



# Eifel National Park Exploring views of local residents on the national park and the impact of COVID-19

Report prepared by

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#### **EXECUTIVE SUMMARY**

In October 2020, an online-survey was carried out among local residents of the Eifel National Park and its surroundings, exploring the levels of public awareness and acceptance levels for the National Park and its protected biome as well as the impact of COVID-19 and associated control measures. The survey is part of the project FIDELIO led by Cambridge University and funded by the European Research Council. The research team sent ~6700 postcards to all households in 12 villages inside or around the Eifel National Park, inviting them to participate in the survey. The response rate was approximately 5%, resulting in a final sample of 333 participants.

#### **Key findings of the study are:**

- There is a high level of public acceptance for the National Park with over 80% of respondents stating that they are in favour of its existence to continue in the future.
- Overall, living inside or near the Eifel National Park has had a very positive impact on local communities in the past 5 years. The most positive impacts reported were related to the reputation of the region, connectedness to nature, tourism, environmental protection and recreation.
- Perceptions for the costs and benefits (impacts) of the Eifel National Park influence the level of public acceptance, with those respondents identifying more benefits being more in favour of its existence.
- Regarding the distribution of these impacts, approximately a third of participants consider that these are not distributed equally among locals. In particular, many people consider that the level of impact depends on where in the area a person lives and if the personal income is linked to the tourism industry.
- Approximately one third of participants also felt that benefits from Eifel National Park are mainly enjoyed by visitors.
- The park authority of the Eifel National Park is the organisation trusted the most by respondents compared to local, state and federal government.
- Overall, people expect a high level of compliance to environmental regulations from other users of the park. However, there are certain regulations that are followed less frequently with the most indicative example staying to the designated paths.
- The most negative impacts from COVID-19 regulations as seen by participants are the limits to socialising and the busier than usual cycle paths and walking trails that resulted from increased visitor numbers.
- In terms of positive impacts most people enjoyed working from home, not having to travel as much as before and spending more time with members of their household.

- Due to persisting international travel restrictions (due to COVID-19) some respondents expect permanently increased numbers of visitors to the Eifel National Park in the future, associated to negative impacts such as overcrowding, increased traffic and littering.
- In order to manage overcrowding and its impacts in the future, the most preferred tools were the use of a mobile app through which people can be alerted of overcrowding incidents and putting up informative signs encouraging responsible behaviour.

This report can also be accessed via the following website: <a href="https://www.fidelio.landecon.cam.ac.uk">https://www.fidelio.landecon.cam.ac.uk</a>

For further information please contact us at: fidelio@hermes.cam.ac.uk

#### 1. INTRODUCTION

Germany has one of the highest numbers of protected areas in Europe [1]. These protected landscapes and seascapes are protected under a mosaic of designations such as the Natura 2000 network, the international Ramsar wetlands convention and National regulations [2]. Apart from protecting biodiversity, protected areas have a crucial role in improving people's physical and mental health, promoting human wellbeing and protecting local social and cultural values. Recognising the importance of these protected areas for people, a research team from the University of Cambridge, funded by the European Research Council, is currently exploring how people's perceptions and attitudes towards 20 European protected areas have changed in the past years and the main benefits that people gain from these areas.

In this report, we present the results of a survey aiming to explore people's perceptions of the Eifel National Park, situated in the Southwest of the German state of North Rhine-Westphalia (NRW). The Eifel National Park is one of 16 designated National Parks in Germany. It was established in 2004 on predominantly publicly owned land, including 33 km² of former military training grounds, with less than 0.1% of its area being privately owned [3]. The latter fact contributed to low resistance towards and high acceptance of the foundation of the National Park as found in earlier studies of public acceptance carried out in 2006 and 2013 [3,4].

The survey aimed primarily to explore the level of awareness and public acceptance for Eifel National Park, positive and negative social impacts for communities living near or inside its boundaries, and the level of trust towards institutions linked to the management of the park. The survey was distributed over four weeks in October 2020, i.e. after the first wave of the COVID-19 pandemic in Europe and at the beginning of what is now considered the second wave.

The significant impacts of COVID-19-related pandemic control measures on work patterns, access to indoor spaces and public mobility during the partial economic shutdown of spring 2020 led to rising numbers of visitors to the Eifel National Park from nearby urban areas (Aachen, Cologne, Dusseldorf, the Ruhr District) as well as neighbouring Belgium and the Netherlands. Therefore, the research team also explored how COVID-19 has affected people's lives in Eifel National park and possible crowd management solutions for the future.

#### 2. BRIEF DESCRIPTION OF METHODS

A structured questionnaire was designed to explore the following topics:

- a) People's views on the Eifel National Park and the environment in general
- b) The level of public acceptance for the National Park
- c) The social impacts of Eifel National Park for locals and their perceptions on how these impacts are distributed between different users
- d) The impact that COVID-19 pandemic control measures had on everyday life of Icoals
- e) People's views on the 'new normal' due to COVID-19 and associated future tools to manage overcrowding incidents during the pandemic.
- f) The level of trust in administrative bodies
- g) Demographics of the sample

The questionnaire was developed and piloted in parallel with the development of similar questionnaires prepared by the research team for several other research areas in Europe exploring the same issues between February and October 2020 [e.g. 5,6]. The final questions included in the questionnaire were significantly influenced by previous research of the research team on protected areas [7,8] and a review of existing studies assessing social impacts of protected areas in Europe [9]. The Eifel National Park management authority was also consulted during the preparation of the questionnaire. The final questionnaire is available in German and English at the end of this document.

The research team sent ~6700 postcards to all households in 12 villages inside or near the Eifel National Park inviting them to participate in the survey. The sampling frame included villages and small towns that i) are surrounded by the National park (Erkensruhr, Wolfgarten), ii) border the National Park (Dreiborn, Einruhr, Morsbach) or iii) host one of the official access points, i.e. a designated National Park gate (Gemünd, Heimbach, Hergarten, Höfen. Nideggen, Rurberg). The town of Monschau was chosen as a popular cross-regional and international tourist hotspot that is potentially affected by the proximity to the national park. The survey was also advertised online via social media and informal networks with the help of the Eifel National Park Authority.

In total, 333 responses were received, giving a 5 % return. The total area of the Eifel National Park and the towns and villages included in the sampling frame are presented in Figure 2.1 and Table 1. The demographics of the sample are presented in Table 2.

Data analysis was conducted with SPSS 27.0 [10]. The researchers initially analysed the data with descriptive statistics. This was followed by a comparison of answers between different demographics groups using appropriate statistical methods such as non-parametric comparison of means and estimation of the Spearman correlation coefficient. The research team also explored relations between certain factors, such as perceived social impacts and trust in institutions, with the level of public acceptance.

Table 1. Participants in the final sample by village/town

Village/ town	Relation to NP	Total number of households	Participants in final samp	
			Frequency	%
Dreiborn	bordering	495	31	9.3
Einruhr	bordering	222	12	3.6
Erkensruhr	surrounded	51	5	1.5
Gemünd	National park gate, national park admin base	1746	82	24.6
Heimbach	National park gate	490	14	4.2
Hergarten	bordering, National Park guesthouse	207	2	0.6
Höfen	National park gate	815	27	8.1
Monschau	nearest cross-regional tourist hot spot	691	22	6.6
Morsbach	bordering, nearest to National Park gate visitor centre	150	4	1.2
Nideggen	National park gate	1270	38	11.4
Rurberg	National park gate	452	25	7.5
Wolfgarten	surrounded	99	10	3.0
Other	-	-	5	1.5
No answer	-	-	56	16.8
Total		6688	333	

**Table 2. Sample characteristics** 

Age category	%	Household Income (annual)	%
18-25	3.0	No income	2.1
26-35	6.9	up to 25,000 euro	8.7
36-45	8.7	25001- up to 50,000	24.3
46-55	16.8	51,000-70,000	13.5
56-65	24.3	over 70,000	13.5
66-70	10.8	Prefer not to say/no response	37.8
Over 70	11.1	Education	%
Prefer not to say/no response	17.7	Volks-/Hauptschule	6.6
Gender	%	Mittlere Reife	21.6
Male	49.2	Abitur (incl. university entry qualification)	12.3
Female	33.6	Fachhochschulabschluss (polytechnic)	21.6
Diverse	0.3	Hochschulabschluss (university)	19.2
Relationship with the Eifel area	%	Promotion (PhD)	1.2
Permanent resident	90.7	Works in the National Park	9.9
Owner of holiday home	4.8	Average years living in the area/owning 2 <sup>nd</sup> home	37.6 (mean)

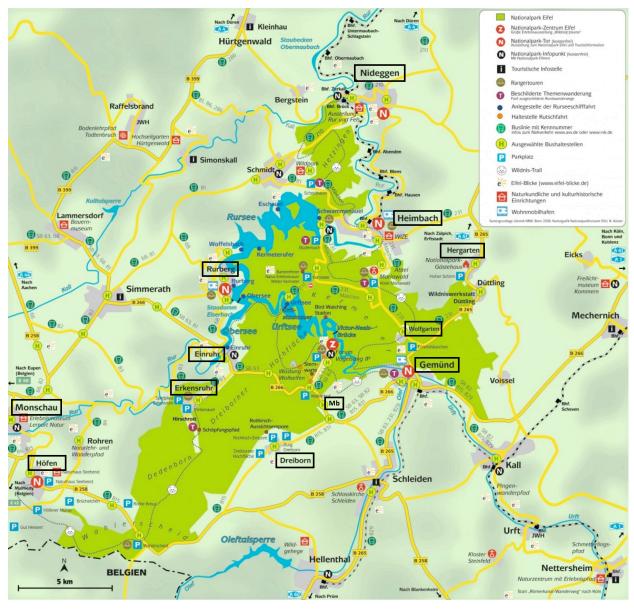


Figure 2.1. The Eifel National Park and the villages and towns sampled in this survey (in boxes, Mb = Morsbach; map modified from https://www.nationalpark-eifel.de).

