Navarre Tourism Observatory
Annual Report
2020
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As we all know, 2020 marked a new chapter in the world as we knew it, at all levels: economic, work, personal relations and of course, in movements of individuals and communications, particularly affecting the tourism sector.

After a record-breaking year in 2019 in terms of volume of tourists and overnight stays, arrivals of international tourists and spending, the outlook for 2020 was good in terms of occupation in all types of accommodation and regarding length of stay for international tourists. However, the COVID-19 pandemic meant ripping up the rule book, and our strategy had to be rethought, focusing on offer, and highlighting regional domestic tourism to drive the tourism industry, all within a demanding sustainability framework and promoting the role of smart tourism in the new recovery scenario.
The analysis indicators demonstrate that the pandemic year rolled back figures 25 years. As a whole, the number of tourists was around -60% on 2019 and the number of overnight stays dropped 53%. The travellers’ average stay was longer although this was because the trips were concentrated in the summer holidays.

The impact of the pandemic was unequal across types of accommodation. The pandemic changed tourists’ preferences, as they chose rural over urban destinations and prioritised destinations that were not overcrowded and accommodation types that limited interaction with other tourists. This change of preference towards nature and countryside meant that campsites were the least affected type of accommodation. On the contrary, hotels, mainly located in urban areas, were hit harder, largely because of the drop in business trips and MICE tourism.
In terms of markets, as is known, international tourism dropped drastically. As for national tourism, the weight of domestic tourism in Navarre and nearby (Basque Country) increased. Trips were reduced to leisure-holidays and in this context, our major challenge was deseasonalisation as we needed the pull of domestic tourism and day-trips to alleviate the negative impact in the sector, boosting green, natural products from a comprehensive sustainability focus: economic, social, environmental, territorial and governance.

Travellers by place of origin

Total: 597,253

Basque Country 114,379 (19,2%)
Navarre 114,379 (19,2%)
Catalonia 74,007 (12,4%)
Madrid 70,762 (11,9%)
All other regions 149,449 (25%)

EU 62,409 (10,5%)
Rest of Europe 3,190 (0,5%)
Rest of the World 11,175 (1,9%)
In this context, it was essential to plan and manage a strategy that encompassed the new situation, leading to the Covid-19 Tourism Action Plan of Navarre 2020-2022. This action plan redefined priority segments for Navarrese tourism, focusing on local cuisine, countryside, family tourism, sports, nature activities and health tourism, boosting local and proximity tourism (staycations). It compiles a total of 25 goals with 51 measures divided into seven lines of action:

1. Governance & Participation
2. Subsidies
3. Training and education
4. Adapting the product
5. Innovation
6. Tourism Inteligence
7. Communication & marketing

The Action Plan 2020-2022 received majority support from the sector. 93% supported the Plan’s vision and mission, seeking to transform tourism in Navarre, making it more competitive, focusing on digitalisation, quality, and inclusion.
One of the main lines of action implemented to alleviate the effects of the pandemic included setting up training courses, within the Tourism Training Plan 2020-2024.

**Webinars**
- 11

**Courses**
- 6

**Training hours**
- 175

**Participants**
- 5,035
- Women: 3,537 (70%)
- Men: 1,487 (30%)
- Other: 11
To compensate for the economic consequences of COVID-19 in the hospitality and tourism sectors, the Department of Economic and Business Development urgently set in motion an official announcement of financial aid, with simplified processes to manage applications and reimburse the corresponding grants in just one month.

13,541,412 €
Distributed in grants for SMEs from services in tourism and hospitality.

2,810
Applications received
of which:

- Applications approved, processed and paid: 79%
- Applications denied: 21%

77%
Food and drink services
1,696 Companies
10,445,332 €

18%
Accommodation services
281 Companies
2,405,153 €

4%
Drink and tobacco wholesalers
48 Companies
527,918 €

1%
Travel agency and tour operator activities
49 Companies
163,028 €

Assessment of the aid

- Grado de satisfacción
  - Normal or more: 70%
  - Little or Nothing: 30%

Do you consider that the grant meets the goal to alleviate the effects of the Covid-19 crisis?

- Little or Nothing: 61%
- Normal: 25%
- Quite Good: 14%

NAVARRE TOURISM OBSERVATORY ANNUAL REPORT 2020
Two surveys were run in late April 2020 in the tourist sector and the retail trade sector to determine the impact of the pandemic on their businesses during the first phase of the pandemic, between 14 March and 15 April. 791 surveys were conducted within the tourism sector. They aimed to examine the impact of the pandemic in its first phase, see what measures were being implemented and reveal expectations for the future, specifically focusing on companies that had made investments over the last few years, and running a diagnosis on support and training needs.

More information:
https://www.visitnavarra.es/es/web/turismoprofesional/observatorio-turistico/estudios-propios
The four dimensions for developing sustainable tourism: the economic impact, the social impact, the environmental impact and the cultural impact.

- Differences of opinion depending on the zone in Navarre and size of town.

Navarrese population’s perception of tourism developments in the region

This study aims to compile information on how residents of Navarre feel about the impact of tourism development. The study compiles opinions from the Navarrese population on the general development of tourism in the region, and their concerns about it. It focuses on the following aspects:

- The four dimensions for developing sustainable tourism: the **economic** impact, the **social** impact, the **environmental** impact and the **cultural** impact.
- Differences of opinion depending on the **zone in Navarre** and size of town.

### RESULTS

- **90%** "Tourism is good for my area"
- **94%** "Tourism is a source of income"
- **77%** "Tourism introduces new cultures"
- **26%** "Tourism disturbs daily life"
- **75%** People living in the Old Town of Pamplona-Iruña: "Tourism reduces the accommodation offer for the resident population"
- **63%** "Tourism brings more traffic"

### MORE INFORMATION:

https://www.visitnavarra.es/es/web/turismoprofesional/observatorio-turisticooestudios-propios
As part of the Observatory’s set-up process and continuous improvement, requests were often made to provide a specific space encompassing all work areas, as an open tool that could be used by both the tourism sector and citizens. Within this framework, the Navarre Tourism website hosts a specific space for the Tourism Observatory, featuring various sections for information and inquiry. https://www.visitnavarra.es/es/web/turismoprofesional/observatorio-turistico
One of the major goals of the Strategic Tourism Plan for Navarre 2018-2025 is to position Navarre-Pamplona in the European tourism market as to capture deseasonalised demand flows, with high mean daily spending at destination. Deseasonalizing the flow of tourists not only aims to impact the destination economically, but it also avoids overcrowding problems as well as environmental and social damage.

