



**ACTION PLAN FOR CONSERVATION
OF THE BEAR (*Ursus arctos*)
IN THE ITALIAN ALPS**

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4.2 OPERATIONAL PROGRAMME

The ultimate aim of this action plan is **the recovery and maintaining, coexisting with humans, of a viable population of bears as an integral part of the Alpine landscapes and ecosystems**, where *viable* refers to a number of bears which safeguards the population from the probability of extinction due to genetic causes, population probability and habitat.

For this aim to be feasible, the following specific objectives have to be achieved:

- facilitate and allow the recovery, stabilisation and maintaining of the bear in suitable areas of the Alpine region;
- achieve a sustainable compromise between the conservation needs of the bear and human needs of developing and maintaining economic activities;
- achieve international collaboration that allows unitary and standardised management of the whole Alpine bear population.

These objectives can in turn be achieved through a series of joint and integrated actions (holistic approach) which, both from an operational and descriptive viewpoint, can be grouped together according to the various perspectives that best describe the problem (*cf. par. 3*).

In a time context it should be underlined that the long-term objective of conserving a viable population of bears in the Alps could presumably require many years, possible even decades. However, given the current situation of the bear in the eastern Alpine region, there will be few possibilities of recovery unless some measures of environmental redevelopment and renovation, effective protection in the areas of presence, safeguarding of the corridors linking the key areas and development compatible with local communities are implemented *immediately*. Thus a well-planned and multidisciplinary approach should immediately be brought into action.

In the light of the most characteristic factors of the problem of conservation of the bear in the Alpine region (*cf. par. 3*), and according to the strategy and philosophy of a conservation policy and the possible technical solutions (*cf. par. 4.1*), the following conservation actions have been identified (*par. 4.2.1 – 4.2.9*).

4.2.1 Actions for ensuring suitable habitat conditions for the migration and spontaneous recolonisation of bears from Slovenia (and Austria)

- 4.2.1.1 Identification, safeguarding and redevelopment of the main corridor areas between Italy and Slovenia (and between Italy and Austria).
- 4.2.1.2 Redefinition of the systems of safeguarding and use (hunting, forestry, agriculture, town-planning and tourism) of the areas identified.
- 4.2.1.3 Identification and mitigation of the effect of potential barriers.
- 4.2.1.4 Performance of environmental redevelopment schemes in the areas into which the main corridor zones lead.
- 4.2.1.5 Monitoring of migration indices and their integration on a G.I.S. basis.
- 4.2.1.6 Analysis of the existing infrastructures and valuation of their effect.

4.2.2 Actions for ensuring suitable habitat conditions in the Alps capable of sustaining a viable population of brown bear

- 4.2.2.1 Development and optimisation of interpretation models on a G.I.S. basis.
- 4.2.2.2 Valuation of the suitability of the habitat on a large scale.
- 4.2.2.3 Estimation of the suitability of the habitat within the protected areas (to facilitate stringent protection and redevelopment where necessary).
- 4.2.2.4 Analysis of the relationship between configuration, extent and location of an interconnected system of critical areas and the viability of the population or bears.
- 4.2.2.5 Execution of habitat redevelopment schemes (corridors, critical areas, transition zones) via a scale of priorities in order to optimise efforts and with precedence given to contact zones for recolonisation.
- 4.2.2.6 Redefinition of systems of safeguarding and use (hunting, forestry, agriculture, town-planning and tourism) of the areas identified.
- 4.2.2.7 Analysis of the infrastructures and valuation of their potential effect.
- 4.2.2.8 Ban or control of human-related activities that are damaging or considered such for the bear in critical areas of presence or in the contact zones of the interconnected system of critical areas.

4.2.3 Actions for facilitating solutions of compatible development and coexistence between the bear and human-related activities

- 4.2.3.1 Identification of the basic parameters of local economic development and their trends, above all in relation to the activities potentially linked to the environment used by the bear.
- 4.2.3.2 Valuation of the importance and effect of agricultural aid policies (subsidies) on local economic activities and on the ways of exploiting natural resources and preparation of a different, economically and administratively feasible, proposal to provide economic and structural support for local activities.
- 4.2.3.3 Calculation, via models and projections, of the potential effect of the bear on local economies (direct and indirect costs, benefits, spin-offs etc.).
- 4.2.3.4 Performance of costs-benefits analysis from a socio-economic standpoint of the local populations of any plans for release and/or translocation of bears.
- 4.2.3.5 Gaining of consensus for recognising the bear as one of the components of the system of local resources.
- 4.2.3.6 Ensuring of the action and widespread presence of the group of experts (cf. actions 4.2.7.5 and 4.2.7.6) locally.

4.2.4 Actions for preventing and mitigating conflict with humans

- 4.2.4.1 Programming and creation of a system of compensation for the damage caused by the bear on livestock and other property: times and methods of inspections, formulae and procedures for requests for compensation, administrative tools for the payment of funding. The program must: *a*) provide incentives for the implementation of prevention structures; *b*) be conservative, restricting payment of compensation to the use of preventive measures, and *c*) adopt a single model in all the regions where the bear is found.
- 4.2.4.2 Setting up of a programme of economic incentives to allocate to those who farm and breed livestock in areas where the presence of the bear is considered critical: the incentives

depend on the implementation of means of prevention of damage, and are directly proportional to the survival and reproduction success of the bear in the zone.

