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LIFE Bear-Smart Corridors

Monitoring the project's impact on the local community and stakeholders

ACTION D3 (Task D3.1)

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1. SUMMARY (EN)

The current report presents the rationale, methods and results of the qualitative study of stakeholder attitudes towards bears and the project within the frame of Action D3; Task D3.1 (Monitoring the project's impact on the local community and stakeholders). The report presents data collection and analysis by means of interviews and coding in three areas: (1) Abruzzo Lazio e Molise National Park and Corridors (Italy); (2) Amyntaio (Greece); and (3) Trikala-Meteora (Greece). Results include interview codes and their frequency across a variety of interview sections. A second part of the report presents major differences between interview analysis in Action D3 and interview analysis in Action A4 (Ex-ante survey of public attitudes and stakeholder opinions). Based on these differences, we also present major implications for the After-life plan of LIFE Bear-Smart Corridors.

ΠΕΡΙΛΗΨΗ (GR)

Η παρούσα αναφορά περιέχει τις μεθόδους και τα αποτελέσματα της ποιοτικής μελέτης των στάσεων των ενδιαφερόμενων μερών απέναντι στην αρκούδα και το πρόγραμμα στο πλαίσιο της Δράσης D3, Τμήμα D3.1 (Παρακολούθηση του αντίκτυπου του έργου στην τοπική κοινότητα και τα ενδιαφερόμενα μέρη). Η αναφορά παρουσιάζει τη συλλογή και ανάλυση δεδομένων μέσω συνέντευξης και κωδικοποίηση των συνεντεύξεων σε τρεις περιοχές: (1) Εθνικό Πάρκο Abruzzo Lazio e Molise and Corridors (Ιταλία), (2) Αμύνταιο (Ελλάδα), (3) Τρίκαλα-Μετέωρα (Ελλάδα). Τα αποτελέσματα περιλαμβάνουν την κωδικοποίηση των συνεντεύξεων και τη συχνότητα των σχετικών κατηγοριών σε όλο το φάσμα των τμημάτων της συνέντευξης. Ένα δεύτερο μέρος της αναφοράς παρουσιάζει τις κύριες διαφορές μεταξύ της ανάλυσης των συνεντεύξεων στη Δράση D3 και της ανάλυσης των συνεντεύξεων στη Δράση A4 (Έρευνα των στάσεων του κοινού και των απόψεων των ενδιαφερομένων μερών πριν την έναρξη των δράσεων του έργου). Με βάση τις διαφορές αυτές, παρουσιάζουμε και βασικά συμπεράσματα αναφορικά με το After-life plan του προγράμματος LIFE Bear-Smart Corridors.

SOMMARIO (IT)

Il presente rapporto presenta le motivazioni, i metodi e i risultati dello studio qualitativo sugli atteggiamenti degli stakeholder nei confronti degli orsi e del progetto, nell'ambito dell'Azione D3; Task D3.1 (Monitoraggio dell'impatto del progetto sulla comunità locale e sugli stakeholder). Il rapporto presenta la raccolta e l'analisi dei dati mediante interviste e codifica in tre aree: (1) Parco Nazionale d'Abruzzo, Lazio e Molise e i Corridoi (Italia); (2) Amyntaio (Grecia); e (3) Trikala-Meteora (Grecia). I risultati includono i codici delle interviste e la loro frequenza in diverse sezioni. Una seconda parte del rapporto presenta le principali differenze tra l'analisi delle interviste nell'Azione D3 e l'analisi delle interviste nell'Azione A4 (Indagine ex-ante sugli atteggiamenti del pubblico e sulle opinioni degli stakeholder). Sulla base di queste differenze, presentiamo anche importanti implicazioni per il piano post-ciclo del progetto LIFE Bear-Smart Corridors.

2. INTRODUCTION

Action D3 (Monitoring the project's impact on the local community and stakeholders) aims to collect and analyze local community and stakeholder attitudes towards bears, bear conservation, and the project itself, after most other project actions have progressed sufficiently. Task D3.1 of Action D3 is a qualitative study that will provide in-depth stakeholder input with the main stakeholder positions on the following themes: (1) Bear numbers and trends; (2) local attitudes toward bears; (3) bear behavior; (4) damages caused by bears and damage prevention methods; (5) compensation of damage caused by bears; (6) safety issues linked with bear presence; (7) human-bear conflict; (8) intergroup relations between stakeholders; (9) willingness to participate in the project; (10) expectations from the project and sustainability of project outcomes. The analysis of interviews in Task D3.1 will be compared with the analysis of interviews already undertaken in Task A4.1 in order to reveal key differences and trends after the initiation of the programme and the implementation of all its actions. These differences and trends will be employed to inform the After-life plan of LIFE Bear-Smart Corridors.

3. PROJECT AREAS

3.1 Abruzzo Lazio e Molise National Park and Corridors (Italy)

In Italy, the project area includes four critical bear dispersal corridors for bears, covering 1,100 km2 andconnecting protected areas, such as the Abruzzo, Lazio and Molise National Park, the Maiella NationalPark, the Sirente Velino Regional Park and the Simbruini Mountain Regional Park, of more than 1,300km2 of habitat that is considered suitable for bear expansion but currently underoccupied because ofpoor environmental conditions in the connecting corridors.

The Abruzzo Lazio e Molise National Park (PNALM) is mountainous and largely forested, extending along the central Apennine chain from 800 meters to 2249 m asl. PNALM lies at the intersection of different biogeographical regions giving rise to a rich flora and fauna including endemic and glacial relict species. The result is the remarkable species diversity of over 2,000 plant species, equivalent to about a third of the flora present in the national territory. The park also hosts a variety of animal species: 60 species of mammals. 300 birds, 40 species of reptiles, amphibians and fish, and around 5,000 species of insects. Among the most significant mammal species are the Apennine chamois (*Rupicapra pyrenaica ornata*) and the Marsican brown bear (*Ursus arctos marsicanus*). Chamois are the only endemic Italian mammal listed in Appendix II of CITES. PNALM represents the core area for the Marsican Brown bear, besides being an area of high natural value, as testified by the presence of other species and priority habitats (Wolf, Chamois, Rosalia alpina, Osmoderma eremita, Dalmatian woodpecker, Ursini's viper, European otter). The Marsican brown bear population is high given the size of the area. It was recently estimated at between 47 and 61 individuals through genetic sampling (through the LIFE Arctos project). In the peripheral parts of the park, bear population levels are low restricted to a few wandering males although breeding females are found around the periphery of the park. With such a low population, Marsican brown bears are critically endangered although the population is stable and may have slightly increased in recent years. The Park itself is considered to be at full occupancy, such that population expansion can only occur through range expansion.

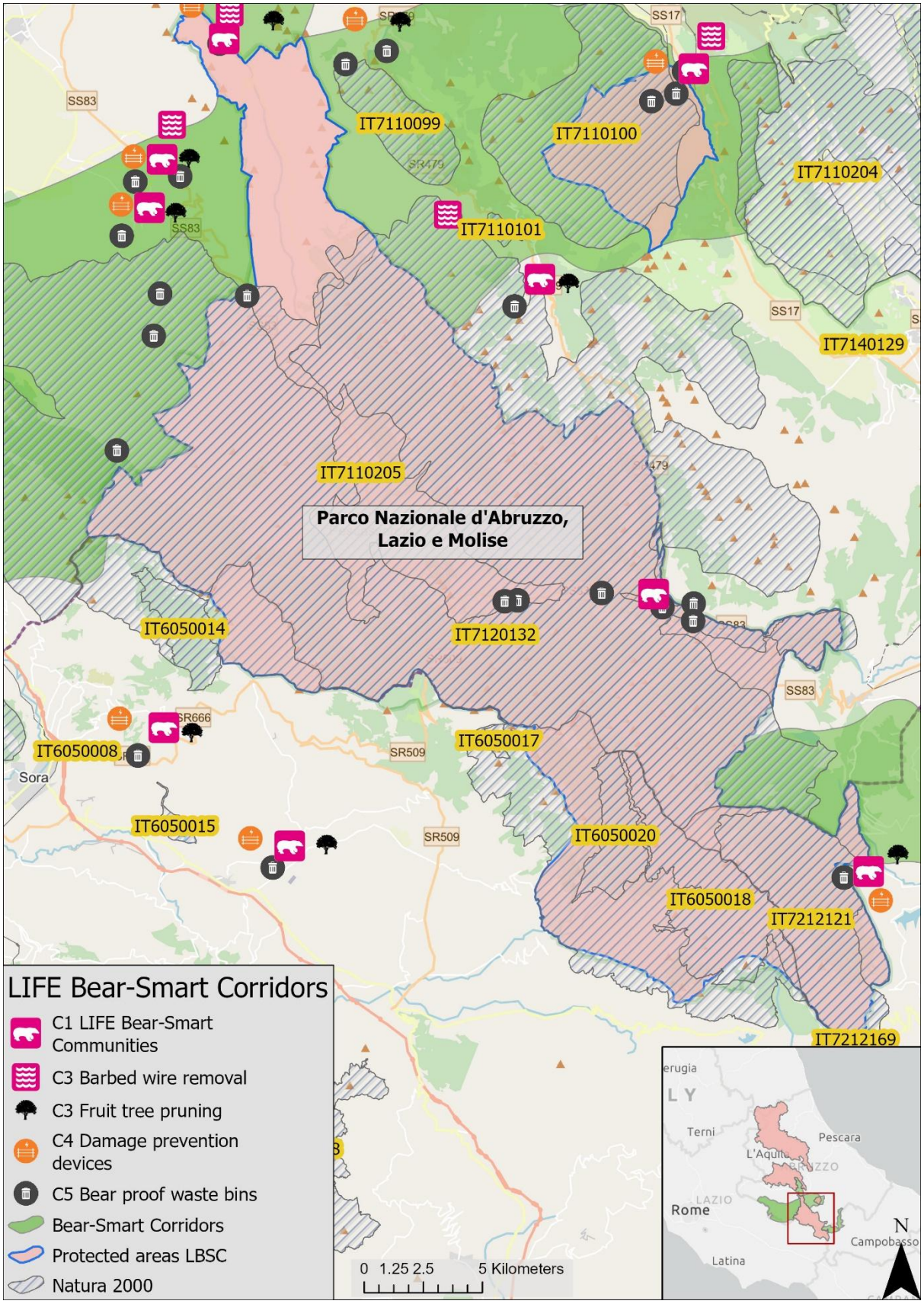

Figure 3.1. Abruzzo Lazio e Molise National Park (Italy)

3.2 Amyntaio (Greece)

Amyntaio is a municipality in North-western Greece bordering with Albania and N. Macedonia with a population of slightly more than 14 000 people. One-third of the residents live in Amyntaio itself, while the rest is scattered around in an area of about 60,000.000 ha, distributed in 12 settlements (Aetos, Filotas, Lechovo, Nymfaio, Variko, Agios Panteleimonas, Kella, Kleidi, Petres, Rodonas, Fanos, Xino Nero). Land use involves cultivated and fallow lands (27%), pasture lands (45%, of which 80% communal and 20% private), forest (25%, of which 43% public, 39% communal, and 13% private), lakes (6%), and human settlements (2%). The area includes four lake ecosystems - wetlands (Chimaditida, Zazari, Petron and Vegoritida) surrounded by high mountain massifs and mountain ranges: Eastwards, the mountain massif of Voras (2524 m), westwards: the mountain massifs of Varnoundas (2,334m) and Vernon- Vitsi (2,128m). These mountain massifs comprise *Ursus arctos* habitats of high ecological value and in combination with the lower lands agro-forest ecosystem form an integrated system of ecological components covering all the ecological requirements of the species. The area supports one of the most robust sub-population of *Ursus arctos* at the most northerly limit in Greece and forms the western *Ursus arctos* population nucleus at a country scale. This population is biogeographically directly attached to the Dinara-Pindos bear trans-border population, which renders this area as one of strategic importance for the connectivity between sub population nuclei at a wider scale.

3.3 Trikala-Meteora (Greece)

The Greek project area of Trikala-Meteora includes two Municipalities (Trikala and Meteora), with about 80000 and 20000 permanent residents, respectively, who are concentrated in the two main urban centers of each Municipality (Trikala and Kalampaka, respectively), and several villages scattered around them. Most land is under public and community ownership and there is the mountain complex of Antichasia and Kalampaka-Meteora in the South. Agricultural land is extensive and involves mainly cereals and vineyards. The western part of the area had a permanent bear population (*Ursus arctos*), which colonized the eastern part in the 1990s. Altogether, the bear population in the area represents 25-30% of the total bear population in Greece. The Greek project area of Trikala-Meteora is linked with the other Greek project area of Amyntaio through a mega-corridor providing gene flow for the bear population over the Pindos Mountain Range (see project proposal for more details, page 146). Beyond the bear population, the biodiversity of the area is exceptional with several critically endangered species and birds of prey (Important Bird Area – IBA) and is a breeding area for the wolf (*Canis lupus*) in the region of Thessaly. Finally, the area hosts the World Heritage Site of the rock formations of Meteora, which attracts millions of domestic and international tourists annually. Indeed, numbers of visitors arriving at Meteora may reach 2000000 annually, which makes Meteora the second site in Greece in terms of visitation after Acropolis, Athens.

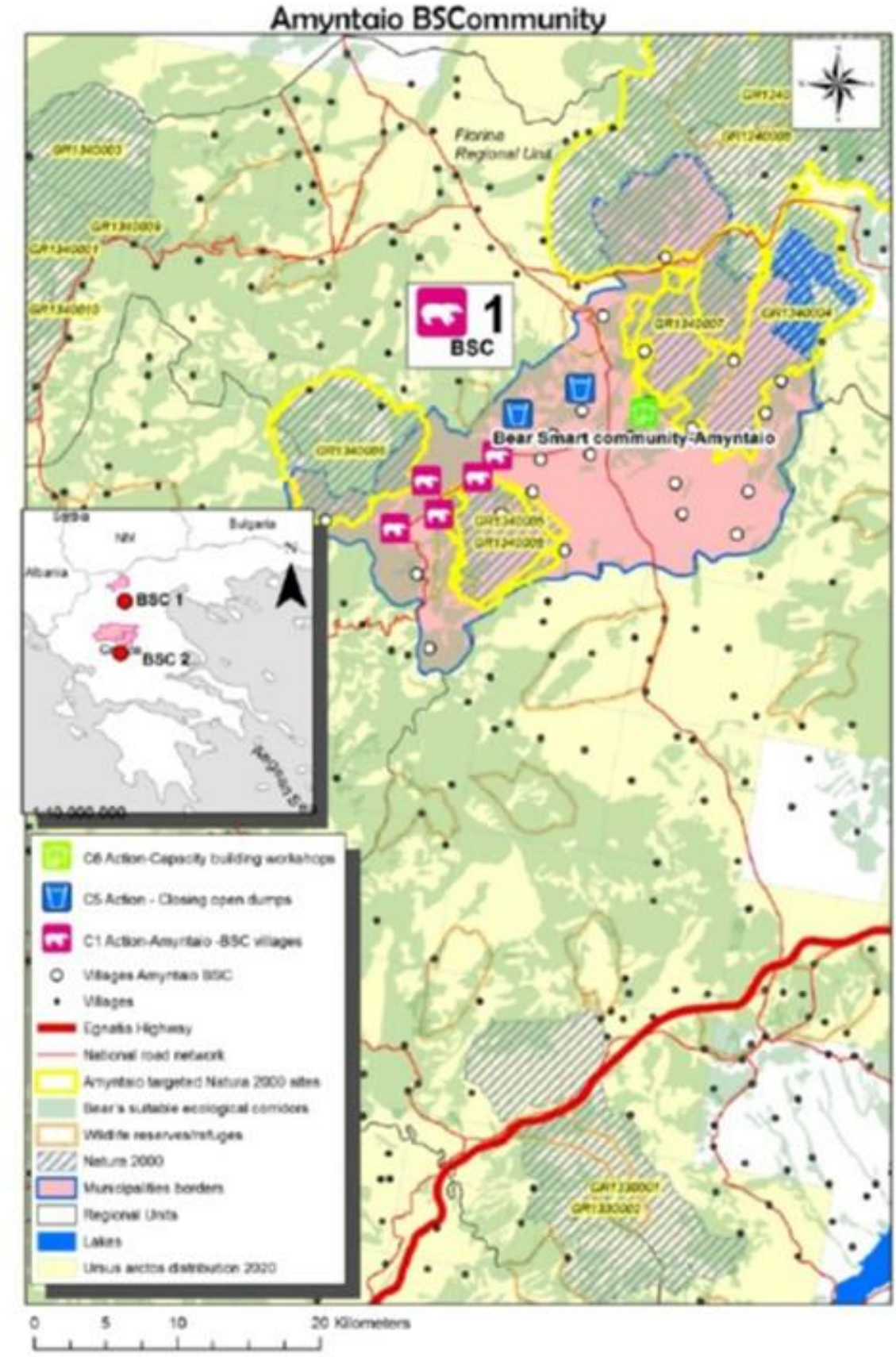

Figure 3.2. Amyntaio (Greece)

