Cooperation of Stakeholders in the Cantabrian Mountains, Spain

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<th>Background Information</th>
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**Member state:** Spain

**Location:** Two core bear areas in the Cantabrian Mountains in Northern Spain. The western nucleus comprises Somiedo and Fuentes del Narcea Natural Parks (Asturias Province) and Alto Sil area (León Province). The eastern nucleus is around Fuentes Carrionas Natural Park (Palencia) and surrounding areas. Both nucleuses are connected by a corridor.

**Large carnivore species targeted:** Brown bears

**Population of target species in the area:** At the beginning of the project the bear population was critically endangered. Only five to six females with cubs were seen in 1992.

The current rate of increase in both subpopulations (western and eastern) is around 10% per year. Both subpopulation amount together 40 female bears with cubs (34 in the eastern and 6 in the western subpopulation)\(^1\), in total at least 300 individuals in the Cantabrian Mountains.

**Main conflicts (including e.g. frequency of depredation events etc.):** The main conflict has been between large carnivores and livestock owners and beekeepers. In spite of being protected, bears were illegally hunted because the law was not enforced.

**Main conservation issues:** The Cantabrian brown bears are still endangered because of their low numbers and limited available habitat, the very low rate of genetic exchange between the two subpopulations and the long isolation from other bear populations.\(^2\)

Illegal hunting was in some way justified by local people in the mid-1960s until 1986 because hunting of bears was a tradition. Furthermore, snares set to kill wild boar caused the death of many bears but has been reduced in the last 15 years. The poison set for wolves sometimes kills some bears. Trophy hunting and traffic accidents are not a relevant cause of mortality of bears in the region.

**Measures already in place to reduce conflict (apart from case study activities):** To avoid extinction, bears in Spain are strictly protected since 1973.\(^3\) The Spanish government and four regional governments have developed constantly updated Management/Recovery Plans for brown bear populations. The identification of the bear as a symbol of the Natural Park has contributed to a change in attitude of local people. In Asturias, the damage compensation system is in place since the early 1980s. If a large carnivore has killed livestock or damaged beehives or orchards, a warden has to verify the claim for compensation payments.

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\(^1\) Census 2016,


\(^3\) http://eng.fundacionosopardo.org/index.php/the-brown-bear-2/
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### Case study description

**Stakeholders involved:** Beekeepers, conservationists, farmers and foundations which work with wildlife, hunters, and livestock breeders, national, regional and local governments, local inhabitants, park authorities, researchers, rural police (guardia civil), tourism business owners and wardens.

**Stakeholders interviewed:** Representative of a research and nature conservation NGO, representative of a university and a representative of a local authority.

**Project duration:** January 1993 - May 2015

**Funding estimate:** 2.34 M€ (100,000 - 400,000 €/year)

**Funding source:** LIFE projects, Fundación Biodiversidad, Ministry of Environment, private sponsors coordinated by the Fundación Oso Pardo and regional governments.

**Aims:** To increase bear numbers, improve social acceptance of bears, reduce poaching with illegal snares, promote rural development and avoid indirect impacts of hunting activities.

### Key Actions:

- Monitoring of bears;
- Analysis of damages caused by brown bears;
- Discussions in meetings with all stakeholders;
- Training sessions for local people on how to face challenges of coexisting with bears;
- Publication of manuals and brochures as well as scientific and popular articles and books;
- Joint management of hunting grounds;
- Joint patrols to prevent poaching and removal and prevention of the use of illegal snares;
- Delivery of electric fences to beekeepers and farmers;
- Agreements (memorandum of understanding) with mayors, hunting, farmer and beekeeper associations;
- Development of actions and agreements with beekeepers, cattle-breeders, tourism business owners, local governments, hunting associations and local inhabitants;
- Plantations to improve habitat;
- Clearing vegetation in certain hunting areas.
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Pictures

Figure 1: Bear watching tourism (Photo courtesy of Juan Carlos Blanco).

Figure 2: Light coloured bear (© Fundación Oso Pardo).