The COVID-19 pandemic and the mobility restrictions it caused meant that the tourism demand was mainly concentrated during the summer months. It should be noted that Spain declared a state of alarm on 14th of March 2020 which lasted until 21st of June 2020, limiting free circulation of people. Furthermore, Navarre decreed a perimeter closure for the region, lasting from October 22 2020 to May 9 2021 during which it could not receive tourists from other regions. In this context, tourism deseasonalisation proved to be a major challenge in the new COVID-19 scenario.
The proportion of tourists in the third quarter was 38% more than in 2019.

The pandemic mainly impacted the seasonality of tourism, to the extent that, more than half the tourists in 2020 visited us during the summer months (July-September) when in this third quarter of the previous year, we received 37% of our tourists.

In addition, due to good figures prior to the pandemic, the volume of tourists visiting us in the first quarter of 2020 was considerably higher than usual, reaching 27% which was double the percentage of tourists who travelled to Navarre in the first quarter of 2019 (13.7%).

### Percentage distribution of the number of tourists per quarter

- **Q1**: 26.7% (2020), 13.7% (2019)
- **Q2**: 6.9% (2020), 27.8% (2019)
- **Q3**: 51.2% (2020), 37% (2019)
- **Q4**: 15.3% (2020), 21.5% (2019)

Source: Own work using data from the Hotel Occupation Surveys, Rural Tourism, Campsites, Apartments and Hostels from the National Statistics Institute (INE).

The proportion of tourists in the third quarter was 38% more than in 2019.
57.6% of overnight stays were concentrated in the third quarter

In a similar manner, as for the number of tourists, the vast majority of overnight stays were concentrated in the summer period, showing the pandemic’s major impact on tourism seasonality. Almost 6 out of 10 overnight stays took place in July, August and September, while this only accounted for 4 in 10 the previous year.

Percentage distribution of the number of overnight stays per quarter

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>21.1%</td>
<td>13%</td>
</tr>
<tr>
<td>Q2</td>
<td>6.8%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Q3</td>
<td>57.6%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Q4</td>
<td>14.5%</td>
<td>20.2%</td>
</tr>
</tbody>
</table>

Source: Own work using data from the Hotel Occupation Surveys, Rural Tourism, Campsites, Apartments and Hostels from the National Statistics Institute (INE).

Overnight stays by month

The fact that Easter week fell during lockdown meant that in 2020 there was only one “peak” in the volume of travellers and overnight stays.
Tourism seasonality in the number of travellers increased 375% on the average for the last 10 years

The Gini Index can be used as a reference to analyse changes in the degree of seasonal concentration of tourist flow. This indicator quantifies the degree of equality/inequality of tourists and overnight stays, so that a value of 0 indicates that all travellers/overnight stays are distributed in an equal manner across the year (deseasonalised flow) and a value of 1 means that tourists are concentrated in one month (high seasonality).

The Gini Coefficient for 2020 shows how the volume of tourists and overnight stays are both concentrated in just a few months of the year. While historic data shows values of around 0.08 for the distribution of travellers and 0.13 for overnight stays, in 2020 this rose to 0.38 and 0.24 respectively. This analysis shows that seasonality had dropped slightly in 2018 and 2019.

### Gini index travellers/overnight stays

<table>
<thead>
<tr>
<th>Year</th>
<th>Travellers</th>
<th>Overnight stays</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>0.38</td>
<td>0.24</td>
</tr>
<tr>
<td>2019</td>
<td>0.08</td>
<td>0.11</td>
</tr>
<tr>
<td>2018</td>
<td>0.07</td>
<td>0.10</td>
</tr>
<tr>
<td>2017</td>
<td>0.08</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Source: Own work using data from the Hotel Occupation Surveys, Rural Tourism, Campsites, Apartments and Hostels from the National Statistics Institute (INE).
The tourism industries were the hardest hit sector by Covid-19 in terms of employment. The number of people contributing to Social Security dropped by an average of 15% on 2019. In absolute terms, around 2,600 fewer workers were recorded.

15,051 Social Security contributors in tourism
(14.7% less than in 2019)

- Accommodation services: 2,025 (-12%)
- Food and drink services: 12,628 (-15.3%)
- Tour operators, etc.: 398 (-6.8%)
More women out of work than men

The tourism industries in Navarre are characterised by being female-dominated. As usually happens in periods of crisis when jobs are destroyed, women were more affected by job losses due to COVID-19. The number of women contributors dropped by 15.6% in 2019, while the number of male contributors dropped 12.9%.

Recorded unemployment

In accordance with the data provided by the Navarre Employment Office, on 31 December 2020 the number of job-seekers registered at Job Centres rose to 4,172. This figure is 33% higher than recorded in 2019.
Snapshot of Tourism Jobs in Navarre in 2020

1,773 fewer women in work, 16% less, compared to 814 fewer men (-13%)

The food and drinks services were the most affected by the impact of COVID-19. This was followed by the accommodation sector.

The greatest drop in persons employed on a contract (-19.5%), compared to self-employed persons which grew by +0.6%.

Destruction of jobs affected temporary contracts (50.5% fewer). The number of permanent contracts dropped by 5%.

Ribera Alta and Tudela were the areas of Navarre most affected by destruction of employment, with 17% fewer jobs, followed by Pamplona, with -15%. The Pyrenees were the least affected zone.

Greatest drop in social security contributors on part-time contracts, 23%, compared to full-time contracts which fell by 8%.

Source: Data provided by the Navarre Statistics Institute - Nastat, originating from the Social Security General Treasury.
ECONOMIC BENEFITS FOR THE DESTINATION

Tourist and day-tripper spending in Navarre rose to €522.9 million during 2020. This figure is 47.2% less than recorded in 2019 and in absolute terms represents €467.95 million less.

The greatest drop came in international spending, which dropped 55% compared to 40% for national spending.

The average daily spending per person from international tourism is 239% higher than from residents of Spain.

No significant differences can be appreciated in terms of average daily spending between tourists and day-trippers who live in Spain, given that the spending difference between the two is barely 8 Euros.

Furthermore, a difference in behaviour is seen between international and national tourism. For the former, average daily spending per person increased while in the case of national tourism, it dropped considerably, also demonstrating the effect of COVID-19 on household consumption.
In 2020, €163.5 million less international tourist spending was recorded in Navarre compared to 2019. However, after Asturias, Navarre was the 2nd Autonomous Community with the greatest increase in average spending of international tourists and average daily spending per person, concepts that only rose in four Autonomous Communities.

Spending by international tourists and day-trippers in 2020 was €217.27 million. This quantity is 54.9% less than recorded in 2019.
TOTAL SPENDING: €226.62 million, -44.1% (2019)

AVERAGE SPENDING PER PERSON: €132.5, -4.8% (2019)

DAILY SPENDING PER PERSON: €38.9, -17.5% (2019)

Residents in Navarre: 22.2%

From other regions: 77.8%

From the national tourism spending, €50.2 million came from persons living in Navarre (22.2%) and 176.4 million correspond to spending from persons from other regions.