#### 3. RESULTS

### 3.1. Knowledge about the Eifel National Park and sources of information

The vast majority (92.5%) of participants are aware that the area is a National Park, with only 7.5 % stating that they were not aware of the environmental protection associated to such a designation (Figure 3.1). Respondents were also asked how well they feel informed about the National Park. The majority of the respondents stated that they consider themselves well (40.2%) or rather well (40.5%) informed whereas 9.6% and 1.5% said that they were badly or very badly informed, respectively. No statistically significant differences were observed regarding the level of information between different age groups, educational level and gender categories.

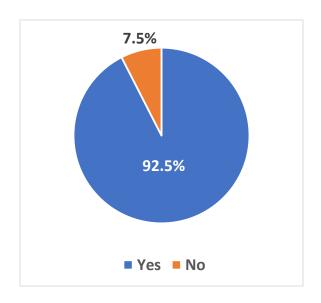


Figure 3.1. Knowledge of the protected status of nature in the Eifel National Park (%).

Regarding specific sources of information, visitor information at the five official park gates and the visitor centre (Vogelsang, see Fig. 2.1) are the most important (> 60%, Figure 3.2), followed by brochures and the website of the NP authority (>50%). Social media are of minor importance in this context (<20 %). We also checked whether different social groups (based on education, gender and age) use different sources of information for the National Park. One interesting finding was that a higher level of engagement on social media was observed for the age group 26-30 years old (54.5% of respondents stated that they are informed through social media), followed by the age groups 56-60 (27.5%), 21-25 and 31-35 (25%). The comparison reveals that, overall, younger people tend to engage more with social media, while this engagement falls sharply for people over 60 (less than 13.3% are informed about the park via social media; Chi-square test: 27.763, p<0.05). Notably, National Park events seem to be a more important source of information for women (40.4%) compared to men (26.8%; Chi square test: 5.91, p<0.05).

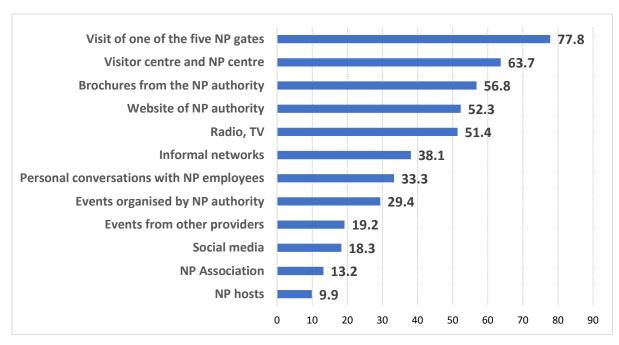


Figure 3.2. Main sources of information on the Eifel National Park (%).

#### 3.2. Attitudes towards the Eifel National Park

Respondents were asked if their perception of the Eifel National Park has changed since the park was established in 2004. 34.5% state that they have a more positive perception of the park and 46.5% state that their perception has remained the same. However, 11.4% stated that their perception is worse compared to 2004 (Figure 3.3).

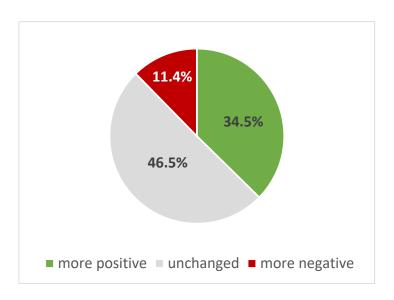


Figure 3.3. Attitude towards the Eifel National Park since its foundation in 2004 (%).

Participants were also asked a hypothetical question on how they would vote if they were to decide on the continuance of the Eifel National Park. On average, 82.9% stated that they would vote for the continuance of the Eifel National Park, while only 2.7% would vote against it (6.6.% would abstain from such a vote). In 2013, the same question was asked in a different survey [3] and 65.0% of respondents had stated that they would vote for continuance of the National Park and 19.6% against [3]. Although the current survey has a smaller sample size it

is interesting to note that among the villages which were sampled in 2013 and 2020, Dreiborn and Rurberg had the highest scores in both surveys, with over 80% acceptance of the sample stating a positive reply (Figure 3.4). Einruhr, on the other hand, scores lowest of all sampled locations.

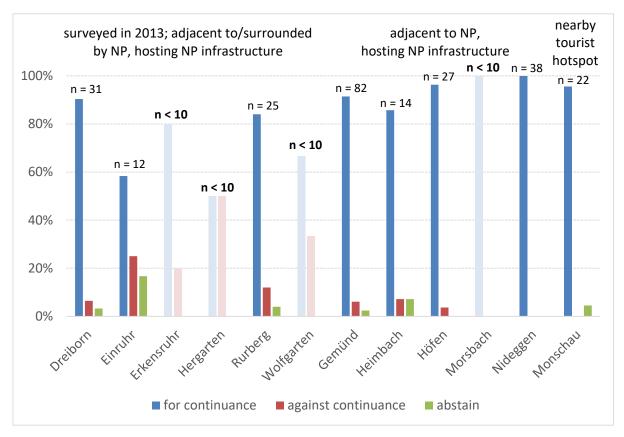


Figure 3.4. Proportions of participants answering the hypothetical question if the Eifel National Park should continue or discontinue to exist, given the chance to vote, per sampled village/town (%).

#### 3.3. Stakeholder groups in the Eifel National Park

A number of different users (16 stakeholders) were recorded in the study (Figure 3.5). The largest group were people involved with hiking followed by dog owners and members of Eifelverein.

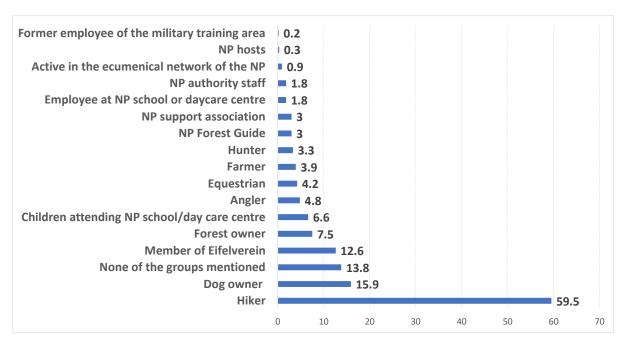


Figure 3.5. Stakeholder groups within the survey sample (%).

### 3.4. Exploring the social impacts of Eifel national park

#### 3.4.1. Social impacts of Eifel National Park before COVID-19

Overall, living inside or near the Eifel National Park has had a very positive impact for local communities in the past 5 years. The most positive impacts reported were related to the reputation of the region, connectedness to nature, tourism, environmental protection and recreation. Traffic, prices/costs are considered as negative impacts of the National Park (Figure 3.6). Respondents were also asked if they are personally affected by the National Park. More than half of the respondents (55.9%) claim that the park influences how they spend their spare time while 9.3% state it affects them professionally, e.g. as hosts of holiday homes. About a quarter of the locals (28.5%) do not see any impact on their personal lives. Negative impacts added explicitly by several respondents refer to restrictive regulations introduced alongside the establishment of the National Park such as restricted access to certain areas and the ban of foraging. Littering and overcrowding were also mentioned as negative impacts in addition to traffic.

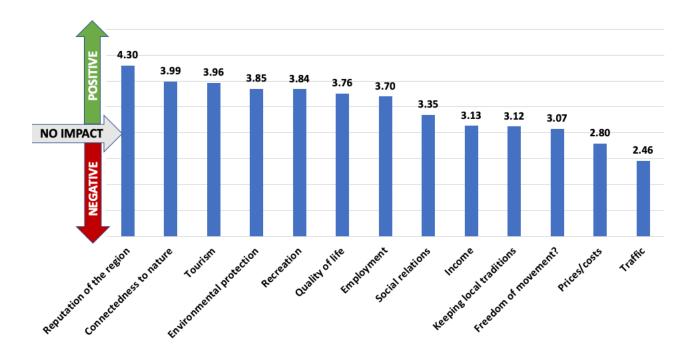


Figure 3.6. Perceived social impacts of the Eifel National Park before COVID-19

(mean values, scale 1-5: 1 representing negative impact, 5 positive impact, 3 no impact)

#### 3.4.2. Distribution of social impacts

Through the questionnaire perceptions of locals regarding the distribution of advantages (benefits) and disadvantages (costs) from the designation of the National Park were also explored. While 55.9% of respondents consider the benefits to be equally distributed between locals and visitors, a significant percentage (29.7%) feels that benefits are mainly enjoyed by visitors (Figure 3.7). The main negative impacts, i.e. costs, that locals perceive to result from the designation of the National Park are increased traffic and increased prices (Figure 3.6), which 52.9% of the respondents consider a burden on the locals rather than visitors (Figure 3.8). Only 6.9% of participants see these costs to affect visitors and locals equally. Notably, 30.3% of respondents do not associate any costs with the designation of the National Park.

