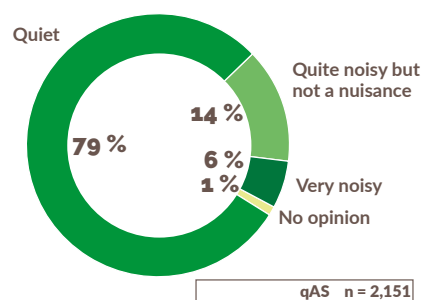
You live (1 to 3 possible choices) :



You feel :



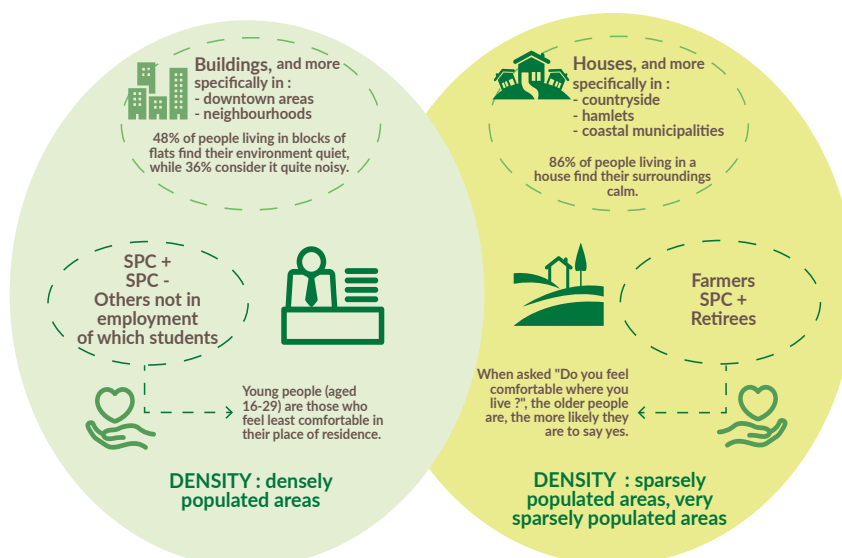
Your place of residence is :



Age and well-being

To the question, how do you feel about where you live ?	Well	- Neither well or not very well - Not very well
16 à 29 years	77 %	23 %
30 à 49 years	85 %	15 %
50 à 64 years	89 %	11 %
65 years and over	91 %	9 %
Average	86 %	14 %

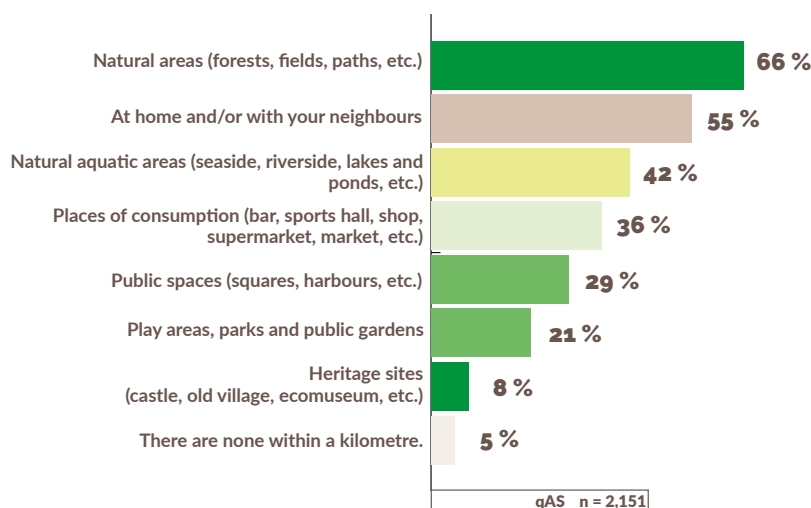
Feeling good about where you live, disparities between socio-geographic groups



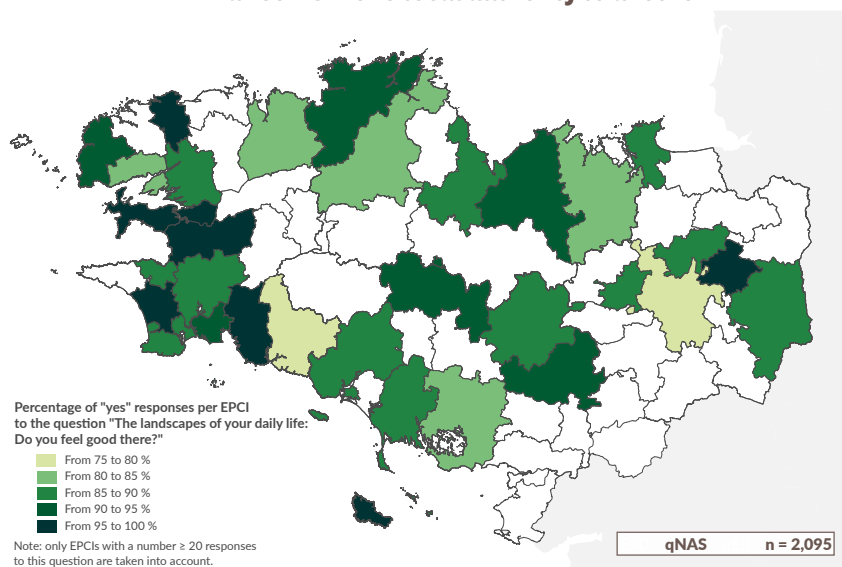
In your place of residence less than 1 km from your home (1 to 3 possible choices) :



Spaces for well-being and socialising within 1km of your home (1 to 3 choices possible) :



The feeling of well-being in the landscape, varies from one local authority to another



• The responses of the 50-64 year olds do not reveal any specific trend.

• Those over 65 are the most numerous to frequent aquatic natural spaces. Forms of sociability are related to the frequentation of leisure structures and public spaces.

Density is also a variable that explains the nuances in the responses.

Residents of densely populated and intermediate areas more amply favor forms of sociability whereas in rural areas, they favor contact with nature. The less dense the municipality, the stronger the links with nature.

An Echo to National Measures of Well-being in 2018

The Observatory of Well-being of the Center for Economic Research and its Applications (CEPREMAP, 2018) shows that inhabitants of rural municipalities and small towns declare higher levels of well-being than inhabitants of medium and large cities. Several factors explain this difference: the quality of the living environment, housing, and social relationships, a lesser sense of insecurity, lower levels of inequalities.

In our study, contact with nature and calm are guarantees of the quality of the living environment. Moreover, Bretons more amply favor forms of sociability in urban environments. However, our survey does not measure the quality of these forms.

The appreciation of well-being at the two ends of the age spectrum shows great differences. Young people are those who feel the least well in their living environment and who have the least contact with nature. This observation corroborates the finding made by the Regional Economic, Social, and Environmental Council on Breton youth in difficulty (CESER, 2023).

Those 65 and older feel the best compared to other age classes and they most favor contact with nature.

A CONSENSUS TO IMPROVE THE LANDSCAPES OF LIVING PLACES



75 %
of respondents think that maintaining the bocage is a priority for improving the landscape.



"Now I'd like to see fewer blocks of flats and more houses. At the same time, there are more and more people and they need to be housed" [Arradon, 56].



A retired woman from Lamballe, 22, on the subject of hedgerows : *"They are making efforts to replant them, but they would have done better not to destroy them".*

The priority actions around the home are mainly related to plants, bringing in more vegetation and maintaining the Breton bocage. Whether you're young or old, living in a city centre or in the open countryside, nature seems to be the key word for action.

Between densification and urban sprawl

Respondents to the semi-structured interviews between the ages of 45 and 60 have noticed a significant increase in urbanization around their place of life: this phenomenon is observed throughout Brittany whether in coastal municipalities, rural areas, or in cities and their outskirts.

The notions of urban sprawl and urban densification are often confused. In any case, these two phenomena are experienced as nuisances, degradations of the landscape and respondents are demanding less impactful solutions for their landscape. Indeed, 42% of respondents to the online questionnaire consider that "stopping construction or limiting it in town and/or in the countryside" is a priority action.

"The landscape is urbanised, and increasingly so. It's getting denser all around us" [Retired, Concarneau, 29].

"There are fewer and fewer fields and more and more housing estates" [Employee, Vannes, 56].

"I think it's a shame to see houses destroyed and replaced by apartment blocks" [Female worker, Saint-Malo, 35].

Consensus around vegetation

The majority of respondents to semi-structured interviews between 16 and 45 years old wish to see an increase in vegetation around their place of life. Increasing the share of vegetation is accompanied by recommendations for good practices in favor of fauna and flora. Several citizens call for actions of sensitization and environmental education.

"How would I like them to be ? More trees!" [Young woman from Rennes, 35]

"It lacks trees, blades of grass, greenery. It's very tarmac" [Retired woman, Lamballe, 22].

"My expectation is that it will be replanted. My fear is that these new plantations won't be properly exploited: will we look after the plots where we've replanted properly ?" [Young person, Iffendic, 35]

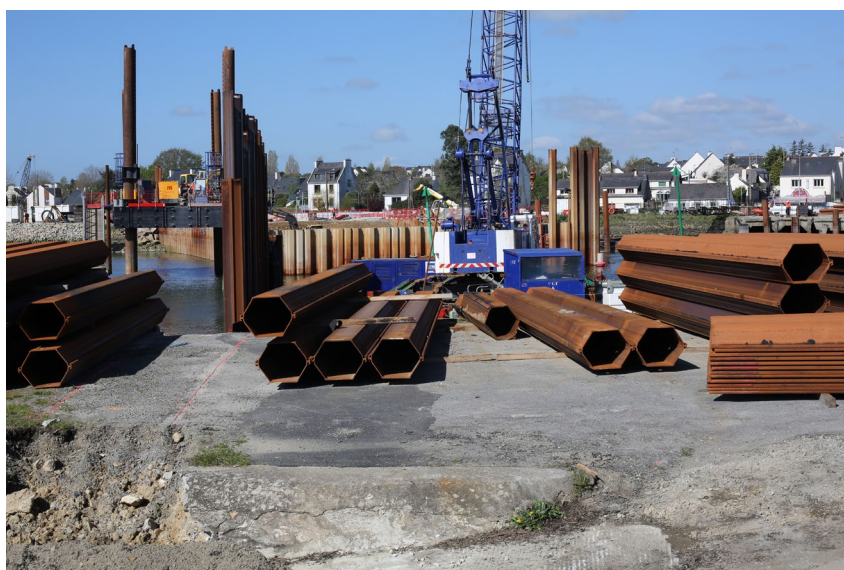
"We need to plant trees. We also need to educate people, especially those who cut hedges in the spring when birds are nesting..." [A resident of Saint-Allouestre, 56].

Also in the interviews, residents talk about their garden as a space contributing to their balance and well-being.

In densely populated areas, the perception of private gardens contributes to the general living environment of inhabitants. Thus, inhabitants contribute, through their daily actions such as gardening, for example, to the appreciation of landscapes.

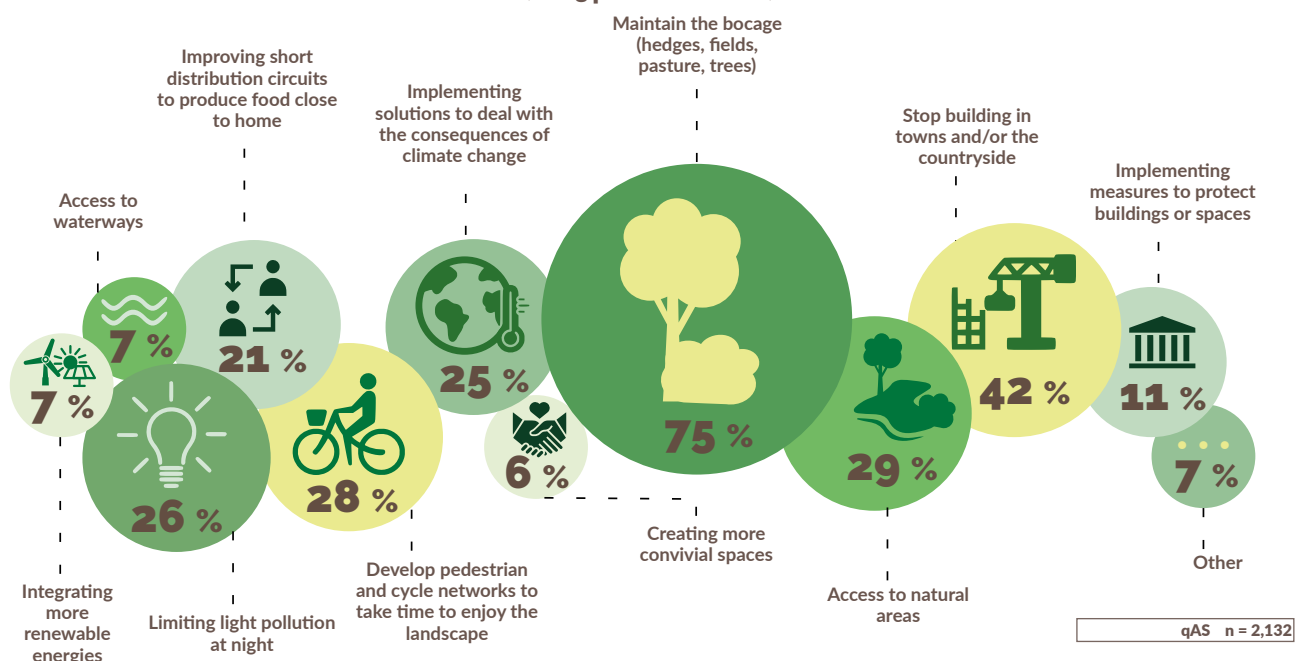
"When I'm in the street, I'm very interested in small gardens. I'm very interested in flowers" [Retired, Brest, 29].

"After that, it's true that Saint-Brieuc is a strange town, because behind all those very mineral facades, there are lots of gardens. [...] There's green, but it's hidden from view when you walk around. So trying to make it a bit more visible would be a real benefit" [Saint-Brieuc resident, 22].



Pont de Kérino à Vannes (56), 2014
OPP du PNR du Golfe du Morbihan

Priority actions for Bretons around the landscape around the home : (1 to 3 possible choices)



The priority action: maintaining the bocage

The priority action around the home for Bretons is to maintain the bocage, an action chosen by 75%. The bocage is more important for farmers (chosen response at 97%) than for people without professional activity (70%). This action is the most favored regardless of the density of the municipalities. However, it is widely favored in rural municipalities (90%).

For inhabitants of densely populated areas, the responses are more varied:

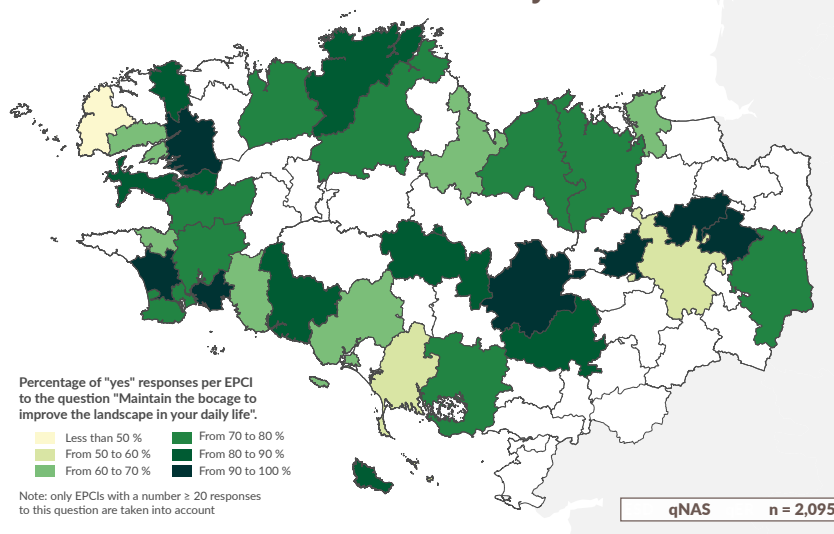
- "having access to natural spaces" and "developing more spaces for conviviality";
- "implementing solutions in the face of the consequences of climate change" and "limiting night-time light pollution".

Differences are also noted depending on age:

- 16-29 year olds more frequently respond "implementing solutions in the face of the consequences of climate change" and "having access to natural spaces" than other age categories.
- 30-49 year olds want "to have access to natural spaces" and the 50-64 year olds want to integrate more renewable energies.
- Those over 50 are more concerned with maintaining the bocage.

The male population favors maintaining the bocage and access to water bodies. As for women, they wish to have access to more nature, implement solutions in the face of

Priority given to maintaining the bocage, varies from one local authority to another



the consequences of climate change, improve short circuits, and produce food at the bottom of their home.

The City with multiple challenges

More vegetation and fewer constructions are the favorite wishes of Bretons. Brittany is the 2nd region in France with the highest rate of land artificialization (DREAL, 2023), Bretons perceive the impacts of this phenomenon in the landscapes.

They project themselves into an idealized vision where the bocage is the symbol of a conquest of desired landscapes. The urban environment,

on the other hand, is considered as the laboratory for a variety of actions to be implemented in the face of environmental issues.



The bocage in Brittany
[bretagne-environnement.
fr/notice-documentaire/
bocage-bretagne](http://bretagne-environnement.fr/notice-documentaire/bocage-bretagne)

Land artificialisation
(DREAL, 2023)
[bretagne-environnement.
fr/notice-documentaire/
consommation-sols-bre-
tagne](http://bretagne-environnement.fr/notice-documentaire/consommation-sols-bretagne)

LANDSCAPES OF THE WORKPLACE, PRIMARILY FUNCTIONAL LANDSCAPES



39 % of people find the environment outside their workplace pleasant.



35 % want more vegetation in their workplace.



"I'm in an office overlooking a grassless car park. The only time it's pleasant is in May when you see the cherry blossom. That's the moment I appreciate most about this place" [Manager working in Vitré, 35].

Workplace landscapes are those perceived most ambivalently by Bretons. 4 out of 10 people qualify them as pleasant and 4 out of 10 consider "there is a lot to do". Despite a certain detachment from these spaces, the priority action to strengthen their quality is oriented towards vegetation.

For 39% of Bretons, the external environment within 1 km of the workplace is pleasant, with a quality environment, and 44% respond that "many things are to be imagined to make the environment enjoyable".

Functional landscapes to improve, a landscape on the margins of social thought

The workplace is a functional space where the surrounding landscape is not necessarily a specific criterion for individual or social well-being. 72% of working individuals living in very sparsely populated spaces qualify their workplace as pleasant. For the other three density typologies, 37% of working individuals judge it as pleasant. Respondents who work in the city may show a form of indifference regarding the landscape that surrounds them at work. It is also at the workplace that respondents mention the greatest number of nuisances, whether they are auditory, visual, or olfactory.

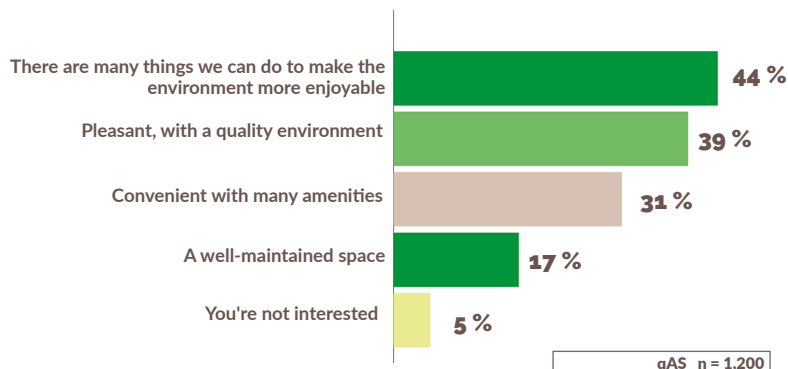
Farmers are the most satisfied with their working environment because they consider themselves the makers of this landscape. As for SPC +, they qualify it as "practical". SPC - are more numerous in not paying attention to it.