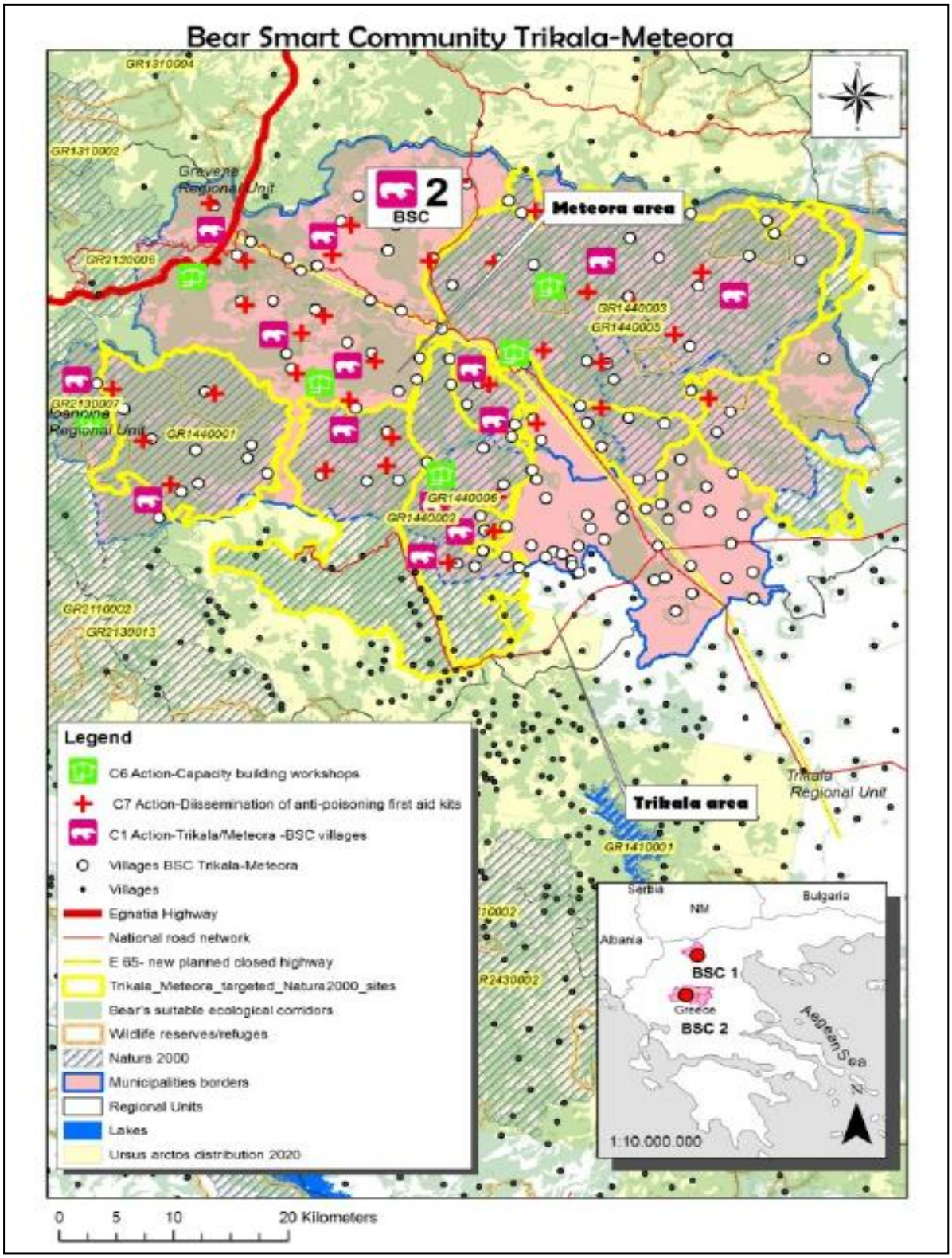

Figure 3.3. Trilala-Meteora (Greece).

4. METHODS

4.1 Interview protocol

An interview protocol was developed for data selection, which was largely mirroring the one employed in Task A4.1 (Annex 1). It included two parts, a first part with all necessary background information for the project and Action D3, so that each interviewee could grant their informed consent for participation, and a second part with all interview questions. These were split in four different sections: (1) Bear perceptions, representations and attitudes; (2) human-bear conflict; (3) human-bear coexistence; (4) stakeholder expectations from the project. A first series of questions were accompanied by follow-up questions (prompts) to encourage interviewees to clarify their points and delve deeper in selected aspects of interviewees. A semi-structured format was chosen, keeping a draft structured as reflected in the interview protocol but allowing respondents to expand on any aspects they considered worth discussing as well as to introduce any new aspect they thought to be relevant. The interview protocol was reviewed and approved by all partners.

4.2 Sample selection

A purposive and snowball technique for sample selection was chosen, focusing on key stakeholder groups (e.g., stock breeders, farmers, beekeepers, local authorities, park authorities, foresters, eNGOs, hunters, tourism entrepreneurs). Sampling in each area was tailored to specific local developments and requirements, so stakeholder groups addressed are not identical among areas (Abruzzo Lazio e Molise National Park and Corridors in Italy; Amyntaio in Greece; Trikala-Kalampaka in Greece). Sampling started with identifying potential interviewees among those already contacted in Task A4.1 in the three areas These people were informed about the project and Action D3 and asked if they would like to be interviewed. All people who agreed were then asked, during the interview, to name other people who could then be contacted for data selection following the same steps and principles. All interviewees granted their informed consent for participation in Action D3 and for data selection and processing according to the General Data Protection Regulation (GDPR).

4.3 Coding

Interviews were recorded digitally and stored in a digital repository after the consent of interviewees was secured. Interviews were coded using the coding scheme of Task 4.1, which was based on an open coding process[1], where recurrent themes (codes) for each main question in the interview protocol were identified. New codes were added, if such codes had been referred to by at least of 10% of respondents in each area. Inter-coder reliability was calculated for each data set to check for reliability in coding. Specifically, for a 10% of all data for each data set, we calculated Cohen's kappa for two independent coders and found the index to amount to over 0.85 for each case.

4.4 Data analysis

The frequency of codes was calculated in the sample for each area (only codes with frequency of 10% or more in each area are presented in this repost). This frequency was compared against the one in Task 4.1 to reveal main differences and trends between Task A4,1 and Task D3.1.

[1] Strauss, A., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Thousand Oaks, CA: Sage.

5. RESULTS

5.1 Sample characteristics and average duration of interviews

Table 5.1 presents sample characteristics in Abruzzo Lazio e Molise National Park and Corridors (Italy), Amyntaio (Greece), and Trikala-Meteora (Greece). In each area there was a broad representation of most key stakeholder groups. The relatively low percentage of females, especially in Trikala-Meteora, should be attributed to a variety of reasons: (1) Men were much more likely to be indicated in the sample in the case of small-scale family farming operations, which underrepresented female voices; (2) in such operations, women were often occupied in household work and small-scale processing of farming products – this does not mean to downplay the importance household work at all, however, it also contributed to underrepresenting females.

Table 5.1. Sample characteristics

	Abruzzo Lazio e Molise National Park	Amyntaio	Trikala-Meteora
Stock breeders	5 (11)*	3 (10)	5 (16)
Farmers	5 (11)	7 (24)	3 (10)
Beekeepers	5(11)	3 (10)	5 (16)
Local authorities	7 (16)	4 (12)	5 (16)
Park authorities	4 (9)	-	-
Foresters	-	3 (10)	3 (10)
eNGOs	-	-	3 (10)
Hunters	3 (7)	7 (21)	3 (10)
Tourism entrepreneurs	7 (16)	6 (21)	3 (10)
Truffle hunters	4 (9)	-	-
Association	5 (11)	-	-
Total sample size	45	33**	30
Number of female interviewees	13 (29)	8 (24)	3 (10)
Average interview duration (min)	27.60	18.0	21.25

* Number of interviewees and sample percentage in parenthesis.

** Four interviewees in Amyntaio declined interview recording; detailed notes were kept in this case

In Abruzzo Lazio e Molise National Park and Corridors (Italy), four of the communities involved in the project were selected to conduct interviews: Villetta Barrea, Pettorano sul Gizio, Campoli Appennino, and the Alto Molise community. The criteria for selecting these communities included, on one hand, their level of progress and experience in the process of becoming bear-smart communities, and on the other, their geographical distribution. Villetta Barrea and Pettorano sul Gizio had a longer history of coexistence activities and can be considered, in some ways, the most experienced, while in Campoli Appennino and Alto Molise, experiences were more recent.

5.2 Results for Abruzzo Lazio e Molise National Park and Corridors

5.2.1 Bear numbers and trends

Regarding bear trends 17 participants (38%) believed that bear numbers were increasing, while 13 (29%) said that bear numbers were stable. These are two characteristic extracts for these codes:

…We're talking about impressions, the impression, at least the one I might have, is that the numbers are increasing. I couldn't tell you how significant that increase is, but simply the fact that this year we saw two females that reproduced and are still in the reserve gives us a sign. It means we had the first female bear that gave birth within the reserve, and there's a sense that the range is expanding. But again, this is more of a feeling than anything concrete… (Interviewee No 21, Protected Area Authority)

…I would say that in recent years there is a consistent presence that has been detected and that persists. I don't think there is either a particular increase or a particular decrease. I think by now it's fairly stable, in recent years, the number of bears that are frequenting this area more permanently… (Interviewee No 3, Local Authority).

Six people (13%) mentioned that numbers were stable but bears were now more visible:

…Look, I don't know if it's really an increase or… because the mountain is much more frequented compared to a few years ago in my opinion maybe there is more the social [networks] that makes you… whoever sees it, publishes it and so, however actually the bear is there, me personally compared to a few years ago I see it more easily now, they are always the same [individuals], it's always the same 4 or 5 that you always see, you frequent the same areas, they are always the same, however it's easier to meet them… (Interviewee No 37, Hunter)

Regarding trends on a longer perspective, 15 respondents (33%) said that bears were now increasing, compared to 5 -10 years ago, while 20 (44%) said that trends have been the same in the last 5-10 years. Some respondents, who believed that bear numbers were increasing, elaborated on the reasons of bear trends, which focused on environmental and bear protection (9 out of 45) and increased awareness (7 out of 45).

5.2.2 Local attitudes toward bears

The majority of respondents recognized that bear numbers or bear behavior have an influence on local attitudes (34 out of 45 respondents, 76%), while only 11 respondents (24%) said that these elements don't have any influence. Interviewees referred to determinants of attitudes towards bears, for instance: fear (8 respondents, 18%), increased awareness of good practices by local people (7 respondents, 16%), bear behavior itself (e.g., confident bears, bears causing damages) (7 respondents, 16%), and local people's familiarization to bear presence (5 respondents, 11%). The following three extracts are characteristics of accounts concentrating on fear, bear behavior and locals' adoption of good practices in terms of damage prevention measures:

…Yes, absolutely, because there have been several encounters, and obviously some people don't take it well. I mean, when a bear is wandering around your house, causing some damage, maybe attacking animals, it's scary. At the end of the day, it's still a big wild animal hanging around your home… (Interviewee No 27, Truffle hunter)

…So, if we refer to the confident bears, yes, in the sense that it has changed a little bit. I am of a certain age and I never remember in my short but long life, even as a hiker, having this presence of

bears in the villages. So, certainly, we are facing a somewhat different phenomenon than what it was in the past… (Interviewee 40, Tourism Entrepreneur)

…If there are areas that tend to struggle more, they're usually the ones right up against the mountains, where people have been living for years and have gotten used to just asking for electrified fences in their properties, or simply cutting down a few trees, they already do that. It's become almost a habit for them by now; it's not like they get too shocked or anything… (Interviewee No 2, Local Authority)

5.2.3 Bear behavior

With regard to bear behavior, 17 respondents (38%) expressed positive perceptions and attitudes, a third of respondents said that there was no specific behavior worth discussing, while bears accustomed to human presence was the third most frequent item (12 respondents, 27%,). Those who referred to this item elaborate on the risks for both bears and people, below are two typical extracts related to this item:

…I mean, either agriculture [to feed bears] needs to be increased, but in their own areas. We shouldn't be bringing them into town centers to find food; we should be helping them where they are. Also, I think it's better for them, because for an animal like that, I don't think it's right for it to become a social animal. That way, we're definitely altering its nature, because it becomes something it was never meant to be, in my opinion. It's like we're always trying to turn it into a domestic animal. It becomes more and more domesticated, and I think constant contact with humans even harms its genetics. I mean, it will start to change genetically, and its way of relating to nature, to people, to the landscape, everything will change… (Interviewee No 34, Farmer)

…The very behavior of the bear coming into town, even in August, when it's packed with people, says a lot. The bear is usually a very shy animal, but it seems like it just doesn't care about people anymore. August is the busiest month, and this area is especially popular with tourists. It's not like they act calmly when they see… I mean, even when people see a deer, it's like they've seen something extraordinary, right? And yet, the streets are full, the houses too, and still, when they see a bear, even with all that going on, it continues to calmly stay among people in broad daylight… (Interviewee No, 14, Stockbreeder).

Quite interestingly, there were six interviewees (13%), who noted it was human behavior that should be discussed:

…Well, more than particular behaviors of the bears, it's the behaviors of people that stand out. Because as for the bears' behavior, here in Villetta, we mostly experience it with Giacomina, when fruit season comes around, she shows up in the village without any problem. But the issue is more related to the local population, or even the tourists. […] Because maybe there are many things they just don't know from the outside, for them, feeding a fox seems like a nice gesture, an act of kindness, I don't know. Seeing a bear in the village and wanting to take a photo almost hugging it, because, you know, it's cute and like Yogi Bear, the friendly bear. But unfortunately, it's not like that. So many things, if we don't talk about them, if we don't take the time to explain them, the real problem goes unnoticed. And sadly, it all comes down to us… (Interviewee No 39, tourism entrepreneur)

A number of respondents (5 out of 45, 11%) reported about their encounters with bears:

…I was out hunting a couple of times this year, and this time it was kind of funny because I was out with my dog, who was tracking a hare, and out of the corner of my eye I saw a strange shape. At first

glance, I thought it was a tree root because of its shape, but then I looked more closely and realized, no, it moved, it stood up. It was a bear, about fifteen meters away. It came out, crossed the path where I was standing without even looking at who was there. Even the dog, when he saw the bear, came running back to me, because when a dog sees an animal like that, it runs away. And that was the encounter. But I enjoyed it, it was a beautiful animal, big, I liked it, I really enjoyed watching it walk away, with all that fur moving. That was the last time I saw one. I've seen bears before sometimes closer, sometimes farther away, in the woods or even in the towns, or from the car. They're beautiful animals they've always been here… (Interviewee No 36, hunter).

Finally, there were some interviewees (5 out of 45, 11%) who commented upon myths, legends or toponyms related to bears in their villages:

… No, well, the only thing they say in my village, though no real story, was ever created around it, is that kids weren't supposed to go to a certain place because a bear used to pass through there, and they called it the Bear's Bridge, or the Bear's Ford… But beyond that, as far as I know, there was never a specific story behind it. My grandfather told me about it, but he never shared a full-on tale, it was just like, "Eight years ago they saw the Old Bear going that way." So that gives you a bit of a picture of the area. My grandfather was born in '29, and they had this kind of belief, like, "You're not supposed to go there, because in '56 the bear passed through there." It's really more about how the bear was almost always seen with fear, but not the kind of fear where you say, "You scare me so I want to hurt you." No, no it's more like, "You scare me so I'll stay as far away from you as possible… (Interviewee No 43, Tourism entrepreneur)

5.2.4 Damages caused by bears and damage prevention methods

Slightly less than one-third of respondents (14 out of 45, 31%) said that damages caused by bears were stable in time, while 13 interviewees (29%) mentioned that damages were decreasing. There were 7 interviewees (16%) who stressed that there were no damages caused by bears at all, and of those, 5 attributed this absence of damage to the implementation of damage prevention measures. Finally, 6 interviewees (13%) reported that there were no damages because there were no longer any farmers or stock breeders in their community. This is how an interviewee from the Protected Area Authority elaborated on the decrease of damages caused by bears:

…In recent years, the damages have drastically decreased. The damages we actually had involved people who didn't even inform us that they had livestock or beehives that could attract bears. We can't rule out 100% that there are other people who maybe started a small chicken coop behind their house. And I repeat myself, but unfortunately that's how it is, if there are no damages, even the people with electric fences start paying less attention… (Interviewee No 21, Protected Area Authority)

Some respondents redirected the interview to damages caused by wild ungulates (7 out of 45 respondents, 16%), in order to compare the importance of such damages over the ones caused by bears:

…Look, more than the bear, we have major problems here with deer and wild boars, that's a really big issue. Because with the bear, you put up a fence around your barn or chicken coop, whatever it is, and you're good. […] With these fences, you don't really hear about bear-related damages anymore. The bear is actually the least of our problems, the real issue is the deer. Deer can easily jump over fences up to two meters high. I grow everything my animals eat, and I'm having major difficulties because of this. Now they're even eating my alfalfa. Then what am I supposed to give to the sheep? It's a problem, not just for me, but for anyone who plants wheat. We plant wheat and it's already being eaten. At night, they come out and cause damage. What can we do? Even behind my house, I

have three or four deer that show up every evening around 9:15 or 9:30, grazing right behind here… (Interviewee No 17 Stockbreeder)

Regarding damage prevention, 43 respondents (96%) said that they were used and they believed that these were effective:

…Absolutely yes, the only effective method is that kind of prevention. If you're talking about using electric fencing, it's the only real way to keep the bear away. That's already been tested. It's the only strategy where you can 'win' against the bear, win in terms of prevention. [...] The only method I consider truly effective is the electric fence, for beehives, livestock, or even for orchards. Why not? Another thing I really believe in is the 'bear-smart community' project, especially the issue of waste management and bear-proof bins. That's absolutely essential for towns like ours, right at the edge of the mountains… (Interviewee No 28, Truffle hunter)

5.2.5 Compensation of damage caused by bears

Regarding compensation of damages caused by bears, about one-fourth of the sample (11 respondents, 24%) did not know if or how they worked. Instead, 9 respondents (20%) said that they work well, and these were more likely to be participants from experienced communities (Likelihood ratio chi-square = 14,23, $p < 0.05$). There were interviewees (5 out of 45, 11%), who noted that compensation systems work only or better inside protected areas, and another 11% elaborated about problems related to compensation systems.

