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**REPORT OF THE
LARGE CARNIVORES, WILD UNGULATES and SOCIETY (WISO)
PLATFORM
on the 2016-2019 mandate**

1. Overview of 2016-2019 mandate

Brief summary of the main activities according to the 2016-2019 mandate

The activities foreseen for the WISO Platform in its 2016-2019 mandate can be summarised as follows:

1. Dialogue and coordination: (I) to continue promoting dialogue among Contracting Parties through the sharing of information, scientific data and experiences for supporting decision-making and for improving coordination; (II) to foster dialogue with and among relevant stakeholders.
2. Damage prevention and compensation: (I) to report and exchange on national and regional approaches and (good) practices in sustainable damage prevention and compensation systems for livestock damages from large carnivores; (II) to elaborate a handbook on possible application of the European Agricultural Fund for Rural Development (EAFRD) for financing damage prevention measures.
3. Brown bear: to develop recommendations for internationally coordinated management actions at the Alpine level, taking into account the results of relevant projects (including DINALPBEAR and the Alpine Bear group).
4. Lynx: to promote initiatives to counteract inbreeding in alpine lynx sub-populations.
5. Genetic monitoring: to take further steps towards coordinated programs of genetic monitoring of large carnivores on an Alpine scale.

The WISO Platform was chaired by the Deputy Secretary General of the Alpine Convention, Ms. Marianna Elmi.

2. Meetings

Summary of meetings

The WISO Platform met four times during its 2016-2019 mandate. In these meetings, all topics foreseen by the mandate were tackled.

1. Innsbruck (Austria), 15-16.03.2017. Topics: update and information exchange among Contracting Parties and Observers; discussion of the implementation of the mandate; work plan finalisation; update on the DINALPBEAR project.
2. Vaduz (Liechtenstein), 25-26.09.2017. Topics tackled: update and information exchange among Contracting Parties and Observers; update on the DINALPBEAR project; update on the 64th Permanent Committee of the Alpine Conference; good practices in prevention and compensation. The meeting also included a joint excursion with a visit to a protective forest and a discussion on the different systems of ungulates management in the Alpine countries. The meeting was organized in cooperation with the Liechtenstein Office for the Environment.
3. Domodossola (Italy), 1.03.2018. Topics tackled: collection of practices on damage prevention and compensation; update and information exchange among Contracting Parties and Observers. The meeting was organized in cooperation with the Alpine Convention Infopoint in Domodossola, managed by ARS.UNI.VCO, and took place back to back with the international workshop "Prevention and compensation of damages by large carnivores" (see sections 3-4).
4. Berchtesgaden (Germany), 26-27.09.2018. Topics tackled: update and exchange with the "Status and Conservation of the Alpine Lynx Population" (SCALP) project; update and information exchange among Contracting Parties and Observers; lynx and genetic monitoring; report on the use of EAFRD for financing prevention measures; brown bear management; discussion on new mandate. The meeting was organized in cooperation with the German delegation in the WISO and included an excursion in the Berchtesgaden National Park area to a mountain farm which makes use of shepherd dogs.

3. Activities carried out

Report on activities carried out (including meetings, conferences)

The Platform carried out the following activities in fulfilment of the mandate:

1. Dialogue and coordination: a regular agenda item was set at every Platform meeting in order to allow for a regular exchange among Contracting Parties and Observers on the status of large carnivores, ungulates and the main news related to their management as well as on other events relevant for WISO. Moreover, an international workshop open to stakeholders beyond the WISO Platform was organized on the topic "Prevention and compensation of damages by large

carnivores” (see also point 2 “Damage prevention and compensation”).

2. Damage prevention and compensation: during the first discussions on this mandate item it was concluded that, due to the different damage prevention and compensation systems in place in the different Alpine countries, more preliminary exchanges on the existing systems and legislation were needed. In order to address these needs, the Platform has organized an international workshop on “Prevention and compensation of damages by large carnivores” (Domodossola, Italy, 26-27 February 2018). Each Alpine country presented its approaches and (good) practices related to damage prevention and compensation; moreover, several discussion groups addressed relevant topics related to prevention and compensation.

Concerning the planned handbook on EAFRD, the Platform decided that the Chair would mandate a study on the utilization of EAFRD funds for financing prevention and compensation measures in the Alps. After a rigorous evaluation of offers, the Chair mandated the consultancy Adelphi with the study. The WISO members supported the study through interviews and provision of data; the final results were presented at the meeting in Berchtesgaden and discussed by the Platform.

Based on these two activities and the discussions in the Platform, the statement “Prevention of damages by large carnivores in the Alps – activities and results by the WISO Platform” was drafted, following the meeting in Berchtesgaden, and approved through a written exchange.

3. Brown bear: several members of the WISO Platform, as well as the Chair, contributed in the years 2016–2019 to the LIFE project DINALPBEAR (<http://dinalpbear.eu/en/>), by participating in meetings and providing data and expertise at Alpine level, also in preparation of the report “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region” (<http://dinalpbear.eu/wp-content/uploads/Guidelines-for-Common-Management-of-Brown-Bear-2017.pdf>). The Bear Alpine group, mentioned in the mandate, did not meet in 2016–2019. In order to avoid duplications, and to valorise the collaboration with DINALPBEAR, no new recommendations were drafted additional to the existing ones. The WISO elaborated a statement in appreciation of the results of DINALPBEAR as a sound basis for the joint transnational basis of brown bear at Alpine level.
- 4 and 5: Lynx and genetic monitoring: the last meeting of the Platform was specifically dedicated to the discussion on this topic, also through a joint half-morning session with the SCALP project (<https://www.kora.ch/index.php?id=117&L=1>).

4. Results and outputs

Description of main results and outputs achieved

1. Dialogue and coordination: (I) enhanced dialogue among administrations and Observers, shared and updated knowledge of the Alpine-wide situation and developments concerning large carnivores and ungulates, (II) broadening of the network of stakeholders in exchange with WISO.
2. Damage prevention and compensation: (I) organization and realisation of the International workshop “Prevention and compensation of damages by large carnivores” (Domodossola, Italy, 26-27 February 2018); (II) WISO statement on prevention and compensation of damages.
3. Brown bear: (I) Contribution to and exchange with the DINALPBEAR project, provision of expert – based support to DINALPBEAR also for the report “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region” and (II) statement on the report.
4. Exchange established with the SCALP project on genetic monitoring and lynx status.