"It's a landscape that I've partly created myself, based on what I wanted to do with my wife. We made our own landscape. That's what farmers do" [Farmer, Médréac, 35].

"Proximity to the expressway and busy road which cause a lot of noise and pollution (smells, exhaust, pig transport lorry)" [Executive, Fouesnant, 29].



How do you find the outside environment within 1 km of your workplace ? (1 to 3 possible choices)



"It's a place to work, not a place to live!" [Intermediary, Quimper, 29].

The qualification of the external environment of the workplace is ambivalent. An additional study would be necessary to properly understand the explanatory factors of this ambivalence (perception of work as such, reception conditions, landscape analysis and practices on the ground, etc.). However, the survey shows that these landscapes are unsatisfactory for many with numerous actions to be carried out to improve their quality.

Priority actions

To make the environment within 1 km of the workplace more enjoyable, the most important actions for Bretons are:

- Vegetate.

"More green spaces at the heart of the industrial zone" [Male executive, Guipavas, 29].

- Promote public transport and soft mobility (by creating a real separation with cars and by securing them). This action is often linked with reducing the place of the car in the city (against noise and the danger to cyclists and pedestrians). *"Arrange space to facilitate bicycle travel (safety, reserved lane, bicycle stations) [Female executive, Plélo, 22].*

- Less mineral, limit urbanization, limit constructions or even de-urbanize.

"Stop the huge peri-urban constructions, it is unpleasant to be surrounded by enormous concrete buildings, these zones are devoid of small shops, or places of conviviality: it is therefore a social and natural no man's land" [Student, Rennes, 35].

- Carry out landscaping – create green spaces, gardens or parks with benches, integrate buildings.

"Maybe the addition of a public urban park to create an island of coolness and urban biodiversity (sometimes richer than in rural areas)" [Executive, Saint-Pern, 35].

- Create more spaces for conviviality – shared gardens, shops, spaces to eat, etc.

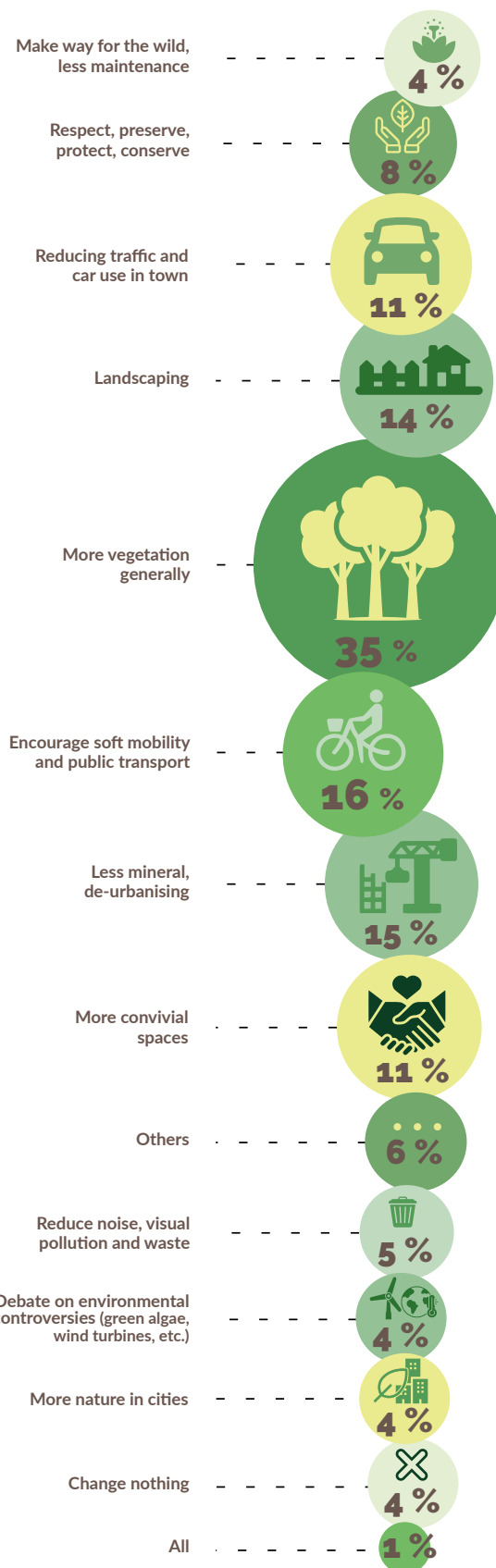
"Install more tables outside to enjoy the wooded park especially during the lunch break" [Employee, Breteil, 35].

These actions are linked to the workplace:

Downtown Village centre District	Seaside Rural Outdoors	Activity zone
<ul style="list-style-type: none"> • More nature in the cities • Less traffic and less space for cars • Less mineral, de-urbanising 	<ul style="list-style-type: none"> • More wildlife, less maintenance • Change nothing • Greater respect for nature • More soft mobility • Debate on environmental controversies (green algae, wind turbines, etc.) 	<ul style="list-style-type: none"> • More landscaping • More convivial spaces • More soft mobility • More vegetation

While Bretons have an emotional relationship with the landscapes where they live, the landscapes where they work are more marginal in their thinking. 8 out of 10 Bretons work indoors, and the outdoor landscape is secondary.

What could be improved in the outside environment of your workplace ? (free response)



qAS n = 927

THE EXPERIENCE OF TRAVERSED LANDSCAPES



78 %
of respondents observe the
landscape on their to work.



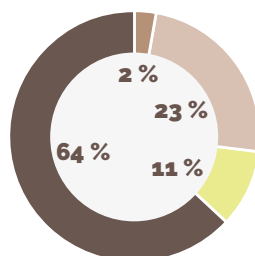
91 %
of respondents observe the
landscape on the way to their
leisure activities.

Daily commutes are mostly done by car. Soft mobilities are specifically favored when inhabitants go to their leisure places. Commute time is an opportunity to observe landscapes. When residents travel them during their free time, they contribute to their well-being. The priority actions related to traversed landscapes are oriented towards reducing the place of the car in favor of soft mobilities.

Work

23 % of Bretons go there
on foot, by bike or on a
scooter.

11 % of Bretons would
like to see less traffic and
fewer cars in town.



qAS n = 1,200

● Car, moto

● Multimodal transport

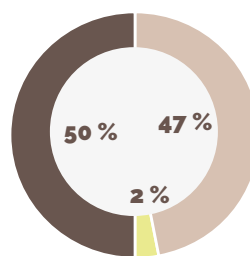
● Foot, bike, scooter

● Public transport

Leisure

47 % of Bretons
go there on foot, by bike
or on a scooter.

5 % of Bretons
would like to see less traffic
and fewer cars in town.



qAS n = 2,151

● Car, moto

● Multimodal transport

● Foot, bike, scooter

● Public transport

"Develop a real public transport offer to reduce the number of cars in town. [...] The town centre is full of parked cars, even when this is very expensive, because the rural areas around medium-sized towns are poorly served" [SPC +, Quimper, 29].

"More places to park if needed, a strong publicity campaign for public transport during the summer or a free shuttle service in the morning and late afternoon for local people to go to leisure facilities (beach, etc.)..." [Employée, Plouider, 29].

the share of low-carbon transports is paralleled by respondents with the increase in vegetation.

In view of the flows during the summer period, some propose actions related to the public transport network (free shuttle, communication campaign).

"[On the cycle paths] Some crossings are dangerous and accident-prone. This certainly prevents many people from travelling by bike. Sometimes the cycle paths stop in the middle of a bend, are poorly signposted and not very visible to motorists, who have priority on the main roads" [Employee, Baden, 56].

Priority actions oriented towards a better distribution of modes of transport

Bretons predominantly use the car for their local commutes (INSEE, 2021). With 64% of inhabitants using it to go to work, the undesirable effects are stated: atmospheric and noise pollution, land artificialization, danger related to speed, etc.

Also, since 2015, cycling has been progressing (INSEE, op. cit.). This practice is widely discussed within the survey via the development of cycling routes. They are, for some inhabitants, to be consolidated for better cyclist safety. The strengthening of the interurban cycling network is also mentioned.

15% of Bretons want soft mobility to be favored daily. The increase in

The commute to work, a time for landscape observation

31% of Bretons have their workplace less than 5 km from home, 37% between 5 and 20 km, and 32% more than 20 km. Rural residents travel the most kilometers with a national average of 13 km (INSEE, 2023).

Our survey shows that regardless of the number of kilometers traveled or the municipal density, observing landscapes is a usual practice for the majority of Bretons (78%). Landscapes are described as different according to the places crossed (44%), pleasant (39%), and changing with the seasons (38%). It is mainly the 16-25 age group that has a more mixed perception by qualifying them as monotonous and stressful.

I

individual tactics are implemented to improve daily life. Nearly 1 in 2 people sometimes take the time to modify their route to cross a more pleasant landscape to go to work. And the older people get, the more likely they are to modify their home-work route.

If Bretons have little affection for the external environment of their workplace, their connection is more developed with the landscapes they cross daily. This observation is even stronger concerning trips to leisure activities.

The landscaped crossing towards leisure

Even if the car remains predominantly used to go to leisure places, soft travels are also widely practiced (47%). This is made possible because the distance to reach them is less than 5 km from home for more than half of the Bretons.

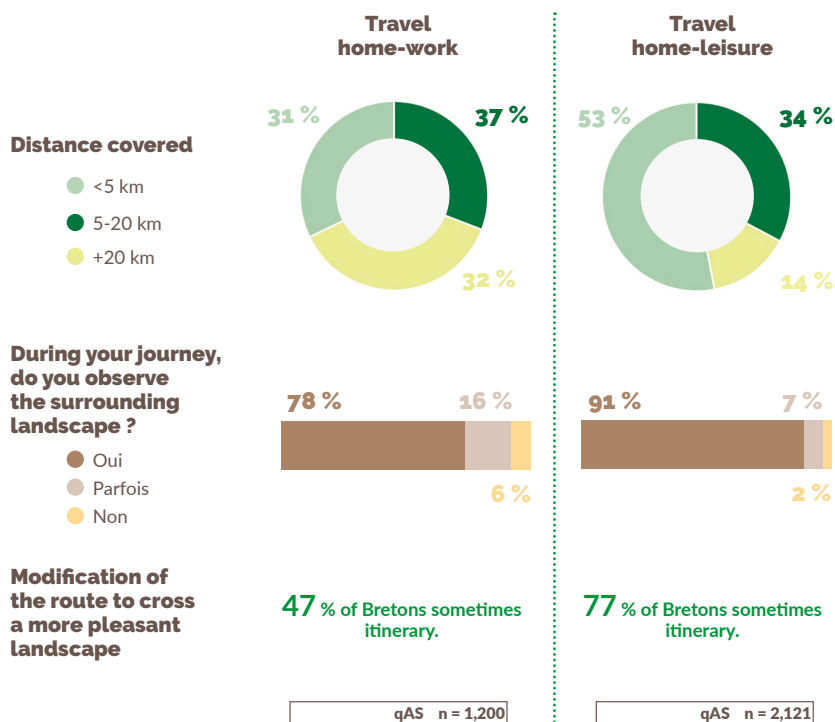
During their free time, residents particularly appreciate the landscaped crossing. Indeed, 91% of residents observe landscapes. They are appreciated because they are pleasant, changing, soothing.

77% of Bretons sometimes modify their itinerary to enjoy a more pleasant landscape. The quality of landscapes, here, has a preponderant place in inhabitants' perceptions.

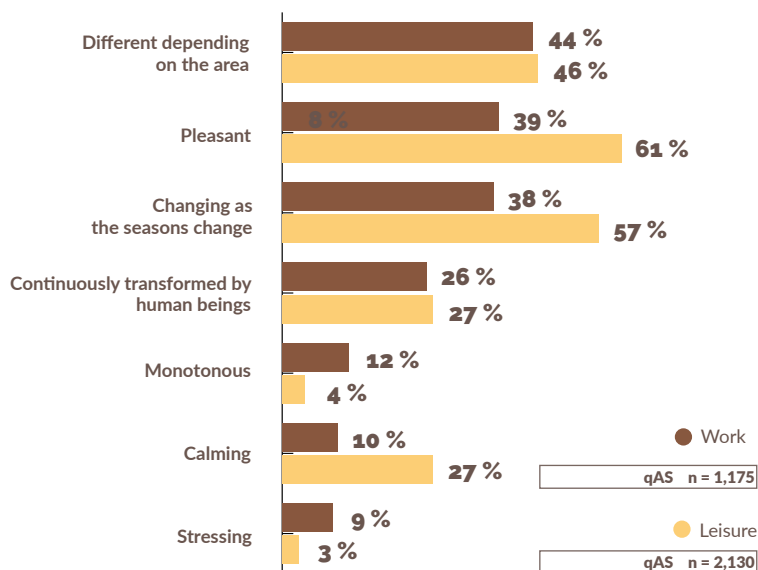
Accentuating the time-spaces of landscapes

The observation of landscapes and the modification of itineraries are more often carried out when residents are on foot than by car. Landscapes are less watched from public transports. The increasingly widespread use of screens may be the cause.

From roads, greenways, or streets, travels are opportunities for residents to have a space-time for the discovery or rediscovery of landscapes. Taking care of the edges of roads has real importance in improving the quality of everyday landscapes.



How would you describe the landscape you travelled through? (1 to 3 possible choices)



Local journeys in Brittany: the car still dominates, but cycling is on the increase (INSEE, 2021)

insee.fr/fr/statistiques/5016561

The median home-work journey has increased by half in twenty years for people living in rural areas (INSEE, 2023)

insee.fr/fr/statistiques/7622203

POPULAR NATURAL LEISURE AREAS



87 %
of Bretons consider that the quality of the landscape is a reason for choosing a leisure destination.



70 %
of Bretons visit natural areas during their leisure time.



"How would you define your leisure landscape ? : 'It's the pleasure landscape, it's the sea, it's a place that's always changing, that has new colours. The sensations are renewed.'"

Most Bretons spend their leisure time in natural areas, and many visit coastal landscapes. Leisure areas are chosen because they meet quality criteria: beauty, naturalness, isolation. More often than not, the leisure area is close to where people live. However, there are differences depending on gender, age and where people live.

Natural spaces near home

Regardless of the place of life (coastal, rural, urban, or peri-urban), the quality of the landscape is a major factor for 87% of Bretons to go to a leisure place.

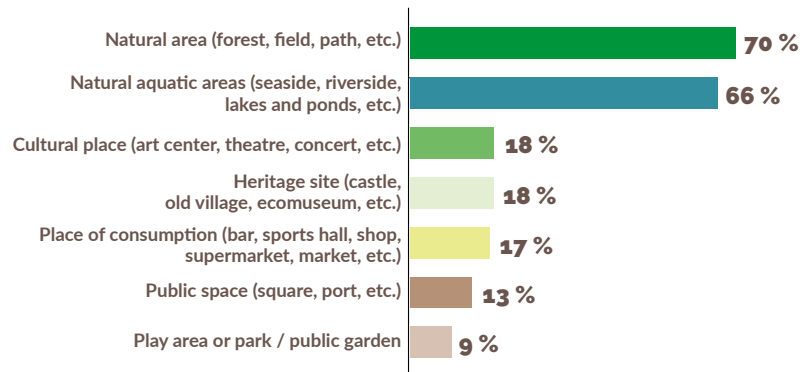
53% of Bretons stay within 5 km for their leisure and appreciate the diversity of landscapes close to their homes. 34% travel between 5 km and 20 km and finally 14% more than 20 km. Whatever the distance, leisure refers to nature for the majority of Bretons (7 out of 10).

"I don't have a specific leisure area. I look for a variety of places depending on the season. What's more, I don't have a thirst for elsewhere at any price and I appreciate my immediate surroundings, which bring me serenity and peace. And I'm lucky enough to live in the countryside" [Retired, Laz, 29].

Psychologist Stephen Kaplan has highlighted the links between immersion in nature and stress reduction. Natural environments protect people from the impact of the stressors to which they are usually subjected. Stressors are often linked to city life, working conditions and intense rhythms of life (noise, information overload, heat, demographic flux, etc.).

Nature is seen as a temporary break from these stressors. The theory of restoring attention distinguishes between a voluntary, directed mode of attention and an automatic, instinctive mode. According to this theory, the resources we can allocate to our voluntary and directed attention exist in finite quantities. Urban ecosystems are thought to call on this type of attention in a particular way. Contact with nature helps to restore attentional

Where do you like to go most often in your free time ? (1 to 3 possible choices)



qAS n = 2,151

resources by calling on the automatic and instinctive mode, leaving the voluntary and directed attentional mode at rest (Kaplan, 1995).

Individuals go to natural areas for leisure because of the benefits of nature for their well-being, the opportunities for recreational activities that these areas offer and the aesthetic appreciation of these places.

Gender contrast

As a reminder, gender refers to the social construction of the difference between the sexes and the resulting social relationships (Blidon, 2011). This social construction can be seen in our relationship with space and the landscape.

- Women are more likely to choose cultural spaces as their leisure pursuits (16%, down 4 points for men), while men are more likely to frequent public spaces (15%, down 5 points for women). This result corroborates current thinking

in social geography on the question of gender in the creation of public space.

In issue 12 of the journal *Dynamiques régionales*, entitled "Espace public et inégalités de genre" (2021), the authors set out to show the inequalities in access to public space and highlight the need to rethink it in a more inclusive way. The notion of landscape can be a lever for working with Breton women and men in this field of investigation.

In addition, women are more likely than men to choose natural aquatic areas for leisure (down 6% to 69%). Men (72%) are more likely than women (-4%) to choose natural areas relating to rural landscapes.

- On the other hand, women are more likely than men to choose natural aquatic areas for their leisure activities (69%) (-6%). Men (72%) are more likely than women (-4%) to choose natural areas relating to rural landscapes.

We know that men are more likely to favour maintaining the bocage as a priority action in their place

of residence. We can put forward the hypothesis that men have a stronger link with landscapes linked to agriculture, whereas women are more attracted to Brittany's heritage landscapes, which we will describe later.

To gain a better understanding of this contrast, a further study should be carried out to examine 2 possible explanatory factors (and link them to regional planning):

- practices carried out in these leisure areas (sporting activities such as running, cycling, relaxing on the beach, hunting or fishing, etc.);
- the symbolism associated with the leisure landscape (heritage of past activities linked in particular to subsistence farming, the cultural weight with, for example, the contemplation of natural elements stemming from Romanticism, etc.).

While the question of gender has been studied in relation to access to public spaces, this issue remains unresolved in French research into social representations of landscapes.

Different practices for different ages and living environments

There are differences in practice depending on age:

- The 16-29 age group are the most frequent users of consumption places.
- The 30-49 age group are the most frequent visitors to playgrounds, parks and gardens. This age group is characterised by the care of young children.
- For the 50-64 age group, there is no significant trend.

For the over-65s, leisure activities are centred on natural aquatic areas and cultural sites.

As far as places to live are concerned, people living in densely populated areas are more likely to go to places where they can socialise (places to eat, public spaces and play areas, parks and gardens). It is also in coastal communities that residents use public spaces the most. Coastal public spaces offer a number of specific features, including harbours and promenade dykes.

Coastal landscapes as leisure landscapes were widely mentioned in the semi-structured interviews. As the diagram below shows, a number of factors influence regular visits.