The extracts below are typical of interviewee accounts which endorsed the compensation system in place (first extract) as well as critical accounts highlighting either delays and inconsistencies in the compensation system (second extract) or cost which is not acknowledged and, therefore, not reimbursed (third extract):

…Compensation, more or less, yes, they did give it to me. I think it was even increased, they gave me around €100, maybe even more. For those two... no, I don't really remember how much, for the two sheep that died last year. And as for compensation, well, I think it's fair that it's provided. After all, if protected animals cause damage, of course that damage should be reimbursed. There's always been compensation, it's just something that's always existed… (Interviewee No 13, Stockbreeder)

…That's a good question. Since the beginning of April, I've submitted a compensation request to the Molise Region. Since we're not in the pre-park area and not within the national park itself, we can't apply to the National Park, so we have to go through the Region. After numerous communications, complaints, certified emails, disputes, and so on, we reached the conclusion that my damage report was indisputable. A payment order was issued several months ago. A regional official even called me to say everything was fine, all in order, we're just waiting for the Region of Molise to have the funds. But to this day, I haven't seen a single cent. Also, the amount of compensation recognized is absolutely not proportionate to the damage that occurred, it's neither fair nor timely. So, for someone like me who was planning to start a second activity to help the family, the motivation is completely gone, if you'll forgive the expression… (Interviewee No 23, Beekeeper)

…Well, yes and no. The damage estimates are fair, and they do get reimbursed, that's true. But the actual damage isn't really comparable to the real loss. For example, if I lose a beehive worth about €100 plus an €80 swarm, just to give indicative numbers, I've lost €180. They give me back those €180, I buy a new hive and a new swarm. Yes, but that hive was already in production, who's going to give me back the production I lost? And that's where the real loss is. Still, we're talking about amounts that aren't very large… (Interviewee No 26, Beekeeper)

5.2.6 Safety issues linked with bear presence

Safety issues linked to bear presence was linked by 13 respondents (29%) to the fact that bears, like other wildlife species, may be potentially dangerous to people. There were 10 interviewees (22%) who underlined that bears do not pose any risk to people, while another 10 respondents stressed that it was people's behavior to blame for any potential risk arising. There were some interviewees (6 out of 45, 13%), who noted that female bears with cubs may be dangerous for people, and these were more likely to reside in lesser experienced communities (Likelihood ratio chi-square = 22,85, $p < 0.05$). An analogous percentage (6 out of 45, 13%) was also concerned that bears can threaten human safety when they roam in and around villages. The following extracts illustrate the two latter types of concerns:

…Well, from what I know, it could be dangerous when you encounter a mother bear with her cubs, because naturally she tends to defend them and is more alert compared to when she's alone. An encounter can definitely happen by chance, just like it can happen to anyone going into the mountains, but surely, those who go into the mountains know the risks they might face… (Interviewee No 31, farmer)

…In my opinion, yes, because during the period when that female bear was roaming around, especially on the road where my apiary is, but also on other more internal roads, for example, it was strongly advised not to go for walks or runs. So, if the local authorities suggested such a measure, it means they didn't feel entirely safe with the animal around. After all, it's a 300-kilogram beast, not everyone is equipped to deal with that, I think… (Interviewee No 23, beekeeper)

5.2.7 Human-bear conflict

A considerable number of interviewees (18 out of 45, 40%) believed that there was no human-bear conflict, while 10 respondents (22% thought that conflict related more to polarization between stakeholder groups, meaning that it was a human-human conflict rather than a human-bear conflict. Quite interestingly, 6 interviewees (13%) linked conflict to existing space restrictions and rules. The two extracts that follow are both from truffle hunters. The first exemplifies how human-bear conflict can be translated into human-human conflict (conflict between stakeholder groups), while the second add the dimension of space restrictions:

…Oh God, well in my opinion, no. I don't think there should be... I mean, there's always a group that ends up in conflict with the bear. From the start, and really, the categories are always the same. You could ask any question, do a survey with anyone, and they'll all tell you the same thing. The most combative categories when it comes to the bear are: livestock farmers, hunters, and, well, I'd also add, I don't know, here we have truffles, right? Campoli is known as the truffle town. In the high mountain areas, there are truffles too, but in some areas you can't go truffle hunting. That's something that needs to be looked at, because you always need to use a dog for that. And the dog always disturbs the bear. [...] So basically, whatever kind of survey you do, the three categories that come up are: livestock farmers, hunters, and truffle hunters. Everyone else lives alongside the bear pretty peacefully, saying things like "Oh, the bear passed by, it ate the figs", and then the park rangers come and check things out, and it's all very routine… (Interviewee No 28, Truffle hunter)

…I think so, yes. I go truffle hunting too, and we've talked many times about the issue of truffle regulations, rules that, in my opinion, make no sense at all. But we talk and talk, "yeah, let's see, we'll do something", and in the end, nothing ever changes. The excuse is always the bear… (Interviewee No 37, Truffle hunter)

5.2.8 Intergroup relations between stakeholders

Regarding Intergroup relations between stakeholders, 21 respondents (47%) stated that collaboration exists, however, 13 (29%) said that only certain stakeholders are open to collaboration, and another 5 interviewees (11%) expressed criticism towards Protected Areas. The latter were more likely to reside in experienced communities (Likelihood ratio chi-square = 15,85, $p < 0.05$). In the first two extracts below, endorsement of collaboration is accompanied by critique and insights of how to optimize such collaboration, for instance, through bottom-up initiatives (first extract) or tangible outcomes that can have a positive impact for people's lives (second extract). This last extract is a critique directed towards the park authority:

…but I also believe that it shouldn't be a forced collaboration. I mean, let me explain better, it shouldn't be something like, "You must coexist, period, figure it out yourselves." I think coexistence has to come from an awareness like we discussed earlier, but then it needs to become a shared action, not something imposed. Because unfortunately, I think when things are imposed, they tend to create conflict. So, if some authority says, "You must coexist, period," people might just say, "Well, I'm not interested… (Interviewee No 12, Association)

…I think so. I think so, even though, and I say this quite frankly, people are a bit tired of just talk. What people need is experience. I'm not even talking about "results," because that would sound like the usual rhetoric. What I mean is that people need experiences and to feel that something is actually evolving. Like, I take a step toward you, you take one toward me, we listen to each other and reason together about... well, whatever the issue is… (Interviewee No 40, Tourism entrepreneur)

…The park authority is entirely to blame for this, because they also prefer to handle things in an overly simplistic way. They surround themselves with people who never challenge them during meetings, who never speak out, who always say yes, so everything goes more smoothly. But it's the park that should be taking charge. It's the institution responsible for protecting our natural heritage, so it's the one that needs to grow a backbone. They should also invite people who disagree and know how to respond to them with scientific arguments, not just empty talk… (Interviewee No 14, Stockbreeder)

5.2.9 Willingness to participate in the project

With regard to knowledge about the project, the majority of participants (25 interviewees, 56%) stat that they had a good knowledge about the project progress, 13 participants (29%) had a partial knowledge, while 7 interviewees (16%) said that they lacked substantial knowledge about LIFE Bear-Smart Corridors. Local Authorities and interviewees in the tourism sector were more likely to say that they know well about (Likelihood ratio chi-square = 55.05, $p < 0.05$). This is how a representative of local authorities addressed this interview question:

…I personally followed those meetings we had with the thematic working groups. It was very interesting. Before that, we had meetings with Daniela, the communications officer, who explained this opportunity to us. Even before that meeting, we had organized another gathering with all the citizens, with the director as well, always to promote the initiative. There were two or three meetings, at first maybe one or two just with the local administrators, and then we opened it up to the community. The first one was open to everyone, and from there we gave ourselves time. Various pieces of information were collected, questions were asked, etc. It was a really nice and positive moment, lots of things came out of it… (Interviewee No 2, Local Authority)

Concerning active participation in project's activities, 30 respondents (67%) said that they took part in some kind of activity related to the project, while 15 (33%) did not. When elaborating on their motivations to participate, 9 interviewees mentioned incentives linked to benefits for local

communities, while another 9 interviewees expressed their interest in environmental and bear conservation. The following two extracts illustrate the above incentives:

…Because I believe we need to become a more civilized community, like many others in Northern Europe, where they benefit from the presence of wildlife for their economy. Here, we're experiencing depopulation, and the bear is both an economic and natural resource, so we need to make the most of it, we need to enhance its value. In fact, there was talk about creating some gadgets, but in the end, nothing concrete came out of it… (Interviewee No 35, Tourism entrepreneur)

…My motivations? Well, I've done this all my life, I chose this line of work because I love it. I'm someone who protects nature and everything related to biodiversity. It's something that has always fascinated me. Since I was a child, I studied to become a ranger, and I loved being a ranger, it was a wonderful experience, and I'd do it all over again tomorrow if I could. That's why I chose to take part in the committee, even if I weren't a beekeeper, I would've chosen to join anyway… (Interviewee No 25, Beekeeper)

Interviewees who took part in project activities were asked about the efficacy of actions and their participation. There were 12 participants (27%) who evaluated their participation as satisfactory, 7 (16%) said that participation could have been better and/or that it was always the same people who took part in this kind of activities, while 9 interviewees (20%) reported poor participation. Participants from the experienced communities were more likely to say that participation was poor or could have been (Likelihood ratio chi-square = 19.49, $p < 0.05$). The following extract exemplifies how a representative of the Protected Area Authority commented on participants being always the same:

…Yes, but I can see that too. I mean, I attended a few meetings in Scanno and Villetta for this Life project. Unfortunately, the people who come are always the same ones, the ones who, in theory, don't even need these meetings. The idea of involving other people is good, it's a great idea, but in my opinion, it's difficult, there are challenges. It's a bit like recycling: there are still a lot of people who just throw things away regardless. [...] No, that's what I was saying earlier. In my opinion, there was no one new. I mean, it was all people who are already close to us, who already know about and support these things. It would be great if the project could manage to involve the wider community, not just a park ranger, or my sister because I work here. It should be all the stakeholders, and we should all agree on using these methods to create a healthy coexistence. I'm afraid there will be a lot of challenges in achieving that… (Interviewee No 18, Protected Area Authority)

5.2.10 Expectations from the project and sustainability of project outcomes

With regard to expectations from the project, a considerable number of participants participants stressed aspects of a global nature, for instance, that the project may improve collaboration cohesion between engaged stakeholders (15 interviewees), improve knowledge and awareness (15 interviewees), revive local communities (11 interviewees). Lesser interviewees referred to more confined aspects in scale but still quite important and explicitly related to LIFE Bear-Smart Corridors, for instance, damage prevention (6 interviewees), preventing bears from approaching human settlements (5 interviewees), and improving human-bear coexistence and bear conservation (5 interviewees). These are three characteristic extracts depicting the three global aspects (stakeholder collaboration, improvement of knowledge and awareness, reviving local communities):

…We've definitely strengthened our network collaboration with other partners we had less interaction with before. As for the Abruzzo National Park, we've more or less always had a relationship with them. But the partnership with associations and other protected areas is a valuable added benefit, I really appreciate it. Because that's what endures in the end: it's built on relationships between people, inevitably… (Interviewee No 20, Protected Area Authority)

…I couldn't just say something random just to give my opinion and play the expert, I really don't know how or in what way. What I do know is that, as I said before, a greater presence also means spreading knowledge and raising awareness, especially starting with kids in schools through various activities. And I think it's also about teaching the basics, because even something as simple as how to behave when encountering a bear, children don't know that. So, to me, that already signals a failure on the part of the park, because it hasn't even done the ABCs of what should be the promotion of the territory and, let's say, a real effort toward coexistence with the bear… (Interviewee No 27, Truffle Hunter)

…We're talking about a positive effect coming from the presence of people who are interested in bears, not as circus animals, but simply the idea that our forests are home to at least a few individuals. That alone could definitely attract many people to come visit. It would be a real boost for the area, including all the businesses that are part of it. We've already talked about the farm run by the two young livestock breeders, who might have more opportunities to sell their products, for example. Then there's the pastry shop, which I think has already had some contact with your activities, so there's definitely potential for something positive to come out of this. I really hope so… (Interviewee No 10, Association)

As far as the sustainability of the results of the project are concerned, 16 respondents (36%) said that they could be sustainable only if certain conditions were met, while 12 (27%) were not optimistic that the results can be sustainable. This is how a farmer highlighted stakeholder engagement and interaction as a prerequisite of sustainability:

…Well, we need to have a lot of meetings, many, many, many meetings. The administration needs to be much more present, because that's just how it is: administrations are the ones who ultimately shape the life of a town. So if the mayor and the administration don't make an effort to stand behind their vision, their project, what they want to do and say, well, if in the end you hold four meetings and that's it for the year, then it was all for nothing. Actually, it just stirs people up even more, because they end up saying, 'See? Just talk and nothing real came out of it… (Interviewee No 35, Farmer)

When asked if interviewees thought that bear presence can represent an opportunity for local communities, then the majority responded affirmatively (26 respondents, 58%). There were 7 interviewees who highlighted that there were some presuppositions for bears to become an opportunity and these were more probable to reside in experienced communities (Likelihood ratio chi-square = 11,63, $p < 0.05$). Instead, 6 respondents (13%) declined that bear presence could be an opportunity. The two abstracts below indicate how respondents portrayed the conditions under which bear could become an opportunity (first extract by a tourism entrepreneur) and how respondents could decline bears being or becoming an opportunity (second extract by a farmer):

…So, regarding the topic of opportunities for the community, this is something we've often talked about, yes, but then it depends on how the community perceives it. From my point of view, yes, if you're talking about wildlife in general, including the bear, right? I think for the community it's definitely an advantage in many ways. But it's also important to help the communities understand, and that's kind of what the people from rewilding, or what you're doing, how to approach certain

issues, how to manage them, and how to live with them. That's what coexistence is, after all… (Interviewee No 43, Tourism Entrepreneur)

…I absolutely don't think so. Because wherever the bear arrives, in my opinion, restrictions come along with it. Along with the bear. I speak as a hunter because I've seen the laws change drastically, even though, as a hunter, I don't interfere with the bear at all. But still, where the bear arrives, problems come too, especially bureaucratic ones… (Interviewee No 38, Farmer)

5.3 Results for Amyntaio

5.3.1 Bear numbers and trends

A substantial majority of respondents in Amyntaio believed that bear numbers increased (17 out of 33) or increased considerably (12 out of 33). When prompted to elaborate on the reasons for increasing bear numbers (Table 5.3.1), respondents highlighted general trends in the rural countryside in Greece, for instance, rural depopulation (26 out of 33) and decrease of stick breeding (26 out of 33), as well as key outcomes of bear conservation, for example, several conservation efforts (24 out of 33), the fact that poaching decreased (22 out of 33), and changing attitudes or increased awareness of locals (16 out of 33).

These are two characteristic extracts showcasing how two hunters elaborated upon the fact that poaching was decreasing and how trends in bear numbers mirrored trends for other wildlife species:

…'In the past the majority was killing bears, nowadays it is exactly the opposite and the very few that are still poaching them are not hunters and they should be arrested… (Interviewee No 9, Hunter)

…They are many, way too far many as there are way too far many of other species as well like wolves and roe deer…' (Interviewee No 14, Hunter)

Table 5.3.1. Reasons provided by respondents for increasing bear numbers

Reasons provided by respondents for increasing bear numbers	**Count**
Rural_depopulation	26
Stock_breeding_decrease	26
Conservation_efforts	24
Sighting_signs_footprints	24
Poaching_decreased	22
Same with other wildlife species	17
Awareness_attitudes	16
Bear_Habitat_carrying_capacity	12
Range_Distribution	7

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Other accounts concentrated on frequent instances of local people seeing bears or their signs and footprints (24 out of 33), and that increasing trends in bear numbers were analogous to increasing trends for other wildlife species (17 out of 33). There were also a few interviewees who mentioned the increasing availability of bear habitat or increasing carrying capacity of this habitat (12 out of 33), as well as the increasing range distribution of the targeted species (7 out of 33).