5. Cooperation

Description of cooperation initiatives and activities with other Alpine Convention WGs/PFs and other relevant bodies and processes (e.g. EUSALP)

The Platform cooperated with the following groups and processes:

- LIFE DINALPBEAR project through the participation in the meeting in Venice, Italy (6-7.2.2017) and the provision of inputs.
- EU Platform on coexistence between people and large carnivores, through the participation of the WISO in meetings in Brussels, Belgium (1.6.2017) and Venzone, Italy (12-14.10.2017).
- EUSALP, through the participation in two workshops for strengthening the cooperation between Alpine Convention Working Groups and Platforms and Action Groups (Gmunden, Austria, 5-6.10.2017 and Vienna, Austria, 10-11.09.2018).
- SCALP, through a joint half-morning session in the framework of the WISO meeting in Berchtesgaden, Germany (26-27.09.2018).

Moreover, the Platform presented its results during the 64th session of the Permanent Committee of the Alpine Conference (Gmunden, Austria, 4-5.10.2017).

6. Attachments

List of the documents attached to the report

1. Minutes of the WISO meetings (without attachments).
2. Documentation of the international workshop “Prevention and compensation of damages by large carnivores”: proceedings, including programme and invitation.
3. WISO Statement on the DINALPBEAR report “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region”.
4. WISO Statement “Prevention of damages by large carnivores in the Alps – activities and results by the WISO Platform”.

For information purpose, the report “Preventing damage by large carnivores: A comparative overview of the use of the European Agricultural Fund for Rural Development to protect livestock in the Alpine Countries” is also attached. This output is not a direct output produced by the Platform.



Large Carnivores, Wild Ungulates and Society Platform (WISO)
2017-2018 mandate
1st meeting
Innsbruck (Austria), 15 – 16 March 2017 (13:00 – 12:00)
DRAFT MINUTES

The first WISO under the chair of the Permanent Secretariat of the Alpine Convention took place in Innsbruck (Austria) on 15 and 15 March 2017. Deputy Secretary General, Ms. Marianna Elmi, chaired the meeting. The meeting was preceded by a series of preliminary consultations with delegations. The Permanent Secretariat prepared this first meeting with the presentation of an elaborate work plan for the upcoming period as well as considering active involvement of the Contracting parties and Observers at the meeting (see all agenda points in attachment 2).

Most of the contracting parties and nominated observers attended (see attachment 1).

Agenda item 1: Participants' introduction round

The meeting started with the welcome by the Secretary General and an introductory tour-de-table, in which the participants could introduce themselves and express their expectations towards the Platform's work.

Agenda item 2: Detailed presentation of the mandate

Under this agenda item, the mandate of the WISO Platform for 2017 and 2018 was presented by the chair, including the mandate's background, its coherence with the Protocols and its links to the Multiannual Work Programme (MAP)¹. The chair also presented the plan of the Austrian Presidency to hold each Permanent Committee meeting linked to one point of the MAP and the idea to dedicate the next meeting (October 2017, Gmunden) to the MAP topic of "Conserving and valuing biodiversity and landscape". Here, the WISO Platform could have the possibility to present its activities. The Swiss delegation asked for the possibility to include in the presentation to the PC also the outcomes of the last mandate period.

Agenda item 3: Joint definition of the Platform's tasks for the implementation of the mandate and definition of time schedule

Concerning the current mandate's main activities, the chair presented the following four main topics and the respective concrete actions:

1. Promoting information exchange, dialogue and coordination

¹ More info on MAP can be found here: <http://www.alpconv.org/en/convention/workprogramme/default.html>.

- a. Every WISO meeting will have an agenda item on the exchange of information.
- b. An internal event calendar will be prepared where all events linked to WISO activities should be included. PSAC will coordinate such a calendar, which will be available on the Intranet. Contracting parties are asked to provide information on national and international events relevant for the Platform to be included in the calendar.
- c. Additionally to the calendar, a mapping of members being active in other WISO-topic groups will be elaborated.
- d. To foster exchange, it was proposed to have back-to-back WISO meetings with expert meetings, according to the need of expert input on specific topics that may emerge in the Platform's activities.
- e. Each WISO meeting will try to include an excursion and have a specific topic of focus.
- f. Switzerland highlighted within this topic the importance of underlining the need of awareness raising towards the decision – making level.
- g. To facilitate the information exchange done by the WISO members, PSAC was asked to prepare a general WISO presentation of 10 slides and send it to the Platform (best before end of March) – see relevant document uploaded on the WISO intranet platform.

2. Genetic monitoring

The Platform highlighted the importance of separating the activities on genetic monitoring and on lynx inbreeding.

Regarding the activities on genetic monitoring:

- i. the Platform decided that experts from genetic monitoring projects will be invited to present their results in a WISO meeting.
- ii. The delegations are invited to send to the chair information on relevant projects on genetic monitoring to be invited in WISO meetings.
- iii. Potential synergies on genetic monitoring have been highlighted between the delegations and the database planned in a LIFE project on lynx currently under submission by Slovenia.

Regarding the activities on lynx:

- i. the Platform decided that experts from the field will be invited to the WISO meetings and excursions on the topic will be organized back-to-back to meetings (as it will be the case for the meeting organized in Germany).
- ii. The delegations are invited to send to the chair information on relevant projects on lynx that could be invited in WISO meetings. Some projects (such as the lynx project coordinated by Slovenia that could start in July 2017) were already identified.
- iii. More on the topic will emerge once the mapping of members is done.

3. Brown Bear Management

The Platform highlighted the importance of continuing the valuable cooperation with the DinAlpBear project as contained in the mandate. It is agreed that a letter of support will be sent by the chair to the project. The DinAlpBear project coordinator explains that the next steps of the project will be to elaborate a new version of the final project report and send it around for comments. The final version of the report should be ready to be presented at the next WISO meeting. The mandate foresees that WISO “takes into account” the recommendations emerging from the project. A final decision on how to treat the results of the project will be taken once the final contents of the report will be presented to the Platform. More on the topic will emerge once the mapping of members is done.