Since costs and benefits were expected to impact locals to a certain extent, participants were also asked whether these impacts are equally distributed between locals. About half of the respondents (51.7%) thinks that costs and benefits are distributed equally among the locals while about a third (34.5%) suggests there to be inequalities.

Of the latter group, four in five respondents elaborated on why they think costs and benefits are not equally distributed. Many consider the variable impacts of costs and benefits to depend on where in the area a person lives and if their personal income is related to the tourism industry. Locals working in the tourism industry and in gastronomy, in particular, are identified as clear benefactors of the National Park. The costs are seen to be carried mostly by the residents of the immediate surroundings of the National Park or those living along the main roads to and around the park as they are directly affected by enhanced traffic (incl.

motorcycle noise), overcrowding at hot spots and associated limited parking spaces, all of which were mentioned frequently by the respondents in the survey. Several respondents pointed out how changes in user rights associated with the establishment of the National Park affected local stakeholders in different ways. In particular, that paths popular with the locals have been closed but also that harvesting of wood and mushrooms has been banned.

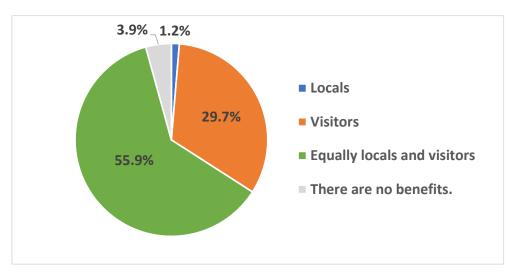


Figure 3.7. Distribution of benefits from the Eifel National Park between locals and visitors (%).

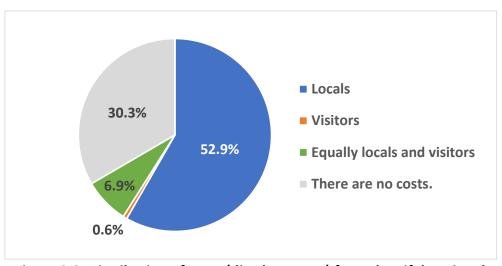


Figure 3.8. Distribution of costs (disadvantages) from the Eifel National Park between locals and visitors (%)

#### 3.4.3. Social impacts and public acceptance for Eifel National Park

Perceived social impacts are significantly correlated with the level of public acceptance for the National Park (Rho Spearman correlations coefficient, p<0.05). When exploring the answers that participants gave regarding the continuation of the National Park (divided between those who stated that would vote in favour or against the existence of the park) it is clear that people who identify more benefits from the existence of the National Park, such

as increased income and improved quality of life, tend to be more in favour of the park. On the contrary, those who stated that they would be against the continuation of the existence of the National Park identify less benefits (Figures 3.9 and 3.10).

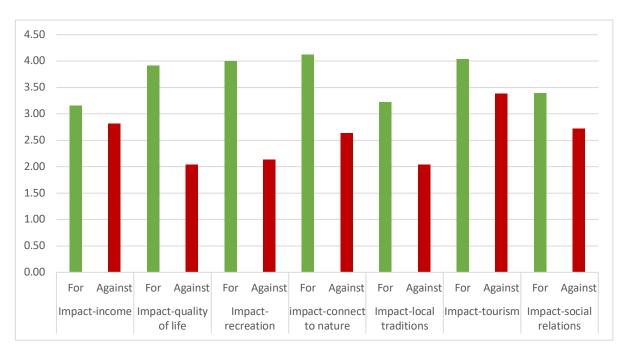


Figure 3.9. Mean scores of different impact categories for those who stated that they would vote in favour of or against the existence of the National Park

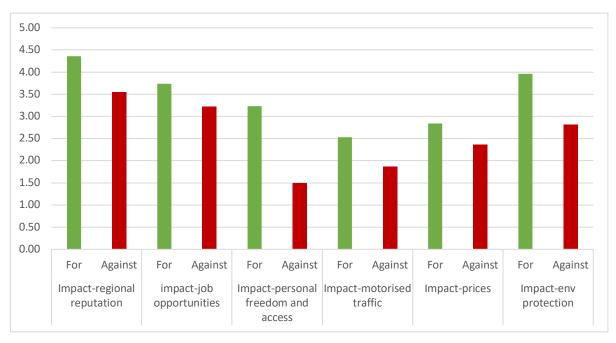


Figure 3.10. Mean scores of different impact categories for those who stated that they would vote in favour of or against the existence of the National Park

#### 3.5. Impact of COVID-19 restrictions

On 22 March 2020, new regulations came into force in Germany limiting people's movement and everyday activities in response to the increasing number of COVID-19 infections. However, protected areas such as the Eifel National Park remained generally open and accessible, only indoor spaces were closed and organised group activities cancelled. Notably, the number of visitors of the National Park increased significantly as many indoor options for alternative spare time activities were forced to close. Participants in the Eifel National Park survey were therefore asked about the impact of the wider COVID-19 restrictions on their everyday lives, in general, and in relation to the National Park. Our results reveal that there were several significant negative impacts following the introduction of COVID-19 regulations.

The most negative impact was the fact that people could not socialise as before. This is followed by negative impacts resulting from the enhanced number of visitors to the National Park, specifically, busier than usual cycle paths and walking trails (Figure 3.11). A number of respondents mentioned also increased traffic and noise, littering and wild camping. In terms of positive impacts most people enjoyed working from home, not having to travel as much as before and spending more time with members of their household (Figure 3.11). Further positive side effects added by the participants include reduced air traffic and clearer skies, relating to the fact that the area lies underneath major air traffic routes and approach paths to nearby international airports (e.g., Cologne/Bonn, Düsseldorf).

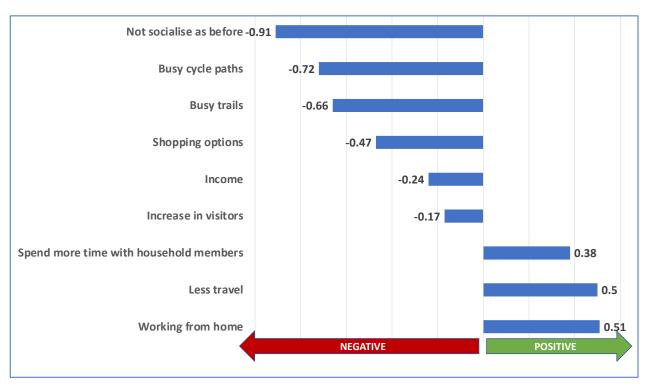


Figure 3.11. Impact of COVID-19 restrictions as perceived by locals. Mean score, scale ranging from -2 (most negative impact) to 2 (most positive impact).

Asked whether or not it was important to live in or near to the Eifel National Park during the implementation of COVID-19 regulations in spring 2020, two thirds of the participants who replied to this question (67%) considered this to be very important or important. Only about

one in ten (11.1%) said the vicinity of the National Park was not important to them. The participants were also asked to elucidate on their assessment. Many responses emphasised the importance of access to nature for physical and mental wellbeing, which was frequently contrasted with cramped and hectic conditions in urban environments. These conditions were seen as the cause for higher infection rates in cities compared to the rural environment where social distancing is easy to maintain. The increased visitor numbers the National Park experienced during the first peak of the pandemic were nevertheless seen as a problem in this context, with several respondents complaining about further overcrowding, noise, littering and a lack of discipline among visitors regarding social distancing rules. However, a number of respondents also acknowledge that local knowledge of the area allows them to avoid overcrowded hotspots.

The participants were also asked about their expectations on the persistence of COVID-19 restrictions over the next year and their impact on their personal lives, creating the so-called 'new norm'. With 200 responses, the return for an open-ended question was high, reflecting the importance of the topic. The vast majority of respondents expect social distancing measures to persist into next year and to affect social interaction at all aspects of their personal lives, including the work environment, cultural activities, sport events, shopping, gastronomy, travel, health services, and relations to friends and family. As a result of restricted international travel some respondents expect permanently increased numbers of visitors to the Eifel National Park, with negative impacts such as increased traffic and littering. On the other hand, the shift towards working from home is seen as a positive development, with benefits for the environment (less commuting) and personal wellbeing.

#### 3.6. Users' behaviour when in the National Park

73% of participants think that 'most people' or 'everyone' follow the rules and regulations for the protection of biodiversity in the Eifel National Park while 20.3% considered that only some people follow the rules. Looking at the frequency of following specific rules, we notice differences between the different regulations. The ban of smoking and open fires is followed always by 91.2% of participants and a ban to forage mushrooms, berries or flowers is always followed by 87.6%. However, there are other rules that are followed less frequently such as keeping to the designated paths, which is always followed only by 58.4% of participants in the survey (Figure 3.12).