Figure 3: Members of Fundación Oso Pardo protecting beehives with an electric fence (© Fundación Oso Pardo).
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<td><strong>Reduced conflict:</strong> There has been a clear and significant reduction in conflict since the above-mentioned bear conservation actions were taken. An indicator for a reduced conflict is the reduction of human-caused bear mortality. Sporadically new conflicts arise, but these are more related to wolves than directly to the bear.</td>
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<td><strong>Increased consensus:</strong> Consensus has increased, especially among hunters and beekeepers. It has been accepted that bears and people can coexist locally and that the opportunity to observe bears in wilderness is culturally important and has economic advantages. Different stakeholders, amongst others hunters, livestock breeders, and the local inhabitants as also the tourism sector made a social pact to protect bears in the Cantabrian Mountains.</td>
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<td><strong>Increased common vision:</strong> A common vision has been established on bears in the area, which is supportive of the increasing numbers. Hunters and local communities are currently proud to live amongst bears and there is a greater will to work together for conservation.</td>
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<td><strong>Conservation impact:</strong> The improved perception of bears amongst hunters and livestock breeders has been crucial for their conservation. Human-caused bear mortality has been drastically reduced to such an extent that bear populations are now recovering. The effort for detecting bears killed by people is increasing, and nevertheless, the number of bears killed by people has decreased. The number of illegal traps (mainly snares) has also been reduced. “To kill bears means to jeopardize the future of Somiedo”</td>
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<td><strong>Socio-economic impact:</strong> Employment opportunities related to bear conservation, especially within the scope of LIFE projects, have increased for local people. Also, the tourism sector is benefiting from bear conservation. Before, the economy was based on livestock. Nowadays it is much more diversified (tourism and service sector) and bears are regarded as crucial element for the economy of Somiedo. Bear damages have been increased with the growing numbers of bears in the area.</td>
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4 Somiedo is a municipality that entirely forms part of the Somiedo Natural Park, a UNESCO biosphere reserve.
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**Division of costs and benefits between stakeholders**

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<tr>
<th>Main focus of stakeholders interest</th>
<th>Benefits and gains of participation; added value</th>
<th>Costs of participation; unanticipated side-effects</th>
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<tbody>
<tr>
<td>Large carnivore conservation</td>
<td>Legal requirements concerning the protected status of the bear are respected. Growth of bear population.</td>
<td>Increase in bear numbers challenges established or desirable land uses, which can create tension among stakeholders and needs to be addressed.</td>
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<td>Agricultural production, livestock, primary sector activities</td>
<td>Damage prevention measures are being improved. Wildlife tourism also increases the demand for agricultural products. Rural infrastructure improves.</td>
<td>If damage prevention measures are not properly implemented at the local level, then damage caused by a few bears can be quite extensive.</td>
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<td>Game management</td>
<td>It has been recognized that hunting may be compatible with bear conservation; attitude change within stakeholder groups towards hunters.</td>
<td>The increase of bears can lead to some temporal restrictions to hunt in some areas.</td>
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<td>Tourism</td>
<td>Employment and development opportunities in the tourism sector and the diversification of the local economy.</td>
<td>Increase in bear numbers and the tourism sector leads to an increased probability of human-bear encounters with also negative consequences.</td>
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Considerations for transfer of good practice

Aspects that worked well

- Involvement of all key stakeholders;
- Long-term effort to establish good working relations and trust between individuals improved communication among them;
- Reaching agreements between stakeholder groups;
- Long-term education of stakeholders;
- Scientific knowledge and awareness is being diffused in the local community;
- Significant attitude change within stakeholder groups towards bears;
- Agro-environmental funds for livestock breeders to implement conservation measures;
- EAFRD and LEADER funds for rural development (direct and indirect subsidies for livestock breeders and aid for economic diversification which is compatible with nature conservation);
- Industrial activities, mining, wind farms, paragliding, rafting, four-wheel drive routes, etc., are strictly forbidden in most of the bear range;
- Development of the rural tourism sector and diversification of the local economy due to the promotion of bear and wildlife recovery;
- Improvement of damage compensation systems: quick disbursement of compensation payments in most of the bear range, as wardens are contacted within 24 hours;
- Field demonstrations on prevention of damage to beehives;
- Progressive implementation of actions;
- Law enforcement and high penalties for killing a bear.

Aspects that could be improved

- Growth of bear population creates new challenges for human-bear coexistence, which need to be addressed. Fear of bears starts to increase in some areas;
- Farmers claim that the scales of fees to compensate beehives and the livestock killed by bears are too low because they have not been updated and indirect losses and the loss of profit are not compensated;
- It would be beneficial if local long-term jobs would be created linked to bear conservation;
- Regions and their stakeholders with similar challenges related to large carnivores should cooperate more intensively to learn from and help each other;
- New technologies need to be promoted in rural areas and products need to be marketed through the brand of the bear (e.g. food, water, nuts).
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Considerations for transfer of good practice

Conditions for transfer

- This case study has great potential for transfer into other regions and could also be implemented to mitigate conflicts with other large carnivore species. It demonstrates the viability of sustainable development, as it has not prevented economic and rural development;
- It would be useful to have a manual adapted to other species or areas;
- The context of the different rural societies has to be taken into consideration and methods need to be adapted;
- If the objective is to promote peaceful coexistence between large carnivores and people, a constant dialogue between people has to be maintained. Proper management of other large carnivore species is also important, as conflicts caused by one species can influence the others;
- Parts of the approach have been adopted in Italy and Greece, as also in other communities of the Pyrenees.

More information and references

Information on the case