- 4.2.4.3 Creation of an emergency team (task force) capable of intervening rapidly and promptly in cases of conflict. The team, with a high professional profile, is composed of experts in the biology of the bear, techniques of trapping and monitoring, negative conditioning techniques (rubber bullets, sirens, firecrackers, electric fencing) and methods of eliminating problem bears.
- 4.2.4.4 Foreseeing, via the intervention of the task force on the bear, of the possibility of eliminating bears particularly prone to frequently coming into conflict with humans and conditioned by attending human environments.
- 4.2.4.5 Elimination of deposits of waste or any other trophic source of human origin easily accessible by the bear (including store-rooms for meat, artificial feeding sites, rubbish bins or heaps of compost which are not bear-proof).
- 4.2.4.6 Constant minimisation of the possibilities of appearance of problem bears via the concerted actions stated under points 4.2.4.1 – 4.2.4.5. and 4.2.7.5-6.

4.2.5 Actions for allowing and facilitating involvement of the relevant groups and the public

- 4.2.5.1 Planning of the resources (financial, staff, time) for initiating and maintaining regular and close contact with the local populations and, in particular, relevant groups.
- 4.2.5.2 Establishing of a consultation protocol with the local populations to discuss and implement the indications of the action plan.
- 4.2.5.3 Extending of the alliances to social brackets and relevant groups normally not directly involved in the management of natural resources (and of bears).
- 4.2.5.4 Organisation of training and discussion seminars with the relevant groups (livestock breeders, beekeepers, foresters, hunters), particularly in the areas of recent and/or forthcoming recolonisation by the bear, foreseeing the need to participate, via their representatives, in the co-participation decision-making processes relating to management of the bear in the Alpine region.
- 4.2.5.5 Making sure that no decision on intervention in natural resources and the bear in particular can be made without preliminary joint discussion by all the social groups.
- 4.2.5.6 Preliminary and joint discussion of the proposals for intervention on new infrastructures (forest roads, housing), tourism and also agricultural, shepherding and forestry practices.

4.2.6 Actions for improving the attitude of the public and of the relevant groups

- 4.2.6.1 Performance of a detailed analysis of the attitude of public opinion in respect of the bear and other natural resources.
- 4.2.6.2 Identification of the various relevant targets, valuation of their attitude and their level of knowledge concerning the bear and the relevant management problems, and execution of ad hoc awareness-raising campaigns.
- 4.2.6.3 Identification within the individual relevant groups (livestock breeders, beekeepers, tour operators, foresters etc.) of influential representatives capable of informing within their category of the implications of the action plan.
- 4.2.6.4 Promotion of information and education of the public on the subjects of the bear, also with methods selected according to age and interest groups (press campaigns, radio - TV).

- 4.2.6.5 Transformation of the bear into a positive symbol of economic revival of the area, incorporating it in tourist advertising and publicity.
- 4.2.6.6 Preparation of an educational kit on the conservation of the bear that can be distributed in large numbers to schools and students.
- 4.2.6.7 Organisation of regular meetings with teachers to prepare them for a more effective action of information on the bear, and a permanent network for exchange of information and experiences.
- 4.2.6.8 Periodical valuation of the extent and efficacy of the education and awareness-raising campaigns.

4.2.7 Actions for improving the administrative and management context for conservation of the bear

- 4.2.7.1 Creation of an institutional and decision-making structure in line with the action plan.
- 4.2.7.2 Organisation of a services conference that constitutes the initial forum of the new organisational structure, with participation, initially, of NGOs, conservationists, biologists, representatives from local (regional and provincial) and central authorities (ministry), representing the relevant groups.
- 4.2.7.3 Succeeding in having the ministry for the environment set up a national committee for coordination of conservation of the bear in the Alps with all the representatives participating in the services conference, with the task of supervising and ensuring the implementation and constant updating of the action plan.
- 4.2.7.4 Assignment and recognition of this committee of the role of authority in charge of unitarily handling the problem of conservation of the bear and of indicating the guidelines for its fulfilment.
- 4.2.7.5 Setting up and institutionalising of a group of experts (GE) on the biology of the bear and the techniques for reduction of conflict, whose tasks include acting as mediators with the local populations and facilitating coexistence with the bear. The GE, also involved in monitoring the species and conflict in the area, is composed of biologists and researchers who shall maintain regular contact with the local populations (informal meetings, presentations and public debates, assistance and advice for local governments etc.). Some members of the GE will also form part of the emergency task force (cf. action 4.2.4.3), with which they shall maintain constant contact.
- 4.2.7.6 Setting up and institutionalising of an emergency team for solving critical cases of conflict (action 4.2.4.3).
- 4.2.7.7 Signing of an agreement protocol between all the institutions and organisations (regional and provincial authorities, NGOs, trade associations), possibly also including an advanced version of the action plan.
- 4.2.7.8 Setting up at a provincial level of advisory committees for conservation of the bear, with the representation of all the applicant categories, ensuring that all the members are present, and organising its meetings on a regular basis, at least annually.
- 4.2.7.9 Identification, structuring and setting up of groups of two or three persons per province in the role of publicity agents/assistants in contact with the local communities on the subject of prevention of damage, conservation of the species, benefits and possible opportunities, the procedures for requesting compensation and subsidies, and the need to take an active part in decision-making processes. These groups shall work in close contact with the group of experts.