Respondents were also asked how reasonable they consider these regulations. No excessive noise and no smoking/open flames were considered 'very reasonable' by over 60% of the participants. However, other regulations such as no foraging, collecting wood and veering off the paths were considered as very reasonable by less than 50% (Figure 3.13).

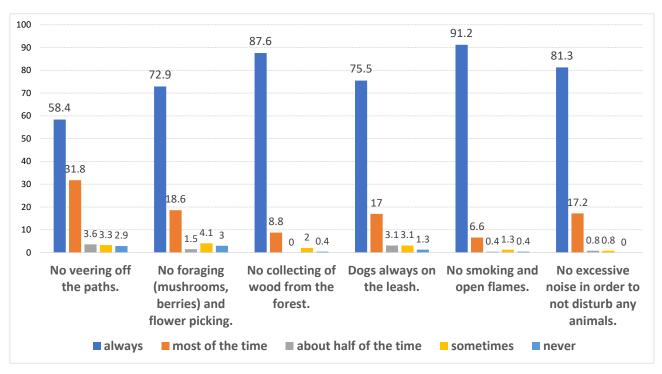


Figure 3.12. % of respondents who follow regulations in Eifel National Park

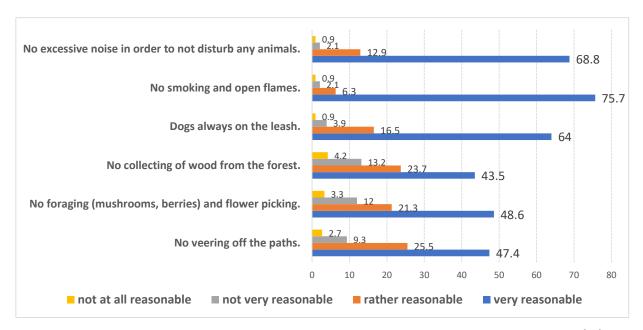
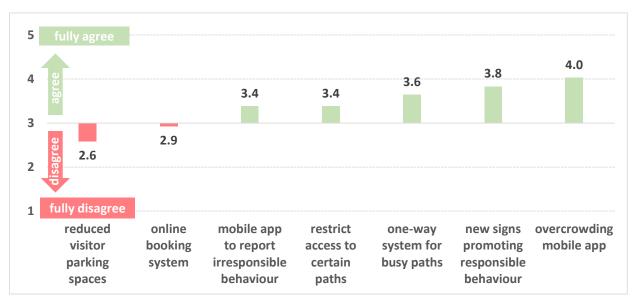


Figure 3.13. How reasonable are different regulations according to the respondents (%).

### 3.7. Potential policy tools to manage overcrowding and irresponsible behaviour

Preferences for a number of potential policy tools to manage overcrowding were also explored in the questionnaire. The most preferred tools were the use of a mobile app through which people can be alerted of overcrowding incidents and putting up informative signs encouraging responsible behaviour (Figure 3.14). The least preferred options were to reduce visitors parking spaces and to introduce an online booking system for parking.



**Figure 3.14. Preferences of managing overcrowding in the Eifel National Park** (mean values, 5-point Likert scale: 1 representing total disagreement and 5 total agreement).

#### 3.8. Levels of trust in public institutions

Finally, respondents were asked how much they trust a number of institutions involved directly or indirectly in the management of the National Park. This was measured on a 5-point Likert scale with 1 representing a low level of trust and 5 the highest. The average scores for each institution are presented in Figure 3.15. The highest level of trust was expressed for the Eifel National Park Authority. The NRW government and the federal government were not trusted as much by respondents (scores under 3 reveal a lower level of trust).

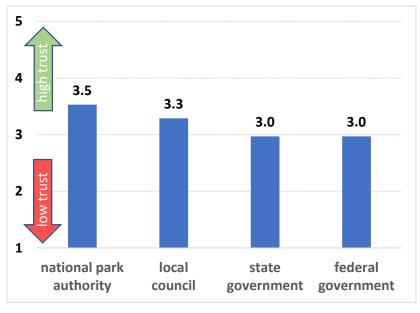


Figure 3.15. Level of trust in public institutions (mean scores, measured in a 5-point Likert scale, 1 representing low level of trust, 5 representing highest level of trust).

#### 3.8.1. Trust in institutions and public acceptance for the Eifel National park

The level of trust in institutions in the National Park administration, the local and state government was positively linked with the level of public acceptance for Eifel National Park. Those who stated that they would vote in favour of the existence of the Eifel National Park in a hypothetical vote, they tend to trust all three institutions more compared to those who stated that they would be against the continuation of the existence of the National Park (t-test, p< 0.05, Figure 3.16

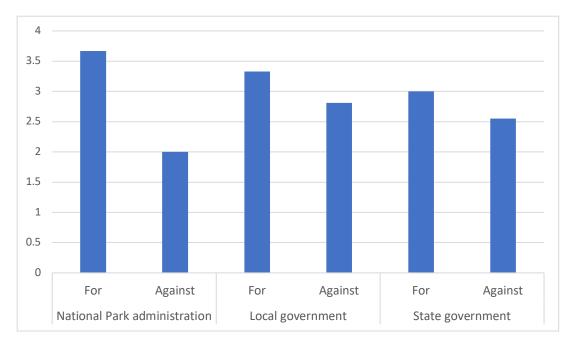


Figure 3.16. Trust in institutions for respondents being in favour and against of the continuation of the National Park (mean scores, - point Likert scale)

#### 4. CONCLUSIONS AND POLICY RECOMMENDATIONS

The aim of our research was to explore people's views on the Eifel National Park with a specific focus on public acceptance. The study also explored how people's lives have been affected by the COVID-19 pandemic and potential management solutions for the National Park for future overcrowding scenarios.

Overall, a high level of public acceptance for the Eifel National Park was recorded amongst participants. When comparing this result with previous studies there is evidence that the level of public acceptance for the National Park has overall increased in the past years. These positive perceptions are possibly linked to the numerous benefits provided by the park to local communities which were identified in this study. The Eifel National Park significantly benefits local residents in a number of aspects such as the reputation of the region, people's connectedness to nature and tourism as an important sector of the local economy. However, the latter is also associated to certain negative impacts mentioned by participants such as traffic and increased prices, with traffic being a particular issue in connection with the recent rise in visitor numbers during the COVID-19 pandemic.

Regarding the different levels of support for the National Park between locations no clear explanation emerged from our study explaining these differences. However, during the first wave of the 2020 COVID-pandemic, specific locations such as Einruhr, were likely overwhelmed by the increased number of visitors since it is relatively small, situated at a busy road for both visitors to the National Park and through traffic, and it provides limited parking spaces. This may have led to a lower level of public acceptance when the questionnaire was distributed. By contrast, other villages such as Rurberg, are bypassed by a main road by some distance and an ample number of parking spaces is available at the outskirts of the village purposefully veering off the main road to visit the National Park or the Rur lake. Dreiborn, finally, has benefitted to a great extent from the foundation of the National Park when the adjacent military training grounds were turned into accessible and particularly diverse nature.

Regarding the impacts of the National Park, almost a third of participants considered benefits and costs from the existence of the park not to be equally distributed amongst local stakeholders. For example, it was mentioned by some participants that people benefit from the park in different ways, depending on where in the area they live and if their income is related to the tourism industry. Almost a third of participants also believe that visitors gain more from the Eifel National Park than the locals. These findings reveal imbalances in social equity and the distribution of positive and negative impacts of the park across different user groups. Attenuating these imbalances will largely depend on local decision making and planning with regard to crowd management and, in particular, traffic regulation.

Perceptions of the Eifel National Park are expected to be influenced by the level and type of information that reaches locals. Our study showed that there is a number of ways through which information on the National Park reaches local communities. However, the use of certain sources could be increased such as social media and events organised both by the park authority and other providers. Increasing the flow of information can also assist in promoting responsible environmental behaviour from users of the National Park.

The level and flow of information is also closely linked to the level of trust in institutions. Higher levels of trust towards organisations is often accompanied by a denser flow of information through local social networks in protected areas [11]. In our survey, the park authority of the Eifel National Park is the organisation most trusted by participants compared to local authorities and the federal and state governments. This level of trust is also positively linked with the levels of public acceptance. However, for all four organisations the level of trust could be increased as it was close to the average value in the measurement scale. Trust can be assisted by increasing interaction between the public and members of the park authority as well as events emphasising the important role of the National Park for people's wellbeing.

Regarding responsible environmental behaviour when visiting the National Park our results show that people generally tend to comply with National Park rules and regulations. However, it appears that some respondents do not follow specific regulations very strictly such as staying on the designated paths or the ban of foraging. Responses suggest this to result from local habits established before the foundation of the National Park. This may also be linked to a lack of information regarding the negative environmental impacts of such actions. Thus, a new campaign reminding people of the basic rules when they are in the National Park might be useful in boosting responsible environmental behaviour. This is even more important in the coming months, considering that so far during the COVID-19 pandemic the National Park experienced an increase of users who possibly were new and unaware of key regulations and recommendations.