NATIONAL DAY-TRIPPER SPENDING

TOTAL SPENDING: €79.01 million, -24.1% (2019)

GASTO MEDIO POR PERSONA: €31.24, -8.09% (2019)

The spending from tourists and day-trippers living in Spain in 2020 was €305.63 million. This quantity is 39.97% less than recorded in 2019.
GOVERNANCE

The situation caused by COVID-19 made it necessary to redefine the action strategy, leading to the approval of the **Tourism Action Plan of Navarre 2020-2022 against COVID-19**. This hard-hitting action plan sets its sights on strengthening Navarre’s business fabric in terms of capabilities in health and safety, digitalisation, competition and quality, plus greater awareness on sustainability values and inclusion in this sector. Consequently, it has set the goal of transforming business models permanently and sustainably.

The first of the **7 strategic lines** considered in the Plan is **Governance and Participation**.

**Tourism Action Plan 2020-2022 Governance and participation measures**

- **Agile, coordinated management with public and private agents and coordination of the territory.**
  - Encouraging coordination using virtual tools and agile participation methodologies.
  - Implementation and monitoring of communication channels with the Navarre tourist sector informed on economic support provided by the state and regional government and other entities.
  - Provide a single point of service from the Government of Navarre to face COVID-19.
  - Improve communication via website, newsletter, email and social media

- **UNDERTAKING**
- **MEDIUM TERM**
- **LONG TERM**
Strengthen the territorial fabric so it can continuously develop critical coordination and organisation labour with the territory.

Implementation of the territorial management model (Tourist Space Management Units-UGET).

Consolidated territorial governance system, beyond the tourist board.

Transverse coordination system with other areas of the Government of Navarre and of Spain.

Driving innovation groups, products or segments with participation from consortiums, associations and other agents.

Creation and consolidation of innovation groups, products or segments.

National and international alliances in destination networks, in gastrostomy, nature and culture networks, meetings and events.

Identifying strategic alliances

Reaching agreements

Strengthening existing alliances
Governance system to draw up the Tourism Action Plan 2020-2022

COVID-19 TOURISM COMMISSION
Navarre Pamplona

COVID-19 TOURISM COMMISSION
Territorial

COVID-19 TOURISM COMMISSION
Associations

GRUPOS DE TRABAJO
Product adaptation
Innovation Communication
Commercialisation

HELP PROVIDED BY THE GOVERNMENT OF NAVARRE
Telephone hotline
Email services
Information on website and newsletters
Online sessions
Open to the whole sector

Actions between March and June 2020

1,094 persons helped (from Monday to Sunday)

543 by phone

551 by email

24 newsletters sent out

2.680 people per mailshot

Opened 1,100 times on average

2 surveys

800 questionnaires analysed

4 meetings with agents
COMMUNICATION
4 Online sessions
534 Participants

COMMISSIONS
11 Meetings
145 Participants
3 votes

VALIDATION
85%

18 Associations
10 Consortiums

Proceso Participativo
de elaboración del
Plan de Acción de Turismo
de Navarra 2020 - 2022
DIGITAL TRANSFORMATION LABORATORY

This training initiative aims to promote a digital and cultural change in companies in the tourism sector. The programme helps companies adapt services and products to the continuous and changing needs of their customers, through training and support from experts. This initiative is developed in collaboration with NASERTIC-Navarre Services and Technologies (Public Company), ATANA (Navarre ICT cluster) and Roundcubers, a group of experts on tourism transformation. The participating companies received 50 hours of training, with practical activities, and another 10 hours of individual support from a mentor. Specifically, the laboratory provides help to draw up a digitalisation strategy and incorporate innovation into the company's essence.

1st Edition of the Digital Transformation Laboratory (October-December 2020)

10 Companies

- 2 Hotels
- 2 Guest houses
- 2 Hostels
- 2 Activity companies
- 1 Camp site
- 1 Bar
### SECTION OF TOURISM PRODUCTS AND TERRITORIAL SUSTAINABILITY

Joint work forum between the Basque Country and Navarre on the Vasco Navarro greenway.

<table>
<thead>
<tr>
<th>PARTICIPANTS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Basque Government Government of Navarre</td>
</tr>
<tr>
<td>• Basquetour (Basque Tourism Agency)</td>
</tr>
<tr>
<td>• Álava-Araba Provincial Government</td>
</tr>
<tr>
<td>• Gipuzkoa Provincial Government</td>
</tr>
<tr>
<td>• Local entities from the towns along the Vasco-Navarro train line</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIONS PERFORMED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Developing the tourism website</td>
</tr>
<tr>
<td>• Producing promotional videos</td>
</tr>
</tbody>
</table>

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Signing the Joint Work Protocol for The Ignatian Way between the Basque Country, La Rioja, Catalonia and Navarre.

<table>
<thead>
<tr>
<th>ACTIONS PERFORMED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Leaflet in Spanish, French, English, German, Basque and Catalan on The Ignatian Way.</td>
</tr>
<tr>
<td>• The Ignatian Way press pack.</td>
</tr>
<tr>
<td>• The Ignatian Way website for the Pilgrim Office.</td>
</tr>
<tr>
<td>• Producing a logo for 500 years of The Ignatian Pilgrimage.</td>
</tr>
</tbody>
</table>
Participation in the National EuroVelo Coordination Centre

The National EuroVelo Coordination Centres are the national representation of the European Cyclist Federation, that owns the EuroVelo brand. Navarre is crossed by two of the three EuroVelo routes in Spain. Actions in this field consist of attending annual monitoring meetings on its implementation.

Participation as partners in the Hispania Roman Town Association.

The Roman Town of Arellano belongs to this Association.
The tourism sector is a priority for the Navarre Administration

Comprehensive Tourism was chosen as one of the six priority areas where Navarre has focussed its work and resources since 2016, as they are considered areas with significant competitive advantages.

In the case of tourism, although this is not a strictly industrial or exporting sector, it provides territorial cohesion and social development benefits and brings in external resources that boost the regional trade balance. This sector stands out as one of the most relevant in many Navarrese towns, and it is linked to indirect benefits of conservation of natural and cultural heritage and as an element to encourage the population to keep living in the countryside, avoiding depopulation.

In 2021, Navarre is updating its Smart Specialisation Strategy, according to requirements set by the European Commission in the regions to access structural funds for the new European budget period 2021-2027.
The budget allocated to Tourism by the Government of Navarre in 2020 was €10.4 million.