The following extracts illustrate how a farmer stressed bear sightings and how a president of a Local Community Council commented upon the carrying capacity of bear habitat:

...I am going into my crop fields and fruit trees and I see their tracks everywhere, and I do not mean the same track from the same individual, a variety of bear tracks...the population is really high... (Interviewee No 20, Farmer)

... with so much food in our area for them why the bears to move to a different area?...'' <president of local village... (Interviewee No 24, representative of Local Authority)

5.3.2 Local attitudes toward bears

Most respondents highlighted several stakeholder groups whom they believed to hold different attitudes towards bears than the majority of the local population (see Table 5.3.2; stockbreeders, 31 out of 33 interviewees; hunters, 30 out of 33; elders, 21 out of 33). The majority of locals seemed to have either positive bear attitudes (10 out of 33) or be tolerant towards bears (11 out of 33 interviewees), and indeed, a substantial percentage of respondents attributed such tolerance to the implementation of damage prevention measures (21 out of 33). Alternatively, interviewees could attribute negative attitudes towards bears to instances where bears caused damage (19 out of 33), or when the safety of local people was perceived to be threatened (11 out of 33).

Table 5.3.2. Local attitudes towards bears

Local attitudes towards bears	**Count**
Stockbreeders_differentiated	31
Hunters_differentiated	30
Elders_differentiated	21
Prevention_tolerance	21
Negative_damage	19
Tolerant	11
Negative_safety	11
Positive_majority	10

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

This how a farmer explained how damage over a threshold compromized tolerance towards bears:

…I have a serious problem on my crops and fruit trees every year until their hibernation. Every year, they destroy large amount of my wheat and sweet corn crops, I rest my case about my cherry and peach trees. This is unacceptable. We cannot gather our productions because there aren't many of them left, we lose money, lots of money. ….We want the bears here, but not when they do damages to us…. What do you expect? We want to be friends with the bears but not when we have them daily inside our fields, the official authorities need to help us otherwise people are getting aggressive towards the bears… (Interviewee No 20, Farmer)

5.3.3 Bear behavior

There were two aspects that interviewees highlighted with regard to bear behavior, first, that bears did not hibernate anymore, as they used to do in the past (24 out of 33), and that they exemplified quite clever and smart behavior (14 out of 33), especially, when they attempted to outsmart locals' own initiatives to prevent damage, for instance, when they installed and operated damage prevention measures.

5.3.4 Damages caused by bears and damage prevention methods

Respondents were not unanimous at all when commenting upon the degree of damage caused by bears. There was also different characterization of damage within the same interview, according to the context discussed. Interviewees could have referred to damage per se without characterizing it further (22 out of 33), some said that there was much damage (19 out of 33), and other that damage was rather confined (18 out of 33). All accounts on damage, however, were strongly linked to damage prevention methods. Indeed, all interviewees thought that electric fences were effective, and 28 out of 33 thought that livestock guarding digs were effective as well in preventing damage caused by bears. Comparing fences with digs, we may discern some minor concern in the case of dogs, since there were 4 respondents claiming that dogs could not be an effective damage prevention method in the case of bears.

There were numerous cases, where interviewee accounts were illustrative of how negative attitudes of locals should be attributed to damage caused by bears, and how supporting locals in implementing damage prevention methods would secure human-bear coexistence. Indeed, such accounts were an indirect confirmation of the perceived effectiveness of damage prevention methods, and also seemed to be used as a reference base for claiming wider demands directed to the state or environmental non-governmental organizations operating in the area. This kind of demands went beyond claims formulated of individual producers and they could take the form of demands of associations of professional producers (e.g., Beekeepers' associations, see extract by Interviewee No 17) or entire villages as represented by Presidents of Local Community Councils (see extract by Interviewee No 28):

…my members are angry, very angry… they want to be listened.. they want to be heard from the State, they want your help with electric fences because there cannot be a damage to a single apiary if it is fenced and if it will be fenced then they will want for sure to co-exist with the local bear population that has been significantly increased… (Interviewee No 17, Beekeeper)

… I am a professional farmer, I pay my taxes, I contribute through taxing to ELGA, I want the state to provide me electric fences, to educate me and others on how to coexist with the bear and then no problem at all, I will be her best friend… (Interviewee No 20, Farmer)

… give us damage prevention measures and we will be more friends with the bears… (Interviewee No 28, representative of Local Authority)

5.3.5 Compensation of damage caused by bears

The sample was unanimous in that the existing compensation system was not fair, because it could not compensate all damage caused by bears, and because there were gaps and inconsistencies in the documentation implemented by inspectors of ELGA, especially, when trying to document bear damage on livestock carcasses, which was not identifiable any more or when such carcasses could not be found in the first place. Therefore, all respondents stressed the fact that additional subsidies would be needed to compensate for all damage caused by bears.

5.3.6 Safety issues linked with bear presence

All respondents were able to verify that bears were approaching human settlements when discussing safety issues linked with bear presence (Table 5.3.6). This is a characteristic extract of such comments, which is also indicating that locals' behavior is also conditioned based on the perceived threat by bears:

…I'm afraid to go to my fields in the summer, several times I left my fields without watering them when I had to water them. I don't have to see the bear in front of me to be scared, I'm already scared just finding many different bear footprints within my fields and that stops me from entering them, especially when my crops are high enough when I do not have good visibility, not that they are aggressive but I do not want to scare them out of nowhere because I'm not sure how they will react if I will. I'm never going to risk it… (Interviewee No 20, Farmer)

Table 5.3.6. Safety issues linked with bear presence

Safety issues linked with bear presence	**Count**
Bears_approaching_settlements	33
No_attack_ recorded	28
Bears_avoid_humans	24
No_safety_issues	18
Female_with_cubs	14
No_way_out	10
Encounter_no_safety	9
Safety_issues_tourists	8
Safety_issues_hunters	5

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

At the same time, however, 28 out of 33 interviewees underlined that there has been no attack recorded of bears attacking humans and another 24 interviewees noted that bears, generally, try to avoid humans. A majority in the sample, was therefore, straightforward that did not see any safety issues with regard to bear presence (18 out of 33) and some also said that there were cases when locals encountered bears without that leading to any safety issues (9 out of 33). There were

several exceptions to the overall rule that bears were not a threat for humans, however, which need to be very carefully elaborated upon in the After-LIFE plan of LIFE Bear-Smart Corridors. Namely, female bears could be dangerous for humans when they were with their cubs (mentioned by 14 out of 33 interviewees). This is an example of this type:

…Well, I usually think that a bear is dangerous with its cubs. Yet, I've met her too many times, …too many times…, she doesn't change her path, she runs away. She doesn't bother me. However.., ok, I don't want to meet her with her cubs… (Interviewee No 19, Beekeeper)

Other instances, where bears could be dangerous for human safety were unexpected human-bear encounters, where the bear had no other way out of the scene except for moving towards people (No_way_out; 10 out of 33). We need to emphasize that this code was iterated by one-third of the sample and it should be very seriously taken into account in local coexistence plans. Finally, some interviewees noted that there could be safety issues for their tourists (8 out of 33) or hunters (5 out of 33).

5.3.7 Human-bear conflict

All interviewees were able to confirm instances of illegal killing of bears, which is an alarming aspect for bear conservation and management in the project area.

5.3.8 Intergroup relations between stakeholders

All interviewees could indicate some shift in stakeholder positions in the area when Intergroup relations between stakeholders were discussed. For half of the sample, stakeholder relations improved over time (16 out of 33) but for a substantial majority (28 out of 33), intergroup tension still remained.

5.3.9 Willingness to participate in the project and expectations from the project and sustainability of project outcomes

Although more than one-fourth of respondents (9 out of 33) could agree that bear presence can enrich the tourism product, which is currently offered in the project area, almost all respondents (32 out of 33) held reservations about their potential engagement in any initiatives for working on developmental opportunities based on bear presence due to time constraints. Another 8 interviewees added concerns about tourists' safety, echoing their responses in the interview section that was presented above (see 5.3.6 Safety issues linked with bear presence).

5.4 Results for the Greek project area of Trikala-Meteora

5.4.1 Bear numbers and trends

The respondents interviewed in the Trikala–Meteora area overwhelmingly stated—80% (24 out of 30 interviewees)—that the bear population trend in their region is increasing. The remaining participants believed the numbers have remained more or less stable. Notably, no one reported a decrease in the bear population. Among those who said the number of bears had increased, 25%

(6 out of 24) believed the increase was significant, while 16.6% (4 out of 24) described it as a slight increase.

A very interesting answer was given by a consultant of a local authority, who related bear trends in the area with limitations of human activities during the COVID pandemic:

…I believe that in the last five years, the population has been increasing compared to the previous five-year period, and it is possible that the COVID period contributed to this, with limited human mobility — many activities were restricted, even in relation to the countryside. Also, there was a ban on fires, and in general there was a limitation of actions impacting the environment. So, these factors contributed to the growth of both flora and fauna… (Interviewee No 11, Consultant of a local authority)

Table 5.4.1. Reasons provided by respondents for increasing bear numbers

Reasons provided by respondents for increasing bear numbers	**Count**
Rural_depopulation	16
Conservation_efforts	15
Poaching_decreased	13
Awareness_attitudes	12
Range_Distribution	10
Stock_breeding_decrease	9
More_newborns	5
Climate_change	4
Bear_Habitat_carrying_capacity	4
Sighting_signs_footprints	3

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

The dendrogram (Figure 5.4.1) reveals us three primary clusters. The first one is related directly with awareness and attitudes favoring bear conservation, implementation of conservation measures, and decrease in poaching. We could see, therefore, that it suggests a thematic group centered on positive human intervention and changing attitudes in the area. The respondents connected the increased conservation programs with the heightened public awareness efforts towards wildlife that has led to disapproval of illegal hunting.

The second cluster is focused more on rural and contemporary dynamic of our societies nowadays. The linkage among rural depopulation, range distribution of bears and the sighting/signs/footprints imply that the reduced rural population has allowed bears to reclaim their habitats. This is vindicated by the broader range of distribution and more frequent signs of bears.

The third cluster contains a diversity of codes related with broad ecological and biological factors, for instance, climate change and the increased habitat carrying capacity of the bears. Some of them also mentioned that this was not only valid for the bears, but for other wildlife species as well suggesting a general ecosystem recovery. This cluster also included the decrease in livestock

breeding, as a critical factor for the trend of bear numbers, as it has reduced human-wildlife conflict. In this regard, the positioning of a representative of local authorities was quite indicative of the complex, and, contradictory, at times, transitions in the rural countryside, which have a marked effect on bear numbers:

…We are seeing an abandonment of the countryside, which leaves a lot of free space for the animal, but at the same time this threatens the bear's very survival. This is because extensive livestock farming used to maintain forest openings, and even carcasses and animals served as food for the bear — as did the orchards on the outskirts of villages. Initially, this might seem beneficial, but in the long term, the trees will age and there will be no food… (Interviewee No 22, Representative of a local authority)

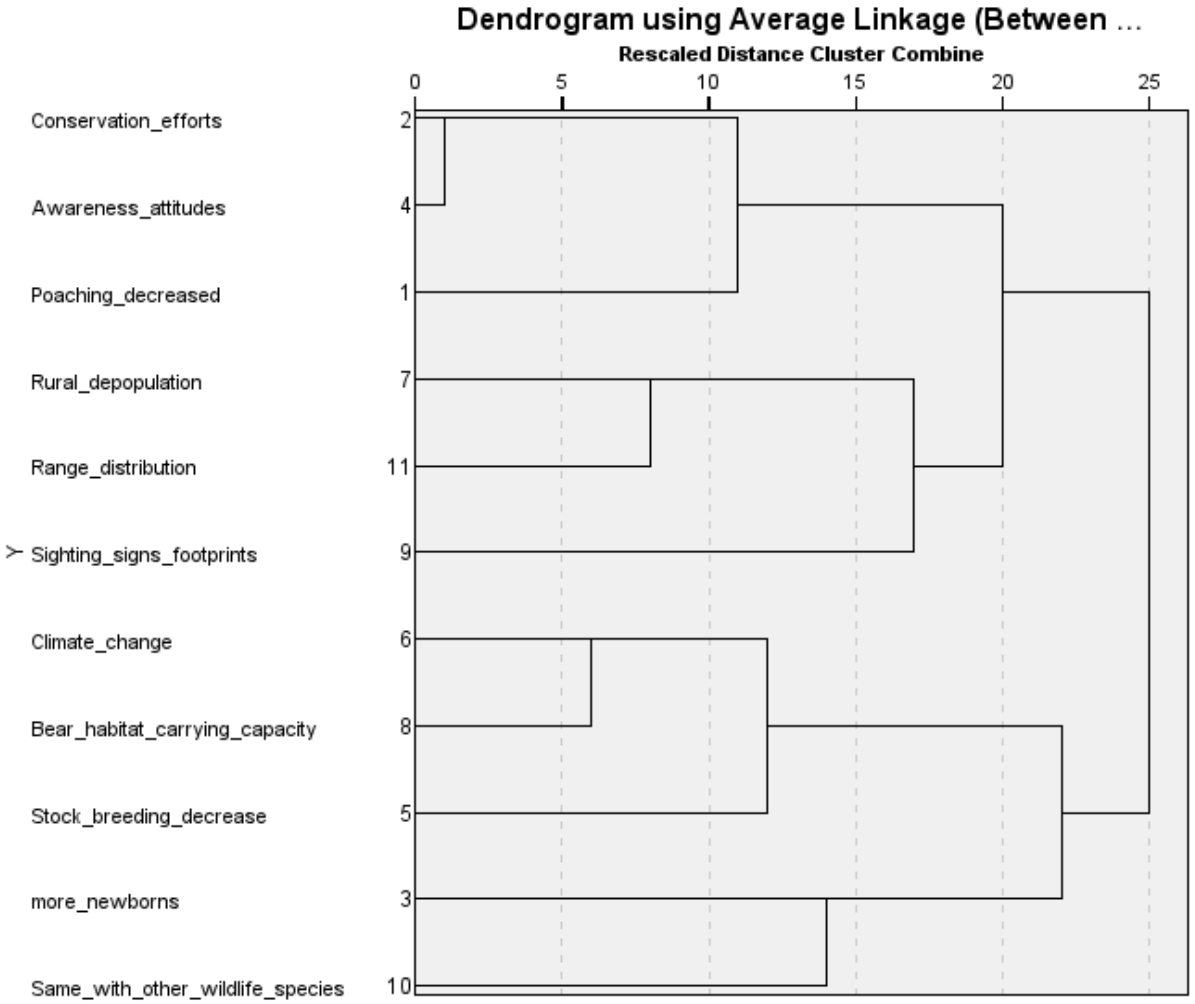

Figure 5.4.1. Cluster analysis of reasons given by interviewees for increasing bear numbers (Cluster method: Between groups linkage; Interval: Squared Euclidean Distance; Measure: Dice; Cluster distance rescaled between 0 and 25).

5.4.2 Local attitudes toward bears

Interviewee accounts about local attitudes towards bears reflected that the majority of locals were believed to be either positive (12 out of 30) or at least tolerant (9 out of 30) towards bears and bear presence (Table 5.4.2). This positive disposition was further elaborated upon by a representative of a local authority, who related it to a sense of pride or wealth:

…It has happened to me many times in more mountainous villages, where people take pride in the fact that there are bears in the area — they see it as a kind of wealth, and overall, they want the bear to be there… (Interviewee No 20, Representative of a local authority)

The two items mentioned above were clustered together with another two codes, which seemed to provide more context for tolerance, and which depicted the comparison between bears and wolves (10 out of 30) and the fact that bears used to take no more than one animal at a time (10 out of 30) (Figure 5.4.2).

One stockbreeder though, in order to show that bears cause confined damage in comparison with wolves said:

…Yes, we have an increase in damage, but wolves will cause damage to 1000 animals a year, while the bear used to cause damage to 10 animals per year, and now it causes 20. It has increased, but it's not significant in absolute terms… compared to the wolf, there's no comparison… (Interviewee No 15, Forester)

Table 5.4.2. Local attitudes towards bears

Local attitudes towards bears	**Count**
Negative_damage	22
Stockbreeders_differentiated	17
Population_with_direct_relationship_vs_not	14
Positive_majority	12
Increase_fear	11
Bear_vs_wolf	10
Negative_safety	10
Tolerant	9
Prevention_tolerance	8
Hunters_differentiated	7
Beekeepers_tolerant	6
One_animal	6
Elders_differentiated	4

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

The second cluster includes the most frequent code in this section, which attributed negative attitudes towards bears to the damage nears may cause (22 out of 30). This code correlated in the same cluster with the perception that stockbreeders and hunters were differentiated as stakeholder groups within the local population because they were more likely than other groups to hold negative attitudes towards bears (17 out of 30 and 7 out of 30, respectively). The second cluster was concluded with beekeepers being presented as more tolerant than other groups towards bears, and with another code associating tolerance to the implementation of damage prevention methods (e.g., electric fences; 8 out of 30).