Finally, regarding the impact of the COVID-19 pandemic, the responses to our survey corroborate the fundamental importance of accessible nature for the physical and mental wellbeing of the population, providing a clear instruction to authorities to facilitate such access during lockdown periods. However, the impact of increased visitor numbers on local communities, which has been observed in several European protected areas in the past 6 months [12], will have to be considered as enhanced traffic and littering may dampen public acceptance levels while overcrowding counteracts the social distancing measures. Improved crowd management at visitor hotspots is thus required, with supportive measures such as an overcrowding mobile app, signs encouraging responsible behaviour or a one-way system of paths being the preferred options by the participants in this survey rather than suppressive measures such as a reduction of parking spaces.

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#### REFERENCES

- [1] European Environment Agency. 2017. Data visualisation: Nationally designated areas by country and International Union for Conservation of Nature management category for major ecosystem types. Available at: <a href="https://www.eea.europa.eu/data-and-maps/daviz/nationally-designated-areas-by-iucn#tab-">https://www.eea.europa.eu/data-and-maps/daviz/nationally-designated-areas-by-iucn#tab-</a>
- <u>chart 4 filters=%7B%22rowFilters%22%3A%7B%7D%3B%22columnFilters%22%3A%7B%22p</u> <u>re config major ecosystem type%22%3A%5B%22Terrestrial%20ecosystem%22%5D%7D%7D</u>
- [2] EEA (European Environment Agency). *Protected Areas in European Overview*; Report no. 5; EEA: Copenhagen, Denmark, 2012; p. 136. Available online: https://www.eea.europa.eu/publications/protected-areas-in-europe-2012 (accessed on 21 September 2020).
- [3] Hillebrand, M. and Erdmann, K.-H. (2015): Die Entwicklung der Akzeptanz des Nationalparks Eifel bei der lokalen Bevölkerung Eine Untersuchung zehn Jahre nach dessen Ausweisung. BfN-Skripten 402, Bundesamt für Naturschutz, Bonn.
- [4] Sieberath, J. (2007): Die Akzeptanz des Nationalparks Eifel bei der lokalen Bevölkerung Eine empirische Untersuchung zur Verankerung eines Großschutzgebietes in der Region. BfN-Skripten 206, 121 pp., Bundesamt für Naturschutz, Bonn.
- [5] Jones N.; McGinlay J. *The Impact of COVID-19 Restrictions on Local Communities of Peak District National Park and Management Options during the Pandemic*; University of Cambridge/Project FIDELIO: Cambridge, UK 2020; p. 20. Available online: <a href="https://www.fidelio.landecon.cam.ac.uk/publications">https://www.fidelio.landecon.cam.ac.uk/publications</a> (accessed on 19 October 2020).
- [6] Jones N.; McGinlay J.; Holtvoeth J.; Gkoumas V.; Malesios C.; Kontoleon A. *Snowdonia National Park: Exploring Views of Local Communities Regarding the Social Impacts of the National Park, Changes Due To COVID-19 on Everyday Life and Potential Management Options during the Pandemic*; University of Cambridge/Project FIDELIO: Cambridge, UK 2020; p. 13. Available online: <a href="https://www.fidelio.landecon.cam.ac.uk/publications">https://www.fidelio.landecon.cam.ac.uk/publications</a> (accessed on 19 October 2020).
- [7] Jones N., Malesios C., Kantartzis A., Dimitrakopoulos P.G. (2020) The role of location and social impacts of Protected Areas on subjective wellbeing. *Environmental Research Letters*, 15, 114030.

- [8] Jones N., McGinlay J., Dimitrakopoulos PG (2017) Improving social impact assessment of protected areas: A review of the literature and directions for future research. *Environmental Impact Assessment Review* 64, 1-7
- [9] Jones N., Graziano M., Dimitrakopoulos P.G. (2020) Social impacts of European Protected areas and policy recommendations. *Environmental Science and Policy*, 112, 134-140.
- [10] IBM SPSS Statistics for Mac, version 27 (IBM Corp., Armonk, N.Y., USA).
- [11] Jones N., Clark J.R.A., Panteli M., Proikaki M., Dimitrakopoulos P.G. (2012). Local social capital and the acceptance of Protected Area policies: An empirical study of two Ramsar river delta ecosystems in northern Greece. *Journal of Environmental Management*, 96 (1), 55-63.
- [12] McGinlay J., Gkoumas V., Holtvoeth J., Fuertes R.F.A., Bazhenova E., Benzoni A., Botsch K., Martel C.C., Carillo Sánchez C., Cervera I., Chaminade G., Doerstel J., Fagundo García C.J., Jones A., Lammertz M., Lotman K., Odar M., Pastor T., Ritchie C., Santi S., Smolej M., Soriano F., Waterman H., Zwijacz-Kozica T., Kontoleon A., Dimitrakopoulos P.G., Jones N. (2020) The impact of COVID-19 on the management of Protected Areas and policy implications. *Forests*. 11 (11), 1214, Available here: <a href="https://www.mdpi.com/1999-4907/11/11/1214/html">https://www.mdpi.com/1999-4907/11/11/1214/html</a>

### **APPENDIX 1: Structured questionnaire (German)**

**IHRE MEINUNG IST GEFRAGT!** 

Willkommen zu unserer online-Umfrage zu Natur und Umwelt, dem Betrieb des Nationalparks Eifel und Corona!

#### Worum geht es?

Mittels des folgenden Fragebogens würden wir von Ihnen als Anwohner/in des Nationalparks Eifel gerne Folgendes erfahren:

- Ihre persönlichen Ansichten zum Nationalpark und zu Natur und Umwelt allgemein,
- die Auswirkungen der Corona-Pandemie auf Ihren Alltag und
- Ihre Meinung zu Varianten des Parkbetriebs unter Pandemie-Bedingungen.

Die Befragung ist eine Zusammenarbeit des Nationalparks Eifel und FIDELIO, eines durch den Europäischen Forschungsrat (ERC) geförderten Projektes der Universität Cambridge (GB) zu Auswirkungen und Einflüssen geschützter Gebiete auf ihre Anwohner in mehreren Ländern Europas.

**Worum wir Sie bitten.** Wir würden uns sehr freuen, wenn Sie den Fragebogen ausfüllen könnten. Dies sollte nicht mehr als 20 Minuten Ihrer Zeit in Anspruch nehmen.

**Ist die Befragung anonym?** Ja, die Datenerfassung erfolgt anonym. Für die Befragung gilt die Verordnung 2016/679 des Europäischen Parlaments und des Rates vom 27. April 2016 zum Schutz natürlicher Personen bei der Verarbeitung personenbezogener Daten. Das Projekt wurde von der Ethikkommission der Universität Cambridge gebilligt.

**Können Sie Ihre Antworten zurückziehen?** Da die Befragung anonym erfolgt, ist eine Identifizierung und Rücknahme Ihrer Antworten zu einem späteren Zeitpunkt nicht möglich.

Worin besteht der Nutzen der Umfrage? Das Projekt dient der Verbesserung der Informationsgrundlage bei zukünftigen Entscheidungen zum Betrieb des Nationalparks Eifel

sowie anderer Nationalparks in Deutschland und Europa. Für weitere informationen stehen wir Ihnen gerne zur Verfügung unter der Adresse: Fidelio@hermes.cam.ac.uk.

#### Sie möchten sich an der Umfrage beteiligen?

Mit "Ja" bestätigen Sie zudem, dass

- 1) Sie volljährig sind,
- 2) Sie den Zweck Ihres Beitrages zum Projekt verstanden haben und Ihre Fragen dazu zufriedenstellend beantwortet sind (anderenfalls kontaktieren Sie bitte das FIDELIO-Team für weitere Informationen),
- 3) Sie die obigen Informationen gelesen haben und der Teilnahme am Forschungsprojekt zustimmen,
- 4) Sie verstehen, wie die gesammelten Antworten verwendet werden,
- 5) Sie wissen, dass Sie uns jederzeit Fragen zum Projekt per e-Mail stellen können,
- 6) Sie wissen, dass Ihre Antworten anonym verarbeitet werden,
- 7) Sie der Auswertung der von Ihren beigetragenen Daten ausschließlich durch das Forscherteam zutimmen und
- 8) Sie mit der Verarbeitung dieser Daten zu den oben beschriebenen Zwecken einverstanden sind.

A3 Wussten Sie, dass der Nationalpark Eifel ein geschütztes Gebiet ist? Ja

Nein

Wenn Sie "Nein" geantwortet haben, interessiert Sie vielleicht folgende Kurzinformation:

"Wald Wasser Wildnis" lautet das Motto des ersten Nationalparks Nordrhein-Westfalens. Erstmals werden hier Laubmischwälder großflächig geschützt, die auf nährstoffarmen Böden wachsen und durch ein atlantisches Klima beeinflusst sind. Das 110 Quadratkilometer große Schutzgebiet wurde 2004 gegründet und erstreckt sich von Monschau-Höfen bis Zerkall sowie von Einruhr bis Gemünd.