The budget for tourism in 2020 was 1.4% more than in 2019 and 6.5% higher than in 2019. This budget does not include grants for tourism and hospitality that would increase this quantity. Regarding the overall budget of the Government of Navarre, the amount assigned to tourism represents 0.23% of the overall budget for the whole Government of Navarre, a similar percentage to previous years: 0.22% in 2019 and 0.25% in 2018.
“ECONOMIC DEVELOPMENT FRIDAYS” CONFERENCE CYCLE

The "Economic Development Fridays" conference cycle comprises sessions organised by the Department of Economic Development held every fortnight, inviting citizens, professionals and interest groups to find out about and discuss various topics covered by the Department’s areas, including Tourism. Due to the pandemic, these sessions had to be put on hold in March.

06/03/20

The Smart Tourism Model applied to the Ribera and City Break study measuring tourism distribution in Navarre: improving destination knowledge to optimise tourism planning
LOCAL SATISFACTION

In the last quarter of 2020, we ran a study on how Navarre’s population perceived tourism development in our region. The study compiles opinions from the Navarrese population on the general development of tourism and their concerns, focusing on the following aspects:

4 Dimensions

- Economic impact
- Environmental impact
- Social impact
- Cultural impact

2 Segmentings

- Zone of Residence: 5 zones.
- Size of the town: 5 groups depending on the number of inhabitants

850 surveys to people aged over 18

95% confidence interval
3.4% margin of error
Phone surveys
ECONOMIC IMPACT

Almost everyone interviewed believed that the arrival of tourism is an important source of revenue for Navarre, it encourages the creation of new services and businesses, and it increases employment. However, the survey also reflects a certain feeling that tourism raises prices in general, that it raises house prices for locals, that it encourages unstable employment and that it reduces the offer of homes available for locals.

"I believe that the tourism in my area... "

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides a source of revenue for Navarre</td>
<td>28%</td>
<td>65.6%</td>
<td>16.4%</td>
<td></td>
</tr>
<tr>
<td>Creates jobs</td>
<td>14.1%</td>
<td>67.1%</td>
<td>16.4%</td>
<td></td>
</tr>
<tr>
<td>Generates new services and businesses</td>
<td>8.6%</td>
<td>71.7%</td>
<td>15.7%</td>
<td></td>
</tr>
<tr>
<td>Attracts new investors</td>
<td>53%</td>
<td>56.7%</td>
<td>27.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Raises prices</td>
<td>11%</td>
<td>49.5%</td>
<td>29.9%</td>
<td>8%</td>
</tr>
<tr>
<td>Increases unstable jobs</td>
<td>6.7%</td>
<td>47.8%</td>
<td>33.4%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Reduces accommodation on offer for residents</td>
<td>10.3%</td>
<td>37.9%</td>
<td>42.2%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Raises house prices</td>
<td>44.4%</td>
<td>42.6%</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>
SOCIAL IMPACT

The interviewees consider that the arrival of tourism improves the prestige and the image of the zone, it increases the quality of the services and improves infrastructures in towns such as streets, car parks, main roads, etc.

The Navarrese population does not feel that tourism has increased citizen insecurity and it does not disturb daily life considerably.

"I believe that the tourism in my area..."
CULTURAL IMPACT

In the block of questions on cultural impact, there is a high degree of agreement with the study variables. More than three quarters of people interviewed consider that tourism brings improved cultural spaces, help to conserve monuments, learning about other cultures and increases the offer of cultural events and festivals. In addition, they do not consider that tourism leads to loss of local cultural identity.

"Yo creo que el turismo en mi zona, .... "

<table>
<thead>
<tr>
<th>Statement</th>
<th>STRONGLY AGREE</th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>STRONGLY DISAGREE</th>
<th>DISAGREE</th>
<th>INDIFFERENT / DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improves cultural spaces</td>
<td>7.5%</td>
<td>69.7%</td>
<td>17.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helps lean about new cultures</td>
<td>10%</td>
<td>66.7%</td>
<td>17.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conserves monuments</td>
<td>12.5%</td>
<td>63.6%</td>
<td>19.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increases offer of events</td>
<td>11.6%</td>
<td>63.2%</td>
<td>21.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helps maintain tradition</td>
<td>12.4%</td>
<td>57.8%</td>
<td>24%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributes to loss of cultural identity</td>
<td>17%</td>
<td>68.4%</td>
<td>8.4%</td>
<td>5.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ENVIRONMENTAL IMPACT

Although not in the majority, the feeling of more than half the persons interviewed is that, in addition to bringing an improvement in services for the town, tourism does have some disadvantages such as more traffic, parking issues and an increase in pollution. The perception that tourism damages the environment is also high.

Regarding whether tourism improves environmental awareness and helps conserve natural resources, there are more opinions against than for.

"I believe that the tourism in my area..."

<table>
<thead>
<tr>
<th>Perception</th>
<th>MUY DE ACUERDO</th>
<th>DE ACUERDO</th>
<th>EN DESACUERDO</th>
<th>MUY EN DESACUERDO</th>
<th>INDIFERENTE / NO SABE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases traffic</td>
<td>10.1%</td>
<td>52.8%</td>
<td>32.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes parking problems</td>
<td>9.3%</td>
<td>51.9%</td>
<td>31.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improves services</td>
<td>6.2%</td>
<td>53.6%</td>
<td>31.4%</td>
<td>7.8%</td>
<td></td>
</tr>
<tr>
<td>Increases pollution</td>
<td>6.8%</td>
<td>48.5%</td>
<td>36.5%</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td>Helps conserve natural resources</td>
<td>6.5%</td>
<td>44.9%</td>
<td>37.4%</td>
<td>9.3%</td>
<td></td>
</tr>
<tr>
<td>Protects natural resources</td>
<td>5.8%</td>
<td>40%</td>
<td>38.6%</td>
<td>14.5%</td>
<td></td>
</tr>
<tr>
<td>Damages the environment</td>
<td>7.3%</td>
<td>40%</td>
<td>43.8%</td>
<td>7.3%</td>
<td></td>
</tr>
<tr>
<td>Improves residents’ environmental awareness</td>
<td>5.5%</td>
<td>32.8%</td>
<td>47.3%</td>
<td>13.1%</td>
<td></td>
</tr>
</tbody>
</table>
Energy consumption in Navarre

For the time being, the Observatory has not taken any measurements or made its own estimations for the tourism sector, therefore, we do not have specific data for the tourism sector.

In the Navarre Energy Budget, energy consumption for the tourism sector is reflected within the “Domestic, trade and services” consumption.

According to the 2019 energy budget, this concept consumed 319,237 TOE (Tonne of oil equivalent) which represents 16.74% of the 1,959,605 TOE consumed in Navarre during 2019.

Source: Own work using data from the 2019 Navarre Energy Budget
Indicators for the state of renewable energy in Navarre:

Renewable energy (RE) is essential as we move towards energy sustainability and sovereignty. Consequently, Navarre is monitoring a series of indicators regarding the proportion of renewable energy generated and consumed in the region.