4. Sustainable damage prevention and mitigation

- a. The collection of good practices at national and regional level on sustainable damage prevention and sustainable damage compensation is foreseen in the mandate. In order to fulfil this task, the chair proposed to develop a questionnaire to be distributed to the Contracting parties for the collection of good practice examples and lessons learned (with a specific focus on success factors and on initiatives where the use of EARDF funds was already implemented). These examples could later be published. The Platform agreed on this approach.
- b. WWF applied for a similar project (attachment 4), which, however, will last longer than the mandate period and could eventually take the above mentioned publication into consideration when preparing the project outcomes.
- c. It was highlighted that communication on damages should be done very carefully while applying a focus on potentially affected persons, such as farmers.
- d. Switzerland highlighted that a damage prevention group already exists (mostly for the Western Alps) and could be consulted when preparing the publication.
- e. Italy also mentioned a successful project with beekeepers and pointed out that the expertise in the Autonomous Province of Trento on the use of EARDF funds for damage prevention and compensation could be helpful for the tasks to be undertaken under this point.
- f. It has been decided to hold an expert meeting on the topic back-to-back to one of the next WISO meetings. The chair proposed that experts from the EU Platform on coexistence with large carnivores are invited to this meeting as well, since they also coordinated a similar publication preparation. The Platform agreed to this approach.
- g. The mandate also foresees the elaboration of a handbook on the use of EARDF funds for damage prevention and compensation measures. There is a consensus in the Platform that the analysis of collected good practices and

identification of “success factors” for EARFD application can constitute a basis for this activity.

- h. The potential synergy with a workshop/event/excursion on the topic was highlighted.
- i. Concerning the output of this activity, the chair highlighted that it may not be possible to have a high level of detail in the handbook, which will contain guidelines on success factors.

The schedule of the WISO work was also discussed under this agenda item, including the upcoming meetings and other WISO-related meetings. Additionally to the current meeting, there will be 3 more: end-September in Vaduz (Liechtenstein), spring (February or better April) 2018 in Germany (Bavaria, specific location to be defined) and most probably in June or /September 2018 in Italy (specific location to be defined). Additionally to the meetings, a final expert workshop could be considered in September/October 2018. As mentioned, each meeting will be accompanied by an excursion as well as the possibility to organize further back-to-back expert workshops.

Concerning the upcoming WISO-related meetings (that will be included in the calendar on intranet) Alparc highlighted the Wolf conference that will take place in May in Austria in Steiermark (Sölktälern). The chair highlighted that, according to the Alpine Conference Rules of Procedures, the documentation has to be available to the Contracting Parties at least eight weeks before the event. All WISO activities should be therefore concluded by the late-spring 2018 in order to be ready for the ministerial conference foreseen for fall 2018. The delegations are invited to keep in mind inter- and intra-ministerial consultation needs as well as translation times.

Item 4: Update and information exchange from Contracting Parties and Observers

The meeting of the second day started with the updates from the countries (see attachment 3).

Item 5: Update on the DinAlpBear project

Mr Rok Černe (Slovenian Forest Institute and project coordinator) presented an update on the DinAlpBear project. For the decisions taken on the cooperation between WISO and the DinAlpBear project, please refer to the conclusions at point 3, agenda item 3 of these minutes.

Next meeting of the WISO Platform will be 25-26 September in Vaduz, Liechtenstein.

Attachments (available on Intranet):

- Attachment 1: List of participants
- Attachment 2: Meeting agenda
- Attachment 3: Updates from the countries (to be finalized once the information is collected from all CPs and observers)
- Attachment 4: WWF project proposal on damage prevention and compensation

Meeting of the Large carnivores, Wild Ungulates and Society (WISO) Platform

II meeting 2017 – 2018 mandate

25-26 September 2017, Vaduz (Liechtenstein)

DRAFT MINUTES

Upon invitation by the Liechtenstein Office for Environment, the second meeting of the WISO platform took place in Vaduz, Liechtenstein, on September 25 and 26, under the chair of the Permanent Secretariat of the Alpine Convention, represented by the Deputy Secretary General, Ms. Marianna Elmi. The meeting was organized as a lunch to lunch meeting with an excursion in the second half of the second day. Most of the Contracting parties and nominated Observers participated in the meeting (see attachment 1). The meeting started with the welcome by Mr. Olivier Nägele, representing the Liechtenstein Office for Environment, and by the Chair.

As the first agenda item, the Chair presented the agenda of the meeting that was approved without comments. The minutes of the last meeting were approved as well.

The Chair presented also an overview of the mandate implementation with the following conclusions:

- Mandate point “To promote procedures among the contracting parties which foster the exchange of information, scientific data and experiences in order to support decision-making processes as well as the coordination of responding actions for large carnivores”: the activity was reported as ongoing.
- Mandate point “To foster dialogue among authorities, with wildlife managers, hunters and foresters by establishing information and consultation mechanisms”: the activity was reported as ongoing, also through the participation of WISO in several events. It was highlighted how the activity could be further strengthened.
- Mandate point “To further develop coordinated programs of genetic monitoring of large carnivores on an Alpine scale”. Concerning this activity, the chair reported how the proposal is to tackle the issue in an upcoming meeting in Bavaria. The Platform members have been invited to propose potential projects to be invited in an exchange with WISO.
- Mandate point “To develop recommendations for internationally coordinated Brown Bear management actions at the Alpine level, taking into account the results of the Life DinAlpBear project and the Bear Alpine Group indications and other relevant initiatives”. The activity has been reported as ongoing.
- Mandate point “To promote initiatives to counteract inbreeding in alpine lynx sub-populations (such as reinforcement)”. The Chair proposed to tackle the issue in an upcoming meeting.
- Mandate point “To report and exchange on national and regional approaches and (good) practices in sustainable damage prevention and compensation systems for livestock damages from large carnivores”. The activity has been reported as ongoing, with the need to take decisions concerning the next steps.

- Mandate point “To elaborate a handbook on possible application of the agricultural fund for Rural Development for financing damage prevention measures”. The Chair highlighted the need to take a decision in the meeting on how to proceed with the activity.

As the second agenda item, as agreed in the last meeting to be the case for every meeting, Contracting parties and Observers, as well as the Chair, gave updates on the status of large carnivores and wild ungulates as well as on possible developments in the country legal basis and management plans (see attachment 2). Under this agenda item, a table was distributed on order to collect the information for the mapping of the participation of WISO members in other groups, as agreed at the first meeting.

Under Agenda Item 3, the project leader of the DinAlpBear Project presented the final document “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region” (see attachment 3). The Platform was informed that, as agreed at the last WISO meeting, a letter of support for the project was sent by the Chair to the Project leader. The WISO Platform appreciated the work done by the DinAlpBear Project, took note of the document “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region” and decided to continue the work under the mandate point “develop recommendations for internationally coordinated Brown Bear management actions at the Alpine level”.