### A4 Hat sich Ihre persönliche Einstellung zum Nationalpark seit seiner Gründung im Jahr 2004 verändert?

<ul> <li>Ja, meine Einstellung</li> </ul>	<ul> <li>Ja, meine Einstellung</li> </ul>	<ul> <li>Nein, meine Einstellung</li> </ul>
zum Nationalpark Eifel	zum Nationalpark Eifel	zum Nationalpark Eifel
ist heute <u>positiver</u> .	ist heute <u>negativer.</u>	hat sich nicht verändert.

#### A5 Wie gut fühlen Sie sich über den Nationalpark Eifel informiert?

○ gut	○ eher gut	<ul><li>eher schlecht</li></ul>	<ul><li>schlecht</li></ul>
-------	------------	---------------------------------	----------------------------

# A6 Welche Möglichkeiten haben Sie bisher genutzt, um sich zum Thema Nationalpark Eifel zu informieren? (Mehrfachnennungen möglich)

<ul> <li>Besuch eines der fünf Nationalpark- Tore (Heimbach, Gemünd, Rurberg, Höfen, Nideggen) oder der 15 Nationalpark-Infopunkte</li> </ul>	<ul> <li>Veranstaltungen anderer Anbieter (z.B. geführte Wanderungen)</li> </ul>
<ul> <li>Besucherzentrum Vogelsang/</li> <li>Nationalpark-Zentrum Eifel</li> </ul>	Radio-/Fernsehbeiträge
O Broschüren der Nationalparkverwaltung	<ul> <li>persönliches Gespräch mit</li> <li>Nationalparkmitarbeitern (z.B. Ranger)</li> </ul>
<ul> <li>Internetseite des Nationalparks Eifel (www.nationalpark-eifel.de)</li> </ul>	○ Freunde, Bekannte
<ul> <li>Förderverein Nationalpark Eifel (Internetseite, Broschüren, Veranstaltungen)</li> </ul>	Nationalpark-Gastgeber
<ul> <li>Veranstaltungen des Nationalparks (z.B. Rangertouren, Vorträge, Waldführertouren)</li> </ul>	<ul> <li>soziale Medien (Instagram, Facebook etc.)</li> </ul>

### A7 Stellen Sie sich vor, Sie könnten kommenden Sonntag über den Fortbestand des Nationalparks Eifel entscheiden. Würden Sie ...

- O ... <u>für</u> den Fortbestand des Nationalparks Eifel stimmen?
- O ... gegen den Fortbestand des Nationalparks Eifel stimmen?
- O ... sich enthalten?

# A8 Hatte der Nationalpark in den fünf Jahren <u>vor Beginn der Corona-Pandemie</u> einen positiven oder negativen Einfluss auf die folgenden Aspekte?

	negativ	eher negativ	keinen Einfluss	eher positiv	positiv
Ihr verfügbares Einkommen	0	0	0	0	0
Ihre Lebensqualität	0	0	0	0	0
Ihre Freizeitaktivitäten (z.B. wandern, radfahren)	0	0	0	0	0
Ihre Naturverbundenheit	0	0	0	0	0
die Bewahrung örtlicher Traditionen	0	0	0	0	0
den Tourismus	0	0	0	0	0
Sozialkontakte (z.B.neue Leute kennenlernen oder das nachbarschaftliche Miteinander)	0	0	0	0	0
das Ansehen der Region	0	0	0	0	0
Arbeitsplätze	0	0	0	0	0
die persönliche Bewegungsfreiheit	0	0	0	0	0
den motorisierten Verkehr	0	0	0	0	0
Preise/Kosten	0	0	0	0	0
den Umweltschutz	0	0	0	0	0
Sonstiges (ggf. bitte ergänzen):	0	0	0	0	0

# A9 Wem kommen Ihrer Meinung nach die <u>Vorteile</u> des Nationalparks Eifel am meisten zugute?

- O den Einheimischen
- O den Touristen
- O den Einheimischen und den Touristen in gleichem Maße
- O Der Nationalpark hat keine Vorteile.

A10 Wer hat Ih tragen?	rer Meinung nach c	lie <u>Nacht</u>	<u>eile</u> des Nat	ionalparks E	ifel am sta	ärksten zu	
O die Einh	eimischen						
O die Tou	risten						
O die Einh	eimischen und die 1	Γouristen	in gleichem	Maße			
O Der Nat	ionalpark hat keine	Nachteile	e.				
A11 Betreffen	Vor- und Nachteile	des Natio	onalparks al	le Einheimis	chen in gle	eichem Maße	?
○ Ja.	O Nein.	Falls 'N	ein', bitte kı	urz erläutern	:		
A12 Betrifft Sie	die Existenz des Na	ationalpa	rks persönl	ich?			<b>-</b>
○ Ja, berufli	○ Ja, in ch meiner Freizeit		Ja, sonstige	es: 	k	lein, hat einerlei luswirkungen	
			_			J	
A13 Auf einer S	Skala von 1 bis 7, wi Stimme überhaupt nicht zu.	e sehr st	immen Sie d	der folgende Weder, noch.	n Aussage	zu:	Stimme voll zu.
	1	2	3	4	5	6	7
Der Nationalp Eifel bedeut mir sehr vie	et	$\circ$	$\circ$	0	$\circ$	$\circ$	0

B1 Die im März 2020 zur Eindämmung der Corona-Pandemie ergriffenen Maßnahmen hatten bzw. haben z. T. nach wie vor erheblichen Einfluss auf das tägliche Leben. Wie bewerten Sie einige der Effekte dieser Maßnahmen?

(Sie können den folgenden Beispielen gerne weitere hinzufügen.)

	negativ	eher negativ	keinen Effekt	eher positiv	positiv	betrifft/betra mich nicht
Auswirkungen auf Ihr verfügbares Einkommen	0	0	0	0	0	0
veränderte Einkaufsmöglichkeiten	0	0	0	0	0	0

mehr Besucher in der Natur	0	0	0	0	0	0
vollere Wanderwege	0	0	0	0	0	0
vollere Radwege	0	0	0	0	0	0
Arbeiten von zuhause	0	0	0	0	0	0
weniger Treffen mit Freunden oder Verwandten	0	0	0	0	0	0
mehr Zeit mit der Familie/den Mitbewohnern	0	0	0	0	0	0
weniger Fahrten, z.B. mit dem Auto	0	0	0	0	0	0
sonstiger Effekt:	0	0	0	0	0	0
sonstiger Effekt:	0	0	0	0	0	0

# B2 Mit Blick auf die Einschränkungen im Alltag zur Eindämmung der Corona-Pandemie, wie wichtig war es für Sie, im Nationalpark Eifel oder seiner Nähe zu wohnen?

unwichtig	nicht sehr	ein wenig	wichtig	sehr wichtig
	wichtig	wichtig		

#### **B3 Bitte erläutern Sie Ihre Antwort zu Frage B2 kurz:**

B4 Es ist möglich, dass das tägliche Leben noch lange nach dem Höhepunkt der Corona-Pandemie nicht mehr so sein wird, wie zuvor, und sich eine 'neue Normalität' einstellt. Welche Bereiche und Aspekte Ihres Alltags könnten Ihrer Einschätzung nach in einem Jahr immer noch anders sein als vor der Pandemie?

B5 Im Folgenden haben wir einige Ideen aufgelistet, wie an Besucherbrennpunkten wie dem "Barrierefreien Naturerlebnisraum Wilder Kermeter", der Wüstung Wollseifen, dem Nationalpark-Zentrum Eifel oder den Nationalpark-Toren während eines Corona-

# Ausbruchs eine zu hohe Besurcherdichte vermieden werden könnte. Was halten Sie von diesen Vorschlägen?

	Stimme überhaupt nicht zu.	Stimme eher nicht zu.	Weder, noch.	Stimme eher zu.	Stimme voll zu.	Ich weiß nicht
Reduzierung der Besucherparkplätze	0	0	0	0	0	0
Online Buchungssystem für Parkplätze (Besucher benötigen im Voraus bezahlten Parkschein, Zahl der Parkscheine ist begrenzt)	0	0	0	0	0	0
Eine App fürs Handy warnt Besucher vor Überfüllung an bestimmten Orten	0	0	$\circ$	0	0	0
Eine App fürs Handy ermöglicht Besuchern unverantwortliches Verhalten und/oder Überfüllung zu melden.	0	0	0	0	0	0
Hinweisschilder, die Besucher auffordern, Abstand zu anderen zu halten ohne dabei die Natur zu stören.	0	0	0	0	0	0
Eingeschränkte Nutzung von Wegen, auf denen eine zu hohe Besucherdichte auftreten könnte.	0	0	0	0	0	0
Ein Einbahnsystem in Bereichen mit hohem Besucheraufkommen	0	0	$\circ$	$\circ$	0	$\circ$

C1 Zum Schutz der Natur ist verantwortungsvolles Verhalten beim Besuch des Nationalparks wichtig. Für wie sinnvoll halten Sie die folgenden Regeln zu verantwortungsvollem Verhalten im Nationalpark?