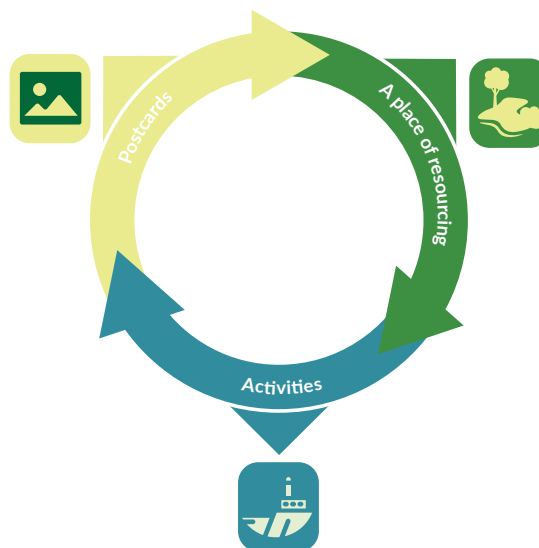
Factors influencing Bretons' visit to the coast

Postcard landscapes have a strong influence on the chosen leisure destinations. Coastal landscapes steeped in heritage or considered natural are the most popular. Urbanites leave the city to go to the sea.

"There are some monumental landscapes, like Cap d'Erquy and Cap Fréhel" [Student, Rennes, 35].

"Saint-Malo. It's a bit like the Breton imagination, it's the city turned towards the sea" [Employee, Bruz, 35].

"Every day in Brittany, with the tide, the colours of the sea are not the same. There's a season when there are boats and windsurfers. Saint-Jacut is more urban but that doesn't bother us because we leave the town and go to the seaside" [Retired, Languenan, 56].



Quality criteria:

- landscapes should be relatively untouched by human activity;
- landscapes should be little frequented by humans so that users can become one with the elements.

"I would say that coastal landscapes are the most natural. That's if there's not too much human impact, of course" [Vannes, 56].

"I like the water hitting the rocks, strangely enough it might irritate some people but it calms me down. I like to hear the sound of the water whether it's sunny or rainy. I like walking in Brittany when it's raining and when there's no one outside, I feel like nature belongs to me, that I'm one with it and that I'm not there for nothing" [Arradon, 56].

The coast is popular because of the variety of uses and activities that can be carried out there. A wide range of activities are mentioned as ways to recharge one's batteries: hiking, cycling, swimming, wildlife watching and nature photography.

SDI n = 120

"Our whole environment allows us to have a really pleasant life. You invest a bit in a kayak and then you're on your own for leisure activities and so on. It's true that we're very lucky to have a natural environment that allows us to combine leisure activities at no real cost" [Plourin, 29].

"Because it gives me a change of scenery. The sea air is tiring, and the hiking trails, the GR®34 for example, which circles Brittany, are extraordinary. Every 100 m you change the landscape and the view completely. It's very relaxing. That's the whole point of getting out of the house" [Retired, Kerien, 22].

A PROTECTIONIST VISION OF LEISURE LANDSCAPES



24 %
of Bretons want
protected leisure
areas.



"I hope no one will touch
anything." [Retired woman,
Douarnenez, 29]

The actions expected in favour of leisure landscapes are focused on respecting and protecting nature by reconciling natural dynamics and social practices: encouraging soft mobility, maintaining paths, limiting all forms of pollution, etc.

Priority actions according to leisure areas

The priority actions relating to leisure landscapes are largely the same as those relating to working landscapes: more vegetation, less mineral, reducing the use of cars, etc. Depending on the places they visit, respondents target priority actions.

Leisure venues	Priority actions
Natural areas	<ul style="list-style-type: none"> - Respect, preserve, protect and conserve - Maintain paths, hedgerows, etc
Natural aquatic areas	<ul style="list-style-type: none"> - Respect, preserve, protect and conserve - Reduce noise and visual pollution and waste - Better management of uses - De-urbanising, less mineral
Cultural and heritage sites	<ul style="list-style-type: none"> - Variety of actions with no major trend
Places of consumption, public spaces, playgrounds, parks and public gardens	<ul style="list-style-type: none"> - More vegetation

A desire to protect nature

¼ of respondents would like to protect recreational landscapes, most of which are natural and aquatic areas. According to the responses, there are three approaches to protecting nature (Depraz, 2013):

- a non-interventionist approach in which nature is "respected" and "reclaims its rights". It is a question of "leaving space for the wild" or "doing nothing".
- a conservationist approach in which nature is protected along with human beings.

"Conservation promotes reasoned management of nature, with an awareness of natural balances, respect for the rhythms of renewal of

environments, and reasonable use of resources".

- a preservationist approach in which nature is protected for its own sake, to the exclusion of human beings.

Non-interventionist approach :

"When it comes to nature, there's not necessarily a need to improve the outdoor environment, but rather to preserve it in its natural state" [Cadre, Feins, 35].

Conservationist approach : "By protecting the catchment area, which is made up of a beautiful green corridor and an agricultural slope" [Retired woman, Lézardrieux, 22].

Preservation approach : "By returning to nature certain areas not used by man and leaving them abandoned" [Student, Gouézec, 29].

The practices of "others" are criticised

Underlying all this, the Bretons would like to see a natural environment that is not heavily anthropised. It is "others" who contribute to the degradation of the landscape. Tourists, but also other users, are often singled out for their practices that do not respect the environment or the way people live together: failure to respect natural areas, lighting fires, soil degradation, dog droppings, pollution from rubbish, hunting, etc.

12% would therefore like to see a better distribution of social practices in leisure landscapes, with, for example, a better division of time devoted to walking and hunting, measures to limit over-visiting of areas, etc.

Respondents consider their practices to be virtuous, since they say they

know their territory and the problems associated with it. In their opinion, awareness campaigns are needed to educate the "others".

"After storms or gales, you go for a walk on the beaches and it's full of plastic waste. When you look at it, it's thrown up from boats" [Morlaix resident, 29].

"When I see the beaches in the summer, in the late afternoon, I say to myself that there is still a lot of education and awareness-raising to be done. The tourist population, or not, who come to our beaches..." [Brest resident, 29].

"As soon as the summer holidays arrive, there are more and more tourists in motorhomes and vans who park in natural areas (moors by the sea) and damage the soil. They often even take the risk of lighting fires" [resident of Clédén-Cap-Sizun, 29].

Managing leisure areas

Respondents also questioned the management of vegetation (drastic tree-cutting, hedge maintenance, etc.) and the impact of human activity on biodiversity.

The management of areas is also questioned with regard to private property. 3% of respondents would like free access to private roads, private forests, etc.

This emerging aspiration in France for a right of access to nature, along the lines of the Swedish "allmansrätten", runs counter to Law no. 2023-54 of 2 February 2023 aimed at limiting the encroachment on natural areas and protecting private property. This recent text is in line with the Declaration of the Rights of Man and of the Citizen, which affirms the

inviolable and sacred nature of the right to property (art. 2 and 17).

Nevertheless, a number of tools have been put in place to allow and organise access to paths, nature and landscapes:

- the Servitude de Passage des Piétons sur le Littoral (SPPL) (Easement for Pedestrian Access to the Coast) introduced by the Law of 31 December 1976;
- the Department's Espaces Naturels Sensibles (ENS) scheme, which provides for ENS sites to be open to the public (art. L113-8 of the Code de l'Urbanisme);
- the Plan Départemental des Itinéraires de Promenade et de Randonnée (PDIPR) (Departmental Walking and Hiking Routes Plan), which allows hiking routes to pass through private property subject to an agreement with the owners (art. L361-1 of the Environment Code).

"Make private woodland accessible and remove fences in woodland" [Man, Iffendic, 35].

"By improving dialogue between private landowners and walkers: more and more landowners are preventing access to their plots (no-entry signs, closure of walking routes, fences, etc.). There's an urgent need to get people living together again [Farmer, Bréteil, 35].

Access to leisure landscapes

Bretons attach importance to the journey from home to their leisure area (supra). This crossing is more inclined towards soft mobility (47% of Bretons), and it is with this in mind that many priority actions are geared towards soft mobility.

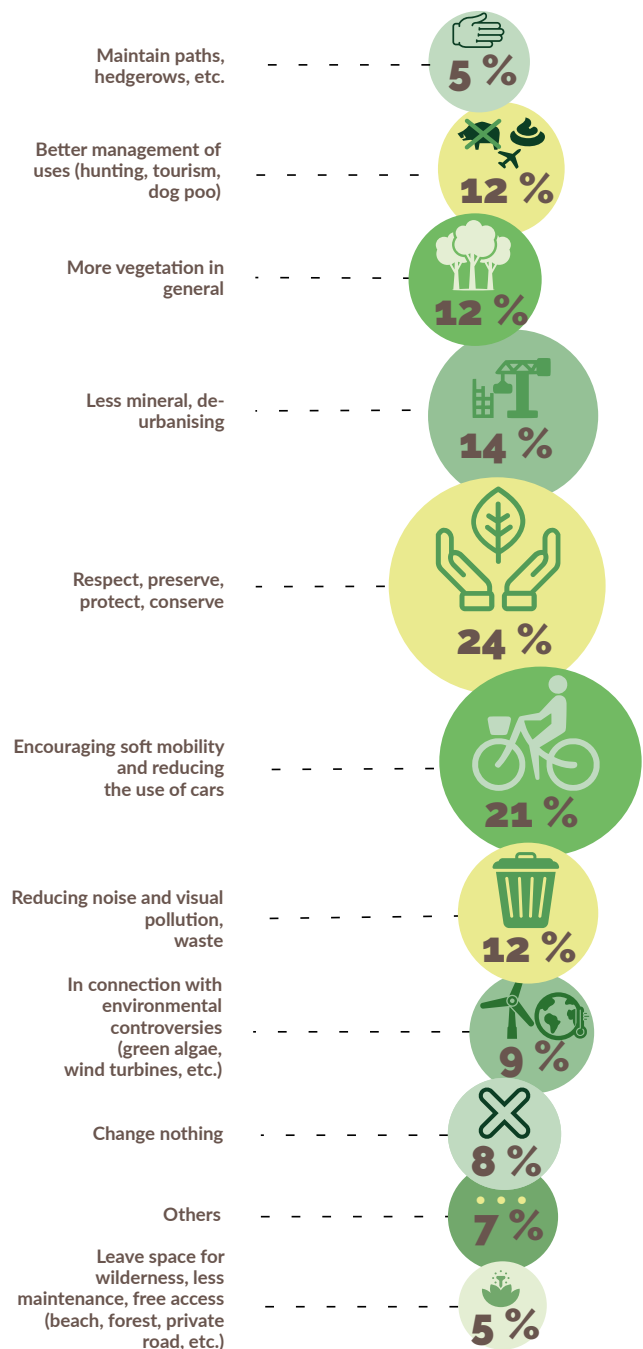
Here are some examples of actions cited by residents:

- making footpaths and cycle paths safer (lighting, safe distance from cars),
- maintenance of footpaths and mountain bike trails,
- improved access for people with reduced mobility,
- installation of bicycle racks.



Plévenon (22), 2017, OPP Grand Site de France Caps Erquy - Fréhel

How could the surroundings of your leisure activity be improved ? (free response)



qAS n = 1,119



Tourism practices in Brittany, results of the "Reflét" survey (Région Bretagne, 2023)
pro.tourismebretagne.bzh/etudes/les-1ers-resultats-de-lenquete-reflet

BETWEEN DIVERSITY AND FRAGILITY OF BRETON LANDSCAPES



Forests are seen as the most diverse landscapes in terms of flora and fauna.



63 % of Bretons think that seasides are the most vulnerable landscapes.

The landscapes perceived as having the greatest diversity of flora and fauna are forests and Breton islands; those perceived as least rich are urban landscapes. This perception of flora and fauna diversity varies according to age and gender. Respondents also see their living environment as a fragile landscape.

The respondents were asked to characterise different types of Breton landscape in terms of the degree of fauna and flora diversity: 1 being an area with little fauna and flora diversity, 5 being an area with a great deal of fauna and flora diversity. The purpose of this assessment scale is to question the possible links between landscape and biodiversity in the representations of local inhabitants.

Perceptions of fauna and flora diversity differ according to socio-geographic category

Bretons perceive a high level of diversity in all landscapes except urban areas, where 77% of respondents gave a score of 1 to 2. The forests and islands of Brittany are the areas perceived as the most diverse in terms of flora and fauna, with 70% or more.

In view of the ranking, we can put forward the hypothesis that it is the areas considered to be the least anthropised that are perceived as diverse. Further information would be needed to examine this point in greater depth, by looking at the perception of the different landscape typologies as such.

However, we note variations according to socio-geographic categories.

- Firstly, age has a major influence on perceptions of diversity. The 16-25 age group more frequently consider all areas to be highly diverse (with the exception of urban areas) than other age groups. Those aged 65 and over, on the other hand, are more likely to give ratings of around 2-3. This finding echoes the theory of reference state shift syndrome developed by marine biologist Daniel Pauly (1995). "The reference state, i.e. the state considered to be the

"natural" state of an ecosystem, evolves over time, without the players noticing, insofar as they consider an erroneous reference state: that of previous decades, corresponding to their childhood or the start of their professional career. As each generation redefines what is natural and what is not, the standard becomes slippery, and the degradation of ecosystems becomes invisible to the stakeholders" (Moreau *and al.*, 2023, p. 65). In this sense, older people perceive more changes in diversity in relation to their own reference state than younger people who have a reference state close to them. We can thus observe the shift that is taking place between generations.

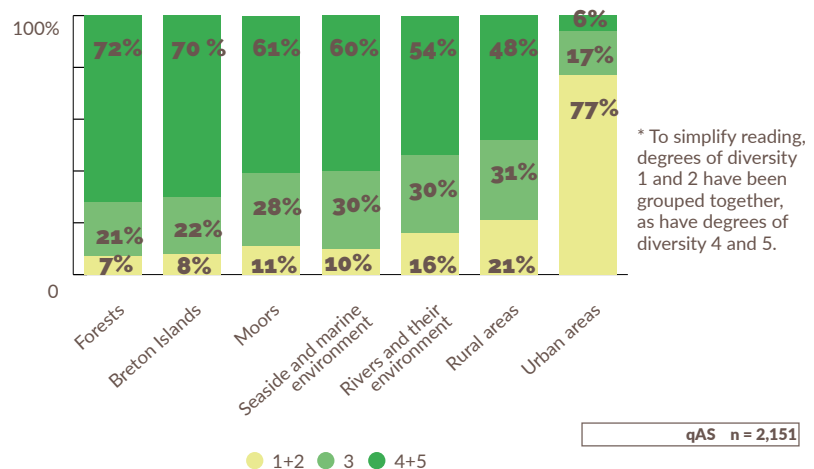
- Secondly, gender is a significant variable in the choice of responses. Women take a positive view, noting much more frequently a high diversity of flora and fauna (level 5: marine environment, moorland, forest and river). Men, on the other hand, are

more likely to see areas as lacking in diversity (level 2: rural environment, forest, moorland, urban environment).

- Thirdly, the living environment has an influence on the perception of the degree of diversity:
 - Inhabitants of densely populated areas consider forests and rivers to have a rich diversity of flora and fauna (+6 points compared with others).
 - Inhabitants of coastal municipalities consider their seaside and marine landscapes to have a high level of diversity (up 5 points on the others).

These results are rich and new, opening up new research possibilities between landscape, biodiversity and socio-geographic groups.

Perception of the degree of fauna-flora diversity according to landscape typology



Perception of fragile landscapes

Another series of questions dealt with the perception of the fragility of landscapes: *"In your opinion, what are the most fragile landscapes in Bretagne? Select two types of landscape and, for each, define the priority actions."*

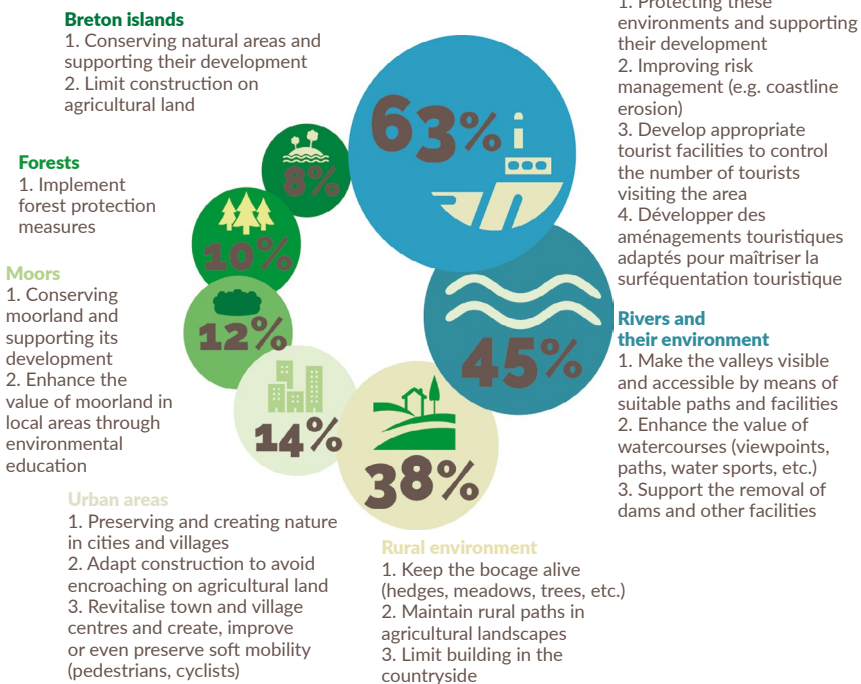
The landscapes considered most fragile are water-related, with the seaside and marine environment in first place, followed by rivers and their surroundings.

Urban areas, moors, forests and islands are seen as less fragile. The rural environment, chosen by 38% of Bretons, acts as an interface between the two extremes.

There is a correlation between leisure activities by gender (p. 32) and the fragility of landscapes. Indeed, 43% of men consider rural areas to be fragile (-9 points for women). For women, the seaside and marine environments they visit during their leisure time are perceived as fragile by 67% (down 8 points for men).

More generally, inhabitants tend to see the landscape in their place of living as fragile. Inhabitants of densely populated areas choose urban areas. For inhabitants of sparsely populated areas, it is the forest, moorland and river landscapes that are perceived as fragile. Finally, coastal populations choose associated environments.

Bretons' perception of the fragility of their landscapes



Urban beach at Plaine de Baud, Rennes (35), 2018
OPP de l'Université du Temps Libre de Bretagne

Comparing the degree of fauna-flora diversity with the fragility of landscapes

Comparing the results for the degree of diversity and those for fragile landscapes, we find correlations: the Breton islands, moors and forests are the environments perceived as having the most diversity and also as the least fragile landscapes.