Before the conclusion of day 1 of the meeting, the Chair presented an overview of the upcoming WISO presentations, highlighting the WISO presentation to the Permanent Committee meeting to be held on 4-5 October in Gmunden (AT) and the presentation at the Workshop between EUSALP Action Groups and the Working Groups of the Alpine Convention, to be held also in Gmunden (AT) on October 5-6. An outline of the contents of both presentations was shared with the Platform. In the name of the Platform, Mr. Paolo Molinari will present an overview of large carnivores in the Alps and the WISO activities at the event “EU Platform on coexistence between people and large carnivores - Joint Platform thematic networking event organized in the scope of the Natura 2000 Biogeographical Process” on 12-13 October in Venzone (IT). Mr. Molinari shared an outline of the presentation contents and confirmed that the coordination with the WISO members will be ensured for the presentation.

Day 2 of the meeting started with the topic “(Good) Practice collection on damage prevention and compensation”. The Chair reported on the status of the (good) practice collection: as agreed upon in the first Platform meeting, a template has been drafted by the Chair and sent to the Platform members for feedbacks and, after a revision, for the collection of good practices.

At the time of the meeting, not all members had submitted good practices.

The Platform members presented their views on the questionnaire and ideas on possible practices to be collected. The following decisions were taken:

- to extend the deadline for the collection of good practices until the next meeting.

- To include in the collection of information not only project and practices, but also the legal background on damage prevention and compensation in the single countries.
- To organize an expert workshop on the topic of damage prevention and compensation - including also experts dealing with the topic. This workshop should be combined with the next WISO meeting. The aim of the workshop should be to provide the legal, social and technical status and the views of the single countries concerning prevention measures as well as to discuss challenges and potentials. The WISO Platform decided to invite the “EU Platform on coexistence between people and large carnivores” at this meeting.
- The Permanent Secretariat will prepare a draft proposal for such a workshop and circulate it to the WISO members.
- The dates for the workshop and the WISO meeting were selected to be the 27-28 February 2018. The location of the event will be in Italy.
- before the next meeting, the Permanent Secretariat will coordinate the collection of information on the legislation on damage prevention and compensation in the Alpine countries.

The chair also proposed to task an external expert with the preparation of an overview of the current situation regarding the use of the European Rural Development Fund for financing damage prevention measures. This was agreed upon by the Platform members.

Following the decision of holding the third meeting in Italy, the Platform decided to postpone the Platform meeting co-organized with and kindly hosted by Bavaria the topic of lynx and to be held back to back with a meeting of the SCALP project. Depending on the date of the Alpine Conference, this fourth and last meeting could take place in June (in the week 18-22) or September (the week 24-28). The Chair will promptly inform the Platform on the date of the Alpine Conference, when known, and the date for the meeting in Bavaria will be accordingly selected at the next WISO meeting.

The meeting closed at 10:00. Afterwards, the members of the Platform were invited to an excursion organized and guided by where the members from Liechtenstein. The excursion included:

- an example of protective forest (“Schutzwald”) and discussion on the following points: introduction and discussion on protective forest maintenance, game stock adjustment efforts (adaption to habitat capacity) and its effects on habitat requirements of large carnivores as well as the impact of these issues on management strategies.
- A visit to the south-eastern border area between Liechtenstein, Switzerland and Austria with a presentation and discussion on the practices of feeding and hunting systems and an exchange on their repercussions on the situation and management of ungulates on a transnational level.

Attachments:

- Attachment 1: List of participants
- Attachment 2: Updates from Countries, Observers, Chair and Permanent Secretariat
- Attachment 3: Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region

Large carnivores, Wild Ungulates and Society (WISO) Platform

III meeting, 2017 – 2018 mandate

1 March 2018, Domodossola (Italy)

DRAFT MINUTES

The third meeting of the WISO Platform took place in Domodossola, Italy, on 1 March, after an expert workshop on the topic “Prevention and Compensation of damages from large carnivores” (27-28 February). The meeting was organized in close cooperation with the Domodossola Infopoint of the Alpine Convention (managed by the association Ars.Uni.VCO). On this occasion, the Alpine Convention photo exhibition was inaugurated in the building as well.

The meeting was organized as a half-day meeting, following the Workshop and an excursion in which most of the WISO members participated. The list of WISO members present at the meeting is in attachment 1.

Topic “Wrap – up and tour de table with feedbacks on workshop “Prevention and compensation of damages from large carnivores” (27-28 February 2018)”

At the beginning of the meeting, a short tour de table was carried out in order to give the opportunity to the Platform members to express a feedback on the workshop “Prevention and compensation of damages from large carnivores”. In general, feedbacks were positive from all Countries, which highlighted how the workshop was the beginning of a dialogue. The main improvement suggestions concerned the need to involve a broader set of stakeholders (for example, shepherds), the wish to see in the excursion more hands-on experiences and the opportunity to make a first introduction round of all participants before starting with the actual workshop. In conclusion, all participants highlighted the diversity of the presented existing approaches as well as the need for clear regulations.

The chair confirmed that all participants in the workshop will get a report as well as a participants’ list and the Power Point presentations.

Topic “Mandate implementation status”

As a second point, the chair presented the status of the mandate implementation as follows:

1. Mandate item: “To promote procedures among the contracting parties which foster the exchange of information, scientific data and experiences in order to support decision- making processes as well as the coordination of responding actions for large carnivores” - ongoing.
2. Mandate item: “To foster dialog among authorities, with wildlife managers, hunters and foresters by establishing information and consultation mechanisms” – ongoing. In particular, through the organization of the workshop, an important milestone was set concerning this point.
3. Mandate item: “To further develop coordinated programs of genetic monitoring of large carnivores on an Alpine scale” - will be addressed at the upcoming meeting, **members were asked to propose potential projects to be invited.**
4. Mandate item: “To develop recommendations for internationally coordinated Brown Bear management actions at the Alpine level, taking into account the results of the Life DinAlp Bear project and the Bear Alpine Group indications and other relevant initiatives” - ongoing.
5. Mandate item: “To promote initiatives to counteract inbreeding in alpine lynx sub-populations (such as reinforcement)” – ongoing; will be further tackled at the upcoming meeting.
6. Mandate item: “To report and exchange on national and regional approaches and (good) practices in sustainable damage prevention and compensation systems for livestock damages from large carnivores” – ongoing. On this agenda item, the workshop “Prevention and Compensation of damages from large carnivores” was organized. Furthermore, a questionnaire has been elaborated and sent to the WISO members before the meeting in view of the discussion.
7. Mandate item: “To elaborate a handbook on possible application of the agricultural fund for Rural Development for financing damage prevention measures” - ongoing and to be discussed under agenda item “Collection of practices on damage prevention and compensation – updates from WISO members and next steps”.