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- 4.2.7.10 Training of the forestry and provincial guards in checking for the damage caused by the bear and prevention techniques.
 - 4.2.7.11 Examination of regional and provincial laws to ascertain their congruity with the action plan and propose changes and additions in view of the means required for applying the plan.
 - 4.2.7.12 Ascertaining that the NGOs (national and local) share in the new co-participation approach and redefining of their role, assigning the tasks which are best suited to the capabilities of each organisation: the NGOs must take charge of performing specific programmes within the plan, in particular in the role of link between institutions and local communities and careful monitors of the compliance between programmes and actions.
 - 4.2.7.13 Active participation in the new programme of the Bern Convention for application at a national and regional level of the European action plans for all the species most threatened.
 - 4.2.7.14 Coordination of the bear conservation actions with those indicated by the action plans for the wolf and lynx in the Alpine region.
 - 4.2.7.15 Continuation of urging commitment by the European Union in supporting the bear conservation actions, not only as emergency programmes, but also in more structural actions: in particular a study should be made of all the opportunities which the various EU programmes (Life, Interreg, structural funds etc.) offer for the performance of actions planned or compatible with this plan.
 - 4.2.7.16 Establishing of a form of formal, institutional and regular contact between Slovenia, Austria and Italy on the themes of conservation of large carnivores and, in particular, the bear.
 - 4.2.7.17 Publication of a regular newsletter, aimed at the general public and edited by the secretariat of the National Bear Committee, which periodically (half-yearly) gives information on management of the bear.

4.2.8 Actions for promoting and maintaining monitoring and research programmes

- 4.2.8.1 Establishing of a form of permanent collaboration between all those who deal with research of the bear in the Alps (annual seminar).
- 4.2.8.2 Creation of a single data bank where all the data relating to the presence of the bear in the eastern Alps can be collected and made available to everyone.
- 4.2.8.3 Programming and creation of a research plan aimed at providing essential data for valuating the prospects of conservation of the bear from the biology of conservation standpoint and in particular at estimating: *a*) the number of animals present, *b*) the viability of the population as data collection proceeds, *c*) P.V.A. (*Population Viability Analysis*) and M.A.R. (*Minimum Area Required*) for the entire region, *d*) the indices of use of the habitat and the negative influence of infrastructures, *e*) use and efficiency of the corridor areas, *f*) the capability for dispersal and movements of the bears, *g*) the reliability of the environmental suitability models and experimenting of new ones, *h*) possible source-sink models for simulating future dynamics between the various protected areas.
- 4.2.8.4 Planning and performance of specific research into human-bear interaction in Slovenia in order to suggest adequate techniques for reducing the risks associated with these encounters in Italy.
- 4.2.8.5 Efficient and consolidated monitoring of the quantity, quality and distribution of the damage caused by the bear and study of its features in order to suggest more effective prevention methods.

- 4.2.8.6 Valuation of the effects of summer and winter trekking holidays on the presence of the bear and estimation also of where there are the best possibilities for observing the bears with minimum impact on their behaviour.
- 4.2.8.7 Obtaining of full participation or technical backing from the National Wildlife Institute (Istituto Nazionale per la Fauna Selvatica - INFS) for all the research programmes and sharing of the Institute in the discussion and availability of the data collected.

4.2.9 Actions for ensuring efficacy and adequacy of the action plan

- 4.2.9.1 Implementation of the action plan in the short term, with decisive and ongoing performance of all the actions included in the plan itself.
- 4.2.9.2 Preparation of a detailed schedule of actions, participants and responsibility, and ascertaining of its performance at least every two months.
- 4.2.9.3 Definition and optimisation of critical institutional structures for continuation of the plan (lobby at the ministry and regional and provincial authorities involved).
- 4.2.9.4 Ensuring of provisional coordination of the activities until completion of the new decision-making system.
- 4.2.9.5 Identification of a first list of institutional participants and other categories that will be called upon to play a role within this plan.
- 4.2.9.6 Obtaining of long-term commitment by the national and regional governments.
- 4.2.9.7 Ensuring of the efficiency of the flexible and adaptive nature of the plan, programming, right from the start, periodical technical meetings (with the participation of all those involved until that time) to ascertain the congruity of the plan and change its indications to adapt better to the changes in knowledge and/or conditions.
- 4.2.9.8 Full revision of the action plan at least every three years.