The third cluster highlights a significant pattern among respondents who maintained a more direct relationship with bears (14 out of 30) such as those living in closer proximity to bear habitats or whose livelihoods are more immediately impacted by bear presence. This group expressed a notably heightened level of concern regarding the increasing tendency of bears to approach human settlements. Their responses indicated that this proximity not only fueled a growing sense of fear (11 out of 30) but also contributed to a perceived decline in local safety (10 out of 30). The perceived threat was not necessarily due to actual encounters, but rather due to the psychological impact of living in areas where bear sightings or signs were becoming more frequent.

This is how a Forester described the relationship of those who are affected mostly with bears:

…Those who are affected by bears — meaning someone who has a problem with their chickens, their animals, etc. — have a negative attitude; they want the bear removed, etc. This is the group concerned with the damage caused by the bear. The rest of the population, who hear about the bear being in its natural habitat, consider it part of nature, a once-rare animal they now see around — they regard it as something positive… (Interviewee No 1, Forester)

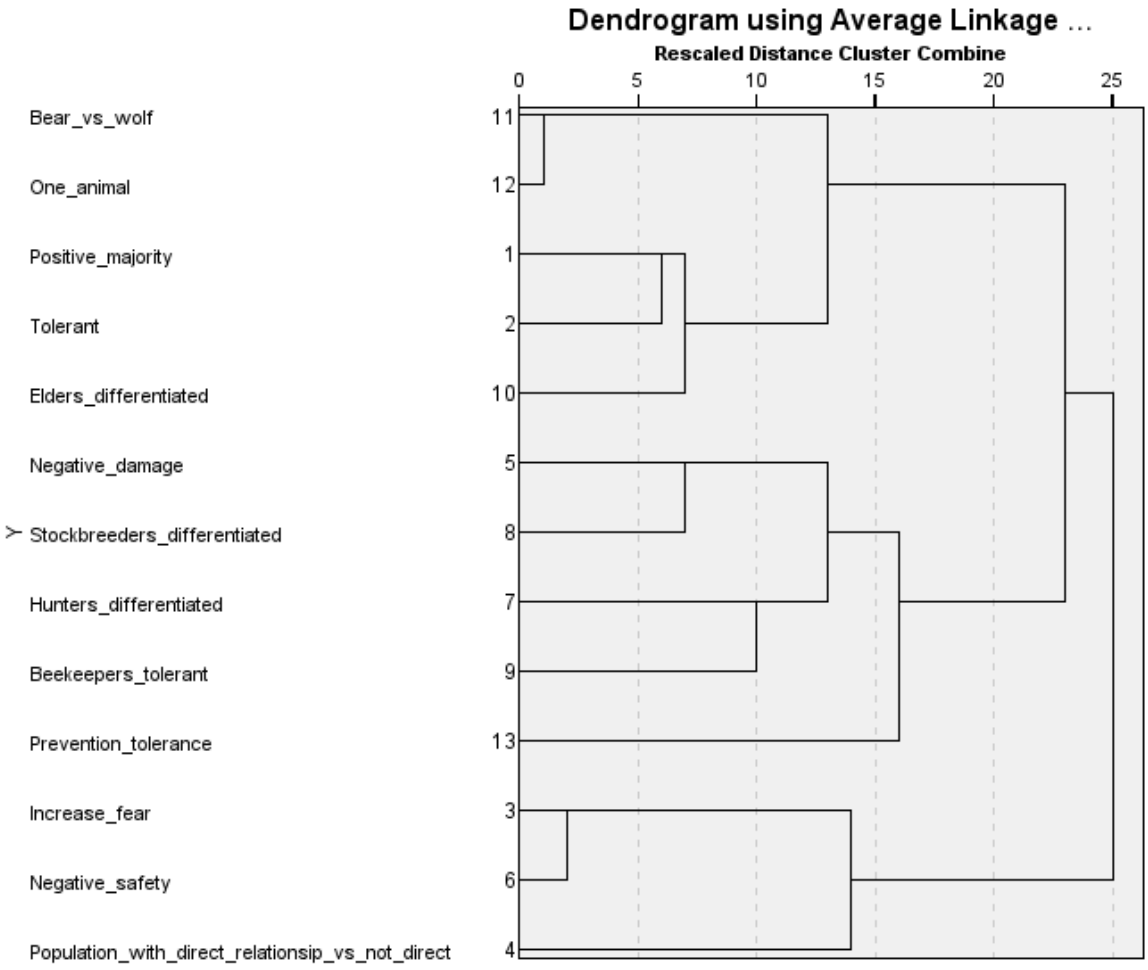

Figure 5.4.2. Cluster analysis of reasons given by interviewees for increasing bear numbers (Cluster method: Between groups linkage; Interval: Squared Euclidean Distance; Measure: Dice; Cluster distance rescaled between 0 and 25). Cluster distance rescaled between 0 and 25.

5.4.3 Bear behavior

The frequency of codes in Table 5.4.3 indicates that the increased approach of bears to human beings constituted the bear behavior that most respondents distinguished (22 out of 30). It also indicates that one of the most concerning issues for local communities is bears entering within human settlements more frequently than before. This was further connected with the fact that bears were searching for food in garbage bins within villages, which was mentioned by 7 respondents and that they now caused more damage than in the past (5 out of 30).

This is what a hunter mentioned about the damage that bears may cause:

…There are certain animals that have specific behaviors… for example, bears often attack chicken coops. In Agiofyllo, they attacked 10-15 chicken coops. They attack chicken coops and livestock pens. Some of these bears are harmless, while others exhibit aggressive behavior. These aggressive bears should be captured and relocated to more remote areas… (Interviewee No 13, hunter)

Table 5.4.3 bear Behavior

Bear Behavior	**Count**
Increased_approach_to_human_beings	22
Food_in_garbage_cans	7
Protection_of_cubs	7
Tame_bear_dancing	5
Increased_damage	5
Smart	5
Do_not_hibernate_anymore	4
Revenge	4

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Another code in this topic was that female bears were very protective of their cubs (7 out of 30), and that they have exhibited revenge behaviors when they themselves or their cubs were attacked by humans (4 out of 30). The following two stories, the first by a stockbreeder and the second by a beekeeper, can illustrate such behaviors:

…If the bear is provoked, it can cause damage. For example, they hit a cub at a barn, and the bear went and killed 3 sheep. The next night, it killed 25 sheep… (Interviewee No 8, Stockbreeder)

…I personally encountered a bear with my car. It had two cubs, and when the cubs were delayed, the bear stood up on its hind legs facing the car. Once the cubs moved away, the bear also went off into the distance... I've also seen an incident with a shepherd, where the bear threw stones at dogs… (Interviewee No 3, Beekeeper)

The last three types of behaviors that were mentioned by the respondents were that bears were quite smart (5 out of 30), highlighting practical experiences with bear intelligence. Some also expressed the concern that nowadays bears either did not hibernate at all or that their hibernation was radically reduced (4 out of 30). Another 5 respondents referred to an old habit practiced by Roma who captivated bears and exploited them as "dancing bears' (tamed bears) for performance

and gathering money from spectators in villages. The fact that this practice stopped signified the shift to the current paradigm of bear conservation and management. As an interviewee from the Tourist sector mentioned:

…The exploitation of bears has stopped, which used to be a traveling show with bears in the 70s and 80s. I was a small child, and I remember it in Kastraki. Roma would come with chains and hold the bear, and the bear would perform dances. It's an image from my childhood that I have in my mind… one that filled me with awe. These practices are now not allowed in Greece… (Interviewee No 27, Tourism entrepreneur)

5.4.4 Damages caused by bears and damage prevention methods

Damages caused by bears was examined in close connection with damage prevention measures. As illustrated in Table 5.4.4.1, the perspectives of interviewees varied considerably. Specifically, 12 respondents indicated that bear-related damage was relatively limited or contained, suggesting that in their experience, encounters with bears did not result in widespread or severe harm. In contrast, 11 participants acknowledged the occurrence of bear damage but did not provide specific details or qualify the extent of the impact, which may reflect a general awareness without direct experience or a lack of clarity about the consequences.

Table 5.4.4.1. damage caused by bears

Damage caused by bears	**Count**
Confined_damage	12
Damage	11
Much_damage	7
Not_enclosed	6

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Meanwhile, 7 interviewees reported that the damage inflicted by bears was substantial, implying more frequent or serious interactions that had a notable impact on their livelihoods or property. Furthermore, 6 respondents explicitly linked bear damage to the vulnerability of livestock and property that were not adequately enclosed or protected. According to their observations, animals and belongings left in open or poorly secured areas were far more susceptible to bear intrusions and subsequent harm, emphasizing the critical role of preventive infrastructure in mitigating these risks.

As far as the prevention methods are concerned (Table 5.4.4.2), it seems that electric fences were mentioned more than anything else by the respondents (27 out of 30). Indeed, 21 interviewees claimed that electric fences were very effective against bear damage, reinforcing their perceived reliability and practicality in preventing bear intrusions, while only 5 respondents claimed that fences were not effective. A beekeeper was particularly confident about the effectiveness of the fencing, saying that:

…Yes, it is proven to be effective. I saw it myself because I saw bear tracks going towards the fence, and it was clear that the fence prevented the bear from passing… (Interviewee No 16, beekeeper)

Table 5.4.4.2. Damage prevention methods

Damage prevention methods	**Count**
Fences	27
Fences_effective	21
LGDs	20
LGDs_effective	13
Effective_measures	11
Noises	8
Familiriarization	7
Fences_not_effective	5
LGDs_not_effective	3

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

A member of an environmental non-governmental organization highlighted good practice in establishing and maintaining electric fences. Indeed, this interviewee related beliefs that fences were not effective with such good practice not being taken up by users of fences:

…There is a problem with fences for some people because they don't maintain them properly, and they don't work. Either they fill up with grass, or they don't have the right humidity in the summer, and they think that the method isn't effective, while the problem lies in the improper use of it… (Interviewee No 6, member of environmental non-governmental organization)

Except for the fences, another prominent prevention method was Livestock Guard Dogs (LGDs), mentioned by 20 respondents. Of those, 13 characterized this measure as effective, serving both as a deterrent as well as an alert system for the stockbreeders. In contrast, only 3 interviewees believed that LGDs cannot prevent livestock from bears. Another method that was pointed out was tape recorders producing noise, which were especially used by beekeepers and farmers (8 out of 30).

In the following cluster analysis, codes for bear damage were clustered with prevention methods. The first cluster included "LGDs" (Livestock Guard Dogs) and "LGDs_effective", tightly grouped, and a second cluster with "fences" and "fences_effective", suggesting that the two most commonly used damage prevention methods were clustered in interviewee accounts and portrayed as quite effective.

In the bottom cluster of Figure 5.4.4, noises produced by tape recorders were linked to bears getting familiarized with such noises, which obviously indicates that the effectiveness of the latter methods was limited and contingent upon bears' familiarization. Several respondents (7 out of 30; see also Table X) noted, in this regard, that over time, bears become accustomed not only to noises but to electric fences as well. This cluster, therefore, highlighted a perceived limit in the effectiveness of these measures in the long term. We need to note that "much damage" was not clustered with any other code in Figure 5.4.4. Instead, "confined damage" was linked to "not enclosed", pointing towards the increased likelihood of bear damage, even if confined in size, occurring anytime animals were not gathered in enclosures.

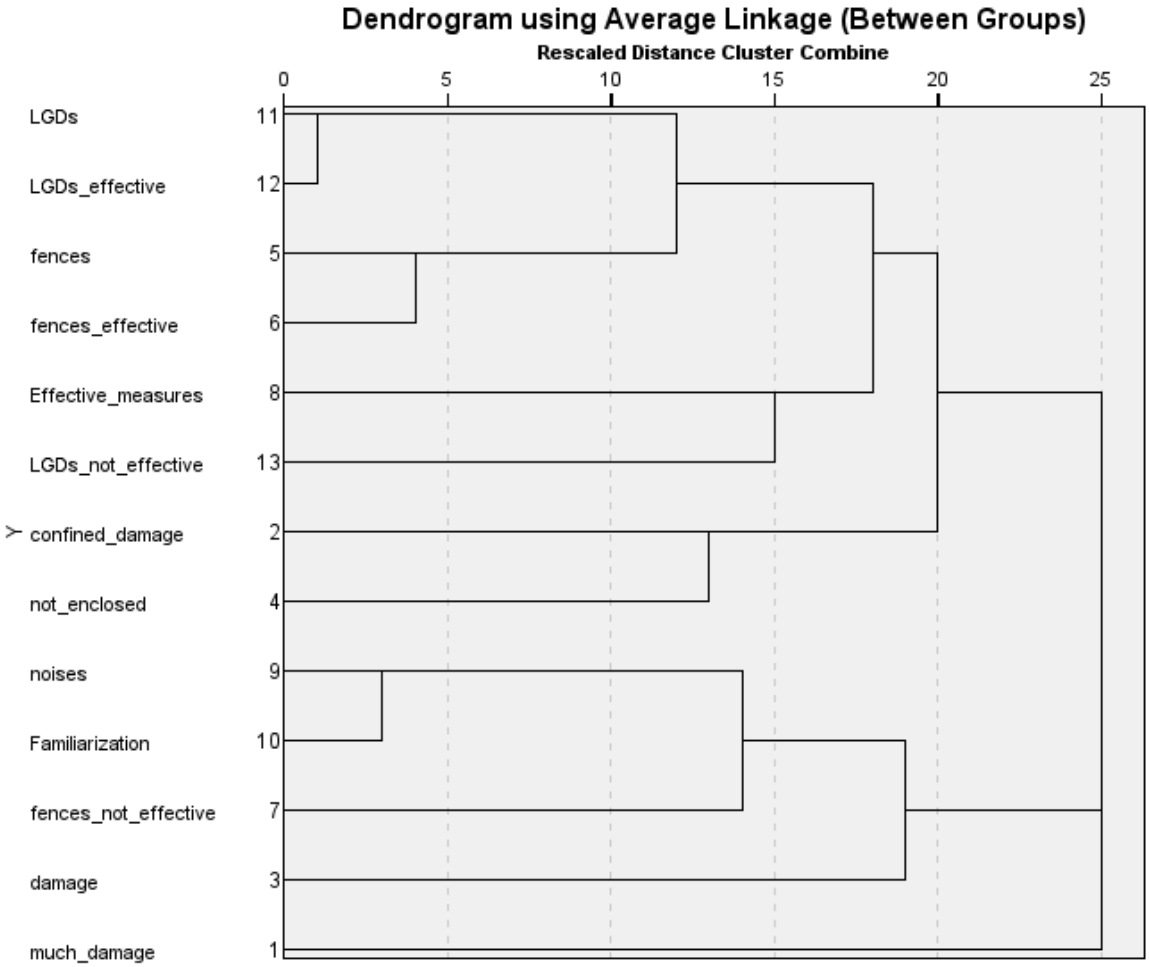

Figure 5.4.4. Cluster analysis of reasons given by interviewees for increasing bear numbers (Cluster method: Between groups linkage; Interval: Squared Euclidean Distance; Measure: Dice; Cluster distance rescaled between 0 and 25). Cluster distance rescaled between 0 and 25.

5.4.5 Compensation of damage caused by bears

Two out of three interviewees portrayed the compensation system as not being fair (20 out of 30), which implies that much needs to be done to address several aspects of this system (Table 5.4.5). Another 18 out of 30 respondents concentrated on problems with documenting damage caused by bears, which is undertaken by inspectors of the Greek Agricultural Insurance Organization (ELGA). This is how a representative of a local authority commented upon the compensation system and ELGA:

…The system is neither fair nor sufficient because ELGA updates the values [of animals] that were set 15 years ago, which are not the same as today. The employees of ELGA are friendly, and many times it has happened that a damage was reported as being caused by a bear, even if it wasn't, in order to prevent the animal [bear] from suffering [due to retaliatory killing] (Interviewee No 16, Representative of a local authority)

In the same vein, one tourism entrepreneur noted with regard to compensation and ELGA:

…There is ELGA, which provides compensation, but it's a long process, and the money they compensate is very little… it's not fair, and I wouldn't even go through the process of claiming

compensation from ELGA due to the time-consuming procedure, the expenses involved, the need to submit documentation, and the expenses to come. And even when you get it, the compensation is minimal." (Interviewee No 17, Tourism entrepreneur)

Table 5.4.5. Interviewee accounts on compensation of damage

Interviewee accounts on compensation of damage	**Counts**
Not_fair	20
Documentation_ELGA	18
Not_all_damage	14
Not_sufficient	14
Specific_number_and_over	10
Fair	5
Documentation_carcasses	5
Subsidies	5

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Another response voiced by a significant number of respondents (10 out of 30) was one focusing on the minimum number of livestock damaged before one was entitled to receive any compensation ("Specific_number_and_over"). Respondents stressed the contradiction observed when they compared this minimum to the fact that bears most often would attack one animal or two. Consequently, any damages inflicted upon these animals remain uncompensated, leaving the affected parties without institutional support.