**RE share in final gross energy consumption:**
For 2020, the Government of Navarre aims to obtain at least 28% of its energy consumption from renewable sources. According to the Navarre Energy Budget in 2019, 21.41% of final consumption came from renewable sources. The aim for 2025 is 35%.

**RE percentage in electricity production:**
In previous years, electricity from renewable sources exceeded 50%. But in 2019, only 46.6% of the electricity generated in Navarre came from renewable sources. According to the 2019 Navarre Energy Budget, this is due to increased use of natural gas combined cycles, although there was also a significant drop in hydraulic electricity production, 22.94% on 2018, as a consequence of the rainfall during the year. This demonstrates the interdependence between climate action areas.

**RE electricity production / Electricity consumption:**
On the other hand, the electricity produced from RE in Navarre is equivalent to 74.4% of Navarre’s total consumption.

Source: Own work using data from the 2019 Navarre Energy Budget
**Consumption per capita**

Energy consumption per capita is a basic indicator to determine the energy consumption trend over time. In Navarre, the consumption per inhabitant is calculated in the TOE unit (Tonne of oil equivalent) equivalent to 11,630 kWh.

**Energy consumption per capita in TOE:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption per capita (TOE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3.44</td>
</tr>
<tr>
<td>2009</td>
<td>2.83</td>
</tr>
<tr>
<td>2010</td>
<td>2.87</td>
</tr>
<tr>
<td>2011</td>
<td>2.87</td>
</tr>
<tr>
<td>2012</td>
<td>2.98</td>
</tr>
<tr>
<td>2013</td>
<td>2.83</td>
</tr>
<tr>
<td>2014</td>
<td>2.87</td>
</tr>
<tr>
<td>2015</td>
<td>2.87</td>
</tr>
<tr>
<td>2016</td>
<td>2.87</td>
</tr>
<tr>
<td>2017</td>
<td>2.87</td>
</tr>
<tr>
<td>2018</td>
<td>2.98</td>
</tr>
<tr>
<td>2019</td>
<td>2.98</td>
</tr>
</tbody>
</table>

Source: Own work using data from the Navarre Energy Budgets 2011-19.

The final data available is from 2019 with 2.98 TOE per inhabitant. This is 2.71% less than 2018 and 1.26% less than 2009. The time perspective demonstrates that energy consumption per capita in Navarre has been stable, with a slight drop over the last decade.
Since 2018, electricity used by the government of Navarre has come from certified renewable sources

Tourist Information Offices (TIO):
The Navarre network of tourist information offices is composed of 11 offices at the most important tourist spots throughout the province. We have data from seven of the offices regarding electricity and diesel consumption.

Electricity consumption:
For 2020 as a whole, consumption from the seven offices was 73,015 kWh which is 19% less than 89,881 kWh the previous year. This consumption drop is mainly due to the TIOs were closed due to the pandemic from March to June 2nd. However, we should highlight the trend to reduce electricity consumption since 2017 as shown on the graph.

Electricity consumption for tourist information offices:

Source: Own work, taken from data provided by Navarra de Suelo y Vivienda, S.A. (NASUVINSA)
Diesel consumption:
On the other hand, four of the offices still have a long way to go on diesel consumption. In 2020, these four offices used diesel equivalent to 93,883 kWh, 42% less than in 2019 but still responsible for emissions of 27 tonnes of CO2. The diesel is mainly used for heating.

Diesel consumption for tourist information offices:

![Graph showing diesel consumption from 2017 to 2020]

- **2017:** 93,624 kWh
- **2018:** 229,877 kWh
- **2019:** 163,245 kWh
- **2020:** 93,883 kWh

*Fuente: Elaboración propia a partir de los datos de Navarra de Suelo y Vivienda, S.A. (NASUVINSA)*
WATER MANAGEMENT

In this field, we compiled data from other public institutions in Navarre. The Provincial Government’s Department of Rural Department and the Environment periodically tests bathing areas and rivers. Regarding water consumption, we depend on data from the local entities that manage the supply.

The District of Pamplona supplies water to Pamplona and its surrounding area, a population that is equivalent to 57% of the inhabitants of Navarre. In its annual report, it lists water production in 2020 as 29,798,737 m³, 1.77% less than in 2019 and 1.06% less than the average over the last 5 years.

Particularly relevant from a tourism perspective, there was a drop in water consumption in the areas of the city dominated by the hospitality industry, such as the old town.

In the district of Pamplona, Domestic-Commercial water consumption was 16,080,850 m³, 53% of the drinking water produced in the district.
Since the Observatory did not perform its own measurements, we do not have water consumption data for the tourism sector. To estimate water consumption corresponding to tourists, we calculated the equivalent water consumption for the tourist population during 2020. In the district of Pamplona there were 466,426 overnight stays in hotels and tourist apartments. This is equivalent to a daily population of 1,278 tourists. Assuming that these tourists consume the same amount of water as the resident population, equivalent consumption would be 54,882 m3 during 2020, 0.3% of the water consumption.

However, the literature suggests that daily consumption is greater for tourists than for the resident population. Consequently, we might consider this data as the minimum water consumption. The scientific literature demonstrates that water consumption varies considerably between types of accommodation, destinations and studies. At a European level, there is an average of approximately 300 L per overnight stay in a European hotel. Based on this data, the water consumption in hotels in Pamplona would be 139,927 m3, the equivalent of 0.9% of water consumption.

This uncertainty and diversity of results demonstrates the need to carry out a specific study in Navarre to get a more exact estimation based on accommodation data in Navarre.
73% of bathing waters have an excellent quality level

Bathing water

The Public and Work health Institute of Navarre supervises water quality in bathing areas. The quality of this water is important for health, environment and tourists' perception of Navarre.

Out of the 11 bathing areas monitored in Navarre, 73% have excellent water quality, 9% higher than in 2019.

Source: Own work from data from the Public and Work health Institute of Navarre
73% of the bathing zones have a surrounding area with good hygiene-sanitation conditions

Regarding the hygiene-sanitation situation of the area surrounding the bathing areas, it is classified according to general hygiene-sanitation conditions and the existence of appropriate infrastructures. It is “Good” when in addition to good hygiene-sanitation conditions, there are appropriate infrastructures and services. Acceptable when hygiene-sanitation conditions are good, but there are no appropriate infrastructures. Finally, the surrounding area is classified as poor when the hygiene-sanitation conditions are inappropriate.

Hygiene-sanitation situation of the surrounding area

Source: Own work from data from the Department of Rural Development and Environment.
State of the rivers in Navarre

The Department of Rural Development and Environment monitors the water quality of rivers in Navarre, studying its physical-chemical and ecological condition.

Regarding the ecological condition, 34% of control sites are in very good condition followed by 40.6% in good condition.