Topic “Short updates from Countries, Observers and Chair”

After the update by the chair on the status of activities, the first discussion topic was the report by Contracting Parties and Observers. Each Country and Observer present gave information on new events and initiatives concerning WISO-related topics. **The Contracting Parties and Observers present were invited to send to the chair a summary of their updates in written form.** The received updates will be uploaded on Intranet (as attachment 2).

Topic “Collection of practices on damage prevention and compensation – updates from WISO members and next steps”

The chair recalled how the Platform decided in Vaduz to shift the focus from the collection of practices to the collection of legislation. Following up to the meeting’s decisions, the chair circulated a draft proposal for a questionnaire on the regulations on large carnivores’ damage prevention and compensation in the Alpine countries and regions. The general feedback to the questionnaire was positive; some of the Contracting Parties already provided feedbacks. Based on the feedback by the present members of the Platform, it was agreed to include an additional question on the de-minimis and the state aid regime in the single countries. It was decided that the chair would send the updated questionnaire with the amended point on de-minimis and state aid regime to the Platform (deadline: March 9). **It is expected that the WISO members will fill in the questionnaire (attachment 3) by April 27, 2018.**

In addition, Austria proposed the preparation of a *factsheet* describing how prevention and compensation are implemented in each country, not only from the legal point of view (already covered by the questionnaire) but also from the economic point of view, evaluating the effectiveness of measures, too. The other Platform members agreed with the proposal; the chair agreed and suggested to keep the two collections (legal information and factsheet) distinct, in order to avoid confusion in collecting the data. It was agreed that Austria would elaborate a draft proposal for a template to collect information for such a factsheet in cooperation with the chair and the Bavarian State Office for the Environment.

Under this agenda item, the chair also informed that the Permanent Secretariat of the Alpine Convention, based on the decisions taken by the Platform in Vaduz, carried out a procurement procedure for the elaboration of a background study for the elaboration of an handbook on the possible application of the agricultural fund for Rural Development for

financing damage prevention measures (activity foreseen in the mandate). The chair informed that three companies applied and that the established evaluating commission decided for the company Adelphi. Ms. Katrina Marsden, who was present at the workshop the last two days, will carry out an analysis on the existing use of EARDF in the Alpine countries and regions and its further potentials. Ms. Marsden will get back to each delegation individually with further questions, either in written form or through interviews. **The chair asked all delegations to support Ms. Marsden** with information and to provide her with additional contacts, if needed; a detail on the needed contacts will be circulated to the Platform members by the chair (in cooperation with Ms. Marsden) as soon as possible.

Topic “Planning of next steps and setting of deadlines”

The 4th meeting of WISO will take place in Berchtesgaden (Bavaria) and will be co-organized with the Bavarian State Office for the Environment. The dates for the meeting are: **26-27 September 2018** (please book **both full days**, keeping the possibility open to travel already on the 25 of September). The meeting will take place back-to-back with a Scalp project meeting and will also feature an excursion on guarding dogs. **If needed, another meeting could possibly be organized in December/January before the Alpine Conference** (April 4, 2019). This will be discussed during the fourth meeting in Berchtesgaden.

Any other business

Under AOB Slovenia asked for further feedback on the bear management guidelines discussed at the last meeting. No further update from the individual countries was given at this stage. The chair will keep the Platform members updated on how the Austrian Presidency of the Alpine Convention will structure the presentation of the outputs of Working Groups and Platforms to the Ministers during the Alpine Conference.

Attachments:

- Attachment 1: List of participants
- Attachment 2: Individual member’s updates (available on Intranet)
- Attachment 3: Questionnaire on the regulations on large carnivores damage prevention and compensation in the Alpine Countries – amended draft (final version)



Large carnivores, Wild Ungulates and Society (WISO) Platform

IV meeting, 2017 – 2018 mandate

26 and 27 September 2018, Berchtesgaden (Germany)

MINUTES

The fourth meeting of the WISO Platform (2017 – 2018 mandate) took place in Berchtesgaden, Germany, on 26 and 27 September 2018, under the chair of the Permanent Secretariat of the Alpine Convention, represented by Ms. Marianna Elmi and was organised in cooperation with the German Delegation in the WISO platform, involving the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety and the Bavarian Environment Agency, hosted in the “House of the Mountains” of the National Park Berchtesgaden. Before the WISO Platform meeting, a meeting of the experts on lynx part of the SCALP group (Status and Conservation of the Alpine Lynx Population) took place. The list of WISO members present at the meeting can be found in Annex 1.

After an introduction by the hosts, the meeting started with the presentation of the agenda and the approval of the minutes of the last meeting.

Topic 1: “Wrap – up of SCALP meeting with main results, presentations and discussion”

The meeting started with a wrap-up of the SCALP project (Status and Conservation of the Alpine Lynx Population), presenting its main results.

The SCALP project was founded in the early nineties with as key target the monitoring and the provision of recommendations concerning (the management) of the lynx. After the SCALP presentation, the WISO members got the opportunity to ask questions to the SCALP members.

Bavaria and Switzerland brought forward the idea of elaborating a WISO statement in support of the actions highlighted in the project. The chair emphasized the importance to give adequate time to the members for appraising the contents of the information provided in the SCALP-paper in order to consider if a statement may be possible and how it should be drafted. SCALP will provide a summarized paper to the PSAC, which will be subsequently shared with the Delegations and Observers within the WISO Platform.

Topic 2 “Mandate 2019 – 2020 of the WISO Platform”

Before starting the *tour de table* on the 2019-2020 Mandate, an update was given by the chair on different processes going on within the Alpine Convention, which probably will have repercussions also on the work of the thematic working bodies of the Alpine Convention. The chair informs the WISO members that this issue was discussed this year during a first Permanent Committee in Schaan and an informal one in Vienna.

The chair briefly summarised the different proposals for the incoming mandate period that were sent before the meeting by some delegations. The chair invited, in the consideration for the upcoming mandate, to consider that the working period of the platform under French presidency will be sixth months shorter, hence having a possible effect on the reduction of the feasible activities and the number of meetings.

The collected topics were summarized by the chair as follow:

- a. Exchange of information
- b. Issues of genetics linked to the wolf and the lynx
- c. Harmonized management of ungulates
- d. Identification of problematic wolf behaviour
- e. Prevention and compensation: deepening the analysis of the technical aspects
- f. Common Agricultural Policy
- g. Analysing the level of acceptance of large carnivores at alpine level
- h. Establishing a “News Point” and improve the communication by WISO

After the main topics were presented, the single Delegations in alphabetical order were invited by the chair to present their proposals during a *tour de table*. The results of the *tour de table* are presented in Annex 4.