Urban areas are perceived as less fragile landscapes, even though they are characterised as having a low diversity of flora and fauna. The seaside and the marine environment are perceived as the most fragile landscapes, but with a high degree

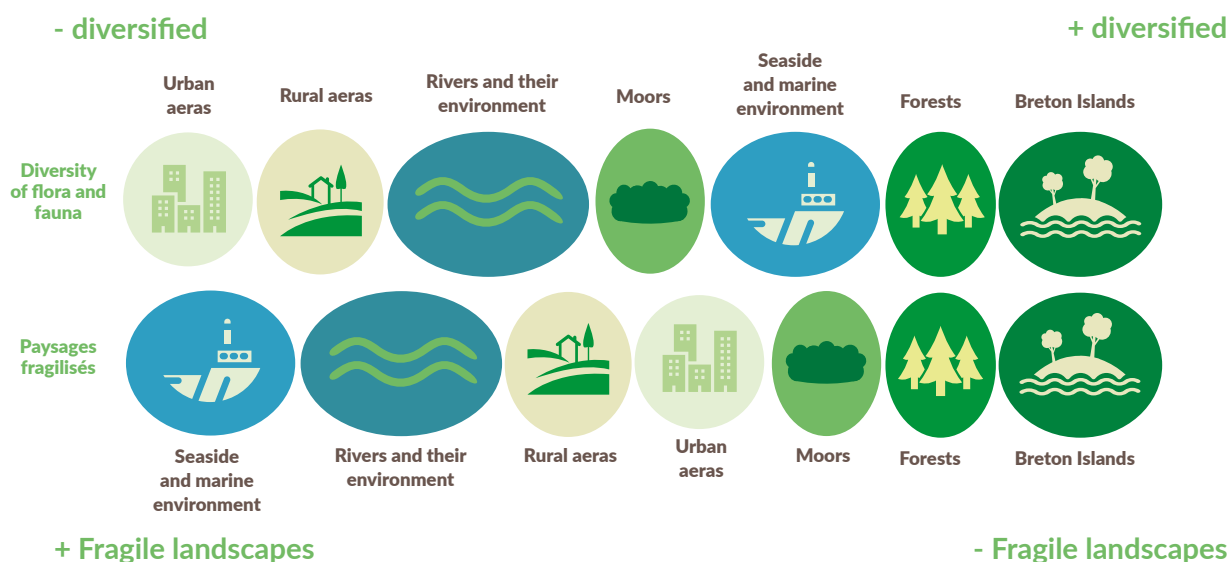
of diversity. The rural environment, rivers and their surroundings are also perceived as fragile landscapes with a relatively high degree of diversity, but lower than the other environments.

These data are based on the perceptions of the Breton people. In reality, diversity is not the only indicator of richness: an island may not be very diverse, but it may contain endemic species (= a species found in a limited geographical area that is found nowhere else). A landscape can also appear fragile when the environment contains a great deal of diversity: studies on nature in cities have shown that some cities

have a greater diversity of flora than the surrounding rural environment (Arnould *and al.*, 2011).

The diversity of flora and fauna can be high anywhere as long as there is a diversity of environments and species, genetic exchanges and ecological continuity. The aim of the green and blue framework is to preserve, strengthen and even reconstitute these corridors between different environments, and the SRADDET sets objectives for Brittany in terms of protecting and restoring biodiversity.

Perception of the diversity of environments compared to the perception of the fragility of Breton landscapes



The green and blue corridor in Brittany (bibliographic report)

bretagne-environnement.fr/notice-documentaire/dossier-bibliographique-trame-verte-bleue-bretagne

Regional plan for spatial planning, sustainable development and territorial equality (Brittany SRADDET)

bretagne-environnement.fr/notice-documentaire/schema-regional-damenagement-developpement-durable-degalite-territoires

THE IMPORTANCE OF PLANTS AND ANIMALS IN EVERYDAY LANDSCAPES



100 %
of Bretons consider the presence of vegetation to be important in their living environment.



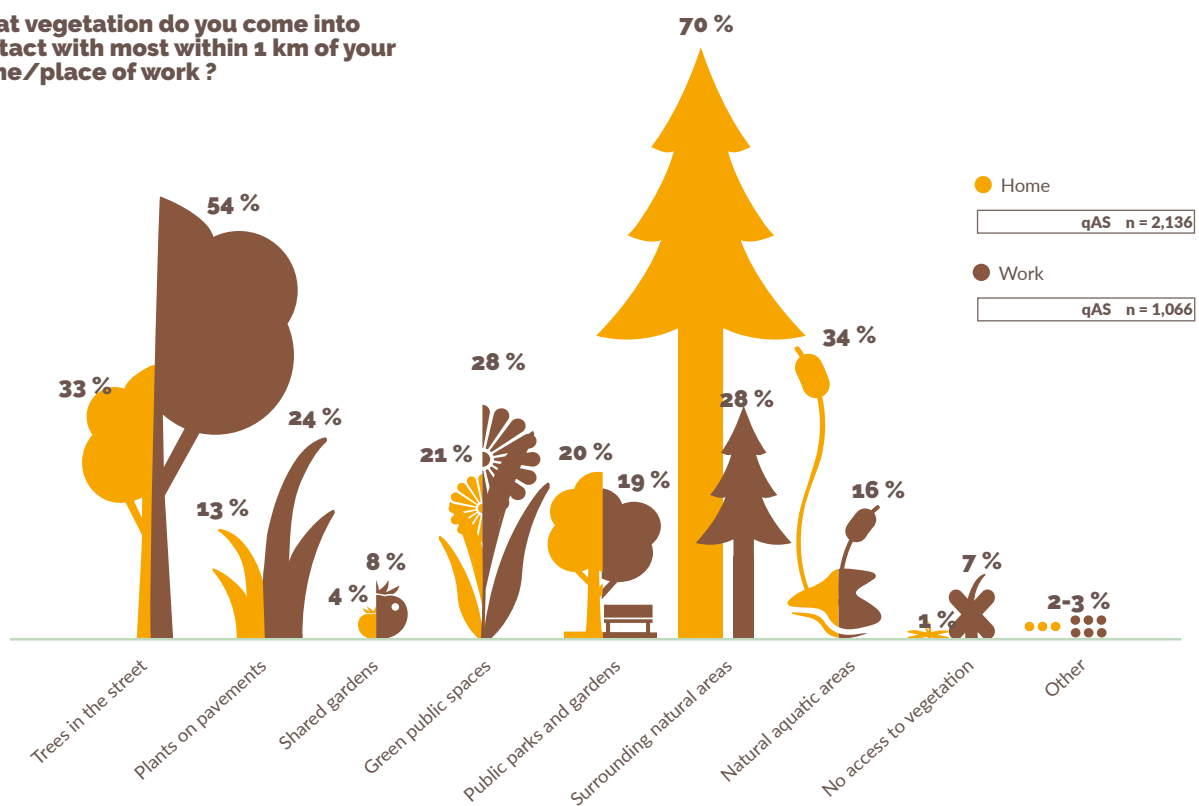
89 %
of Bretons consider the presence of animals to be important where they live.



"To change the way humans think about nature and animals. To move from a relationship of domination, exploitation and use to one of complementarity and protection, for the entire animal and plant kingdom" [Employee, Le Conquet, 29].

The presence of plants and animals plays a major role in the everyday landscapes of Bretons. Respondents shared a desire to develop initiatives that focus on flora and fauna as a way of improving the quality of the landscape.

What vegetation do you come into contact with most within 1 km of your home/place of work ?



Plants at the heart of landscape quality

Plants play a major role in everyday landscapes. To the question, "Is it important to you to have vegetation present?", 100% of respondents say "yes" for living landscapes, 94% for working landscapes and 96% for leisure landscapes.

Respondents come into contact with different forms of vegetation depending on the level of density they live in. The denser the space, the more distinctive the vegetation:

- For low-density and very low-density areas: respondents are in

contact with natural and natural aquatic areas;

- For intermediate density areas: contact with natural aquatic areas;
- Responses common to densely populated and intermediate density areas: contact with green public spaces, parks and public gardens;
- For densely populated areas: contact with trees in the street, plants on pavements, shared gardens.

This shows the importance of nature in the city, whatever the type of vegetation (plants on pavements,

parks, etc.

The typology chosen is linked to the practices of the respondents (p. 25). Young people and women who go to drinking establishments, playgrounds, parks and gardens mainly choose trees in the street, plants on pavements and public parks and gardens. Men, on the other hand, are more likely to use natural areas as part of their daily activities.

When it comes to workplace landscapes, respondents are mainly in contact with street trees and green public spaces. Those from higher socio-professional groups were more likely to choose green public spaces (+6 points compared to other socio-professional groups). A higher proportion of people from lower socio-professional groups replied that they do not have access to vegetation within 1 km of their workplace. The study of working landscapes needs to be taken further to analyse possible socio-spatial inequalities and to question equality of access to nature, but also well-being in the workplace.

In terms of everyday landscapes, a large proportion of respondents would like to see more and better vegetation. Maintenance methods are often questioned in the name of biodiversity. Ultimately, plants are the key to improving the quality of landscapes for everyone.

"Increase and diversify vegetation (let nature reappear?) to improve biodiversity" [SPC +, resident of Acigné, 35].

"By mowing verges more sparingly and with greater respect for wild plants" [Retired resident of Riec-sur-Bélon, 29].

"Stop mowing the grass all the time [...]. We could consider eco-pasturing part of the lawn. And plant hedges and fruit trees on the other. In a word: bring the site to life! [Employee, Baden, 56].

The importance of animals in the landscape

The presence of animals contributes to the quality of everyday landscapes. 89% of Bretons think it is important to have animals around their homes, 81% around their leisure activities and 63% around their workplaces.

The presence of animals is less visible than that of plants (trees are static, whereas birds are in motion). In this sense, observing animals is more demanding than observing plants. The landscapes of the workplace are therefore less conducive to observation that requires attention. Furthermore, the absence of animals is only perceived in the workplace landscape.

To the question *"What animals are present within 1 km of your workplace?"*

35 people answered *"none"*. Some of the landscapes around the workplace are very artificial (industrial areas). There was little mention of wildlife habitats.

"There aren't any (industrial zone)" [Employee working in Saint-Malo, 35].

"I've never seen one in my memory" [Employee working in Cesson-Sévigné, 35].

"Building surrounded by walls that prevent birds from being seen, perhaps" [Employee working in Morlaix, 29].

The less contact we have with animals, the less important they are in our daily lives

There is a correlation between contact with animals in the place

where people live/learn and the importance attached to their presence. Those who have less contact with animals on a daily basis consider their presence to be less important:

- 20% of respondents living in densely populated areas consider that the presence of animals is not important to them or have no opinion (+9 points compared to the average).
- The 16-29 age group pays the least attention to the presence of animals and considers their presence to be unimportant in their daily lives.

This phenomenon is noteworthy and should be seen in the context of current concerns about disconnection with nature (OFB, 2023): the less contact we have with nature, the less need we feel for it.



A variety of plant forms at Lanrelas (22), 2019, OPP du PETER du Pays de Saint Brieuc



Livestock at Sizun (29), 2001, OPP du Parc Naturel Régional d'Armorique

The diversity of the animals mentioned

A total of 170 animals were mentioned, including 66 birds. This result echoes the national survey "The French and Nature" of 2020, where birds were also the most frequently mentioned (Ducarme & Pautard, 2021).

The domestic animals mentioned are mainly dogs and cats, which are sometimes considered too numerous (1% of respondents).

Farm animals are more varied (sheep, cattle, chickens, pigs, etc.), although cows predominate. Wild animals are even more varied, showing that Bretons have a real appetite for their natural environment.

"Roe deer, badger, hare, marten, owl, buzzard, hawk, to name but a few" [Cadre, Silfiac, 56].

The animals perceived in everyday life differ according to the type of landscape. Respondents cite domestic animals in greater numbers in landscapes where they live.

In landscapes where people work and spend their leisure time, wild animals are in the majority.

There are gender differences. 91% of women refer to domestic animals in landscapes of the place where they live (down 5 points for men).

As for men, 81% mention wild animals, 4 points more than women. This difference may be linked to everyday practices, which differ according to gender (p. 25).

Also, more men will mention farmed animals in leisure landscapes (35%, down 6 points for women). As explained above (p. 32), men are more interested in rural landscapes than women.

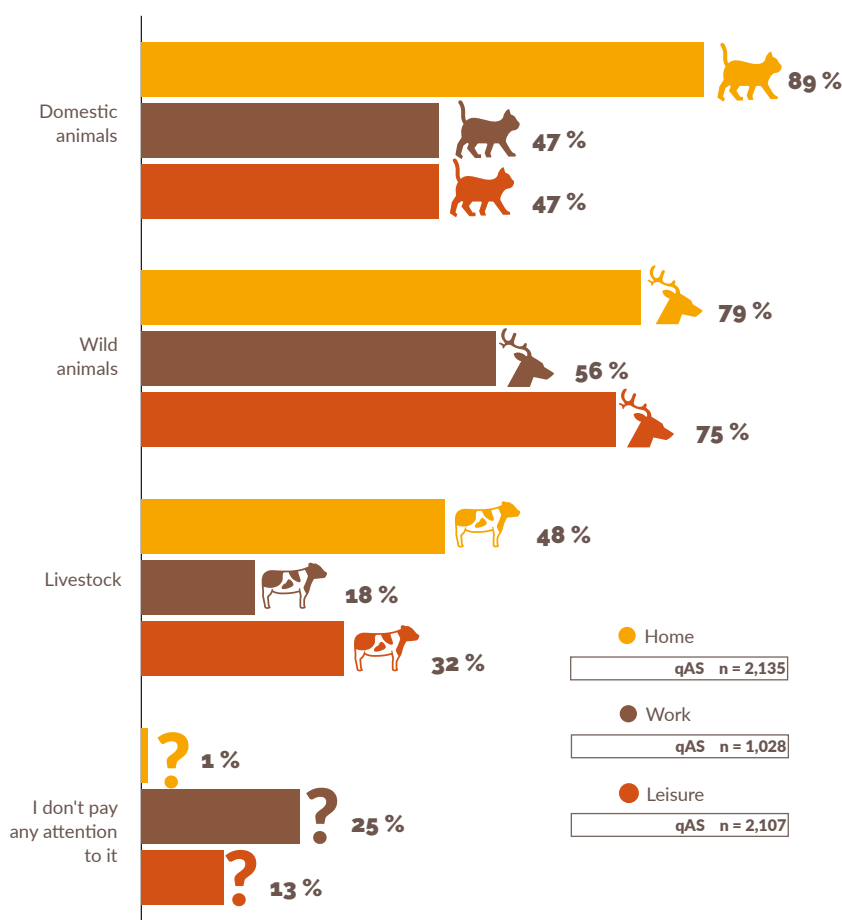
These results also offer new avenues for research into the landscape/biodiversity/gender issue.

The Breton connection with animals

Firstly, the relationship between humans and other animals differs from one person to another: chickens, sheep and horses are classified as both "domestic animals" and "farm animals".

The living conditions of animals, the nuisance caused by livestock

What animals are regularly present within 1 km in everyday landscapes?



farming and the divide between non-hunting and hunting residents were mentioned by some respondents. The place of animals in our society, especially in Brittany where agriculture is largely based on animal production, raises ethical questions (Denis, 2015).

[Speaking of livestock] "Invisible, but not odourless!"

"Farm chickens! Lots of flies".

In addition, observing wildlife is a daily activity in which some people develop strategies to better contemplate them: a retired woman living in Rennes, for example, puts seeds on her balcony to see the sparrows.

Ultimately, the survey shows that the people of Brittany have a detailed knowledge of and a strong interest in the flora and fauna around them. Many consider that the priority actions for improving the quality of the landscape are focused on biodiversity. This term

was deliberately excluded by the project team when designing the online questionnaire, but was cited 258 times.



Replay de la rencontre « Amnésie environnementale et (re)connexion à la nature » organisée par l'OFB (2023)

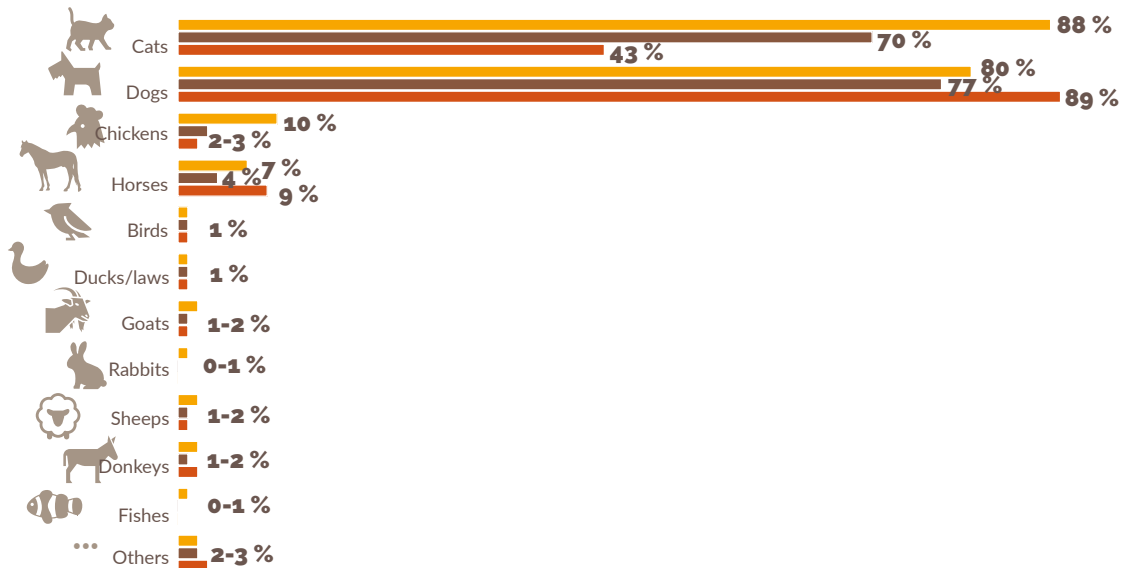
professionnels.ofb.fr/fr/restitution/journees-dechanges-techniques-en-ligne-amnesie-environnementale-reconnexion-nature

L'agriculture bretonne et la production animale bretagne-environnement.fr/infographie/lagriculture-en-bretagne

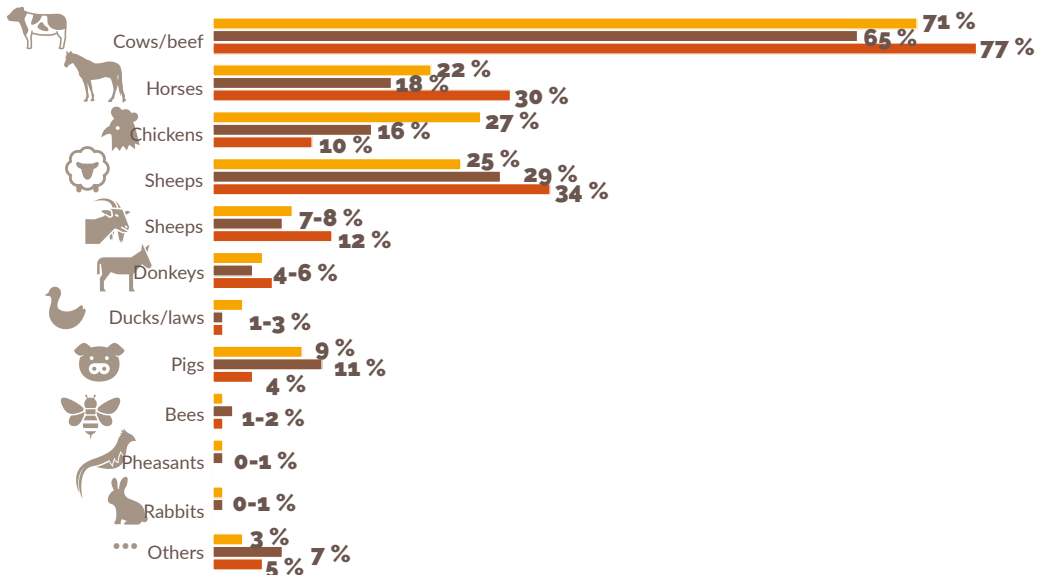
L'agriculture et les paysages dans les Côtes-d'Armor paysages.cotesdarmor.fr/connaître-et-comprendre/fondements/fondements-anthropiques/lagriculture-et-les-paysages