Regarding the physical-chemical condition of the rivers, it stands out that 78% of the control points are in very good condition. On this aspect, the main exceptions are seen downstream of purification plants of the main cities. For instance, there is a greater presence of ammonia in Ororbia, downstream from Arazuri which is the main water treatment plant for the capital, Pamplona.

Source: Own work from data from the Department of Rural Development and Environment.
Finally, it should be highlighted that the general condition of the rivers in Navarre has improved over the last decade. As can be seen in the graph below, the quantity of “Very good” and “Good” quantity classifications has gradually increased since 2000.

**Evolution of the ecological condition**

<table>
<thead>
<tr>
<th>Year</th>
<th>Very good + Good</th>
<th>Moderate + Deficient + Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fuente: Elaboración propia a partir de los datos del Departamento de Desarrollo Rural y Medio Ambiente
WASTEWATER MANAGEMENT

During 2020, the observatory did not perform any type of measuring activity in this area, and it does not have specific statistics for the tourism sector.

However, Navarre has an extensive network of water treatment facilities. In Navarre, the public company NILSA S.A (Navarra de Infraestructuras Locales, S.A.) manages wastewater treatment. The Government of Navarre aims to cover 100% of the population of Navarre. Currently, wastewater from 99.76% of the Navarrese population is treated in a water treatment plant.

The wastewater from Navarre goes through one, two or three steps in the treatment process. Currently, 92.14% of the population are covered by two-step water treatment. Meanwhile, 5.58% are covered by three-step treatment and only 2.04% by one-step treatment.

In 2020, NILSA treated 80,258,755 m³ of wastewater, 2.5% less than the 86,750,609 m³ in 2019. This drop is mainly due to the impact of the COVID-19 pandemic.
After the treatment process, the wastewater is released into the two main river systems in Navarre. NILSA monitors the quality of the water flowing into the rivers and publishes quarterly reports that provide performance indicators such as Suspended Solid, DQP, DBO, and N-NH3 for each of the Wastewater Treatment Plants (WWTP).

As mentioned in the chapter on water management, the condition of the rivers is also monitored. This monitoring shows that the general condition of the rivers is good and has significantly improved over the last two decades. However, it also shows some high ammonia and nitrate values downstream of some of the main WWTPs. Therefore, the physical-chemical quality in these areas is only classified as “good” instead of “very good”.

**Sustainable urban drainage**

In addition to the continuous extension of the water treatment infrastructure in Navarre, during 2020 a pilot project for sustainable urban drainage was set up. The system has been installed on the Tudela Campus of the Public University of Navarre. The aim of the project is to manage the rainwater where it falls without affecting the treatment infrastructure. To do this, the surface area has been adapted to help water filtrate into the ground. The project forms part of LIFE NADAPTA, a European project led by the Department of Rural Development, Environment and Local Administration of the Government of Navarre and forms part of the process for strategic adaptation to climate change.
The Waste Master Plan in Navarre 2017-2027 regulates solid waste management in Navarre. Tourism sector waste is managed within domestic-commercial waste. For 2020, an objective was set for 50% recycling of domestic and commercial waste.

14 of the 16 local entities that manage solid waste in Navarre meet the objective. Local entities with the highest percentages reach recycling proportions of 67-68%.

However, the two local entities with the greatest population do not meet the objective. The worst data is for the capital, Pamplona-Iruña, with 38%. Consequently, 71% of the Navarrese population live in zones that do not meet the objective. The weight of these zones means that overall Navarre does not meet the objective as it only achieves 46% recycling.

In terms of the future, the waste management plan sets an objective of recycling 75% of domestic and commercial waste in 2027. To meet this objective, there is an approach to extend the roll-out of selective collection, reduce the proportion of mixed waste and improve recycling and use of this waste.
In 2020, Navarre recycled 46% of its domestic-commercial waste

During 2020, a total of 283,000 tonnes of solid waste with domestic-commercial origin was generated, equivalent to 430 kg per person, 1.3% less than in 2019. This reduction is partly due to a slump in consumption thanks to the pandemic, but it is also part of a long term change towards generating less waste per person. Compared to 2010, 3% less waste was generated per person in 2020. This is the result of lifestyle changes, awareness of efficient use and wastage of food and awareness-raising campaigns.

Evolution in recycled waste percentages:

<table>
<thead>
<tr>
<th>Year</th>
<th>Recycled Waste Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>36.8%</td>
</tr>
<tr>
<td>2018</td>
<td>45.0%</td>
</tr>
<tr>
<td>2019</td>
<td>46.3%</td>
</tr>
<tr>
<td>2020</td>
<td>46%</td>
</tr>
</tbody>
</table>

Source: Own research working from data from the Department of Rural Department and the Environment.

There are currently no exact data specifically focusing on the tourism sector and related sectors. However, the Municipality of Pamplona, that manages waste collection in Pamplona and its District, observed that the purely commercial collection of cardboard and glass from hospitality in the Old Town of Pamplona dropped by 24.6% and 63.9% respectively in 2020 on the previous year.
Navarre has set the target of recycling 75% of solid domestic-commercial waste in 2027

Generation of equivalent waste

To estimate waste generation corresponding to tourists, solid waste generation has been calculated from the equivalent tourist population in 2020.

In all of Navarre, there were 1,535,435 overnight stays in tourist accommodation. This is the equivalent to a daily population of 4,207 tourists. Supposing that tourists have the same pattern of waste generation as the resident population, the equivalent consumption would be 1,789 tonnes.

Action

Intended for the hospitality sector, the Navarre Waste Plan considers prevention of waste generation from packaging. Participation from associations and companies in the sector is included as a strategic line to implement measures such as minimum goals for reuse of certain packaging and drinks and participation in compost collection.

In terms of specific actions carried out in the tourism sector, in October 2020 a pilot project began in three towns on the Way of St James in Navarre. Hospitality is responsible for a considerable proportion of waste generation in small villages on the Way of St James. The project involved 14 hospitality companies and 25 new bins were provided, plus advice from a local authority expert on how to improve selective collection of organic matter from hostels, accommodation and food outlets.
2020 marks the first year that the Observatory is including the area of accessibility in its annual report. Consequently, this section is a brief introduction to this area’s background in Navarre, specific projects and data from accessible tourist premises in 2020. These data will be used as the basis for comparison in the future.

Accessibility is a topic that Navarre has worked on at various levels for several years.

Beginning in 2013, the capital of Navarre, Pamplona-Iruña was awarded Special mention from Accessible European Cities for its work on making the city accessible both in historic and new areas and drawing up an accessibility plan.

More recently, accessibility has been regulated both by the Universal Accessibility Law and in the Navarre Law on Cultural Rights. The latter states that Navarrese Public Administrations must progressively guarantee physical, mental and sensory access.
Plan de turismo 2018-2025

The Strategic Tourism Plan 2018-2025 specifically includes accessibility in goal E2: “Including general accessibility criteria for people with special needs.” It highlights the need to adapt tourism spaces to conditions required by various collectives by incorporating general universal accessibility criteria and to achieve this by removing architectural and urban development barriers, encouraging unrestricted general conditions for use and enjoyment.