Based on the discussion, the final proposals for topics were grouped into categories. Each attending country/observer could also express a preference for three main topics. Among the following remaining proposals, a shortlist will be elaborated for the mandate 2019-2020, also based on the feedbacks by the Permanent Committee:

- I. Ungulates: recommendations on joint management;
- II. Communication and society: Alpine wide survey of the acceptance towards large carnivores;
- III. Illegal hunting: including a workshop on illegal hunting (possibly organized together with the LIFE lynx project);

IV. Prevention measures: report on the lessons learned.

The topics of problem wolf behaviour and genetic monitoring could be tackled through targeted exchanges during meeting.

The Platform will be informed by the chair about the date and time of a **skype or telephone conference to finalise the 2019-2020 mandate proposal**. The phone conference is to be carried out after the 66th meeting of the Permanent Committee of the Alpine Convention.

Excursion* and *joint dinner

A common (SCALP/WISO) excursion was organised in the late afternoon of the first meeting day, to a sheep farm working with guarding dogs. The field visit was connected with a small hike through an impressive gorge (“Wimbachklamm”).

Topic 3 “Updates from the WISO members”

In the morning of the second meeting day, each delegation was given 15 minutes for updates. Each Contracting Party and Observer present gave information on the status of large carnivores and wild ungulates as well as on events and initiatives concerning WISO-related topics. **The chair invited the Contracting Parties and Observers to send a summary of their updates in written form to the Permanent Secretariat of the Alpine Convention.** The received updates will be uploaded on Intranet (Annex 2).

Topic 4 “Use of EAFRD funds for financing prevention and compensation measures-study”

As mentioned during the last meeting in Domodossola, the Permanent Secretariat of the Alpine Convention, based on the decisions taken by the Platform in Vaduz, carried out a procurement procedure for the elaboration of a background study for the elaboration of a handbook on the possible application of the agricultural fund for Rural Development for financing damage prevention measures (EAFRD funds) as foreseen in the mandate work plan. The study was conducted by Adelphi. Ms. Katrina Marsden presented the final draft of the study, containing an analysis on the existing use of EAFRD in the Alpine countries and regions and its further potentials.

The chair warmly thanked Ms. Marsden and underlined the relevance of this useful collection of data as input to develop further steps. The chair also asked the Contracting Parties who haven't provided all the information yet, to do so as soon as possible. After the presentation, the Platform members were given the opportunity to ask questions on the study. Finally, **the Platform members agreed with the proposal of the chair to prepare a statement by the WISO-Platform as a way forward.** It was highlighted that the results of this study have also been communicated to the EU focal point of the Alpine Convention.

The PowerPoint Presentation will be made available to the members on intranet. The Chair will send in due time a draft statement for comments to the WISO members.

Topic 5 "Brown bear management"

The Platform discussed and approved a statement (Annex 3) **on** the report "Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region" of the project **LIFE DINALPBEAR**, which was prepared by the chair on behalf of the WISO-Platform

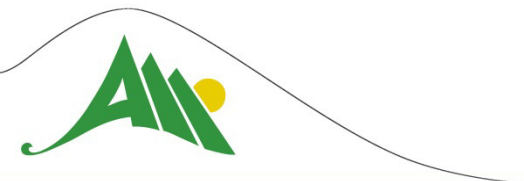
Any other business

The chair will keep the Platform members updated on how the Austrian Presidency of the Alpine Convention will structure the presentation of the outputs of Working Groups and Platforms to the Ministers during the Alpine Conference.

The fourth and last meeting of the 2017-2018 mandate of the WISO-Platform closed at 16:45.

Annexes:

- Annex 1: List of participants
- Annex 2: Individual member's updates (available on Intranet).
- Annex 3: The statement on the DINALPBEAR report "Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region"
- Annex 4: Results of the tour de table – proposed topics by delegation for the 2019 – 2020 mandate.



Alpine Convention

Platform Large Carnivores, ungulates and society

International workshop

Prevention and Compensation of Damages from Large Carnivores

Domodossola (I)

27-28 February 2018

Workshop report

Inputs collected and summarised by:

Marianna Elmi and Taja Ferjančič Lakota, Permanent Secretariat of the Alpine Convention.

The results presented in the report do not express the view of the Platform “Large Carnivores, ungulates and society” of the Alpine Convention, which has organized the workshop, or the Permanent Secretariat of the Alpine Convention. The report summarises the contributions by all participants. The report can be cited only upon permission.

Aims of the workshop

The international workshop “Prevention and compensation of damages from Large Carnivores” took place in Domodossola (Italy) on 27 and 28 of February 2018.

The event was organized in the framework of the activities of the Alpine Convention Platform “Large Carnivores, Wild Ungulates and Society”, in implementation of the 2017-2018 mandate.

The main objectives of the workshop were:

- Analysing the state-of-art in the Alpine countries: sharing knowledge on prevention and compensation measures for damages by large carnivores already in place in the Alps.
- Setting priorities: identifying effective prevention and compensation measures.
- Identifying challenges: highlighting the main challenges related to effective and efficient systems of prevention and compensation.
- Finding solutions: highlighting possible solutions to the identified challenges, based also on effective systems presented in the state-of-art review.
- Analysing and finding adequate financing tools: deepening the understanding of the use of the European Agricultural Rural Development Fund (EARDF) as well as other financing solutions for damage prevention and compensation.

Some 40 participants from all Alpine countries except Monaco attended the workshop. The complete participant list can be found in attachment 2.

Background: the WISO Platform of the Alpine Convention

The objectives of the Alpine Convention Platform “Large Carnivores, Wild Ungulates and Society” (also called “WISO” as a shortening for “Wildlife and Society”) are to find solutions to manage large carnivores and wild ungulates harmoniously and based on an integrated approach. The Platform goes beyond a strictly ecological approach and endeavours to also address economic and social aspects in a balanced manner.

The Platform was set up by the X. Alpine Conference (Evian, France, 2009). In the years 2017-2018, the mandate of the Platform focuses on the following items: the promotion of information exchange, dialogue and coordination among the Contracting Parties and among authorities, wildlife managers, hunters and foresters; the sustainable damage prevention and compensation, through the report and exchange of national and regional approaches and good practices as well as the analysis of possible application of the European Agricultural Fund for Rural Development for financing damage prevention measures; the development of recommendations for internationally coordinated Brown Bear management actions at the Alpine level, taking into account the results of the Life DinAlpBear project and the Bear Alpine Group indications and other relevant initiatives; the further development of programmes for alpine-scale coordinated genetic monitoring of large carnivores and the promotion of initiatives to counteract inbreeding in alpine lynx sub-populations.