ANIMALS IN EVERYDAY LANDSCAPES

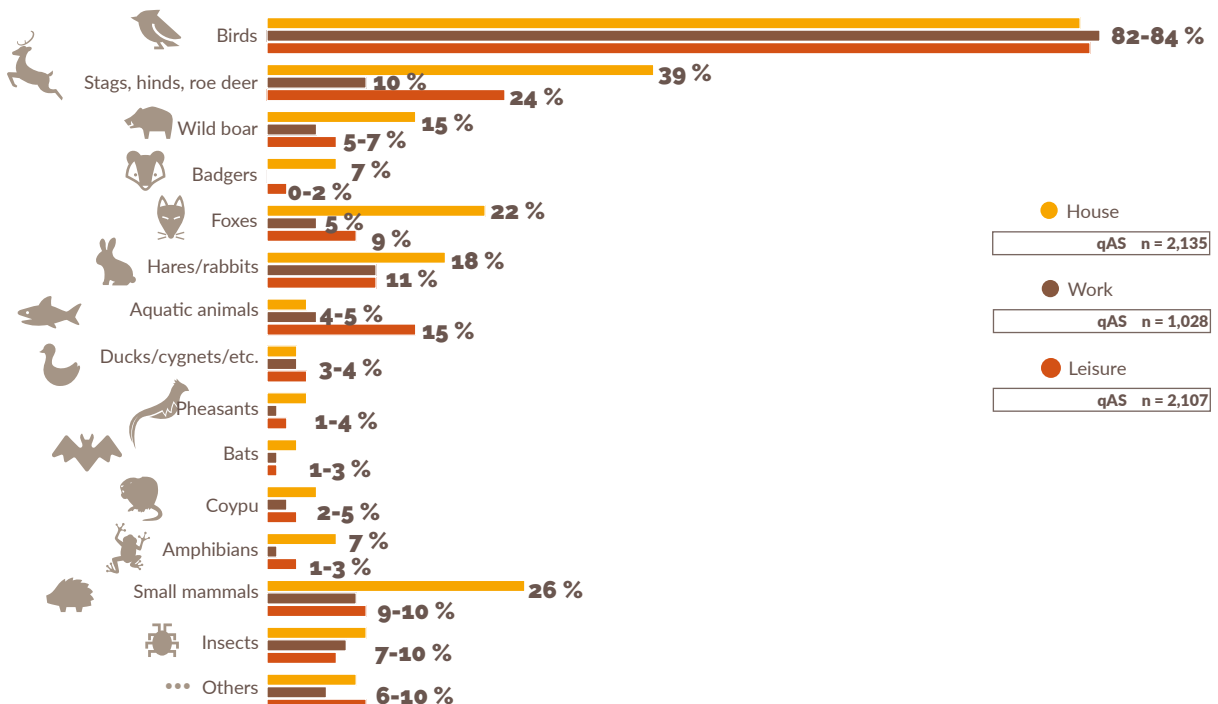
Domestic animals



Livestock



Wild animals



House

qAS n = 2,135

Work

qAS n = 1,028

Leisure

qAS n = 2,107

170 ANIMALS LISTED, INCLUDING 66 BIRDS

Vertebrates

Amphibians

- Frog
- Salamander
- Toad
- Triton

Mammals

- Alpaca
- Aries
- Badger
- Bat
- Bullfinch
- Cat
- Coon
- Cow
- Deer
- Deer
- Deer
- Dog
- Dolphin
- Donkey
- Dormouse
- Ermine
- Ewe
- Fallow deer
- Ferret
- Fox
- Goat
- Guinea pig
- Hamster
- Hare
- Hedgehog
- Horse
- Lama
- Mars
- Mink
- Mole
- Mouse
- Mule
- Otter
- Ox
- Pig
- Polecat
- Pony
- Porpoise
- Rabbit
- Rat
- Seal
- Sheep
- Shrew
- Squirrel
- Surmulot
- Vole
- Weasel
- Wild boar
- Wolf

Birds

- Bird
- Blackbird
- Black-headed warbler
- Bullfinch
- Buzzard
- Canada Goose

- Chickadee
- Common nuthatch
- Coot
- Cormorant
- Crow
- Curlew
- Duck
- Egret
- Falcon
- Finch
- Goose
- Grebe
- Greenfinch
- Guillemot
- Gull
- Hen
- Heron
- Jackdaw
- Jay (+ oak)
- Kingfisher
- Lark
- Magpie
- Mallard (duck)
- Moorhen
- Nightingale
- Northern Gannet
- Osprey
- Owl
- Parakeet
- Partridge
- Partridge
- Peacock
- Penguin
- Pheasant
- Pigeon
- Raven
- Red-crested Pochard
- Robin
- Sparrow
- Sparrowhawk
- Speckled Accentor
- Spotted woodpecker
- Starling
- Stork
- Swallow
- Swan
- Swift
- Tawny owl (written tawny owl)
- Tern
- Thrush
- Turkey
- Turnstone
- Turtle Dove
- Wader
- Wagtail
- Winter Wren
- Woodcock
- Woodpecker

Fishes

- Fish
- Mackerel
- Pike
- Pike-perch
- Smelt
- Trout

Reptiles

- Lizard
- Orvet
- Snake
- Turtle
- Viper

Invertebrates

Crustaceans

- Crab
- Shrimp
- Woodlouse

Insects

- Ant
- Aphid
- Asian hornet
- Bedbug
- Bee
- Bumblebee
- Butterfly
- Cricket
- Cricket
- Dragonfly
- Fly
- Grasshopper
- Hornet
- Insect
- June beetle
- Ladybird
- Lucanid beetle
- Mosquito
- Processionary caterpillar
- Scarab beetle
- Wasp

Molluscs

- Abalone
- Mussel
- Oysters
- Periwinkle
- Slug
- Snail

Other invertebrates

- Earthworm
- Jellyfish
- Spider

* The animals mentioned by respondents are written in black. They are classified by taxonomic group (in green).



Biodiv'Bretagne
data.biodiversite-bretagne.fr

THEMATIC FOCUS

.....

Landscape is the result of interactions between human beings, natural dynamics and their interrelationships. Its cross-disciplinary approach enables it to address a variety of social and environmental issues.

The results of the survey highlight several key themes in Brittany. The aim of these 8 thematic focus is not to provide an exhaustive synthesis of the issues, but to show the diversity of points of view, with some shared observations or demands and others that are more in the minority.

Each thematic focus is based on a qualitative, cross-sectional analysis of data from the online questionnaire and semi-structured interviews.

THE TREE WITH HEALING VIRTUES



For **44 %** of Bretons, "landscape" evokes the notions of "Vegetation/Trees/Plantations".



872 times the word "tree" is mentioned in the survey.



"More trees and less tarmac : the playground at my secondary school should be greened, for example. That would be good" [Landéda resident, 29].

Trees are the essential landscape feature that unites the Breton people. Described in all its forms and in all environments, it is multifunctional. Maintaining existing trees and planting more of them are shared aspirations in order to ensure the ecological transition and benefit from the virtues of trees for human health.

Trees, the emblematic element of the Breton landscape

Trees are the landscape feature most appreciated by Bretons. It was cited 872 times in the survey (including questionnaires and interviews). In response to the online question "What does landscape mean to you? Can you give three key words, express an idea?", 109 respondents mentioned trees:

- "Sea, countryside, trees",
- "Diversity, life, trees",
- "Nature, trees, wild".

Alongside concepts such as nature, the countryside and diversity, it is an emblematic element in the landscape. In the national survey "The French and Nature", the 4,431 respondents were asked to define the notion of nature in the same way.

Cited 860 times, the word "tree" is the term most often used to evoke nature (Ducarme & Pautard, 2021). It is therefore a unifying and symbolic element in the perception of landscape and nature. Its multifunctionality is described by the Breton people. As a result, there is a strong social demand to maintain and plant trees in everyday landscapes.

Trees and human health

L'arbre Trees are important for people's physical and mental health. They allow us to "breathe easier". The sight of trees contributes to individual well-being. Trees are also mentioned for their nourishing aspect, with a particular desire to see more fruit trees in green public spaces so that the fruit can be picked and eaten. Similarly, some respondents would like to see more trees in public spaces



Green island in the Saint-Martin neighbourhood of Brest (29), 2022
OPP de l'Université du Temps Libre de Bretagne

Key figures about the tree

- 31 % of Bretons are in contact with trees in the street around their home and 51% around their workplace.
- In response to the open question "What could be improved in the environment outside your workplace?" 14% of respondents mentioned trees, asking for more of them to be planted and for existing trees not to be cut down.

to protect them from the heat.

Finally, Bretons want more trees to reduce noise.

The tree and its ecological functions

Respondents recognise the benefits of trees in the city. They mention the importance of trees in cooling cities and in their role in promoting biodiversity. Planting trees in soil that

"Noisy environment near a dual carriageway. Provide more vegetation (trees) to cut out the noise" [Resident of Pluneret, 56].

has been drained of water was also mentioned. Often, planting more trees is associated with a desire to limit the artificialization of land.

In rural areas, trees are particularly valued through the bocage. The ecological functions of hedges are emphasised, particularly in terms of water quality, biodiversity and the fight against climate change (see below).

"In cities, limit artificialisation, introduce small areas of fruit trees with picnic furniture" [Lorient resident, 56].

Plant "more trees around the petanque courts, to provide a bit of shade in hot weather" [Retired, Auray, 56].

"It makes you breathe with your eyes, especially when you work in an office and you can only see nature by leaning out of the window to see a treetop" [Executive, Cesson-Sévigné, 35].

There should be "shelters for biodiversity, living in nature, not just putting trees between the paving stones. Vegetate, devitalise, desilt, create beds to cool the ground, plant trees [...]" [Resident of Hennebont, 56].

"Plant large trees that are hosts to biodiversity, powerful levers for the climate, air quality and public health, as well as for landscapes" [Executive, Rennes, 35].

"More trees / vegetation of different species and especially with leaves for evapotranspiration in summer" [Executive, Cesson-Sévigné, 35].

Trees and paths

Trees also have a function as edges in land-use planning. Some inhabitants mention the trees along the roads and footpaths. Once again, in this context, the desire is to maintain and plant trees:

- Concerning actions in leisure landscapes: "With more planting of trees and other vegetation along roadsides, on roundabouts..." [Retired woman, Loperhet, 29].

- Along the roads, the trees are disappearing. The landscape is becoming increasingly sparse" [Inhabitant of Saint-Germain-sur-Ille, 35].

The tree and its cultural and aesthetic functions

Trees also contribute to the beauty of everyday landscapes and have a cultural impact. They punctuate the daily lives of Bretons, bringing life, breathing space and added value to property.

"And then I'm a member of association X, [...] I go to remote places just to photograph trees, and that's helped me discover lots of places" [Retired, Rennes, 35].

"It's a lot of woodland. They're not big woods, they're small copses, but it makes for a well-vegetated landscape" [Retired, 35].

"I think that the fact that there are quite a few trees, oak trees around the house, makes the landscape of my home special. It gives it something that maybe a house on a normal plot of land doesn't have [...]" [Retired woman, Sixt-sur-Aff, 35].

Tree management

The management of trees throughout Breton territory is widely discussed by respondents, and often in a virulent manner. The arguments put forward were as follows:

- the lack of maintenance or poor environmental conditions of trees in towns;
- the removal or poor management of trees in hedgerows;
- the disappearance of trees in favour of buildings or the failure to replace dying trees.

Because they are so highly valued, trees are the subject of passionate debate.

"Trees are still considered too much as urban material or raw material for wood and energy without consideration" [Cadre, Saint-Renan, 29].

"Every time we go out, we're afraid of seeing one less embankment, trees cut down, a concrete wall appearing, a path being tarmacked..." [Executive, Trégunc, 29]. [Executive, Trégunc, 29].

"To maintain it without destroying everything by pruning the trees right down to the trunk, even though these are important steps in the transport of sap" [Employee, Évrans, 22].

In summary, the benefits of trees are cited: islands of coolness, air quality, better breathing, beautiful landscapes, noise barriers, reservoirs of biodiversity. On the whole, trees are good for human health and for tackling environmental problems.

They are seen as a vital part of the ecological transition in both rural and urban areas.

All aspects of trees are described by respondents. However, some aspects were rarely mentioned, if at all, such as the many neighbourhood conflicts (trees that cast too much shade on their neighbours, trees with leaves on their neighbours' lawns, etc.), regulatory measures for planting trees in towns and cities, safety issues, etc.

With the national pact in favour of the hedge presented in September 2023 and the regulations relating to avenues and tree alignments (art. L350-3 of the Environment Code), trees in both rural and urban alignments are considered to be a source of amenity and are the subject of a specific policy (protection, renewal, enhancement, etc.). It is against this backdrop that the Brittany Region is implementing a regional tree plan. The plan aims to increase the presence of trees in all environments, promote their sustainable management and enhance the uses and products associated with them.



Why are trees the main feature of most landscapes in Brittany ?

bretagne-environnement.fr/article/types-paysages-Bretagne-arbre-bocage



Gouesnac'h (29), 2003, OPP Atlas des paysages du Finistère

FOCUS ON FOREST LANDSCAPES



Monitoring a senescence patch, Vern-sur-Seiche (35), 2017, 2018, 2022, OPP des Espaces Naturels Sensibles d'Ille-et-Vilaine

140
The number of
times the forest is
called upon

51
times
The forest is
mentioned in
the definition of
landscape

15
times
The forest is
associated with
animals

74
times
The forest is linked
to actions to improve
the quality of the
landscape

FOREST, A LANDSCAPE SLIGHTLY PRESENTED IN THE SURVEY

Brittany is a region with not much forest, with 14% of its surface area covered by woodland. However, the forest contributes to the diversity of the landscape and the well-being of the people of Brittany through the associated social uses. In the open-ended questions in the online questionnaire, the forest was rarely mentioned by respondents. Nonetheless, according to respondents, the forest is the most diverse environment in terms of fauna and flora (p.36).

ACTIONS TO IMPROVE FOREST LANDSCAPE QUALITY

- Protecting the forest
- Improve forest management (avoid clear-cutting, diversify species, clean up undergrowth, etc.)
 - Make all forests accessible
- Plant more forests, including urban micro-forests
 - Limit hunting and/or change hunting times
 - Do not build wind turbines in forests
 - Do not touch the forest



Forest in Brittany

bretagne-environnement.fr/infographie/la-foret-en-bretagne

"From ecology to the social dimension of Breton forests"
bibliographic report

bretagne-environnement.fr/notice-documentaire/ecologie-dimension-sociale-forets-bretonnes-dossier-bibliographique

PLURAL AND DEBATED AGRICULTURE



"It seriously hurt me at the end of my career, because when I set up as a farmer, my priority was to feed people. Now we're called polluters, animal abusers and all the rest."



"Accelerate the replanting of hedgerows, encourage small-scale farming that respects the soil, consumers and farmers" [Resident of Concarneau, 29].

The Bretons are strongly attached to their bocage landscapes, which contribute to the region's territorial identity. Landscapes are shaped by farming practices and therefore depend on changes in these practices. Agriculture is a key factor in landscape quality. The respondents questioned the different agricultural models and invoked the notion of "human-scale" practices.

The bocage, a landscape of identity

The bocage is the most frequently cited landscape in the survey, with all the associated terms: small plots, hedges, embankments, trees, meadows, cows, and so on.

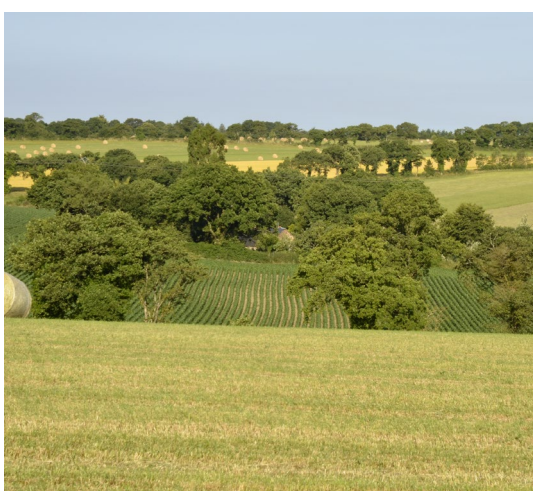
It is mentioned with attachment, and refers to the history of rural landscapes. In the semi-structured interviews, the reparation of the 1960s-1980s is an important family event that is anchored in social memory. It is the reference point for recalling the transformations in agriculture (mechanisation, industrialisation of farming, etc.) and the effects on Breton landscapes (enlargement of plots, levelling of hedges, changes to crops, off-farm livestock farming, etc.).

"Cultivated fields, meadows with cows, quite a lot of hedged farmland, quite a lot of hedges all the same. [...] It's quite human in scale. [Resident of Amanlis, 35]."

"For us Bretons, the Breton bocage is a landscape, but in fact, compared to other regions, it has its own character" [Farmer, Médréac, 35].

"I was born before the land consolidation in my commune. Kilometres of embankments were levelled and my grandfather cried. The arrival of maize and inputs. The disappearance of dung beetles and cockchafers, partridges and hares? [Retired, Gourlizon, 29]."

"In the 1960s, my father's side of the family, originally from the Monts d'Arrée, had small farms with one pig they killed a year, three cows and chickens. They were self-sufficient. [...] Then France had to be fed, so we had land consolidation" [Morlaix resident, 29].



Bocage system at Locarn (22), 2013, OPP Trame verte et bleue en Bretagne

Key figures about the bocage

- 75 % of Bretons consider that "maintaining the bocage" is the priority action in the places where they live.
- When asked "What are your priorities in rural areas?", 92 % of respondents chose "keeping the bocage alive".
- In the open-ended questions in the online questionnaire, the bocage was mentioned 275 times.

Respondents also clearly identified the ecosystem functions of the bocage: refuge for biodiversity, use of firewood, windbreaks, improvement of water quality, etc.

As explained above (p. 27), respondents see the bocage as a conquest of rural landscapes for three reasons: (i) historical and memorial reasons, (ii) ecological functions to combat the environmental crisis, (iii) a social dimension where the reconstitution of the bocage corresponds to a return to farming on a "human scale".

"Stop destroying hedgerows, plant trees, fight against intensive livestock farming (especially pigs) [...]" [Resident of Noyal-Châtillon-sur-Seiche, 35].

"It's true that in some places we're changing farming practices. We're rebuilding hedgerows and embankments. We realised we had to rebuild them" [Retired Brest resident, 29].

Respondents' views varied: some mentioned the removal of hedgerows, while others appreciated the replanting of hedgerows. The Breizh-Bocage programme was mentioned several times.

The multiple meanings of Breton agriculture

In addition to the bocage, several types of agriculture were mentioned by respondents. Some mentioned vegetable growing (cauliflowers, artichokes), which offers a specific landscape that is open to the horizon. Others described integrated farming with small farms. More respondents mentioned intensive farming, which is characterised by the scale of production: "large plots", "big tractors", "big harvesters", "huge factory farms", "big farms".

This notion of scale reveals the dichotomy between agriculture considered to be "intensive" and other forms of agriculture.

"To the north, there's the Pays de Léon, so there are market garden areas" [Worker, Chantepie, 35].

"After that, farming in Brittany is very industrialised, and I think that's a shame. But there are still lots of small farms that work well, in a rational way" [Resident of Louvigné, 35].

"There may be a transition taking place at the moment, but it's the big farms that prevail now with the big tractors, the big machines" [resident of Lesneven, 29].