Another response illustrative of the unfairness of the compensation system and the ability of ELGA to timely diagnose bear damages was given by a Farmer who noted that:

…One thing that is discussed among the stockbreeders is not to lose an animal on Friday or Saturday. If a bear attacks on Friday afternoon, ELGA will come on Monday morning. What are you supposed to do during those 3 days? A dead animal will attract other predators." (Interviewee No 12, Farmer)

The dendrogram of cluster analysis with codes in this section included a first cluster with codes depicting the unfairness of the compensation system in place ("not fair"), with converged in more detail on the fact that the compensation system was not able to address all damages caused ("not all damage", for instance, decreased milk production usually observed in the case of livestock surviving a bear attack) and that it offered monetary equivalents which could not match the cost related to bear damage ("not sufficient", for instance, since any compensation was lower than the market value of livestock damaged). All of these codes featured with relatively increased frequency in interviewee accounts (Table X). These responses express dissatisfaction with the extent and adequacy of compensation, indicating a shared concern that not all damages are covered and the compensation provided is often insufficient.

A second cluster related the codes "documentation ELGA", (18 mentions) and "documentation carcasses" (5 mentions), highlighting either the incompetence of ELGA inspectors to verify bear damages or the problem of not being able to find the carcasses of livestock damaged by bears. Such instances caused considerable frustration to locals suffering bear damages. Respondents

appeared to associate fairness and sufficiency of the whole system with the difficulty or complexity of the protocols for documentation, especially those regarding carcasses and the verification of livestock loss.

We should note that the few respondents who characterized the compensation as "fair" (5 out of 30) were not clustered with any other code in Figure 5.4.5. This disparity emphasizes that positive perceptions of the system are relatively rare, and that the broader sentiment is skewed toward skepticism and critique.

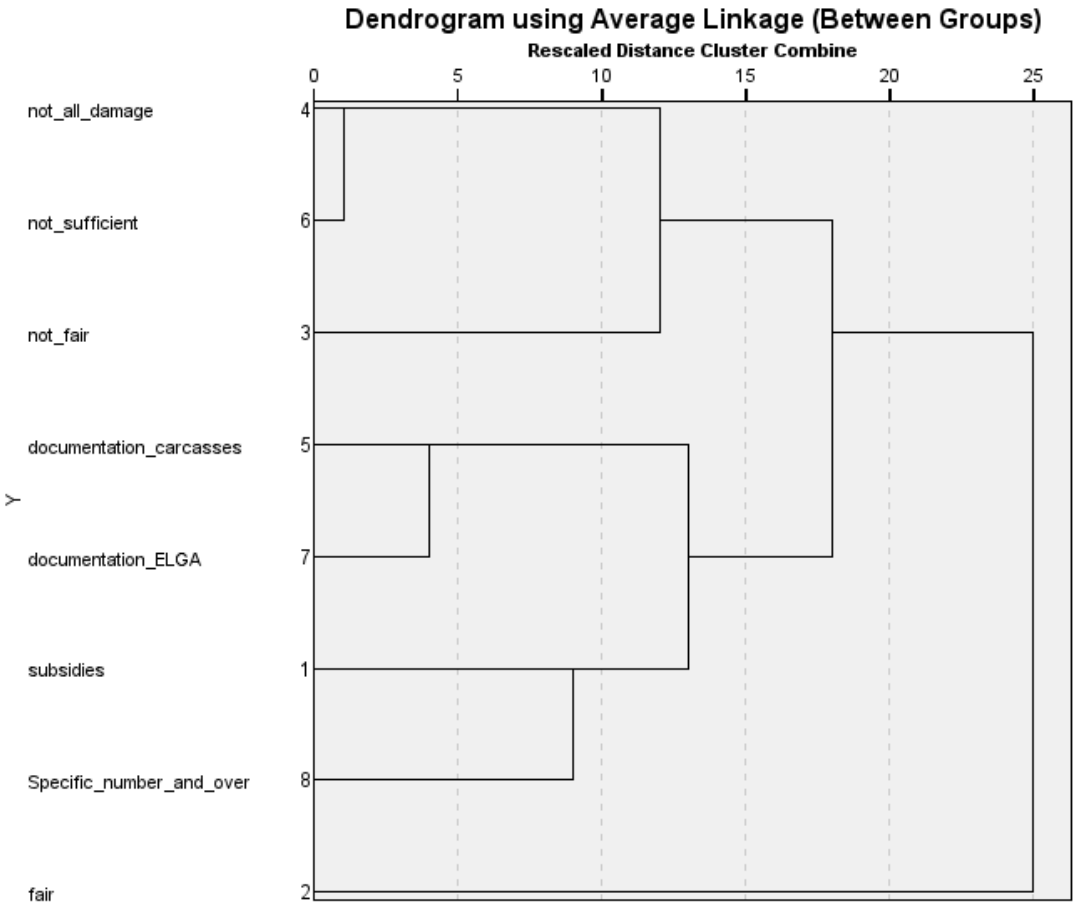

Figure 5.4.5. Cluster analysis of reasons given by interviewees for increasing bear numbers (Cluster method: Between groups linkage; Interval: Squared Euclidean Distance; Measure: Dice ; Cluster distance rescaled between 0 and 25). Cluster distance rescaled between 0 and 25.

5.4.6 Safety issues linked with bear presence

In this section, the perceptions of interviewees will be analyzed regarding the safety issues related to bear presence. According to Table 5.4.6, the majority (16 out of 30) of respondents believes that there were no safety issues related to bear presence (No_safety_issues). At the same time though, more than one third (11 out of 30) of our sample stated that they could identify safety issues related to the increase of the bear population and an analogous percentage acknowledged the increase of bear approaches to human settlements (10 out of 30). In this direction, a stockbreeder shared an incident he was aware of:

…I know of one instance where a bear attacked a person. Of course, this person had two dogs, and they saved him. He got close to the bear, and it hit him, but luckily, the bear started chasing the dogs, and he was saved. The man was later transferred by helicopter to Athens… (Interviewee No 8, Stockbreeder)

Table 5.4.6. safety issues linked with bear presence

Safety issues linked with bear presence	**Counts**
No_safety_issues	16
Safety_issues	11
Bears_approaching_settlements	10
Female_with_cubs	9
Bears_avoid_humans	8
No_attack_recorded	5
No_way_out	5
Safety_issues_tourists	4

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Cluster analysis revealed two major groups (Figure 5.4.6). The first hosted all codes illustrating concerns about safety issues, namely, bears approaching human settlements, safety issues with tourists in the project area, and safety issues arising in cases where female bears were accompanying cubs.

This is an example of how a forester narrated a recent incident with a man being chased by a bear:

…This year, a bear was chasing a man without cubs. Luckily, there was a fir tree, and he climbed up the tree and stayed there while the bear waited below and threatened him for about an hour… (Interviewee No 15, Forester)

In contrast, the second cluster of Figure X included all codes that expressed the perception that bear presence did not constitute any safety issue for local communities or that there were no records of bears attacking humans.

A last cluster may seem contradictory in a first reading. It involves a code building on the argument that bears usually try to avoid humans. At the same time, however, it also involved the code that there could be an issue with human safety, when humans encounter bears in places where the latter do not have any way out unless moving towards humans. We may take the second code as an exception for the first code, which may be recognized as a general rule.

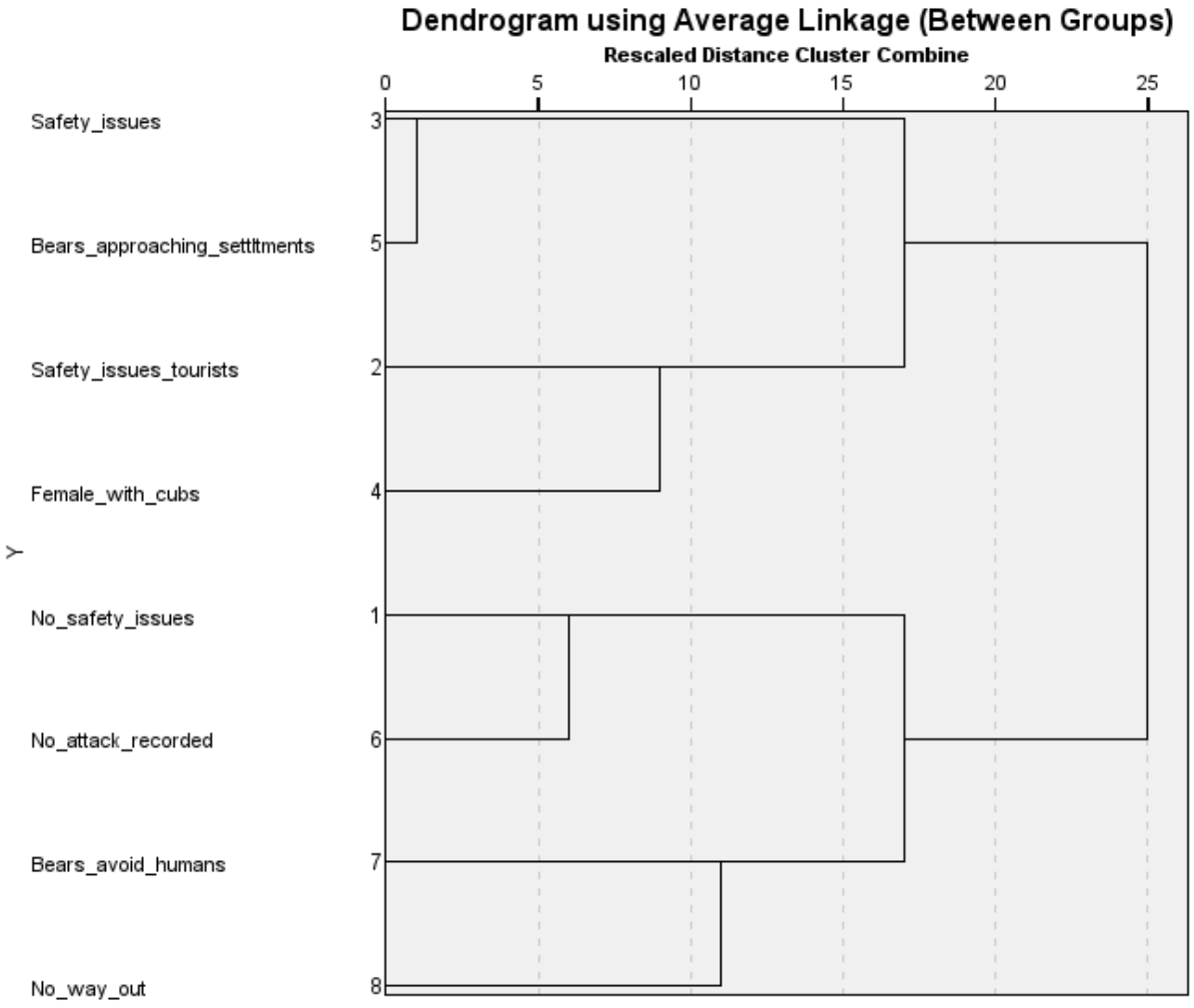

Figure 5.4.6. Cluster analysis of reasons given by interviewees for increasing bear numbers (Cluster method: Between groups linkage; Interval: Squared Euclidean Distance; Measure: Dice ; Cluster distance rescaled between 0 and 25). Cluster distance rescaled between 0 and 25.

5.4.7 Human-bear conflict

Table 5.4.7 shows that the sample was divided in three groups with regard to trends in human-bear conflict. More than one third of respondents saw conflict increasing. An experienced forester highlighted cases of human-bear conflict were lately more often recorded than in the past:

…It is increasing, but it is also the case that more incidents are being recorded now. In the past, we may have had an increase, but now there is an increase in the recording of incidents as well. In the past, we may have had incidents, but they weren't recorded." (Interviewee No 1, Forester)

A more complex but insightful, as well, explanation for increasing human-bear conflict was offered by a stockbreeder. He interrelated stable incidents of human-bear conflict with the decreasing local population in the project area, which eventuated into a relative increase of conflict despite that such incidents may have remained stable in time:

…It is stable, but in reality, it has increased because while the number of people has decreased, the incidents have not decreased, so it has increased proportionally. Therefore, the coexistence between humans and bears has worsened… (Interviewee No 9, Stockbreeder)

Table 5.4.7. Human-bear Conflict

Human-Bear Conflict	**Counts**
Increase	11
Stable	9
Decrease	7
Depopulation	6
Illegal_killing	3

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Almost one third of respondents stated that human-bear conflict remained stable (9 out of 30) and another 7 respondents believed that it decreased over time. A representative of a local authority expressed the belief that preventive measures were effective, and they were decreasing human-bear conflict for primary producers (i.e., beekeepers, livestock breeders, farmers) but he also highlighted that the conflict now was taking a new form with bears entering villages:

…The conflict is transforming. The conflict with primary producers is stable or even decreasing because they have taken preventive measures, but the new conflict with bears' entry into villages for garbage bins is a new type of conflict… (Interviewee No 19, Representative of a local authority)

A less frequent code highlighted illegal killings of bears, which was stated by only 3 interviewees. According to a forester, however, poachers were discouraged from attempting any illegal killing due to prevailing bear conservation efforts and regulations:

…In the past, there wasn't an issue with conflicts. They would grab their rifle, go out, and clear it. Now, they are a bit afraid to do such things… (Interviewee No 15, Forester).

There were also some alarming instances reported of illegal killing of bears (3 out of 30):

…Livestock farmers and beekeepers who face problems try to deal with them in some way, by protecting their animals — and sometimes they may come to an agreement with hunters to hunt and kill part of the population. Also, some hunters on their own have hunted bears, as bear meat is considered very tasty. There are hunters who say, 'Let's go kill a bear because its meat is very delicious and expensive, and we sell it.' Especially the leg — they say it's edible and resembles beef." (Interviewee No 16, Beekeeper)

5.4.8 Intergroup relations between stakeholders

Table 5.4.8.1 presents codes for stakeholder collaboration. A considerable majority of the sample (20 out of 30) responded positively, when they were questioned about the potential collaboration of stakeholders in order to promote coexistence among humans and bears and only 5 out of 30 responded negatively, believing that such collaboration would not be possible.

At the same time, 19 out of 30 interviewees mentioned that they were aware about implemented initiatives, working on this subject, with many of them referring explicitly to the name of this program (LIFE Bear-Smart Corridors). Moreover, 15 respondents characterized LIFE projects as

"successful", overall, when talking about these projects, while only 5 out of 30 thought that they were not successful.

Table 5.4.8.1. Collaboration between stakeholders

Collaboration among Stakeholder	**Counts**
Stakeholder_collaboration	20
Related_implemented_initiatives	19
Successful	15
Not_succesful	5
No_stakeholder_collaboration	5

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

As far as intergroup relations between stakeholders are concerned (Table 5.4.8.2), 9 out of 30 mentioned that they perceived a shift in stakeholder positions, which means that they were able to discern a gradual transformation and modification of their positions over time. Though 7 people highlighted intergroup tension among stakeholders, notifying issues of trust and cooperation, in particular, which were influencing their current relations. A stockbreeder stated that collaboration among stakeholders is feasible if stakeholders engaged assume responsibility of the process:

…Yes, they can collaborate, but there need to be responsible people for this, because otherwise, the different groups 'speak a different language and won't be able to do it alone.' As long as there aren't responsible people, these conflicts between the groups will increase… (Interviewee No 9, stockbreeder)

Table 5.4.8.2. intergroup relations between stakeholders

Intergroup Relations of Stakeholders	**Counts**
Shift_in_positions	9
Intergroup_tension	7
Relations_improved	6
Reintroduction_narrative	5

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

A beekeeper stressed the reasons for potential tension with stockbreeders:

…As a beekeeper, when I go to a new area to place my hives, if there are livestock farmers and units, we have a problem because they consider the land to be their property… (Interviewee No 16, Beekeeper)

There were some respondents (6 out of 30) who noted an improvement in stakeholder relations. Finally, there were another 5 interviewees, who referred to the reintroduction narrative, according

to which, it is supposed that there are some members of environmental non-governmental organizations breeding bears in captivity and releasing them in the wild, influencing bear numbers radically. This is a strong latent mediator of intergroup relations between stakeholders, especially, environmental NGOs and primary producers who endorse the reintroduction narrative.

5.4.9 Willingness to participate in the project

Table 5.4.9 presents the codes for willingness to participate in the project. Most respondents (16 out of 30) mentioned that a main reason for someone to take part in the project was to find solutions to their problems. For instance, a Farmer stated that:

…The program aims to prevent damages… that's where it will help attract more people — to make them understand that what the program essentially does is to support people and communities…. (Interviewee No 12, Farmer)

Table 5.4.9. Willingness to participate in the project

Participation in the Project	**Counts**
Find_solutions	16
Enough_Participation	12
Related_job	11
Interest	11
Not_enough_participation	8
Not_interest	7
No_time	5
wrong_communication	5
Right_communication	4

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

A notable number of respondents (12 out of 30) said that the participation was enough in the project and that they would participate in a related project in the future. In contrast, 8 interviewees underlined that there was not enough participation. During the interviews, when a farmer asked why he would take part in this kind of a project he started crying, answering simply that:

…Because I love nature and it calms me, and I want to help people return to it…. (The interviewee started crying) (Interviewee No 10, Farmer).