At the WISO Platform meeting in Vaduz, Liechtenstein, on 25 and 26 September 2017, the members of the Platform decided to hold a workshop in order to discuss prevention and compensation measures for damages from large

carnivores involving also non-WISO representatives from sectors such as agriculture and protected areas management.

Cooperation with local partners in the framework of the Alpine Convention

The workshop was organized under the coordination of the Permanent Secretariat of the Alpine Convention, currently chairing the Platform, in close cooperation with the Alpine Convention Infopoint in Domodossola, managed by the association “Ars.Uni.VCO”, which hosted the event at its premises.



The workshop was organized as an Alpine Convention “Green Event”. This means that the organization took into account the sustainability of all

parts of the event: from the arrival of the participants, to the recycling of waste, to the use of local and socially responsible companies for the catering services.

Contents of the workshop

The workshop combined three main elements:

- A series of keynote presentations (day 1) on the systems of damage prevention and compensation already existing in the Alpine countries. In cases where the systems are not implemented, the presentations focused on an update on the current status.
- A keynote presentation (day 2) on the use of the European Agricultural Rural Development Fund for financing prevention and compensation measures.
- Two rounds of discussion in small groups. The discussion groups were

organized according to topics relevant in the context of the workshop theme.

- An excursion to a local *agriturismo* - a combined farm-hospitality structure - in order to see first-hand how local farmers and entrepreneurs deal with damages by ungulates. During the excursion, several local organizations and representatives presented their projects and activities.

The detailed programme of the workshop is contained in attachment 1.



Figure 1: group photo of the participants (Ph: Marianna Elmi).

Main results

In the following sections, the main results both of the keynotes and the discussion tables are presented.

Keynotes - day 1 - Presentation of the status quo in the Alpine countries

The first part of the discussion included presentations on the systems of prevention and compensation in the Alpine Countries. All the presentations collected can be accessed (by the participants in the workshop in possession of a username and password) at the following address:

http://static.alpconv.org/down/2/wiso_ws/

The main conclusions that can be drawn from the cases presented are the following:

- There is a substantial heterogeneity in terms of development of prevention and compensation measures among the Alpine countries. It is not possible to speak of an Alpine-wide coverage of harmonised and integrated systems.
- This heterogeneity relates to three main aspects: the level of implementation, the governance and the technical details of the measures implemented.
- Concerning the implementation level, while some Alpine countries have legislation and systems already in place both for prevention and compensation, some other countries are still in the process of elaborating stable systems.
- Concerning governance, there are differences in the systems in place in the different countries, especially in terms of centralization/decentralization and of the responsible actors.
- Finally, concerning the technical details, the presentations showed how the same technical measure (e.g. use of fences) is applied in different ways according to the single country. A technical exchange on solutions already adopted and their effectiveness in the different Alpine countries would be beneficial in this respect.

Discussion tables – days 1 and 2

After the presentation of the situations in the Alpine countries, a series of discussion tables were organized both in the afternoon of day 1 and in the morning of day 2.

On day 1, the following topics were discussed in six groups: communication, prevention and compensation.

On day 2, the following topics were discussed in six groups: communication, prevention, compensation and financing (including EARDF funds).



Figure 2: the moderators reported on the results of each discussion table (Ph: Taja Ferjančič Lakota).

Each group was moderated by one of the participants and worked on the following sets of questions prepared by the organizers.

Discussion tables “communication”

How is your experience concerning communication?

With which stakeholder groups do you usually communicate?

What are the main difficulties/critical points in communicating prevention and compensation possibilities to the stakeholders?

What are the main success factors – what would you recommend doing when communicating?

What can be done to improve dialogue and communication?

Are there groups which should be more involved?

Discussion tables “prevention”

Is there anything you would like to add to the experiences presented? (example from your area/region...)

What are the prevention measures that you currently deem more effective in your

area/region?

What is in your area/region currently hindering the development or the implementation and use of prevention measures?

What are the factors that could contribute to a more effective application of prevention measures?

Discussion tables “compensation”

Is there anything you would like to add to the experiences presented? (example from your area/region...)

Are stakeholders in your area/region familiar with compensation measures? Are they effectively used (if present)?

What is in your area/region currently hindering the full use of compensation measures?

What are the factors that could contribute to a more effective application of compensation measures?

The discussion table on **financing** did not follow a specific set of questions, but rather provided to the participants the possibility to further exchange on national and regional experiences on financing prevention and compensation measures and, at the same time, to analyse success factors and improvement needs and potentials.

The results are presented along the lines of the three topics. Since the issue of financing is transversal to the topics of prevention and compensation, it has been summarised under the respective points.

Communication

The discussions on this topic focused on three main elements: the critical points, the success factors and the relevant stakeholders.

Concerning the critical points, the following were highlighted:

- The plurality of actors to be addressed and their different realities and perceptions (e.g. rural/urban actors).
- The importance of creating a continuous dialogue rather than communicate only when an event occurs.
- The issue of inaccurately researched or sometimes even wrong information circulated.
- The use of terms and approaches which tend to polarise the discussion.

The main stakeholders that are involved in communication processes have been identified as follows: scientist, political representatives from different levels (especially local and regional), managing authorities and protected areas, farmers and agriculture associations, hunters, shepherds, NGOs, journalists, animal rights associations, foresters and urban inhabitants.

The discussion on the topic focused also on possible solutions and success factors for positive communication. The following points can be mentioned:

- Communication is a key element and should be taken in account even before the planning of technical solutions. Communication also contributes to the creation of trust among stakeholders.
- Communication should start before conflicts emerge and communication experts should be appropriately involved in order to spread findings and information. In this respect, there should be a clear identification of who is responsible for providing facts; public authorities have a key role in this.

- It is important to involve all stakeholder categories, and to identify the right level to work with them.
- Several instruments have been discussed for fostering dialogue: mediation and round tables, establishing communication platforms or groups. Small groups are an ideal setting for dialogue.
- Positive experiences, such as peer-to-peer testimonials, can contribute to creating a fruitful communication environment.