The consequences expressed of "intensive agriculture"

In the analysis of the open-ended questions, and in particular the question "In your opinion, what action should be taken to improve the quality of the landscape", the respondents set out the effects of "intensive agriculture" on the landscape and on health:

- direct nuisance to human beings (noise from livestock farming, etc.)
- animal conditions in livestock farms,
- the consequences of the use of chemical fertilisers and plant protection products for soil and water quality,
- green tides,
- changes to the landscape, with larger plots of land, changes in farming

methods (monocultures, especially maize) and the expansion of farms.

In the light of these observations, the respondents propose actions geared towards farming on a "human scale".

A variety of practices to improve landscape quality

The respondents encourage a diversity of types of agriculture and use a variety of terms: "developing agroecology", "extensive agriculture", "permaculture", "organic market gardening", "sustainable ecological agriculture", "peasant agriculture".

They used their knowledge of the bocage to propose solutions, and the question of scale was very prominent: "favour small areas of arable land", "local livestock farming", "review the scale of installation", "rebuild embankments, more permanent grassland".

When these solutions are mentioned, the lexical field linked to the profession evolves. Respondents speak of "small organic producers" (in reference to short circuits), "peasants" (who maintain the landscape), "peasant farmers", "family farms that care about their environment", etc.

It's easy for respondents to see niche farming as a kind of ideal, but the reality is that family farming is coming to an end, as evidenced by corporate forms of land management and legal

forms that easily associate 3, 4 or more farmers, by a steadily increasing average farm size, by a decline in mixed farming with consequences for grassland areas (down), the use of wood, etc.

The environmental role of farming practices is also emphasised: "restoring biodiversity", "soil health", "limiting air pollution", etc.

The environmental role of farming practices is also emphasised: "restoring biodiversity", "soil health", "limiting air pollution". Solutions focused on enhancing the landscape through agriculture. Some expressed the need to guide farmers in these practices by providing professional support, human resources to maintain the hedgerows and financial resources.



Breizh Bocage Programm
bretagne.bzh/presse/communiqués-dossiers/breizh-bocage-valoriser-davantage-les-bienfaits-environnementaux-du-bocage/

"Remove the maize fields and plant hedges and trees to restore the bocage, encourage the presence of meadows and small plots" [Resident of Saint-Germain-en-Coglès, 35].

"Encourage farming that is more respectful of animals" [Resident, Monteneuf, 56].

"I think we should also replant hedges in large agricultural plots, to bring back diversity and life, and make them refuges for all the wildlife in the area" [Resident, Saint-Aubin des Landes, 35].

"Reduce the size of fields, restore embankments and hedges [...]. [...] Respect differentiated mowing for the seed cycle and insect reproduction" [Resident of Gueltas, 56].

"Support farmers in changing certain practices (choice of crops, working the land, use of pesticides)" [Resident of Hennebont, 56].



Changes in agricultural land (35), 2019, 2023, OPP de l'Atlas des paysages d'Ille-et-Vilaine

WATER, THE THREAD OF BRETON LANDSCAPES



"Recognise the role of water in landscapes (preserve wetlands as much as possible)" [Resident of Rennes, 35].



"Rediscover beautiful waterways (in the ecological sense)" [Resident of Vezin-le-Coquet, 35].

"Re-meandering watercourses, cleaning up pollution" [Resident of Plougras, 22].

Water plays an important role for the Breton people through the coastline, rivers and wetlands. Increasing accessibility to water through physical, visual and cultural contact is one of the actions to be implemented to improve the quality of Breton landscapes. The good ecological status of watercourses is also an issue shared by respondents.

Access to water

The presence of water - maritime or inland - is a determining factor in the quality of the Breton landscape.

This is why accessibility to waterways is a priority action highlighted by Bretons: 52% think that 'making valleys visible and accessible by means of suitable paths and facilities' is a priority linked to rivers and their environment.

43% of Bretons would like to see rivers enhanced and made more attractive (viewpoints, paths, water sports, etc.). Some respondents see this accessibility issue at work in the territories.



Brec'h (56), 2015, 2020
OPP de l'Écomusée de Saint-Déan-vallée du Loc'h

Make "the coast accessible by bike or by foot from the surrounding villages, up to 10 km" [resident of Ploeren, 56].

"Make the Rance accessible and attractive in more places. Enhance the local heritage (mills on the Rance)" [resident of Saint-Maden, 22].

"The river wasn't accessible before, but it is now. There has been some timid progress, either through regulations, the law or the goodwill of landowners and farmers, and now there is access, there are paths" [Resident of Amanlis, 35].

"Improve the attractiveness of Brittany's canals, create grocery shops and small restaurants in lock houses [...]" [Resident of Grand-Champ, 56].

Water quality

The survey was an opportunity for respondents to mention water quality, and in particular the quality of bathing water for leisure landscapes.

In addition, when asked 'What are your priorities in relation to rivers and their environment?' 16% of respondents chose the "other" category, answering that the priority is to limit water pollution caused by human activities, and in part by agricultural activities.

A handful of respondents mentioned the desire to improve wastewater treatment by, for example, developing and subsidising phytodepuration.

"Big problem with the quality of beaches and bathing water" [Resident of Plougastel-Daoulas, 29].

"More checks on agricultural use to avoid polluting rivers" [resident of Brest, 29].

"Stop companies discharging pollutants into watercourses" [resident of Melesse, 35].

Restoring of aquatic environments

Respondents called for the restoration of aquatic environments:

- Restore open-air waterways (ditches, streams). [Resident of Plourivo, 22].
- Stop new developments and support re-naturation with light work (removing dams, planting hedges, etc.) [Resident of Châteaubourg, 35].
- Preserve the vegetation on the riverbanks and avoid over-maintenance, leaving at least a strip of wilderness, so as to encourage more biodiversity [Resident of Évran, 22].
- Encourage the maintenance of wetlands and restore their links with renaturated watercourses [Lorient resident, 56].

Finally, water landscapes refer to the good ecological status of ecosystems. Water also plays a part in landscape amenities - natural elements that are attractive to local residents. Physical, visual and cultural contact with water is sought after by residents, and it is with this in mind that those surveyed are calling for improved access to it.



The water cycle in Brittany
bretagne-environnement.fr/notice-documentaire/le-cycle-de-l-eau

CLIMATE CHANGE: A GROWING AWARENESS



1 IN 4 PEOPLE think that action on climate change is a priority in everyday landscapes.



"Today, everyone is concerned about climate change and respect for nature. I have the impression that there's this movement to put nature first and that mankind has to adapt to it" [Employee, Vannes, 56].

Climate change is a cross-cutting issue in the responses from Bretons. They mention the current and future consequences that are impacting/will impact landscapes. The actions envisaged for everyday landscapes are based on plants. The solutions are aimed at limiting greenhouse gas emissions and adapting to the consequences of climate change.

Awareness is growing but sometimes unclear

For 8% of respondents, the word 'landscape' evokes the notion of 'adaptation and climate change'. For some respondents, the concepts associated with climate change and its consequences can be unclear.

"They're cutting down trees, we don't really understand why, but ... They have to plan for climate change. The problem is that we'll never see the big trees as they were before. [...] They're replanting, but it's just a matter of time before they grow" [SPC +, Brest, 29].

"I'm obviously worried about climate change. What will happen ? If it gets much hotter, what will resist, what won't, what will it change ? [Retired woman, Lamballe, 22].

The effects observed in Breton landscapes

The effects of climate change are seen by the people of Brittany mainly on coastal landscapes and waterways, in particular through erosion of the coastline, rising sea levels and extreme weather events.

"In relation to the coast, it's retreating because of the strong storms and therefore global warming, which means that the sea is rising a little. For example, it's affecting the dune a little further away from where I live. [Retired woman, Lanilis, 35].

"It's becoming a reality, in other words, the number of floods and low-water periods is increasing. And that means that for me, it's one of the strong indicators of global warming [...]" [SPC +, Amanlis, 35].

"When I was a kid, we used to go to the beach at Pénestin, but now the coastal path has collapsed. Everywhere along the coast, it's deteriorating. And it's quite spectacular. [...] It's going to get even worse, of course it depends on the nature of the rock, but with the rain and the surf, it's going to get even worse. The higher the water level, the more it's going to erode the coastline, that's clear" [Retired, Arradon, 56].

Some respondents are already looking ahead to the landscapes of tomorrow. They mention the future consequences of rising waters, drought or changes in vegetation:

- *"I had seen a map a few years ago that showed, so it wasn't the most optimistic vision, but one of the possible visions of rising waters. And that was by 2100 I think, so maybe we'll still be around to see it. And all the places I'm attached to were under water" [Trégunc student, 29].*

- *"And then my fear is what's going to happen with global warming, drought... More fires, the forests will change, the moorland will change, and then usage may also change because there will be places where you won't have to go" [SPC +, Vern-sur-Seiche, 35].*

- *"Heatwaves: we've just been through periods we've never experienced before, heatwaves that are surprising for us, and if it were to get much worse" [SPC -, Bruz, 35].*

Climate change conjures up three temporalities in residents' perceptions: the need to "go back in time", a present in which "we're doing anything we like", and a future that conjures up "fears".

Actions mentioned in the survey

25% of respondents (especially 16-29 year olds and women) consider that 'implementing solutions to the consequences of climate change' is the priority action in the landscapes where they live.

Around fifty Bretons suggested climate-related actions as a means of improving landscapes: raising awareness among elected representatives, maintaining and improving bocage, protecting certain areas, adapting plant species, changing production methods, etc. For urban landscapes, the responses focus on vegetation, including trees (above) to create islands of coolness, for example. Adaptation solutions are therefore envisaged.

"In cities, we urgently need to revegetate and think about removing asphalt, making soil more permeable, combating heat islands and thinking about air circulation" [Retired woman, La Chapelle-Thouarault, 35].

For landscapes in leisure areas, the proposals are essentially based on nature-based solutions: "By protecting it from destructive human activities" [SPC +, Rennes, 35].



Climate change in Brittany
bretagne-environnement.fr/thematique/le-changement-climatique

LITTLE DISCUSSED ENERGY LANDSCAPES



5 % of respondents mentioned wind turbines as an action to be taken to improve the quality of Brittany's landscapes.



A small proportion of respondents mentioned other renewable energies.

The energy landscape in Brittany is little perceived and little understood by the respondents. The siting of renewable energy sources (RE), and more specifically wind turbines, was debated by around a hundred respondents. Suggestions were made for increasing the use of renewable energies, while at other times renewable energies were roundly criticised.

The landscape was used as a lever to facilitate dialogue.

Energy landscapes not very present in respondents' perceptions

"The production and transmission of energy has always contributed to the transformation of landscapes and forged the identity of regions": aqueducts, canals, mills, dams, railway lines and structures, mining industries, hydroelectric and nuclear power stations, high-voltage power lines, solar power stations and panels, wind turbines, etc. (RAEE and al., 2014).

Over time, as technology has advanced, the energy landscape in France has become less and less visible. Before the twentieth century, energy production and distribution were highly visible and visible in the landscape (numerous windmills, intensive exploitation of wood - pruning of hedgerow wood every 7 years).

"The second industrial revolution of the 20th century, that of oil, gas and electricity, while massively increasing the consumption of energy for the greatest number of people, tended to remove its production from everyday life: on the one hand by importing it by sea and underground, with rare ports to receive oil and gas, and on the other hand by concentrating its production in large but few facilities (19 nuclear power stations in mainland France) or far from where people live". (Folléa, 2021, p. 9).

As a result, the French have become "unaccustomed to the energy landscape" (op. cit.). This is reflected in the survey results.

The table on the right shows the number of respondents who mentioned elements relating to energy landscapes in the online questionnaire.

Respondents mentioned the network of power lines 19 times, suggesting



Trédaniel (22), 2019
OPP du PETR du Pays de Saint-Brieuc

in particular that they should be buried to make them invisible in the landscape.

Fossil fuels, which enabled the major changes that took place during the Trente Glorieuses (road networks, urban expansion, mechanisation of agriculture, etc.) and shaped the so-called 'petroleum landscapes', were mentioned twice.

In the end, energy consumption and production have little impact on the landscape. There is little awareness of the relationship between energy and landscapes, except where energy production or distribution is visible (power lines).

Renewable energies, a materiality in the landscape

The development of renewable energies is a reality in Brittany and is the subject of debate. 5% of respondents specifically mention

Number of respondents mentioning elements of energetic landscapes (online questionnaire)

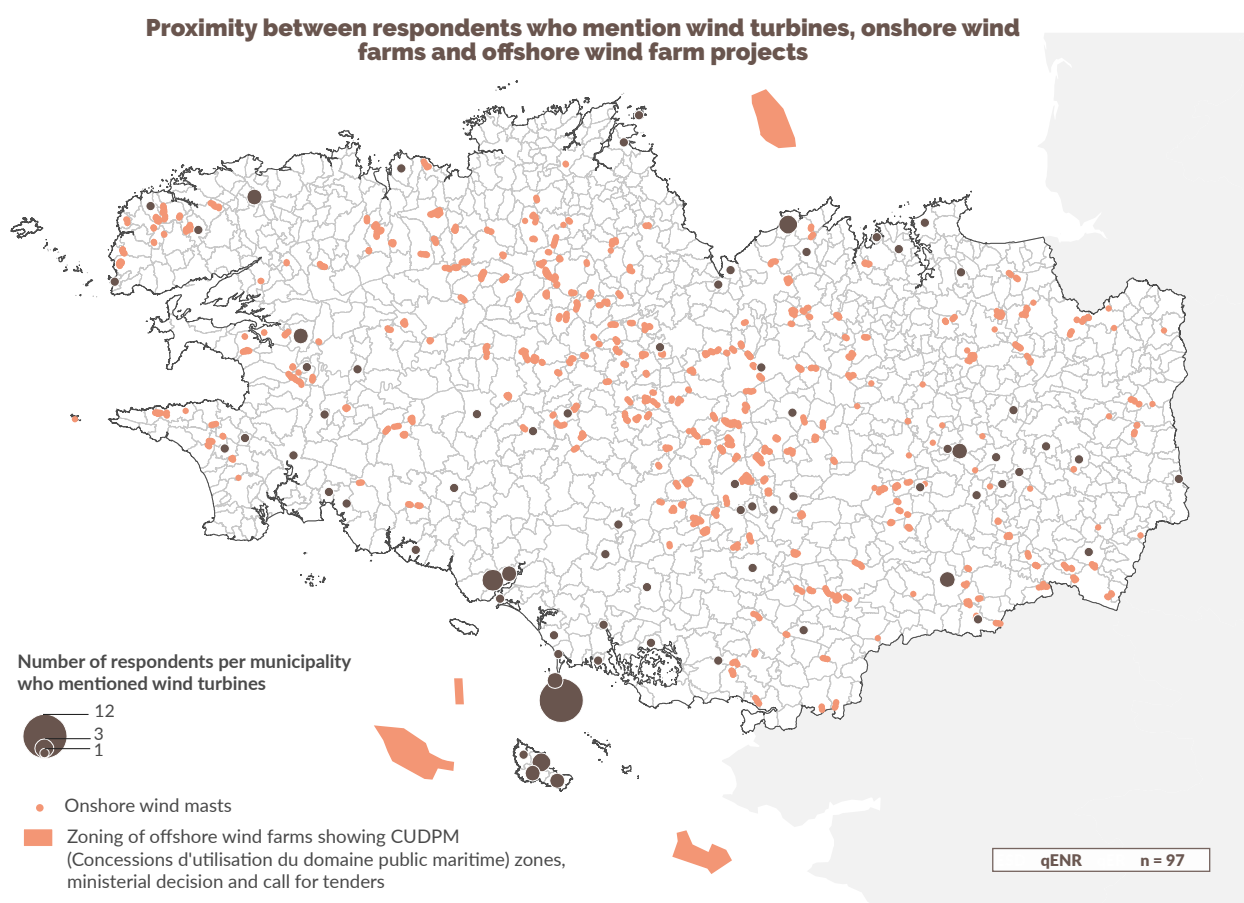
Element of energetic landscapes	Number of respondents mentioning it
Onshore wind farms, offshore wind farms	97
Solar and photovoltaic panels	20
Electricity lines	19
Methanisers	12
Nuclear power stations	3
Tidal power plant	1

wind turbines in the actions to be implemented to improve the quality of Brittany's landscapes. Very little mention was made of other renewable energies.

The responses on wind power are characteristic of the current controversies. Some people would like to see more wind turbines. Another group would like to limit or eliminate them.

Respondents who were against wind turbines were over 50 years old. Their responses can sometimes be virulent and are symptomatic of local conflicts.

Three arguments were put forward: (i) the scale of wind farms in the landscape, (ii) the impact of offshore wind farms on biodiversity, and (iii) the proximity of wind farms to housing.



As the map shows, respondents who mention wind turbines do not necessarily live where there is a concentration of turbines. Rather, they live close to current projects (particularly offshore wind farms).

"Renewable energies cannot be integrated". Integrating 260 m high pylons into the horizon!!!" [Retired, Sauzon, 56].

"Don't continue to put up wind turbines, go for solar panels, which are cleaner and less dangerous for wildlife" [Retired, Briec, 29].

"Ban wind turbines and other large industrial constructions within 1.5 km of dwellings" [SPC +, Loyat, 56].

Territorial deployment of renewable energies tomorrow

Law 2023-175 of 10 March 2023 on accelerating the production of renewable energy (APER) facilitates the deployment of renewable energy projects to increase the energy mix.

A number of respondents to the survey put forward suggestions for the deployment of renewable energies: (i) increase the use of

renewable energies in areas that have already been developed (industrial estates, photovoltaic panels on farm buildings, etc.), (ii) encourage consultation with the public, (iii) allocate a significant budget to renewable energies.

The APER law puts the integration of renewable energies into the landscape at the forefront (art. 1). The landscape approach is a lever for developing concerted territorial strategies to identify areas of acceleration favourable to the reception of renewable energy installations, based on landscape characteristics and values.



Wind turbine at Roscaderc (29), 2017
OPP Atlas des paysages du Finistère

"Renewable energies will always have an impact on the landscape, often negative, but they will still have to be developed, while trying to make this impact acceptable" [Retired, Auray, 56].

"Optimise areas that have already been developed for renewable energy production (solar equipment on agricultural and industrial buildings, car parks)" [SPC +, Carantec, 29].

"Convince elected representatives to take action and tackle the issue, and devote a significant budget to it, particularly for biodiversity and renewable energy" [SPC +, Rennes, 35].



Energy production in Brittany

bretagne-environnement.fr/tableau-de-bord/la-production-energie-bretagne

Energy and landscapes, Côtes-d'Armor landscape atlas

paysages.cotesdarmor.fr/connaitre-et-comprendre/fondements/fondements-anthropiques/lenergie-et-les-paysages

LIMIT THE "ARTIFICIALISATION" OF LAND



"Limit the sprawl of our towns and villages and encourage the restoration and renovation of old buildings" [Retired, Bannalec, 29].



"Stop the development of shopping centres at the entrances to towns, green up town centres and conserve heritage, reduce urban sprawl on agricultural land" [SPC -, Yffiniac, 22].

.....
Respondents perceive the consumption of natural, agricultural and forest areas in all types of environment and in all forms: for housing, business parks and infrastructure. Respondents put forward solutions to reduce the artificialization of land, such as making car parks less impervious to water, restoring old buildings and converting brownfield sites.
These solutions echo the national objective of "zero net artificialisation".
.....

A topical issue

The second most developed region in France in terms of surface area and demographic weight, Brittany consumed 1,700 hectares of natural, agricultural and forestry areas (ENAF) between 2011 and 2021 (DREAL Bretagne, 2023). 68% of the space consumed is dedicated to housing, 21% to business parks and 8% to infrastructure (CEREMA, 2022).