	Wie sinnvoll	ist die Regel I	hrer Meinur	ng nach?
	sehr sinnvoll	eher sinnvoll	wenig sinnvoll	gar nicht sinnvoll
Die Wege dürfen nicht verlassen werden.	0	0	0	0
Blumen, Pilze und Beeren dürfen nicht gepflückt werden.	0	0	0	0
Es ist nicht gestattet, im Wald Holz zu sammeln.	0	0	0	0
Hunde müssen an der Leine bleiben.	0	0	0	0
Rauchen und offenes Feuer sind verboten.	0	0	0	0
Übermäßiger Lärm ist zu vermeiden, um keine Tiere zu erschrecken.	0	0	0	0

C2 Zum Schutz der Natur ist verantwortungsvolles Verhalten beim Besuch des Nationalparks wichtig. Wie oft befolgen Sie die folgenden Regeln und Empfehlungen, während Sie sich <u>innerhalb des Nationalparks</u> aufhalten:

	immer	meistens	etwa zur Hälfte	gelegentlich	nie	betrifft mich nicht
Die Wege dürfen nicht verlassen werden.	0	0	0	0	0	0
Blumen, Pilze und Beeren dürfen nicht gepflückt werden.	0	0	0	0	0	0
Es ist nicht gestattet, im Wald Holz zu sammeln.	0	0	0	0	0	0
Hunde müssen an der Leine bleiben.	0	0	0	0	0	0
Rauchen und offenes Feuer sind verboten.	0	0	0	0	0	0
Übermäßiger Lärm ist zu vermeiden, um keine Tiere zu erschrecken.	0	0	0	0	0	0

C3 Soweit es Ihnen bekannt ist: Befolgen die meisten Menschen (Einheimische und Besucher) die gegenwärtigen Regeln und Empfehlungen des Nationalparks Eifel? (z.B. leinen ihre Hunde an, bleiben auf den ausgewiesenen Wegen)

Niemand befolgt die Regeln.
O Nur wenige.
O Die meisten.
O Alle befolgen die Regeln.
Keine Angabe / weiß nicht.

### C4 Wie sehr stimmen Sie den folgenden Aussagen zu?

	Stimme überhaupt nicht zu.	Stimme eher nicht zu.	Weder, noch	Stimme eher zu.	Stimme voll zu.	Keine Angabe
Es fällt mir leicht, mich im Nationalpark Eifel verantwortungsvoll zu verhalten.	0	0	0	0	0	0
Menschen, die mir wichtig sind, erwarten von mir ein umweltbewusstes Verhalten.	0	$\circ$	0	0	0	0
Mir ist es wichtig, dass sich die Parkbesucher umweltbewusst verhalten.	0	0	0	0	0	0

D1 Als nächstes haben wir ein paar Fragen zu Ihren persönlichen Werten: Wie wichtig sind Ihnen die folgenden Werte?

	überhaupt nicht wichtig	nicht sehr wichtig	einigermaße n wichtig	sehr wichtig	extrem wichtig
Respekt vor der Umwelt: in Eintracht mit anderen Arten leben	0	0	0	0	0
Eintracht mit der Natur: sich an die Natur anpassen	0	0	$\circ$	0	0
Helfen: sich zum Wohle anderer engagieren	0	0	$\circ$	0	0
Gleichheit: gleiche Chancen für Alle	0	$\circ$	$\circ$	$\circ$	$\circ$
Einfluss: andere Menschen und Ereignisse beeinflussen können	0	0	0	0	0
Wohlstand: Besitz materieller Güter, Geld	0	0	0	0	0
D2 Kann man Ihrer Me genug sein?	inung nach den i	meisten Leute	n vertrauen ode	r gar nicht vo	orsichtig
O 1-Man kann nicl	ht vorsichtig geni	ug sein.			
O 2					
Оз					
<b>0</b> 4					
O 5					
O 6					
O 7-Den meisten l	∟euten kann man	vertrauen.			
O Ich weiß nicht.					

	1	den folgend					
		überhaupt nicht	wenig	einigermaßen	sehr	vollstens	Ich weiß nicht.
Nationalparkve	erwaltung	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	$\bigcirc$
Gemeindever	waltung	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Landesregieru	ing NRW	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Bundesregi	erung	$\circ$	$\bigcirc$	$\circ$	$\circ$	$\circ$	$\circ$
andschaftspfle.	ge tätig?			isation oder beru		er	
andschaftspfle				isation oder beru Ete genauer ange		er	
andschaftspfle  O Nein.	ge tätig?	Fal — s <b>7, wie zufr</b> icht den.	ls 'Ja', bit		ben:		sehr zufriede 7

E0 Im abschließenden Teil würden wir gerne zu statistischen Zwecken einige persönliche Daten erfragen. Wir garantieren, dass diese Daten zugangsgesichert gespeichert und nach Abschluss des Projektes vernichtet werden. Persönliche Informationen werden nicht an Dritte weitergegeben.

E1 Geschlecht
O männlich
O weiblich
Odivers
E2 Altersgruppe
▼ 18-25 keine Angabe
E3 Welches ist Ihr höchster Bildungsabschluss?
O Volks-/ Hauptschule
O Mittlere Reife
OAbitur
O Fachhochschulabschluss
O Hochschulabschluss
O Promotion
E4 Wie hoch ist Ihr jährliches Haushaltsbruttoeinkommen?
O kein Einkommen
O bis zu 25.000 €
○ 25.000 - 50.000 €
○ 50.000 - 70.000 €
○ über 70.000 €
O keine Angabe

### **E5 Arbeiten Sie oder Mitglieder Ihrer Familie in der Tourismusbranche?**

Ja, in einem Hotel oder	Ja, in der Vermietung	Ja, in anderen	Nein.
Restaurant.	von Ferienzimmern/	touristischen	
	Ferienwohnungen.	Dienstleistungen.	

# E6 **Gehören Sie einer der folgenden Interessengruppen an?** (bitte alle zutreffenden ankreuzen)

⊙ Hundebesitze r	o Wanderer	○ Angler	○ Reiter
⊙Jäger	○ Landwirte	○ Waldbesitzer	○ Nationalpark- Gastgeber
<ul><li>Mitglied des Eifelvereins</li></ul>	<ul><li>Mitglied des</li><li>Fördervereins</li><li>Nationalpark</li><li>Eifel</li></ul>	o ehemalige Zivilbeschäftigte des Truppenübungsplatze s Vogelsang	<ul><li>Mitarbeiter der</li><li>Nationalparkverwaltun</li><li>g</li></ul>
○ Nationalpark- Waldführer	<ul><li>Aktive im "Ökumenische n Netzwerk Kirche im Nationalpark Eifel"</li></ul>	○ Beschäftige an einer Nationalpark-Schule oder -Kita	<ul> <li>Mein Kind/meine         Kinder besuchen eine         Nationalpark-Schule         oder -Kita</li> </ul>
o keine der genannten Gruppen			

E7 WICHTIG: In welcher Gemeinde leben Sie?	

## **APPENDIX 2: Structured questionnaire (English)**

A1 Please explain you (tick all that apply)		nship with Eife	l Natio	nal Park.			
O I live inside or	near the	boundaries of	the par	k perman	ently.		
I own a holiday regularly.	y home ir	nside or near th	ne boun	daries of	the par	k and stay here	
O I run a busines	s or work	k here.					
O Prefer not to s	ay.						
A2 For how long have	you live	d or regularly v	visited 1	this area?			
A3 <b>Did you know that</b> If you answered with			-			Yes No	
A4 Did your personal in 2004?	attitude	towards the Ei	ifel Nati	ional Park	chang	e since its foundation	
attitude towards Eifel National Par	Yes, my personal O Yes, my personal attitude towards the Eifel National Park is now more positive. O Yes, my personal attitude towards the now more		owards the to onal Park is Na		to\ Na	No, my personal attitude towards the Eifel National Park did not change.	
A5 How well informed	d do you	feel regarding	the Eife	el Nationa	al Parki	?	
o well	0	rather well	0	rather p	oorly	O poorly	
	<u>-</u>						

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A6 Which sources of information on the Eifel National Park have you so far used?

(Tick all that apply)

<ul> <li>visit of one of the five gates to the national park (Heimbach, Gemuend, Rurberg, Hoefen, Nideggen) or one of the 15 info points</li> </ul>	<ul> <li>events organised by other operators (e.g., guided tours)</li> </ul>
<ul> <li>visitor centre and national park centre 'Vogelsang'</li> </ul>	o radio, television
<ul> <li>brochures by the national park administration</li> </ul>	<ul> <li>conversation with national park personnel (e.g. ranger)</li> </ul>
<ul> <li>website of the Eifel National Park (www.nationalpark-eifel.de)</li> </ul>	o friends, people you know
<ul> <li>National Park Association (brochures, website, events)</li> </ul>	National park hosts
<ul> <li>events organised by the national park (e.g., ranger tours, public talks, ranger- guided tours)</li> </ul>	o social media (Instagram, Facebook etc.)

# A7 Imagine you could now decide on the continuance of the Eifel National Park. Would you...

- O ... vote <u>for</u> the continuance of the Eifel National Park?
- O ... vote <u>against</u> the continuance of the Eifel National Park?
- O ... abstain?