Cluster analysis revealed three main groups of codes (Figure 5.4.9). People who thought that participation offered was not enough related it to lack of interest of local people about the topic (7 out of 30) and the wrong communication that has been implemented during the project (5 out of 30). Some of the miscommunication was due either to the lack of or the need for more cross-scientific information, especially for farmers who often have no means of communication or do not know how to use them properly.

This is how a Forester attempted to attribute a general apathy he was able to discern for public matters to the COVID-19 pandemic:

…There is a general apathy toward all public matters, and I believe this is a consequence of COVID. People in rural areas have become more cautious and suspicious—whenever something is presented as being for the common good or as a collective initiative, the first thing that comes to mind is that 'they' must be trying to gain something from it… (Interviewee No 6, Forester)

The second cluster of codes included those who portrayed a positive engagement with the project. This cluster seemed to form a "positive" mirror of Cluster 1, including codes that described participation as "enough", interest for the project among locals and communication as "right".

The last cluster involved three last codes, which were loosely interrelated, namely, references which linked participation to people motivated to find solutions to practical problems or those with jobs related to project actions (11 of 30), as well as references to those who did not participate because there was not time available for such engagement (5 out of 30), which was mainly voiced by stock breeders. "Find_solutions", "No_time" and "related job".

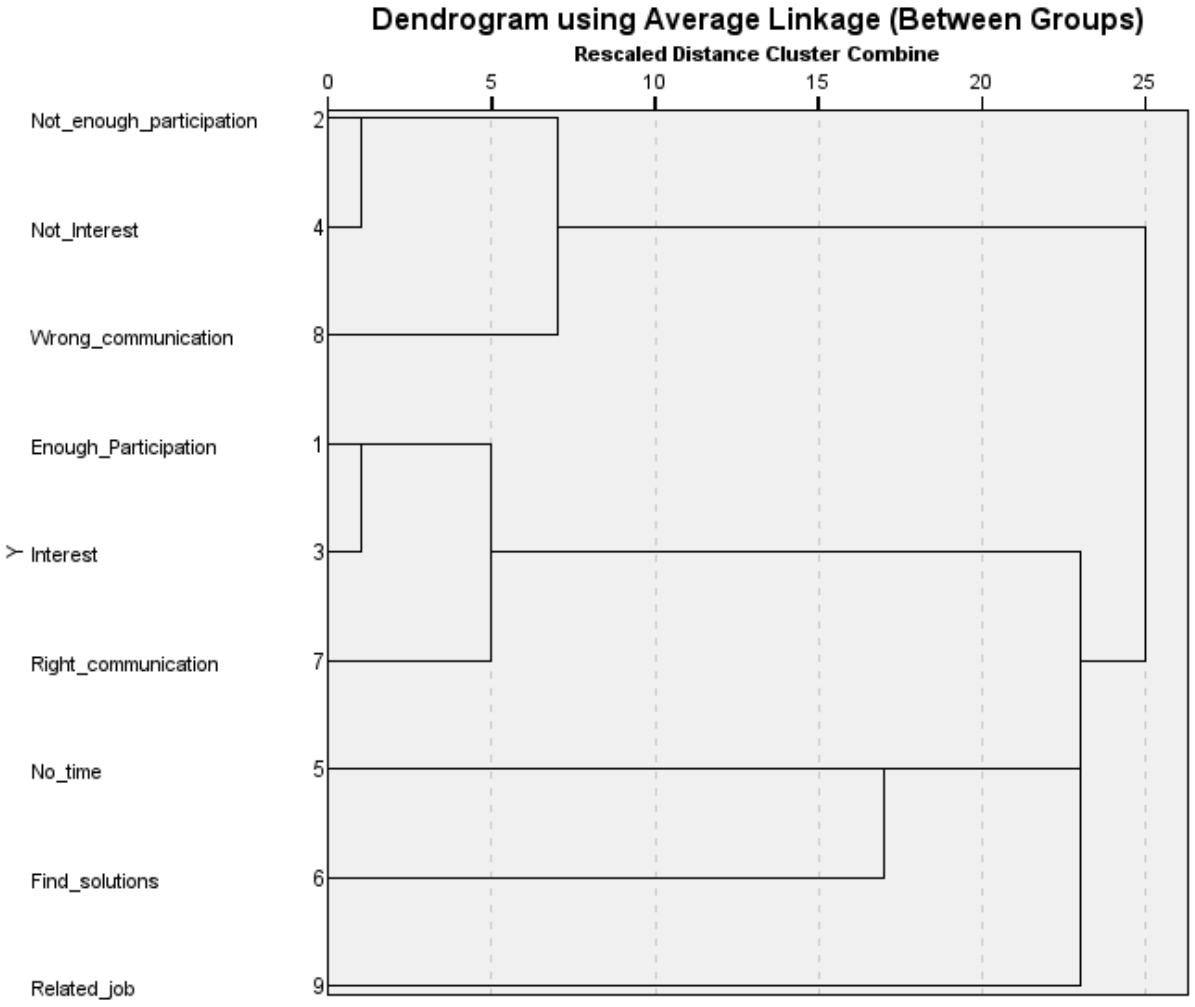

Figure 5.4.9. Cluster analysis of reasons given by interviewees for increasing bear numbers (Cluster method: Between groups linkage; Interval: Squared Euclidean Distance; Measure: Dice ; Cluster distance rescaled between 0 and 25). Cluster distance rescaled between 0 and 25.

5.4.10 Expectations from the project and sustainability of project outcomes

Counts in Table 5.4.10.1 show the anticipated impacts of the project. The most frequent outcome (14 out of 30) was related to raising awareness of the local communities, around wildlife, conservation efforts and coexistence. A very characteristic response, which indicated the perceived effectiveness of the project, as well as its ability to raise awareness of local people and influence local attitudes, was given by a stock breeder:

…I believe the program currently running is successful, and my own thinking—before I became informed—was that, since it causes damage, it is dangerous for me too, so if I had the chance, I would kill it. But now I've started to see things differently… (Interviewee No 30, Stockbreeder)

Table 5.4.10.1. Expected outcomes from the project

Expected Outcomes	**Counts**
Awareness	14
Decrease_Damage	12
Data_Research	12
Stakeholder_engagement	11
Deterrents	10
Development_outcomes	3

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

A very practical outcome of the project was the decrease of damage (12 out of 30) which was obviously related to the provision of deterrents (10 out of 30). Another feasible result, that was highlighted by the interviewees (12 out of 30), was data-driven, evidence-based research. Interviewees seemed to understand the need for gathering and analyzing scientific data about wildlife in their area, which could help optimize conservation efforts and evidence-based decision-making.

Moreover, slightly more than one-third of the sample mentioned that stakeholder engagement would be promoted (11 out of 30) to create a more inclusive and participatory involvement, which could lead to more effective solutions. Development outcomes were considered in this topic only by 3 out of 30 respondents.

With regard to respondent expectations after the project has concluded (Table 5.4.10.2), the majority of respondents wanted the project to continue conservation efforts through additional projects and activities (19 out of 30) and believed that the situation after the completion of the project would be better than before with regard to awareness, stakeholder engagement and human-bear coexistence (17 out of 30). Indeed, the need for continued efforts was noted by many as a necessary condition for sustaining the results of the project.

A smaller group of interviewees highlighted "collaboration" (6 out of 30) as a key expectation, suggesting that the project fostered positive dynamics among stakeholders that need to be sustained. However, some respondents expressed skepticism, with five expecting things to remain "the same as before", revealing that there was a minority concerned about the long-term

effectiveness of the project. Quite interestingly, such concerns were accompanied by call for securing the sustainability of the main project results, as noted by a forester:

…I'm not optimistic that we will see significant results unless something structured is created — something under which all organizations and actions will be coordinated…. (Interviewee No 15, Forester)

Table 5.4.10.2. Expectations after the project has concluded

After project expectations	**Counts**
Continuity	19
Better	17
Collaboration	6
Same_as_before	5

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Finally, interviewees mentioned quite a few options for alternative development initiatives based on bear presence (Table 5.4.10.3). Tourism was the most popular among them, mentioned by 17 out of 30 respondents, and indicating the region's appeal for nature-based and wildlife tourism. Many interviewees saw bears not only as a nuisance species but also as an ecotourist attraction, particularly for people interested in wildlife viewing, outdoor recreation and ecological experiences.

A tourist guide stated, in this regard:

…A visitor coming to a destination will ask a guide what kind of wildlife exists—so the element of wildlife is part of the storytelling. Saying that we have the brown bear adds value to the tourism product—intangible, but it helps create an emotional connection. When a European tourist is walking along a trail and you tell them that this is the same path the bear walks, it creates added value… (Interviewee No 27, Tourism entrepreneur)

Table 5.4.10.3. Development opportunities based on bear presence

Development opportunities based on bear presence	**Counts**
Tourism	17
Trails	8
Packaging_branding	7
Sightseeing	5
Nymfaio	5

Note: Counts add to more than 100% of the sample (N=30) because each respondent could mention more than one item; items displayed in order of decreasing frequency

Similar to the above, 8 out of 30 respondents emphasized the need to create or maintain "trails" meaning hiking trails and walking routes. Such infrastructure can not only attract tourists but may also channel the access for both local people and tourists in several parts of the project area in a structured and eco-friendly manner.

"Packaging and branding" (7 out of 30) also emerged as a notable opportunity. Respondents pointed to the potential for leveraging the region's natural and cultural identity—including the presence of bears—as a brand to promote local products or services. This may include the creation of labels or thematic narratives that enhance the marketability of goods such as honey, dairy, or handmade crafts, contributing to rural entrepreneurship and regional identity:

…Yes, for example, I sell stuff at the ksilopariko, and I have a sign that will be provided by the program, that I'm a bear-friendly business and I'm informed myself and I have information material for visitors. Yeah, I think that's going to work developmentally… (Interviewee 28, Tourism entrepreneur)

On the other hand, "Sightseeing" (5 out 30) indicated a preference for the availability of several types of wildlife viewing experiences. In a similar vein, references to Nymfaio (5 out 30) seemed to exemplify a wish to mirror the example of bear conservation in the area of Amyntaio, which is also part of the LIFE Bear-Smart Corridors project. In these references, there were examples of ecotourism related to bears, which signaled the significance of establishing bear tourism centers as options for future development in the area. According to some interviewees, Nymfaio may act as a model for wider bear tourism strategies with its infrastructure, visibility, and experience that can be transferred to Trikala and Meteora. This is how a farmer described such an example:

…Here in the village, we have a healing spring with baths. Based on the spring, if we create the myth that this is the hole where the bear gives birth, it will attract tourists. Along with tourism, the farmer and the livestock breeder will produce as well, and since tourists will come, they will buy the fruits, almonds, walnuts... in other words, it will create a chain… (Interviewee No 28, Farmer)

5.4.11 Strengths, Weaknesses, Opportunities and Threats Analysis based on qualitative results for Trikala-Meteora

Based on the qualitative data we presented, we drafted a Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis for Trikala-Meteora. This SWOT analysis offers a comprehensive overview of the perceptions, challenges, and potential pathways related to bear population trends and human–wildlife coexistence, as expressed by a diverse range of local stakeholders—including stockbreeders, farmers, beekeepers, local authorities, foresters, environmental NGOs, hunters, and tourism entrepreneurs. Strengths and Weaknesses refer to key ingroup aspects (i.e. aspects pertaining to each stakeholder group separately), which may favor or hinder bear conservation and management. Opportunities and Threats refer to intergroup aspects (i.e. aspects referring mostly to stakeholder relations). Drawing upon qualitative findings, this analysis identifies key strengths, weaknesses, opportunities, and threats specific to each group. By synthesizing these insights, the SWOT framework can support more targeted decision-making and the design of effective, stakeholder-informed conservation and management strategies. Ultimately, this approach facilitates improved intergroup dialogue and more resilient coexistence models between local communities and bear populations.

Table 5.4.11. Strengths, Weaknesses, Opportunities and Threats Analysis based on qualitative results for Trikala-Meteora

	Stock breeders	Farmers	Beekeepers	Local Authorities	Foresters	eNGOs	Hunters	Tourism entrepreneurs
Strengths	Fences and livestock guarding dogs considered as effective	Relatively high level of tolerance towards bears	Electric fences considered as effective	Incentivized to establish institutional capacity for bear conservation	Positive attitudes towards bears	Expertise and experience in bear conservation	Increased interest in wildlife	Endorsed bear presence and considered bears an asset for the project area
Weaknesses	Low trust in compensation system	Low trust in compensation system	Financial barriers to establishing electric fences	Bureaucratic complexity in almost all initiatives to be launched	Bureaucratic constraints and lack of flexibility	Limited enforcement power	Highly structured agendas	Wildlife tourism yet integrated into development strategies
Opportunities	Interesting in finding additional solutions to address bear damage	Strong belief in stakeholder collaboration	Endorsed certification of bear-friendly product and services	Willingness to maintain or even increase stakeholder engagement	Strong alliances with other stakeholders	Eagerness of promoting stakeholder engagement	Relatively improved relationship with eNGOs	Endorsed bear tourism and certification of bear-friendly products and services
Threats	Stakeholder group to suffer most damage by bears, which has a marked impact on inter-group relations	Limited applicability and high cost of electric fences for large and dispersed agricultural lands	Absence of formal compensation framework for non-registered beekeepers	Fear of regressing to intergroup tension due to safety concerns	Overlapping jurisdictions and unclear roles of stakeholders may lead to conflicts or sub-optimal operation	Some stakeholders do not fully trust eNGOs	Positions on bear population control may lead to stakeholder tension	Tourism not equally endorsed by all stakeholders

These are the main action and discussion points for further elaboration:

1.Bear numbers and local attitudes

- A considerable majority of the sample (80%) believed that the trends of bears have increased; this trend was related mostly to rural depopulation, successful conservation efforts and the decline of poaching.

- Over two-thirds of our participants expressed positive attitudes or tolerance towards bears, especially farmers, foresters, tourism entrepreneurs and local authorities

- About one-third of respondents (10 out of 30) emphasized that wolves posed a greater threat to local communities than bears. Notably, 4 out of 5 interviewed stockbreeders identified wolves as their primary concern.

- Individuals with closer geographic or professional proximity to bear habitats reported increased concern about population growth, often associating it with a heightened perception of risk and more frequent interactions.

2.Damages caused by bears, damage prevention methods and compensation of damage

- Electric fences, that have been promoted through this project and other funding mechanisms (e.g., Rural Development Programmes), have been successfully established as a damage prevention method, especially among the beekeepers. All interviewed beekeepers described the electric fences as effective in preventing bear-related damage.

- Stockbreeders identified LGDs as a primary prevention method and considered them to be effective against bear attack on livestock.

- Bear-related damage was described as "confined" by 40% of respondents, attributing this to the implementation of preventive measures but also in the behavior of the bear to cause less damage than e.g. the wolf

- Many Foresters and local authorities noted that the human-bear conflict does not arise from the majority of professional farmers, who are already using damage prevention methods, but from local people who do not use such methods or who cannot receive any subsidies for obtaining them (e.g., people who start beekeeping and have not yet completed the number of beehives needed to register as professional farmers).

- Bear conservation can be enhanced through the collaboration of eNGO's, with local authorities. This is because eNGOs do have expertise in conservation methods and local actors can provide a better understanding of local norms and networks.

- Two thirds of our sample considered the compensation system unfair. This was linked to both the limited financial compensation but also several difficulties in properly documenting damage caused by bears.

- The low trust in the existing compensation system can be harmful for human-bear coexistence– according to our interviewees – and it may increase the hostility from humans to bears, especially by increasing the intention for retaliatory killing.

3. Safety issues linked with bear presence

- Although tourism entrepreneurs or people employed in tourism, who were interviewed, stated that they did not perceive any safety concerns due to bear presence. In contrast, stockbreeders expressed increased fear within the local community, attributed to bear presence.
- Beekeepers noted the particularly frequent approach of bears to human settlements.
- Some respondents expressed concerns about safety issues with tourists in the area.

4. Human-bear conflict and intergroup relations between stakeholders

- One of the main reasons for increasing trends in bear numbers according to the respondents was the decline in poaching. It was mentioned that this was a result after years of consistent bear-conservation efforts.
- The majority of participants expressed the belief that the human-bear conflict between humans and bears was either stable or decreasing.
- A notable shift in attitudes was observed, in particular, among Farmers, who showed a relatively high level of tolerance towards bears (see Figure x).
- Additionally, respondents noted that inter-stakeholder relations have improved, suggesting progress in collaboration and mutual understanding.