Soil is a natural resource that is essential to life for its ecological, economic and social functions. Article 192 of the French Climate and Resilience Act defines soil artificialisation as *"the lasting alteration of all or part of a soil's ecological functions, in particular its biological, hydric and climatic functions, as well as its agronomic potential, as a result of its occupation or use"*.

Under this law, France has therefore set itself the goal of achieving 'zero net artificial land cover' (ZAN) by 2050, with an intermediate target of halving the consumption of ENAF over the next ten years (2021-2031) compared with the previous decade.

Limiting or stopping construction, a desire at both local and regional levels

42% of respondents to the online questionnaire would like to see a halt to building in both town and country in the landscapes where they live.

29% of respondents felt that the quality of Brittany's landscapes could be improved by de-urbanising and using less concrete. In this way, the issue of ENAF consumption is important on both an individual and a social scale. Land artificialisation is addressed according to the different types of space consumption (housing,

business parks and infrastructure) in all living environments (urban, rural, coastal):

- Limit or stop urban sprawl (new houses, housing estates) at the expense of agricultural land.
- Limit or stop the expansion of farm buildings.
- Stop building or extending commercial and industrial zones.
- Stop the construction of new transport infrastructure (roads and roundabouts).

"Work against the excessive enlargement and concentration of farms" [Non-professional, Rennes, 35].

"Curb urbanisation, new house building [...] and 'artificial' developments" [Farmer, Duault, 22].

"Limit the construction of new houses and favour primary homes" [SPC +, Telgruc-sur-Mer, 29].

Solutions for to the consumption of ENAF

Several respondents mentioned solutions to limit the artificialization of land:

- Carry out fauna/flora studies prior to any urban development project.
- Favour primary residences and limit secondary residences (link between the level of consumption and the efficiency of consumption, see *France stratégie*, 2023).
- Rehabilitate old buildings and industrial or agricultural wasteland.
- Reduce soil sealing (car parks in shopping areas, school grounds, etc.).
- Implement compensatory measures

and apply and comply with legislation (coastal laws, ZAN).

"Carry out systematic field studies (inventories of flora and fauna) before any urban development work to find out what is being lost before a project is carried out" [No professional activity, Rennes, 35].

"Think about the future of derelict industrial areas before developing new areas in the middle" [SPC +, Plabennec, 29].

"Balance 1 skate park, 1 natural site" [SPC +, Vitré, 35].

"Make it compulsory for existing industrial estates and small business parks to be greened" [Retired, Laillé, 35].

"Making densification acceptable"

Urban densification was a topic of debate in the survey. Some consider that it contributes to the trivialisation of landscapes through buildings that are described as uniform. Others spoke of the social tensions it can cause. In all cases, a common desire emerged in the survey, with a shared desire to control or even reduce the consumption of ENAF.



Scoreboard on the consumption of space (CEREMA, 2022)
cerema.fr/fr/actualites/tableau-bord-analyses-consommation-espaces-naturels

REDUCING POLLUTION IN ALL ITS FORMS



24 % believe that "limiting light pollution at night" is a priority action to improve the landscape of the place where we live.



8 % consider that limiting pollution in general is a priority action for improving the quality of Brittany's landscapes.

Pollution is addressed in many ways: visual pollution from advertising hoardings, noise pollution from cars, light pollution and pollution caused by waste. The respondents suggested communication and awareness-raising initiatives to encourage individual and collective responsibility.

Car-related pollution

Pollution linked to the car is mainly discussed in the context of work and leisure. Around work and especially in urban areas, car pollution refers to noise, odour and even visual pollution:

- "The noise of cars that prevents you from opening your windows for too long" [Employee, Rennes, 35].
- "Reduce car traffic, which is the main source of noise, odour and visual pollution, and give priority to reclaiming public space from cars" [Executive, Quimper, 29].

The Bretons propose solutions to reduce car noise, such as installing speed bumps, increasing the number of charging points for electric vehicles or adding noise-reducing vegetation.

"Departmental road 300 metres away in a valley + logistics factory 1 km away : noise pollution and light pollution. Replanting and better management of the existing bocage (functional windbreaks), planting around the road and/or installing soundproof walls" [Farmer, Plouyé, 29].

"More green spaces so that we can have lunch in a quiet natural environment, away from cars" [Employee, Saint-Brieuc, 22].

"Public squares designed for conviviality, with more greenery and creating areas of calm in the city (protection from road infrastructure)" [Manager, Rennes, 35].

Noise pollution from cars is also mentioned in leisure areas. For some Bretons, it is an obstacle to connecting with nature.

"I'm lucky enough to be able to get out into the countryside quickly. The presence of scattered dwellings doesn't bother me. It's the background noise from the main roads and aeroplanes that's disturbing. You can't find a place without noise any more. Something we discovered during the confinements" [Employee, Talensac, 35].

Light and visual and visual pollution

24% of Bretons consider that 'limiting light pollution at night' is a priority around the home. Several solutions were mentioned:

- "Control street lighting" [Audiernie resident, 29].
- "lighting according to the number of vehicles on the road: no vehicles, no lighting" [resident of Caouënnec-Lanvézéac, 22].
- "Reduce light pollution from shops and businesses" [resident of Crach, 56].
- "Eliminate illuminated advertising" [resident of Loperhet, 29].

Advertising hoardings, seen as visual pollution, were mentioned in the survey, especially when they were at the entrance to the town. For some respondents, wind turbines also contribute to visual and light pollution.

"Strict observance of the rules governing the siting of advertising hoardings [...] The crossroads at the entrances to towns and villages are a sad sight" [Retired, Gourhel, 56].

"By also limiting construction and visual pollution that degrade the landscape: wind turbines, antennas, advertising, etc." [Executive, Châteaulin, 56].

Waste pollution

Waste management is a major issue, particularly in the leisure landscape: the people of Brittany are asking for more litter bins, but also for more communication and awareness-raising, both in the areas affected and in schools. Raising awareness of the need to respect cleanliness applies to a wide range of places:

- beaches: "by offering pocket ashtrays and/or communicating (a metal box of sweets might be a good idea) to limit the number of cigarette butts on the ground and on the beaches" [resident of Ploeren, 56].
- City streets: "information and action to clean up the streets (to raise awareness of the need to beautify the streets, as common spaces should be shared)" [Employee, Rennes, 35].
- water: "to make professional and amateur fishermen even more aware of the pollution linked to the rubbish thrown back into the sea that I pick up on the shore every time I go for a walk. The same goes for walkers" [Executive, Pléneuf-Val-André, 22].

For respondents, the issue of waste is both an individual and collective responsibility.

"Educate the general public, you and me, through all media, to become waste pickers on our Sunday walks, in our everyday lives" [Resident of Penvénan, 22].



Key figures for waste in Brittany (2021)
bretagne-environnement.
fr/notice-documentaire/
chiffres-des-dechets-
bretagne---edition-
2021-donnees-
analyses-observatoire-
environnement-bretagne

BRITTANY THROUGH ITS HERITAGE LANDSCAPES



"The green countryside, the Monts d'Arrée, with its slightly wild and mystical side. It's a region of legends with goblins and Korrigans" [Resident of Plourin, 29]



"For me, the first image that comes to mind when I think of landscapes in Brittany is the seaside" [Retired woman, Rennes, 35].

Coastal landscapes, picturesque villages and legendary sites represent the territorial identity according to the semi-structured interviews. The respondents' culture is imbued with the images of postcards from the late nineteenth and early twentieth centuries. Preserving regional singularities is one of the policies specifically dedicated to landscape protection.

"The Armor: the beach, the rock, the sea, the lighthouse..."

Coastal landscapes play a major role in the identity of the region, with 7 out of 10 people mentioning them in the semi-structured interviews.

The diversity of these landscapes, based on the characteristics of the département, was also emphasised by 4 out of 10 interviewees. Ille-et-Vilaine is marked by fortified towns such as Saint-Malo, while the Côtes d'Armor is often cited for the Cap Erquy-Cap Fréhel Grand Site de France and the pink granite coast. The landscapes of Finistère are described as wild, with large cliffs and less impacted by human activity. The Morbihan department is marked by ambivalence: the Golfe du Morbihan is an area that is both appreciated and protected, but is also identified as the most urbanised coastline in the region.

The images widely disseminated in the postcards of the late nineteenth and early twentieth centuries have had a lasting impact on the culture of both residents and visitors.

"We're the region in France with the most coastline. And when you talk about Brittany. Well, it's obviously the coast" [Retired, Rennes, 35].

"The sea. The boats, Saint-Malo, Pléneuf and its beach. The jagged coastline of Finistère that looks like the Balearic Islands, white sand, clear, transparent sea. Granite houses" [Frame, Saint-Aubin-Des-landes, 35].

"L'Argoat: the Monts d'Arrée, legends, churches..."

Intangible heritage is also deeply rooted in Breton culture. Places steeped in history and legend are mentioned by respondents, such as the forests of Huelgoat and Brocéliande or the Monts d'Arrée.

The picturesque characteristics of Breton villages were also mentioned: the central presence of the church, the narrow streets, the long, thin plots of land, etc.

In addition to the postcards that praised the picturesque, the arts and the media helped to disseminate Brittany's heritage landscapes and influence the collective representations of its inhabitants.

"The Monts d'Arrée is a world of legends, with its peat bogs and rocks appearing everywhere. The wind blowing. You arrive in a wonderful forest, Huelgoat" [Retired, Auray, 56].

"To come back to the Monts d'Arrée, there's a summit where there's a little chapel and I'd discovered this landscape in a film, with music and dances and it was dazzling, so when I went back there was this magic" [Retired woman, Rennes, 35].

"A small village with houses fairly close together, most of them stone, so quite old, with a kind of 'soul', that have been there for a long time. With a church in the middle, typical of Breton villages, with fairly standard stone houses" [Employee, Plouhinec, 56].

Architecture, a powerful symbol of heritage landscapes

Architecture and the materials associated with it contribute to the quality of heritage landscapes.

"The coastline. The old houses with their slate roofs are still very pretty. Typical things from Breton childhood" [Retired, Bourseul, 22].

"For example, in the Léon region, the traditional thing is the double-sloped slate roofs" [Student, originally from Ouessant, Rennes, 35].

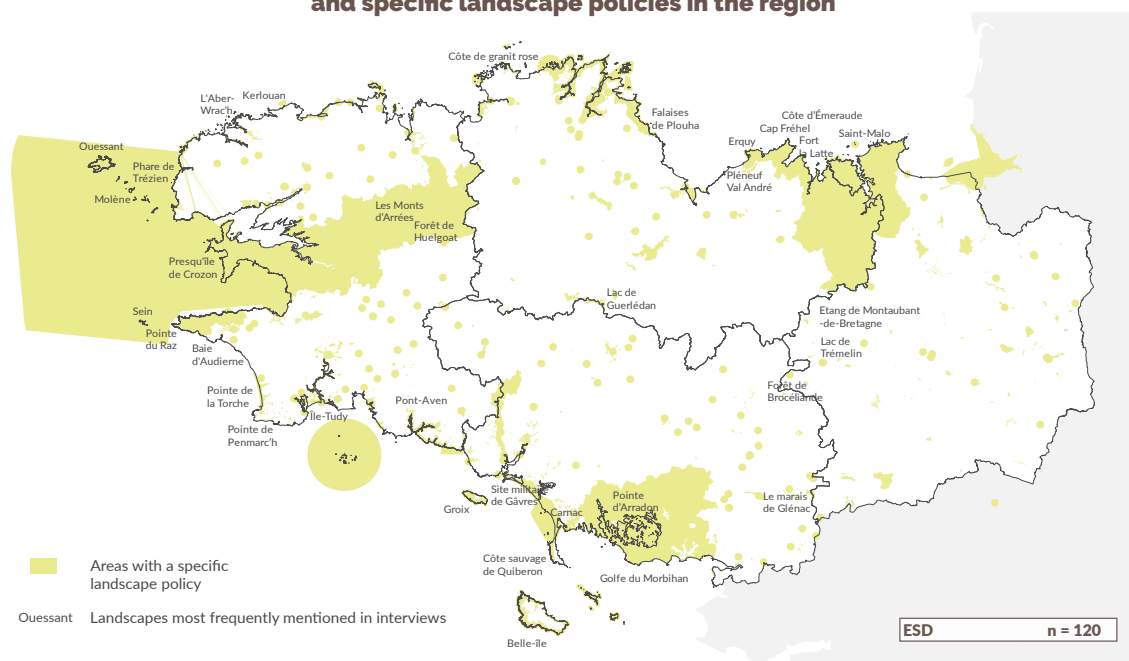
"Granite houses are the style of Brittany ! It's better than our new houses. It's a shame that tradition is being lost. On the whole, I think they've managed to preserve the countryside in Brittany ! [Retired, Arradon, 56].

"Because there are lots of people who don't have any money, so they do as little as possible, so it's cubes and cubes. And it's completely heresy, I think, it leads to leaks and water infiltration with a flat roof" [Resident of Morlaix, 29].

"Half-timbered houses", "granite houses", "nineteenth-century villas" and "houses with slate gable roofs" all contribute to Brittany's distinctive character.

As the respondents testified, the neo-Breton house has become a defining symbol of regional architecture. Neo-Breton houses feature a double-sloped slate roof, white walls and granite door and window frames.

Link between the most frequently cited places and specific landscape policies in the region



A link was observed between the places mentioned during the semi-structured interviews that are perceived as qualitative landscapes and the fact that these places are governed by a specific landscape policy.

Taking off all over Brittany from the 1960s onwards, neo-Breton houses combine standardised construction with a simplified vision of Brittany's architectural styles. *'This uniformity is in fact quite foreign to the traditional dwellings from which it claims to draw its inspiration, which is why it is called "neo-Breton"'* (Le Couédic, 2007, p. 194).

Respondents to the field interviews also discussed new urban forms and, more specifically, "cube houses". These were seen as unsuited to the Breton climate and out of touch with Brittany's architectural history.

Reflecting specific landscape policies

The places most frequently mentioned during the semi-structured interviews are landscapes that are the subject of a specific landscape policy: classified or listed site, Marine Park, Grand Site de France, Nature Reserve, etc. These measures guarantee exceptional landscapes through active management aimed at supporting natural and social dynamics. These policies guarantee exceptional landscapes through active management aimed at supporting natural and social dynamics. These landscape policies are therefore recognised in the results of the survey.

Ultimately, all of these specific features perceived by Bretons

contribute to Brittany's heritage landscapes. Respondents feared that these distinctive features would be eroded: new urban forms, planning responses to over-tourism, etc. Landscape policies can help to consolidate these distinctive features and limit the trivialisation of landscapes.

"For Brittany, it's Carnac [Site Patrimonial Remarquable], the Pointe du Grouin [Espace Naturel Sensible], the Pointe du Raz [Grand Site de France / Parc naturel marin d'Iroise], Cap Fréhel [Grand Site de France], the most famous areas in Brittany..." [Retired, Rennes, 35].

"I'm afraid they [the landscapes] will be exploited in an uncontrolled way and lose their natural appeal. I'm worried about how tourism and the attractiveness of Brittany's landscapes will be managed in the years to come with the increase in the number of tourists in Brittany and the exploitation of these places" [Employee, Plouhinec, 56].

Landscape policies

- Registered and listed sites
- Regional Nature Park
- Grand Site de France
- Marine Nature Park
- Town of Art and History
- Small towns of character
- Natural Areas
- Regional and national nature reserves
- Remarkable heritage sites



Brittany's coastal landscapes are very varied
bretagne-environnement.fr/article/paysages-littoraux-bretagne

The natural heritage and human impact of Brittany's landscapes
bretagne-environnement.fr/article/relief-hydrographie-vegetation-bati-paysages-bretagne

The evolution of landscape values in Brittany based on postcards
bretagne-environnement.fr/article/evolution-valeurs-paysageres-cartes-postales-bretagne

WHAT'S ON THE HORIZON ?

Nature at the heart of our actions

- The majority of Bretons feel comfortable in the landscapes where they live, as these are considered to be peaceful. People's contact with nature contributes to their well-being. The priority action linked to the landscape of the place where they live is to maintain the bocage. In urban areas, the actions identified are varied : limiting light pollution, developing short distribution channels, adapting to climate change.

- Respondents have an emotional distance from the environment outside their workplace. This landscape is less important in social thinking than the landscapes of the place where they live and play. A variety of suggestions were made to improve it, in particular by planting more vegetation.

- Travelling through landscapes on a daily basis contributes to respondents' well-being. These landscapes are observed by the majority of Bretons. Taking care of the surroundings of traffic routes represents a real added value for individual well-being.

- Most leisure facilities are close to where people live. Soft mobility is favoured for access. These places are mostly associated with nature and the coast, which respondents feel should be protected through conservation or restoration.

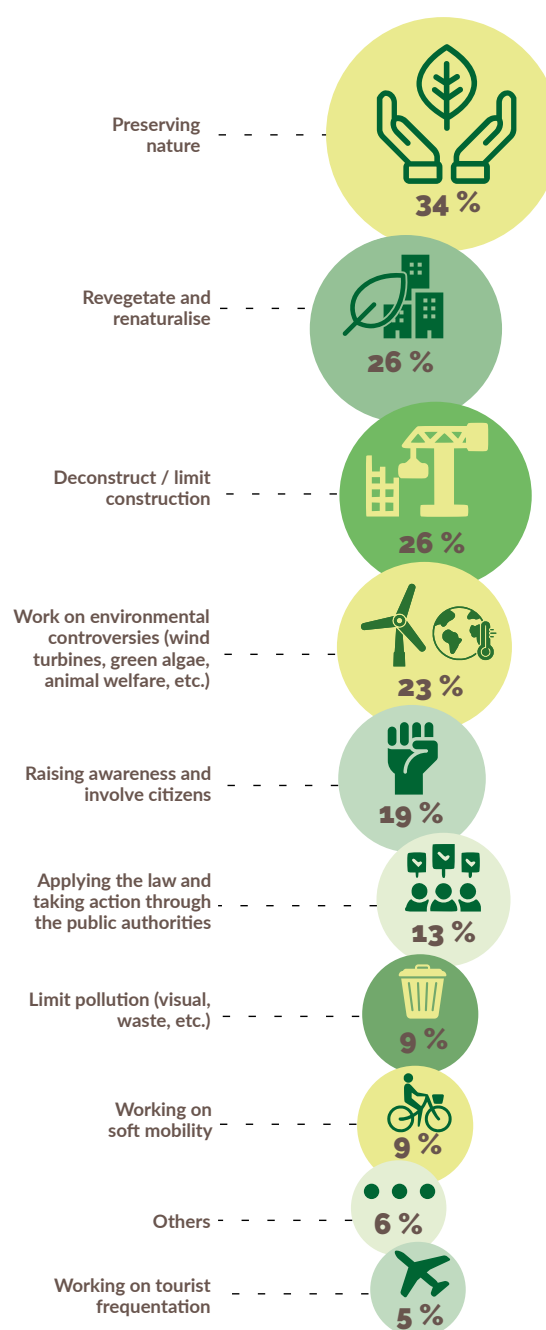
THE OPERATIONAL AIMS OF THE SURVEY

- To develop social indicators for landscapes.
- To develop a portrait of the regional territory in the OEB's Local Environment Observatory.
- To create territorial portraits at EPCI level, subject to a sufficient sample size.
- Extend the survey method to the EPCI level in order to study landscape representations more closely at local level and compare them with the regional benchmark.

Avenues for future reflection

- Further study of representations of workplace landscapes and the link with the development of renewable energies.
- To look more closely at the question of gender in the analysis of landscape representations.
- To explore the links between biodiversity and landscape, particularly with regard to age and gender.