Training and subsidies

In addition, the Tourism and Consumption Board promotes accessibility as one of the transverse strategies in its training programme.

As far as subsidies are concerned, the line of grants for “Projects to renovate, refit, improve the facilities intended to improve accessibility for people with reduced mobility or with any other physical, mental, or sensory limitation, and removal of architectural and sensory barriers from the tourist establishment,” is included in the call to make tourism SMEs more competitive for companies on the Navarre Tourism Registry.

However, in the 2019 and 2020 calls, only one subsidy was granted. This demonstrates unused potential.

In the call to promote quality and innovation in communication and promotion of tourism products and services 2021, projects to comply with the new ISO UNE 170001 standard on Management of Universal Accessibility are included as eligible projects for the subsidy.
TOURISM REGISTRY

The Government of Navarre General Board of Tourism, Trade and Consumption keeps a registry of tourism establishments. In 2020, 65 tourism companies were registered as accessible. The majority are Accommodation which are required to appear on this registry, but it also includes restaurants and attractions on a voluntary basis. The registry features 50 accommodation establishments as accessible in Navarre, of which 34% are hotels, and 28% are guest houses.

Accommodation registered as accessible in the Tourist Company Registry:

Source: Own work from data provided by the General Board of Tourism, Trade and Consumption.
Equalitas Vitae is a consultancy specialising in accessible tourism that runs accessibility assessments on tourist resources. It has registered 127 tourist resources located in Navarre in its directory of tourist resources. They are distributed as follows:

Empresas turísticas Navarras en el Directorio de Empresas turísticas de Equalitas Vitae:

The tourism resources compiled in the Equalitas Vitae registry include several of the most popular tourist resources in 2020 such as Javier Castle, Olite Royal Palace and Pamplona Cathedral. However, 54% of them have not been checked, 42% were checked and only three got the top certification: Recommended. The Government of Navarre and Equalitas Vitae registry data will be used as a basis for future comparisons.
ACCESSIBLE PATHS

One of the specific segments considered in the Strategic Tourism Plan 2018-2025 is countryside and nature. Within this segment, hiking is particularly relevant, to the extent that there is a guide to 30 essential hikes in Navarre, that includes 1,250 km of paths, tracks, Greenways and GR trails, classified into three categories: family-friendly, general public and fit walkers, by difficulty. It also includes 4 accessible paths for all users, regardless of their special physical, mental or sensory needs.

Sendero de Bertiz (Bertiz Natural Park)

Persons with special needs can enjoy this idyllic landscape and really feel the intensity of the forest. For reduced mobility, paths have various degrees of accessibility. For a more peaceful walk, 450 metres of sensory path through the garden.
Sendero de Leurtza (Leurtza Natural Recreation Area. Urrotz)

Route designed for all users, also the blind or people with reduced mobility. The initial section is more demanding for wheelchair-users.

Sendero de Orgi (Orgi Natural Recreation Area. Lizaso)

Simple 2.4 km path for the blind or people with reduced mobility. Information is available on panels.

Sendero de Morterutxo (Urbasa-Andia Natural Park)

Can be enjoyed by all, including people with reduced mobility, visual disability and the elderly. Equipped with benches, a guide rail, Braille panels, highly practicable flooring and slopes.
**ACTIONS:**
During 2020, improvements have been made to the tourism offices belonging to the Board of Tourism, Trade and Consumption to guarantee universal accessibility. These improvements have been carried out following recommendations from studies carried out in each of the tourism offices.

**Olite Royal Palace**
The Olite Royal Palace was the most-visited tourist resource in Navarre in 2020. January 2020 saw the completion of its refurbishment with a value of 510,103 Euros carried out, in this case, in collaboration with the Historical Heritage Service of the Government of Navarre. The work consisted of adapting the reception and the lift. This provided a new reception area and made general improvements to receive tourists. It also improved accessibility by removing architectural barriers and fitting a lift to go up to the castle and a bathroom for people with reduced mobility.

**ACCESSIBLE WAY OF ST JAMES**
The Way of St James is an important tourist resource for Navarre, known all over the world. In 2017, a study examined each stage of the Way in Navarre to determine the accessibility. Subsequently, in 2018, a collaboration agreement was signed with Fundación ONCE for the Accessible Way of St James project. This project consists of an assessment of the section of the Way of St James running through Navarre and developing an application and website called Blind Explorer that works as a guide for people with various disabilities.
As defined in the sustainable development goals, “Climate action” aims to fight climate change and adapt to its effects. Consequently, this chapter aims to present the state of mitigation and adaptation to climate change both from the perspective of legislation and planning and also actions and empirical data.

**LEGISLATION AND PLANNING**

The objectives of sustainable development goal 13 include incorporating climate change measures into national policies, strategies and plans.

Navarre has had a climate change road map since 2016 and in February 2020 the Government of Navarre began to draw up a *Regional Law on Climate Change and Energy Transition*. The process of drafting the law included public participation and its final approval is planned during 2021.

The aim of this law is to **guide climate action and energy transition in the Region of Navarre**. The law also considers reducing greenhouse gases and adapting to climate change.
Navarre Strategic Tourism Plan 2018-2025

The Navarre Strategic Tourism Plan 2018-2025 acknowledges the environmental impact of tourism, particularly the GHG emissions generated by transport, and it highlights the measures to attempt to reduce emissions in air transport. The plan specifically considers measures such as:

- Promoting compensation from the Government of Navarre for emissions generated by air transport from tourists who come from source markets.
- Adapting modes of land-based transport to cleaner technologies.
- Adapting establishments to the best metabolic integration technologies: water cycle, energy efficiency and connected self-sufficiency, selective waste management.
- Prioritising short channel suppliers to reduce transport emissions and eco-suppliers.
-Boosting green marketing strategies and CSR. The actions that are promoted within the framework of this measure should be in line and coordinated with Navarre’s S3 proposals on renewable energies and other sustainability innovations.

MONITORING:

The Government of Navarre LIFE NADAPTA project was presented in December 2017. The aim of this project is to adapt Navarre to the effects of Climate Change, specifically in 53 measures in six different strategic areas: water, forests, agriculture, health, infrastructures and planning and monitoring. The project manages a series of adaptation actions and a system of indicators relating to climate change. The system has four aims:
1. Characterising danger (climatic variables).
2. Characterising exposure and vulnerability.
3. Monitoring the associated impacts
4. Applying adaptation measures.
Todos los indicadores monitorizados están disponibles en la web de LIFE NAAdapta: https://monitoring.lifenadapta.eu/
A continuación se puede ver el sistema aplicado a el área estratégica de adaptación que es el agua y las inundaciones.