A8 Before the Coronavirus epidemic began, which impacts did the National Park have regarding the following issues in the past five years (positively or negatively)?

	negative	rather negative	no impact	rather positive	positive
your personal disposable income	0	0	0	0	0
your quality of life	0	0	0	0	0
your involvement in recreational activities (e.g. walking, cycling)	0	0	0	0	0
your feeling of connectedness to nature	0	0	0	0	0
protecting local traditions	0	0	0	0	0
tourism	0	0	0	0	0
social relations (e.g. opportunity to meet new people, getting on with the neighbours)	0	0	0	0	0
reputation of the region	0	0	0	0	0
job opportunities	0	0	0	0	0
personal freedom and access	0	0	0	0	0
motorised traffic	0	0	0	0	0
prices/costs	0	0	0	0	0
protection of the environment	0	0	0	0	0
other (please specify):	0	0	0	0	0

### A9 In your opinion, who benefits the most from the <u>advantages</u> of the Eifel National Park?

- the locals
- the tourists
- O both the locals and the tourists to the same extent
- O the national park does not have any advantages

## A10 In your opinion, who suffers the most from the <u>disadvantages</u> of the Eifel National Park?

- the locals
- the tourists

O Yes.	O No.	If 'No', plea	ase expla	ain:			
2 Are you pers	onally affected by	the existen	ice of th	e national pa	ark?		
<ul><li>Yes, through my job.</li></ul>	O Yes, in my spare time.		es, other	<del>-:</del>		No, it doesn't affect me.	
he Eifel Nation	Strongly disagree.	2	3	Neither, nor. 4	5	6	Fully agree 7
he Eifel Nation Park is very nportant to me	al	0	0	0	0	0	0

O both the locals and the tourists to the same extent

0

effect on your disposable income

negative

0

positive

0

0

0

applicable

changed options for shopping	0	0	0	0	0	0
more visitors in places of natural beauty	0	0	0	0	0	0
walking paths have been busier	0	0	0	0	0	0
cycling routes have been busier	0	0	0	0	0	0
working from home	0	0	0	0	0	0
fewer meetings with friends or relatives	0	0	0	0	0	0
more time with family or house mates	0	0	0	0	0	0
less travel, e.g. by car	0	0	0	0	0	0
other effects:	0	0	0	0	0	0
other effects:	0	0	0	0	0	0

#### B2 How important has it been for you to live in or near the Eifel National Park?

Unimportant	Of little	Moderately	Important	Very important
	importance	important		

#### B3 Can you please briefly explain your answer to question B2?

B4. It is possible that life will not return to being exactly the same as before for a long period of time after the peak of the Coronavirus pandemic has passed and a so-called 'new normal' is established. Which aspects of your personal life you reckon to still be different from life before the Coronavirus pandemic in a year's time?

B5 Below are some ideas to manage overcrowding in popular areas or beauty spots such as Wild Kermeter, Lost Wollseifen, the National Park Centre or the National Park Gates during the COVID-19 outbreak. What is your opinion on the following ideas?

	Strongly disagree.	Disagree.	Neutral.	Agree.	Strongly agree.	Don't know
Reduce available car park spaces for visitors.	0	0	0	0	0	0
On-line booking parking system (people will not be able to park without a pre-paid ticket-limited number of tickets available).	0	0		0		
Develop a mobile application alerting people of overcrowding incidents in specific locations.	0	0	0	0	0	0
Develop a mobile application through which people can report irresponsible behaviour and/or incidents of overcrowding.	0	0	0	0		0
Place signs in several locations informing people to keep a distance from others while not disturbing nature.	0	0	0	0	0	0
Restrict access on certain pathways where there is a risk of overcrowding.	0	0	0	0	0	0
Create a system of one-way pathways where there is a	0	0	0	0	0	$\circ$

risk of overcrowding

# C1 Have you heard of the following rules for the responsible use of the protected area and how reasonable do you think they are?

	How reasonable do you think these are?						
	Very reasonable	rather reasonable	not very reasonable	not at all reasonable			
It's not allowed to veer off the paths	0	0	0	0			
It's not allowed to forage for mushrooms or berries or to pick flowers	0	0	0	0			
It's not allowed to collect wood from the forest.	0	0	0	0			
Dogs have to be kept on the leash	0	0	0	0			
Smoking and open flames are prohibited	0	0	0	0			
Excessive noise has to be avoided in order to not disturb any animals	0	0	0	0			

C2 It is important to act in a responsible way in order to protect the environment. How often do you follow the following rules and recommendations when you are <u>within the Eifel National Park</u>:

	always	most of the time	about half of the time	sometimes	never	not applicable
It's not allowed to veer off the paths	0	0	0	0	0	0
It's not allowed to forage for mushrooms or berries or to pick flowers	0	0	0	0	0	0
It's not allowed to collect wood from the forest.	0	0	0	Ο	0	0
Dogs have to be kept on the leash.	0	0	0	0	0	0
Smoking and open flames are prohibited.	0	0	0	0	0	0
Excessive noise has to be avoided in order to not disturb any animals.	0	0	0	0	0	0

C3 As far as you know do most people (locals and visitors) follow the rules and recommendations of the National Park authority (e.g. keep their dogs on the leash, stay on designated paths)?

O No one follows the rules.
Only some people.
O Most people.
○ Everyone.
O Prefer not to say/Don't know.

### C4 How much do you agree/disagree with the following statements:

	Strongly disagree.	Disagree.	Neutral.	Agree.	Strongly agree.	Prefer not to say.
It is easy for me to use the Eifel National Park responsibly.	0	0	0	0	0	0
People important to me expect me to behave in an environmentally responsible manner.	0	0	0	0	0	0
It is important to me that users of the National Park respect the environment.	0	0	0	$\circ$	0	0

### D1 We are now going to ask you a few questions about your personal values. How important are the following values to you?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Respecting the environment: living in harmony with other species	0	0	0	0	0
Unity with nature: fitting into nature	0	$\circ$	$\circ$	0	$\circ$
Being helpful: working for the welfare of others	0	0	$\circ$	0	0
Equality: equal opportunities for all	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Being influential: Having an impact on people and events	0	0	0	$\circ$	0
Being wealthy: material possessions, money	0	0	0	0	0

#### D2

In your opinion, can most people be trusted or can't you be too careful?
1- You can't be too careful.
O 2
○ <b>3</b>
O 4
O 5
O 6
○ 7- Most people can be trusted.
O Don't know.

		Not at all.	A little.	A moderate amount.	A lot.	Fully.	I don't know.
National Pa administrati		0	0	0	0	0	0
Local cound	cil	$\bigcirc$	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
State Governn	nent	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Federal Govern	ment	$\circ$		$\circ$	$\circ$		$\circ$
4 We would novonths, have your offessional counths.	been a me	ember of anisation	any natuns?	= =	organisati		oast 12
4 We would nov onths, have you ofessional coun	been a me tryside org	ember of anisation	any natuns?	re conservation	organisati		past 12
4 We would nov onths, have you ofessional coun	been a me tryside org	ember of anisation	any natuns?	re conservation	e::		past 12
4 We would now onths, have you offessional coun	been a me tryside org	ember of anisation If — ied are y	any natuns?	re conservation	e::		complete

E0 In this final section we would like to collect some personal information for statistical purposes. We would like to assure you that all information will be securely stored and will be destroyed at the end of the project. No personal information will be shared.

E1 Gender
O male
○ female
Odiverse
E2 Age group
▼ 18-25 prefer not to say
E3 Which is the highest level of education you have completed?
O Volks-/ Hauptschule
O Mittlere Reife
O Abitur (university entry qualification)
O polytechnic degree
O university degree
○ PhD

O no income					
O HO HICOHIE					
O up to 25.00	0€				
O 25.000 - 50.	.000€				
O 50.000 - 70.	.000€				
o more than 7	70.000 €				
O prefer not t	o say				
5 Are you or mem	nbers of your family wo	orking in th	e tourism ind	-	Ι.,
Vac for a batal ar	Voc. ronting out n	rivoto	Vac athorta	ric+	
Yes, for a hotel or restaurant.	Yes, renting out p rooms/holiday apartments.	orivate	Yes, other to services.	ourist	No.
restaurant.	rooms/holiday apartments.	tick all th	services.		
restaurant.	rooms/holiday apartments.		services.	ourist o equestr	
restaurant.	rooms/holiday apartments.	tick all th	services.	○ equestr	
restaurant.  6 <b>Do you belong t</b> o dog owner	rooms/holiday apartments.  co any of these groups?	o angler o forest o former employ	at apply)	<ul><li>equestr</li><li>nationa</li><li>employ</li></ul>	ian I park host
o dog owner hunter member of the fifel Ramblers	rooms/holiday apartments.  co any of these groups?  orambler ofarmer  omember of the 'Eifel National Park	o angler o forest of the original of the origi	at apply)  owner  civilian ee of the ang' military g ground	<ul> <li>equestr</li> <li>nationa</li> <li>employ</li> <li>nationa</li> <li>agency</li> <li>my child</li> <li>attend a</li> </ul>	ian I park host ee of the I park forestry d/my children an Eifel