Priority themes for the quality of Breton landscapes (several free answers per respondent)



qNAS n = 1,366



Local environmental observatory
ole.bretagne-environnement.fr/mreport

SOURCES AND METHODS

RAW DATA FROM THE REGIONAL "WELL-BEING AND LANDSCAPES IN BRITTANY" SURVEY (P. 6-7)

The data used throughout the document are available. This database consists of two files. The first spreadsheet file lists the respondents to the online questionnaire (from 1 December 2022 to 31 March 2023). The second file, in pdf format, records the interviews carried out in the field by students in the "Environment, Territories and Actors" and "Planning and Territorial Collectivities" professional Master 2 programmes at Rennes 2 University.

Source: OEB, 2023.

Link : data.bretagne-environnement.fr/datasets/enquete-regionale-bien-etre-et-paysages-bretons

THE DATA USED TO ADJUST THE QUESTIONNAIRE SAMPLE (P. 6-7-14)

The data used to adjust the sample for the online questionnaire came from INSEE. The sample was adjusted for the characteristics of the Breton population (age, gender, socio-professional categories, demographic proportion according to Breton departments).

Source: INSEE, 2020 census.

Link : insee.fr/fr/statistiques/2011101?geo=REG-53
insee.fr/fr/statistiques/1893198

DISTRIBUTION OF DATA FROM THE ONLINE QUESTIONNAIRE AND SEMI-STRUCTURED INTERVIEWS BY MUNICIPALITY (P. 11)

Source:

- Number of respondents: raw data from the online questionnaire and semi-structured interviews, OEB, 2023.
- Communes de Bretagne : IGN Admin Express, 2023.

REGIONAL DATA USED TO ANALYSE THE SAMPLE (P. 11-12-15)

Source :

- "Number of respondents" : raw data from the online questionnaire and semi-structured interviews, OEB, 2023.
 - Demographic data by department : INSEE, 2020, census.
- Link : insee.fr/fr/statistiques/1893198

- Coastal municipalities : Dreal Bretagne, 2023.

GéoBretagne link : geobretagne.fr/datahub/dataset/de275055-8dcb-4e33-8dad-6e41e6850339

- Coastal density : OEB, 2020.

Link : bretagne-environnement.fr/article/activites-humaines-accentuent-erosion-littoral-bretagne

- EPCI : Région Bretagne, 2023.

Link GéoBretagne : geobretagne.fr/datahub/dataset/2298d744-49cb-4fcb-9487-26f916fecdf

- Landscape families in Brittany : Le Dû-Blayo L., Bourget E., Ganzetti I., 2011, *Ensembles et familles de paysages en Bretagne*, Université Rennes 2, UMR CNRS 6590 ESO « Espaces et Sociétés ».

Link GéoBretagne : geobretagne.fr/datahub/dataset/a052ee99-b2b9-4c87-857c-9978067cdbe7

- Municipal density grid, Observatoire des territoires 2021.

Link : observatoire-des-territoires.gouv.fr/grille-communale-de-densite-en-4-niveaux

THE OPERATIONAL VISION OF ELECTED LOCAL REPRESENTATIVES (P. 16 ET 17)

This thematic page has been studied in the light of the results of the national "elected local representatives and landscape" survey of 2021 conducted by CEREMA and the Association des maires de France. Several of the questions in the Breton survey are taken from the national survey for comparative purposes.

Source : CEREMA

Link : paysages-territoires-transitions.cerema.fr/enquete-elus-locaux-et-paysages-les-enseignements-a212.html

THE FEELING OF WELL-BEING IN LANDSCAPES VARIES FROM ONE LOCAL AUTHORITY TO ANOTHER (P. 25)

This map is based on the responses to the question "Do you feel good about your everyday landscapes?" in the online questionnaire.

Source:

- "Percentage of yes answers to the question": raw data from the online questionnaire, OEB, 2023.
 - EPCI : Région Bretagne, 2023.
- GéoBretagne link : geobretagne.fr/datahub/dataset/2298d744-49cb-4fcb-9487-26f916fecdf

PRIORITY GIVEN TO MAINTAINING THE BOCAGE, VARIES FROM ONE LOCAL AUTHORITY TO ANOTHER (P. 27)

This map is based on the responses to the question "Is maintaining the bocage a priority for improving Brittany's landscapes?" from the online questionnaire.

Source :

- "Percentage answering yes to the question": raw data from the online questionnaire, OEB, 2023.

- EPCI : Région Bretagne, 2023.

GéoBretagne link : geobretagne.fr/datahub/dataset/2298d744-49cb-4fcb-9487-26f916fecdf

NATIONAL DATA ON JOURNEYS (P. 30)

Source :

- INSEE, census, 2019.

Link :

insee.fr/fr/statistiques/5016561
insee.fr/fr/statistiques/7622203

DATA RELATING TO THE NATIONAL SURVEY "THE FRENCH AND NATURE" (P. 41-45)

Source :

- Survey carried out by the Ministry of Ecological Transition and Territorial Cohesion in 2022.

Link : dataviz.statistiques.developpement-durable.gouv.fr/EnqueteNature/

PROXIMITY BETWEEN RESPONDENTS WHO MENTION WIND TURBINES, THE SITING OF ONSHORE WIND TURBINES AND OFFSHORE WIND PROJECTS (P. 53)

Source :

- "Number of respondents": raw data from online questionnaire, OEB, 2023.
- Onshore wind maps : Dreal Bretagne, 2023.

GéoBretagne link : geobretagne.fr/datahub/dataset/f720e131-2dc9-4db0-8b50-7e5f1609944e

- Offshore wind farms - zoning (CUDPM, ministerial decision and call for tenders) : Ministry for the Environment, Cerema, October 2022.

.....

LINK BETWEEN THE MOST FREQUENTLY CITED PLACES AND SPECIFIC LANDSCAPE POLICIES IN THE REGION (P. 57)

Source :

- "Most cited places": raw data from semi-structured interviews, OEB, 2023.
- Regional nature parks : Région Bretagne, 2019.

GéoBretagne link : geobretagne.fr/datahub/dataset/9df1d4b7-221c-4424-af3f-50a898e3d333

- Marine nature park : DDTM du Finistère, 2021.

GéoBretagne link : geobretagne.fr/datahub/dataset/fr-120066022-jdd-187514e6-30aa-4502-952b-683630c21398

- Grands Sites de France : Syndicat mixte de la pointe du Raz, Syndicat mixte Grand site Gâvres-Quiberon, Syndicat mixte Grand site cap d'Erquy - cap Fréhel, 2022.
- Regional nature reserves : Région Bretagne, 2023.

GéoBretagne link : geobretagne.fr/datahub/dataset/77f8fc52-ae57-41d1-8f08-7b121b013f51
- National nature reserves : Dreal Bretagne, 2024.

GéoBretagne link : geobretagne.fr/datahub/dataset/756f086f-20de-491a-8b74-b15a3726c175

- Natural areas : Conseil départemental du Morbihan, Conseil départemental du Finistère, Conseil départemental des Côtes d'Armor, Conseil départemental de l'Ille-et-Vilaine. Data from GéoBretagne.

- Towns and countries of art and history (and historic towns in Brittany) : Région Bretagne, 2021.

GéoBretagne link : geobretagne.fr/datahub/dataset/31bc7ffc-815b-4c60-98fa-e3e4741611e1

- Small towns of character : Région Bretagne, 2021.

GéoBretagne link : geobretagne.fr/datahub/dataset/dfa0cbd4-b57a-4699-a429-200e4249a03b

- Remarkable heritage sites : DRAC Bretagne, 2019.

GéoBretagne link : geobretagne.fr/datahub/dataset/bbc9344b-5a21-4dfd-bbf3-1809bce3ff7d

- Registered and classified sites : Dreal Bretagne, 2023.

GéoBretagne link : geobretagne.fr/datahub/dataset/675cfd33-d389-400d-9265-5ab7cad50a42

geobretagne.fr/datahub/dataset/ed5ad99c-a386-48c2-8f96-decddb593643

ABBREVIATIONS

ABF : Architecte des bâtiments de France (Architect of the Buildings of France)

APER : Accélération de la production des énergies renouvelables (Accelerating renewable energy production)

APPB : Association des ports de plaisance de Bretagne (Association of marinas in Brittany)

AVAP : Aire de mise en valeur de l'architecture et du patrimoine (Architecture and Heritage Enhancement Areas)

CEPREMAP : Centre pour la recherche économique et ses applications (Centre for Economic Research and Applications)

CNL : Commune non littorale (Non-coastal municipality)

DDTM: Direction départementale des territoires et de la mer (Departmental Directorate for Territories and the Sea)

DRAC: Direction régionale des affaires culturelles (Regional Department of Cultural Affairs)

DREAL: Direction régionale de l'environnement, de l'aménagement et du logement (Regional directorate for the environment, development and housing)

ENAF: Espaces naturels, agricoles et forestiers (Natural, agricultural and forest areas)

ENR: Énergies renouvelables (Renewable energy)

OAP: Orientation d'aménagement et de programmation (Planning and programming guidelines)

OPP: Observatoire photographique du paysage (Photographic landscape observatory)

PCAET: Plan climat-air-énergie territorial (Territorial climate-air-energy plan)

PDIPR: Plan départemental des itinéraires de promenade et de randonnée (Departmental plan for walking and hiking routes)

PNR: Regional nature park

RAEE: Rhônalpénergie-Environnement (Rhônal Energy-Environment)

SCOT : Schéma de Cohérence Territoriale

SPPL: Servitude de passage des piétons sur le littoral (Easement for pedestrians on the coast)

SRADDET: Schéma régional d'aménagement, de développement durable et d'égalité des territoires (Regional plan for regional planning, sustainable development and equality)

ZNIEFF: Zone naturelle d'intérêt écologique, faunistique et floristique (Natural area of ecological, fauna and flora interest)

BIBLIOGRAPHY

Arnould P., Le Lay Y., Dodane C., Méliani I., 2011, « La nature en ville : l'improbable biodiversité », *Géographie, économie, société*, 13, p. 45-68. Disponible sur : [Cairn.info/revue-geographie-economie-societe-2011](http:// Cairn.info/revue-geographie-economie-societe-2011)

Blidon M., 2011, « Genre », *Hypergéô*. Disponible sur : hypergeo.eu/genre

Centre pour la recherche économique et ses applications (CEPREMAP), 2018, « Bonheur rural, malheur urbain ? », *Notes de l'Observatoire du bien-être*, 7 p. Disponible sur : cepremap.fr/2018/11/note-de-lobservatoire-du-bien-etre-n2018-07-bonheur-rural-malheur-urbain

Conseil de l'Europe, 2000, *Convention du paysage du Conseil de l'Europe*, Florence.

Conseil de l'Europe, 2008, *Recommandation CM/Rec(2008)3 sur les orientations pour la mise en œuvre de la Convention européenne du paysage*, Strasbourg, 2008.

Conseil économique, social, environnemental régional (CESER), 2023, *Il faut toute une région pour favoriser le bien-être des jeunes en Bretagne*, Rennes, 289 p. Disponible sur : ceser.bretagne.bzh/publications/il-faut-toute-une-region-pour-favoriser-le-bien-etre-des-jeunes-en-bretagne/

Denis B., 2015, *Éthique des relations homme / animal*, Éd. France agricole, 207 p.

Depraz S., 2013, « Protéger, préserver ou conserver la nature ? », *Géoconfluences*. Disponible sur : geoconfluences.ens-lyon.fr/glossaire/preservation

DREAL Bretagne, 2023, *Consommation des sols en Bretagne*, Rapport, 8 p. Disponible sur : bretagne.developpement-durable.gouv.fr/consommation-des-sols-en-bretagne-a5191.html

Ducarme F., Pautard É., 2021, « Une nature en quête de sens : état des lieux des représentations sociales de la nature dans la France contemporaine », dans *Théma*, Ministère de la transition écologique et de la cohésion des territoires, 24 p.

« Espace public et inégalités de genre » dans *Dynamiques régionales*, numéro 12, 2021,

éd. L'Institut wallon de l'évaluation, de la prospective et de la statistique, 122 p.

Folléa B., (dir.), 2021, *Transition énergétique : vers des paysages désirables*, Chaire Paysage et énergie, École nationale supérieure de paysage, 291 p.

France stratégie, 2023, *Focus régional la région Bretagne*, Les Notes d'analyse n°128 et n°129, 6 p. Disponible sur : strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-na_zan-focus_region_bretagne_final_1.pdf

Kaplan S., 1995, « The restorative benefits of nature : Toward an integrative framework », *Journal of Environmental Psychology*, Volume 15, Issue 3, September, p. 169-182.

Le Couédic D., 2007, « La maison néo-bretonne », dans Le Dû-Blayo L. (dir.), *Le paysage en Bretagne : enjeux et défis*, Plomelin, Palantines, p. 194-195.

Le Dû-Blayo L., Barray F., Gouery P., Bourget E., Michel K., Ganzetti I., Le Petit A., 2013, *Livret et poster « Les paysages de Bretagne »*, Conseil Régional de Bretagne, 32 p.

Lerichomme L., 2023, « Les bras absents » dans Bonnel G. (dir.), *D'après photographies*, Strasbourg, Filigranes Éditions, p. 128-149.

Moreau C., Barnaud C., Mathevet R., 2023, « Chapitre 4. L'état de référence : une construction sociale », dans Godet L., Dufour S., Rollet A-J (dir.), *Conservation de la biodiversité et état de référence la nostalgie de la nature à l'ère de l'Anthropocène, la nostalgie de la nature à l'ère de l'Anthropocène*, STE Éditions, p. 65-77.

Organisation de Coopération et de Développement Économiques (OCDE), 1993, *Corps central d'indicateurs de l'OCDE pour Les examens des performances environnementales, Rapport de synthèse du Groupe sur l'État de l'Environnement*, n°83, Paris, 41 p.

Rhône-Alpénergie-Environnement (RAEE), Fédération des PNR de France, URCAUE Rhône-Alpes, 2014, *Paysages de l'énergie - Paysages en transition - Préparer son territoire au déploiement des énergies renouvelables*, 10 p.

Thibaud J-P., 2022, « 4. Ambiance », dans Marchand D., (dir.), *Psychologie environnementale : 100 notions clés*, Paris, Dunod, p. 20-22.

Vallon S., 2002, « Les quatre visages de l'usager », *Vie sociale et traitements*, n°76, éd. Érès, p. 20-23.

FOR MORE INFORMATION

.....

All Observatoire de l'environnement en Bretagne publications are produced in collaboration with scientific and technical experts.

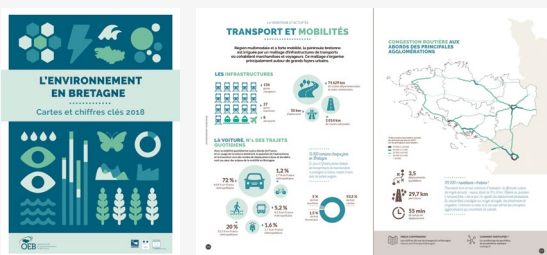
THE ESSENTIAL DATA AT A GLANCE

A collection of infographics providing summary information accessible to all, available on : bretagne-environnement.fr/l-essentiel-en-image



.....

Every 3 years, a compilation is published in the book "L'environnement en Bretagne. Maps and key figures".



FIND OUT

bretagne-environnement.fr

.....

STAY ONLINE !

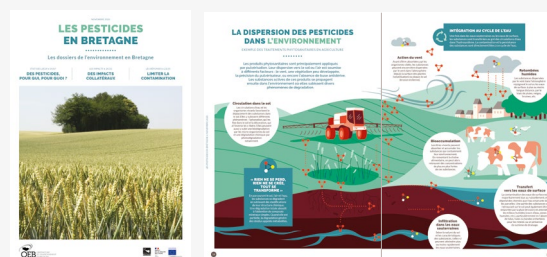
facebook.com/ObservatoireEnvironnementBretagne

linkedin.com/company/ObservatoireEnvironnementBretagne

PRINT COLLECTIONS EXTENDED TO THE WEB

« Environmental reports from Brittany »

provide an educational overview of the latest knowledge on a regional scale.



.....

The « Data et analysis » series provides an exhaustive and detailed inventory of long series on a specific theme at regional level.



.....

The « FOCUS ON » series offers food for thought on how to make sense of the data and shed light on regional and local public action.



L'OBSERVATOIRE DE L'ENVIRONNEMENT EN BRETAGNE

Since 2007, the Observatoire de l'environnement en Bretagne (OEB) has been supporting the implementation of public environmental policies in Brittany in two areas: access to environmental knowledge and observation.

Administered by the State, the Brittany Region and 26 groupings of local authorities and departments, this regional public interest grouping produces - with the help of numerous partners - indicators and dashboards that are essential for understanding the development of our territories and monitoring public policies. By making the most of environmental knowledge and updating data, the OEB makes public decision-making more reliable, facilitates dialogue and contributes to data transparency.



This publication is edited by
l'Observatoire de l'environnement en Bretagne
47 av. des Pays-Bas - 35200 Rennes
Tél : 02 99 35 45 80
contact@bretagne-environnement.fr
bretagne-environnement.fr

All rights reserved © Observatoire
de l'environnement en Bretagne, 2024

.....
Publishing director
Ronan Lucas

Editorial coordination
Caroline Guittet

Editing and technical referents
Caroline Guittet, Mathilde Robert et Mathilde Pillon

In collaboration with
Armelle Andrieu (Département d'Ille-et-Vilaine)
Charlotte Bigard (Agence Bretonne de la Biodiversité)
Sarah Bourgouin (DDTM du Finistère)
Anne-Simone Burel (ADEUPa Brest-Bretagne)
Sébastien Guillard (DDTM du Morbihan)
Anne-Lise Jaillais (Dreal Bretagne)
Julien Marceau (PNR du Golfe du Morbihan)
Éric Ravenet (Département des Côtes d'Armor)
Timothée Besse, Christophe Boue, Élisabeth Colnard,
Pierre D'Arrentières, Alette Lacroix, Mathieu Lagarde,
Emmanuèle Savelli, François Siorat, Alejandro
Zermeno Rodriguez, Angèle Zinssner (Observatoire de
l'environnement en Bretagne)

Mapping
Emilie Massard

Photo credits
p. 6 ADEUPa Brest-Bretagne
p. 10, 13, 49 Guillaume Bonnel, OPP Atlas des paysages
d'Ille-et-Vilaine porté par le Département et la
DDTM35
p. 13, 40, 52 Fabienne Mordellet, OPP du PETR du Pays
de Saint-Brieuc.
p. 13, 46, 53 DDTM 29, OPP de l'Atlas des paysages du
Finistère
p. 13, 40 Jean-Christophe Ballot, OPP du PNR
d'Armorique
p. 13, 26 David Lédan, OPP du PNR du Golfe du
Morbihan
p. 13, 22, 37, 45 Marie-Christine Sudre, Luis Giraldo,
Patrick Edeline, Maryvonne Le Meur, OPP de
l'Université du Temps Libre de Bretagne
p. 20 Caroline Guittet, OEB
p. 35 OPP Grand Site de France Cap d'Erquy – Cap
Fréhel
p. 44, 48 Anne-Lise Jaillais, Marceau Boudier, OPP
Trames verte et bleue porté par la DREAL Bretagne
p. 47 Guillaume Duhtion, OPP Espaces naturels
sensibles porté par le Département 35
p. 50 Marie-Odile Hubaud, OPP de l'Ecomusée de
Saint-Dégan-vallée du Loc'h

Graphic design and production
Mathilde Pillon, Mathilde Robert et Caroline Guittet

Map Collections
Communes, EPCI, départements, région : IGN Admin
Express, 2023.

Print
Colibri

.....