5. Willingness to participate in the project, expectations from the project and sustainability of project outcomes

- More than one third of our sample reported that they had taken part in the project or that they would be willing to take part in a similar initiative in their area.
- Foresters, Farmers and local authorities showed high participation in the project. The involvement of the public sector (Foresters and local authorities) was critical as it indicates institutional support for the project and potential future initiatives.
- The most important reason for participation was the strong desire of stakeholders to find solutions for the promotion of human-bear coexistence.
- Communication emerged as a critical factor. Poor or unclear communication was described by several respondents as a barrier to engagement and participation.
- The main expected results of the project, according to our stakeholders, were increase of awareness; decrease of damage and the deeper connection and cooperation between stakeholders.
- eNGOs and foresters were particularly interested in stakeholder engagement.
- eNGOs showed increased interest for bear deterrents.
- The majority of our respondents believed that the project would sustain its result after its conclusion. Almost two-thirds of our sample stressed, though, that a necessary condition for the improvement of outcomes is their continuity through either this project or another similar one.
- Farmers, stockbreeders and local authorities were the most confident among stakeholders that the results of the project will be sustained in the long term.

6. Comparison of qualitative data analysis in Tasks A4.1 and D3.1

In this last section, we will summarize the main differences in qualitative data between Actions A4 and D3 of LIFE Bear-Smart Corridors. We need to underline that the comparison for Amyntaio was between qualitative data gathered in Action D3 of LIFE Bear-Smart Corridors and the final report of Action A1 of LIFE AMYBEAR, which also documented qualitative data in the same area.

Table 6.1 presents the key differences mentioned above for all sections of the interview protocol. With regard to bear numbers, there seemed to be a change in the perceptions of respondents in Abruzzo towards favoring relatively more stability in bear trends. In Amyntaio, however, there was a perceived increase of bear numbers and trends re-confirmed in LIFE Bear-Smart Corridors as was also the case in LIFE AMYBEAR. For Trikala-Meteora, there was a difference in the reasons provided by respondents for bear trends. Here, interviewees were more likely to highlight in Action D3 decrease of poaching and awareness raising as reasons for increasing bear numbers, thereby confirming indirectly the potential success in this direction of initiatives undertaken in the project area in the frame of LIFE Bear-Smart Corridors.

Local attitudes towards bears and bear behavior showcased the most differences in the pre-post arrangement documented in Table 6.1. Specifically, differences for bear attitudes revealed some similarities across project areas, with fear featuring as a new entry in Abruzzo and Trikala-Meteora, while stockbreeders were singled out in both Greek project areas more as one of the stakeholder groups with salient negative attitudes towards bears. Increased awareness of locals emerging as a new code in this section for Abruzzo presented a similarity with the analogous code discussed for Trikala-Meteora in the previous section as well as with numerous examples in interviewee accounts for increased local awareness for Amyntaio.

As far as bear behavior is concerned, the content of Table 6.1 seems to be specific to each project area. For instance, respondents in Abruzzo were less probable to speak about bears accustomed to humans in Action D3 than they were in Action A4 and they were more probable to express positive attitudes towards bears in this section. In the two Greek project areas, however, differences in the frequency of codes related to bear behavior were linked to concerns about human property and safety arising due to the fact that bears did not hibernate anymore (Amyntaio) or that bears approached human settlements more frequently and looked for food in garbage bins (Trikala-Meteora). A quite interesting new entry for Amyntaio was an emphasis on bear "smartness", where interviewees indicated that each side in human-bear interaction tried to "outsmart" the other.

In the section on damage prevention methods, differences for Abruzzo and Amyntaio seemed to favor the effectiveness of such methods. For Abruzzo, this was obviously related to another difference, with relatively more accounts presenting damages caused by bears as decreasing. In Amyntaio, endorsement of damage prevention methods marked a difference with the past, especially, for livestock guarding dogs. Another change in Amyntaio that should be underlined was that technical problems encountered with fences in LIFE AMYBEAR, for instance, ineffective grounding, were not mentioned at all by respondents in LIFE Bear-Smart Corridors. This indicates that they were solved. A last point in this section for Trikala-Meteora was attempts reported by respondents of local to experiment with new ways to repel bears (e.g., devices that make sound), to which bears quickly got familiarized, however.

For compensation of damage caused by bears, all differences across all areas indicated an increase in quite numerous and diverse examples depicting the unfairness of the system for local producers. Although LIFE projects may not be directly targeting the compensation systems in place in European countries with large carnivore populations, nevertheless, it is very closely linked with core human dimensions and determinants of attitudes towards bears. Provided that compensation systems are not acknowledged as fair by local communities suffering damages by large carnivores, there will always remain some considerable sources of discontent and human-bear of stakeholder tension. Two points could be insightful, in this direction. First, LIFE projects with workpackages and tasks focusing on participatory processes may engage stakeholders directly involved in compensation of damage caused by bears. Second, compensation systems may be reformed to opt much more for subsidising damage prevention than compensating damage caused by bears.

Safety issues revealed another set of trends in interviewee accounts which were similar across project areas. These included the addition of the risk of traffic accidents due to bear presence in Abruzzo, on top of other risks. In Amyntaio, bears approaching human settlements featured in Action D3 as more alarming than damages caused by bears. In Trikala-Meteora, concerns linked to safety issues linked to bear presence seemed to slightly increase during the project. A crucial parameter to note, in this regard, is that safety issues depend strongly on local perceptions and this increases their complexity in both analyzing and addressing such issues. This refers to sustainability of tasks in LIFE projects as well as proper communication. This complexity should be an issue of concern for the After-LIFE Plan of LIFE Bear-Smart Corridors.

Differences for human-bear conflict revealed divergences between project areas. In Abruzzo, the percentage of respondents who stated that there was really no human-bear conflict increased in Action D3. For the two Greek project areas, however, instances of illegal killing of bears in interviewee accounts showed that it still remains a key problem to be addressed. In previous LIFE projects in Greece, LIFE AMYBEAR included, human dimensions actions have revealed how illegal killing is still strongly mediated by social norms in local communities. This may explain why manifest strategies to combat illegal killing may not be perfectly suited for addressing latent causes leading to its reproduction. It goes without saying that any participatory processes or communication initiatives foreseen in the After-LIFE Plan to sustain actions of LIFE Bear-Smart Corridors need to be devised so as to unravel and target such latent causes (e.g. the fact that a local omerta may discourage locals from contributing information to competent authorities about local community members engaged in retaliatory killing of bears.

Trends for intergroup relations reflected across all areas improvement of working conditions and trust between stakeholders. Even if this is accompanied by new criticism emerging, as in Abruzzo, it may initiate new rounds of stakeholder collaboration and constructive interaction.

Trends for willingness to participate in LIFE Bear-Smart Corridors and analogous projects revealed some very robust incentives for locals to engage, for instance, being supported in implementing damage prevention methods, and seeking practical solutions for promoting human-bear coexistence. All such motives should be saturated with analogous participatory opportunities in future initiatives in all project areas.

Indeed, initiatives of this kind should build on the trends identified in interviewee expectations, for instance, conceptualizing bears as an opportunity (Abruzzo), or more specifically, enriching the tourism product and certifying bear-friendly products and services (Trikala-Meteora).

Table 6.1. Key differences and trends in project areas during the course of the project

	Abruzzo Lazio e Molise National Park and Corridors	Amyntaio*	Trikala-Meteora
Bear numbers and trends	Increase of the percentage of respondents in Action D3, who believed that bear numbers were stable in time	Perception of constant increase of bear numbers and trends re-confirmed in LIFE Bear-Smart Corridors as in LIFE AMYBEAR	Decrease of poaching and awareness raising salient in Action D3 as reasons for rising bear numbers
Local attitudes towards bears	• Fear for bears featuring as a new entry in Action D3 with regard to determinants of local attitudes towards bears • Increased awareness featuring as a new entry in Action D3 with regard to determinants of local attitudes	• Acknowledgment of tolerance in Action D3 is accompanied by singling out negative attitudes of stockbreeders and hunters • Local practices may change for avoiding unexpected encounters with bears (e.g. when watering corn)	• Increased acknowledgment that stockbreeders tended to have more negative bear attitudes than other groups • Increased percentage of locals who attributed negative bear attitudes to perceived threats for the safety of residents • Increased references in Action D3 that fear was increasing among locals due to safety issues for local residents
Bear behavior	• Sample percentage mentioning bears accustomed to humans decreased considerably from Action A4 to Action D3 • Relative increase of the percentage of respondents in Action D3 who expressed positive bear attitudes	• Perception that bears do not hibernate any more adds to perceived threats to human property and safety • Bear "smartness" added in Action D3 indicating that each side tries to "outsmart" the other in human-bear interaction	• New entry in interviewee accounts in Action D3 that bears approached human settlements more frequently • New entry in interviewee accounts in Action D3 that bears looked for food in garbage bins

			• New entry that bears believed to exhibit revenge behavior if they themselves or their cubs were attacked by humans
Damage and damage prevention	• Perceived damage caused by bears, as reflected by interviewee accounts in Action D3, decreased considerably • The sample in Action D3 was almost unanimous in endorsing the effectiveness of damage prevention measures (96%)	• Technical problems with fences in LIFE AMYBEAR (e.g. ineffective grounding) seem to have been solved • Effectiveness of LGDs more widely endorsed in LIFE Bear-Smart Corridors as compared to LIFE AMYBEAR	New entry in Action D3 that locals tried new methods to repel bears, to which bears may get familiarized
Compensation of damage	Concerns for the effectiveness of the compensation system in protected areas or its fairness decreased in Action D3	Unfairness of the existing compensation system unanimously expressed by respondents in Action D3	New entries in Action D3 highlighting the perceived unfairness of the compensation system
Safety issues	New entries in Action D3 for the risk of traffic accidents due to bear presence and safety issues in the case of females with cubs	Bears approaching human settlements featuring in Action D3 as more alarming than damages caused by bears	Concerns linked to safety issues linked to bear presence seemed to slightly increase during the project
Human-bear conflict	The percentage of respondents who stated that there was really no human-bear conflict increased in Action D3	Retaliatory killing validated once more as one of the main motives for the still documented illegal killing of bears	Complexity of elaborations on illegal killing increased indicating that it still remains a key problem to be addressed
Intergroup relations	There were some interviewees in Action D3 (new entry;	Bear reintroduction narrative not mentioned at all by interviewees	• Increased acknowledgment of shifting positions, which was

	experienced communities) who criticized protected areas	in Action D3 of LIFE Bear-Smart Corridors	partially catalyzed by effective stakeholder collaboration • Stakeholder collaboration for promoting human-bear coexistence during the project held as effective
Willingness to participate	Actual levels of participation (67%) were in line with willingness to participate declared by participants in Action A4 (60%)	The main incentive in Action D3 is support locals expect for subsidies to obtain damage prevention methods	• Respondents in Action D3 acknowledged the opportunities offered for participation in the project • Participation accompanied by motives to find practical solutions for promoting human-bear coexistence • Some concerns voiced for communication methods and strategies employed during the project
Expectations	• The number of interviewees endorsing bears as an opportunity for the project area increased in Action D3 • Participants thinking that results could be sustainable increased substantially from Action A4 to Action D3	Concerns voiced in LIFE AMYBEAR for a more global, landscape approach not iterated in LIFE Bear-Smart Corridors	• Respondent expectations in Action D3 converged on opportunities to enhance alternative tourism • Certification of bear-friendly products and services also received attention by interviewees in Action D3

*Please note that results of Action D3 for Amyntaio were compared with qualitative data documented in the final report of Action A1 of LIFE AMYBEAR.

ANNEX – INTERVIEW PROTOCOL

A. Opening part of the interview and informed consent

1. My name is …, and I am the Human Dimensions Expert of …, contracted within the frame of the LIFE Bear-Smart Corridors project to conduct interviews with members of key stakeholder groups.
2. The main aims of the interviews are to collect data on bear attitudes of key stakeholder groups, compare these data with analogous qualitative data gathered and analyzed in the same project two years ago, and outline the implications of this comparison for the project.
3. understand the main drivers of human-bear conflict and elaborate on stakeholder expectations from the project.
4. I would like to inform you in detail about all specifics of interview data collection, analysis and management so that you can provide your informed consent.
5. Interview data will be used within the frame of this project only, according to the aims presented above, and for informing any scientific publication that will describe the results of the project's actions.
6. The Coordinator of Action D3 (Ex-ante survey of public attitudes and stakeholder opinions), Dr. Tasos Hovardas, will be responsible for the management of interview data.
7. Access to these data will be provided to partners of LIFE Bear-Smart Corridors, only, and only for pursuing the objectives of the project (data analysis for project deliverables and scientific publications).
8. Your participation in this interview is voluntary and anonymous.
9. You have the right to withdraw your participation at any time, without being obliged to provide any reason, by sending an email message to Dr. Tasos Hovardas: hovardas@ucy.ac.cy.
10. The results of interview data analysis, but not the raw interviews data, will be presented in the deliverables of Action A4 and any scientific publication based on these deliverables.
11. Our commitment for respondent anonymity will be strictly applied, since the presentation of results will focus on general trends and comparisons and not on responses of individual participants.
12. Please let us know if we have your consent for this interview as well as for data collection, storage and management based on the above information.
13. No change on any of the aspects we have presented will be made without having previously informed you timely and without having renewed your consent.

RECORDING STARTS AFTER THE INTERVIEWEE HAS GRANTED THEIR INFORMED CONSENT

B. Interview questions

B1. Bear perceptions, representations and attitudes

Main questions	Prompts
1. Are bear numbers in the area increasing or decreasing or remaining stable in time?	If "increasing" or "decreasing": What are the main reasons for the current trends in bear numbers?
2. Are bear numbers and trends different from what you can recall from the previous 5 or 10 years?	If "yes": What do you believe are the main causes of long-term change in bear numbers and trends?
3. Do you believe that bear numbers and trends influence local attitudes towards bears?	If "yes': Can you please explain in what way you believe bear numbers and trends influence local attitudes towards bears?

	If "yes": Are there any differences between segments in the local population/between key stakeholder groups in bear attitudes?
4. Are there any specific aspects in bear behavior which you believe are worth discussing?	If "yes": Do you believe that bear behavior is different now than it was in the past? If "yes": Are there any myths/narratives in the area where bears are featuring? Which aspects of bear behavior do you believe are characteristic in these myths/narratives?

B2. Human-bear conflict

Main questions	Prompts
1. Are there any damages caused by bears to livestock/crops?	If "yes": Are these damages increasing or decreasing or remaining stable in time?
2. Do local people use damage prevention methods to prevent these damages?	If "yes": Do you believe that these methods are effective? If "yes": Can you recall if it has been necessary at any time to adapt any damage prevention method to optimize its operation?
3. Are there any compensation systems in place for local people who suffer damages from bears?	If "yes": Do you believe that these compensation systems are fair?
4. Are there issues with human safety related to bear trends?	If "yes": Is there any measure taken by local or regional authorities for these safety issues? If "yes": Do you believe that any specific bear behavior is related to issues of human safety?

B3. Human-bear coexistence

Main questions	Prompts
1. Is human-bear conflict increasing or decreasing or remaining stable in time in the area?	If "increasing": How can human-bear conflict be addressed effectively?
2 .Do you believe that local people and key stakeholder groups can collaborate to promote human-bear coexistence?	If "no": Are there tensions/conflicts between stakeholder groups related to bears?
3. Have there been any initiatives for stakeholder collaboration to promote human-bear coexistence in the area?	If "yes": Do you believe that these initiatives have been successful?
4. Do you believe that bear presence can offer some developmental opportunities for the area?	If "yes": Can you please explain what these developmental opportunities can be?

B4. Stakeholder expectations from the LBSC project

Main questions	Prompts
1. Have you been informed about the progress of the LIFE Bear-Smart Corridors project?	If "yes": The interviewer needs to move to questions 2-5 in this section If "no": The interviewers needs to repeat key information about the project and move to questions 6-9 in this section
2. Do you believe that local people and the main stakeholder groups participated effectively in the LIFE Bear-Smart Corridors project?	If "yes" or "no": What do you believe are the reasons for effectively participating/not effectively participating?
3. Did you take part in actions, meetings or events of this project?	If "yes" or "no": What were the reasons for you to participate/not to participate?
4. What do you believe were the main outcomes of LIFE Bear-Smart Corridors?	If no reply/idea is provided: (1) Collect info/increase scientific knowledge base on bears; (2) decrease damage caused by bears/improve compensation; (3) decrease frequency of bear approaches to human infrastructure/address issues related to human safety; (4) improve stakeholder collaboration; (5) offer developmental opportunities based on bear presence
5. Do you believe that these outcomes can be sustained in time?	If "yes": Do you believe that things will change back to business-as-usual when this project will end?
6. Do you believe that local people and the main stakeholder groups would be willing to participate in a project like the LIFE Bear-Smart Corridors project?	If "yes" or "no": What do you believe will be the reasons for participating/not participating?
7. Would you be willing to take part in actions, meetings or events of this project?	If "yes" or "no": What are the reasons for you to participate/not to participate?
8. What do you believe a European project of that type can deliver as main outcomes?	If no reply/idea is provided: (1) Collect info/increase scientific knowledge base on bears; (2) decrease damage caused by bears/improve compensation; (3) decrease frequency of bear approaches to human infrastructure/address issues related to human safety; (4) improve stakeholder collaboration; (5) offer developmental opportunities based on bear presence
9. Do you believe that these outcomes can be sustained in time?	If "yes": Do you believe that things will change back to business-as-usual when this project will end?