**Emergency flooding plan:**

A series of emergency flooding plans has been developed within the framework of the LIFE NAAdapta project. There are currently seven emergency plans, four from 2019 and three from 2020.
The climate change adaptation process is monitored from LIFE NAAdapta following the four monitoring goals.

1. Characterising danger (climatic variables).
Discovering the trends. In this case, changes in precipitation are monitored with indicators such as: maximum precipitation in one day, maximum precipitation in 5 days, maximum precipitation in one hour and number of days with precipitation over 20 mm.
The following graph shows changes in maximum one-day precipitation in Caparroso, one of the towns with an emergency flooding plan:

[Graph showing daily maximum precipitation for each year (mm)]

Source: Own work using data from LIFE NAAdapta
https://monitoring.lifenadapta.eu/pages/inundacion
2. Characterising exposure and vulnerability.
To meet the second goal, vulnerability and exposure were monitored in this case for buildings, homes, and infrastructures in flood zones.

3. Monitoring the associated impacts
The impact will be monitored by means of the damage caused by flooding and atypical cyclonic storms assumed by the Flood Insurance Compensation Consortium (CCS) and the number of flooding events.

Source: LIFE NAdapta: https://monitoring.lifenadapta.eu/pages/inundacion

No. of buildings in the flood zone

Damage to property caused between 1996-2020

Source: LIFE NAdapta: https://monitoring.lifenadapta.eu/pages/inundacion
4. Applying adaptation measures
Finally, adaptation progress is monitored as shown on the map below.

**No. of buildings in the flood zone**

Source: LIFE NAdapta: https://monitoring.lifenadapta.eu/pages/inundacion

**Monitoring Sustainable Development Goals**
Given that climate action is a sustainable development goal, it also forms part of the Government of Navarre SDG monitoring system. Available on: https://ods-agenda2030.navarra.es/pages/resumen

This Goal mainly handles the three indicators for Navarre: greenhouse gas emissions, percentage of renewable energy over the final energy consumption and primary energy consumption.
Energy transition towards renewable energy sources represents a path towards a more sovereign energy model as well as a reduction of CO2 emissions. The 2019 energy report estimates that electricity production from renewable sources has avoided emission of 709,685 tonnes of CO2 into the atmosphere.

Transport is one of the greatest sources of greenhouse gas emissions in the tourist sector. One way of reducing transport emissions is to increase use of renewable energies in the sector. For 2020, the Government of Navarre has the goal of 10% of transport needs with renewable energy. The data for the last available year, 2019, was 6.83% which is 46% more than in 2009 and 6.3% more than in 2018. The aim for 2025 is to reach 12%.
Air transport has particularly high emissions per person transported. In Navarre, air transport is not the main transport connecting Navarre and in a pandemic year such as 2020, its proportion was even lower. However, 83,051 commercial passengers passed through Noain-Pamplona airport.

The latest official data from the Department of Rural Department and Environment comes from 2018 and at that time, it was calculated that the air transport emissions in Navarre reached 13,181 tonnes of CO2. The Observatory has made an estimation for 2019 and 2020. The estimation is based on the quantity of passengers, origin/destination and grams of CO2 per passenger transported per kilometre (gCO2/km/passenger). To make the estimation, a gCO2/km/passenger has been averaged for short, medium and long-distance plane trips.

### CO2 emission from commercial air transport

<table>
<thead>
<tr>
<th>Year</th>
<th>Official Data</th>
<th>Estimation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>13,181 t CO2</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>16,539 t CO2</td>
<td>6,003 t CO2</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own research working from data from the Department of Rural Department and the Environment and AENA: https://wwwssl.aena.es/csee/Satellite?pageName=Estadisticas/Home
**78% of passengers come from routes that are under 500 kilometres long**

As shown in the graph, the estimated emissions for 2020 are **6,003 tonnes of CO₂**, 64% less than in 2019. The reduction in CO₂ emissions is mainly due to a 66% drop in the total quantity of passengers from 241,057 to 83,051.

Finally, it is relevant that **78% of passengers come from short routes under 500 kilometres** and 11% from distances over 2,000 km.

![Passenger Distance Distribution](image_url)

**Source:** Own work using AENA data: [https://wwwssl.aena.es/csee/Satellite?pagename=Estadisticas/Home](https://wwwssl.aena.es/csee/Satellite?pagename=Estadisticas/Home)

This data is relevant for planning and decision-making, for two main reasons. Firstly, on short routes, CO₂ emission per passenger per kilometre is greater, given that the extra energy used to take off represents a higher proportion of the total consumption. Secondly, on short routes there are more likely to be comparable alternatives in travel time that are less polluting than the plane, which is not the case for long distances for the time being.
Certifications and seals:

The General Board of Tourism, Trade and Consumption aims to promote quality, sustainability and accessibility in tourism companies within the framework of the third action programme for the Navarre Strategic Tourism Plan 2018-2025. Particularly by means of subsidies to achieve certifications related to climate action:

a) EMAS (CE 1221/2009 regulation).
b) ISO 14001 Environmental management.
c) ISO 500001 Energy efficiency management.
d) ISO 21401. Sustainability management system for accommodation.
e) Ecolabel.
f) “Calculate-Reduce-Consum” seal.

For the time being, we do not have any data on the quantity of tourism companies in Navarre that have obtained the certification except in the case of the EU Ecolabel.

Ecolabel

The European Union Ecolabel is a standardised voluntary certificate for environmental excellence. This seal requires action in seven different areas:
1. Optimised environmental management
2. Reduction of energy consumption and CO2 emission
3. Reduction of water consumption
4. Reduction of chemicals and pesticides
5. Waste generation and separation
6. Reduction in transport emissions
7. Limitation of food wastage

Two hotels in Navarre currently hold this label.
CONCLUSIONS

The crisis caused by COVID-19 has forced destinations to promote strategic development revolving around sustainability. Including sustainability in planning is no longer just an option. It is already required by tourists and is also an important premise for tourism administrators.

One of the great challenges in the recovery process is going to be deseasonalisation. Domestic and proximity tourism is going to be key in the recovery process.

Within the context of an energy crisis and limited resources, trends are likely to change towards a preference for the local aspect, km 0 and proximity resources, also in the travel and leisure sector, increasing nearby trips and reducing long distance travel.
Another great challenge will be the race to slow down climate change. In this context, we must take further steps in sustainability measures from the tourism perspective. This explains why the Navarre Tourism Observatory plans to start new pilot projects around calculating carbon footprints or analysing climate change impact indicators.

The Next Generation funds, through the Tourism Sustainability Plans, are going to allow destinations to develop sustainably on the ground and set up indicators to check compliance.