Prevention

- The country-related experiences presented in the workshop were deemed relevant and comprehensive.
- Several main differences have been highlighted within and between the Alpine countries:
 - Differences in the governance and coordination of the actors responsible for prevention across the alpine area.
 - Difference in the types of technical systems implemented in the various Alpine regions.
 - Differences concerning the criteria for financing, the types of measures eligible for financing and in types of funds used.
- Therefore, the possible benefits of a higher internal and trans-alpine coordination emerged.
- Some factors that may favour or hinder a broader application of prevention measures have also been highlighted:
 - Economic factors: prevention measures may be seen as an investment that is not generating revenues.
 - Competences: in some cases it is unclear under which sector the financing and management of prevention measures should be allocated.
 - Promotion: the promotion of agri-environmental measures by the relevant actors and associations is a key factor. If the respective associations and agricultural advisers promote the measures, they could be more efficiently spread.
 - Integration in financing programmes: the integration of measures for prevention in financing programmes, especially local ones, could be an encouraging factor.
 - Training: the training of all involved actors on the various prevention systems is essential.
 - Quality of the technical installations: these should be done with certified materials by competent staff in the presence of the farmers/shepherds.
 - Acceptance: a low acceptance of specific measures can hinder their application. In some cases, a very low acceptance is present.
 - Simplification of processes: simplifying processes for applying and receiving financing can have a positive impact on the use of prevention measures.
 - Control of the applied measures: it is important to find ways to effectively support farmers also in the correct implementation of measures.

Working closely with farmers is essential.

- Communication: sharing experiences (“go and see”) can be of help. It is important to give correct and appropriate information on the different prevention measures and their effectiveness, providing informed options.
- Holistic approach: all governance levels and actors should be involved.
- Local factors: specific weather conditions, cultural factors, habits and traditions can strongly influence the use or non-use of prevention measures.
- The option of zoning has not been deemed as an appropriate alternative.

Compensation

The discussion on compensation also highlighted a variety of different systems within and across the Alpine countries.

- The legal context providing the basis for compensation opportunities differs among the single Alpine countries.
- Guidelines could lead to a more efficient use of compensation.
- Several elements that could lead to more successful compensation systems have been identified:
 - Time: the time between the occurrence of the event and the compensation should be shorter.
 - Bureaucratic effort involved: less bureaucracy could lead to a better implementation of compensation systems.
 - Clarity of the procedure: all actors involved should have a

clear understanding of the required steps.

- Communication: both the existence of the possibility of compensation and the respective procedures have to be clearly and broadly communicated.
- The issue of broader consequences of attacks by large carnivores (e.g. stress) has been tackled; the discussion highlighted different systems and approaches in the Alps.
- The correlation between compensation and prevention has been discussed from two perspectives. On the one hand, foreseeing the need of having prevention measures in place when applying for compensation can encourage the application of prevention and insurance by farmers, while, on the other hand, making prevention measures compulsory may negatively affect acceptance in the long run.
- An exhaustive discussion on compensation should also take into account the *de minimis* regimes and the state aid regulation.

Excursion – day 2

On day 2, an excursion to the *Agriturismo* (mountain farm with accommodation) “La Tensa” was organised. During the visit, the owner Luciano Falcini explained the project of revitalisation of the abandoned group of houses and of reintroduction of the cultivation of grapes. He showed the damages caused by ungulates and the prevention measures that the *agriturismo* has in place.

After lunch, a series of local projects were presented by the following representatives:

Cristina Movalli from the Val Grande National Park presented the park in general and the situation concerning ungulates (especially wild boar) and their damages.

Radames Bionda from the Ossola Protected Areas also presented the situation in the area and gave an update on the presence of lynx.

Lorena Croppi and Riccardo Maccagno, from the local police of the Verbano Cusio Ossola area, illustrated the former procedure of notification of damages by large carnivores, which was previously managed by the local police, and compared it with the current system.

Roberto Viganò, scientific responsible of the project “Eco-food value chains processes” explained the approach of this project dealing with the valorisation of local game in a controlled value chain which, at the same time, helps to prevent poaching.



Figure 3: The view from Agriturismo La Tensa (ph. Marianna Elmi).

The Platform “Large carnivores, wild ungulates and society” of the Alpine Convention would like to thank:

Ars.Uni.VCO, in particular Andrea Cottini and Federica Fili for their support in the organization.

All the presenters and participants in the workshop for their contributions and their fruitful and constructive discussions.

Radames Bionda, Lorena Croppi, Riccardo Maccagno, Cristina Movalli and Roberto Viganò for sharing their experiences at local level.

In memory of Elena Tironi and her engagement and invaluable contribution to the conservation of large carnivores as well as of Luciano Falchini and his hospitality and dedication for the valorisation of his mountains.

Attachment 1

Workshop programme



Alpine Convention Platform “Large Carnivores, Wild Ungulates and Society” (WISO)

International Workshop

“Prevention and compensation of damages from large carnivores” Final programme and information

Place: Domodossola (IT), Alpine Convention Infopoint Domodossola, Istituto Mellerio Rosmini, Via Rosmini 24, 28845 Domodossola, Italy.

Date: 27-28.02.2018 followed by a WISO meeting on 1.3.2018 (WISO members only).

Registration: the WISO Platform members and the invited experts are kindly invited to confirm their participation before February 2, 2018 by writing to wiso@alpconv.org. The participants are invited to specify in their registration any specific dietary requirements (e.g. vegetarian, gluten-free). The participants agree to bear the travel and accommodation costs related to their attendance to the workshop. The Permanent Secretariat of the Alpine Convention cordially invites all experts attending the workshops for lunch and coffee breaks as well as for the workshop dinner (27.02) and excursion lunch (28.02).

Working language: English.

Moderation: Marianna Elmi (Permanent Secretariat of the Alpine Convention, chair of the WISO Platform).

Concept: The workshop will be informative and interactive and will combine keynotes and experts presentations with moderated discussions and an excursion. The activity contributes to the implementation of the 2017 – 2018 WISO mandate.

Main aims:

1. **Analysing the state-of-art:** sharing knowledge on prevention and compensation measures for damages by large carnivores already in place in the Alps;
2. **Setting priorities:** identifying the most important and effective prevention and compensation measures;
3. **Identifying challenges:** highlighting the main challenges related to an effective and efficient system of prevention and compensation measures;
4. **Finding solutions:** highlighting possible solutions to the identified challenges, based also on effective systems presented in the state-of-art review;
5. **Finding financing tools:** deepening the understanding of the use of the European Agricultural Rural Development Fund (EARDF) as well as other financing solutions for damage prevention and compensation.

Day 1

27.02.2018, 13:00 – 18:00

13:00 Get-together and snack

13:45 Opening of the workshop, welcome by Markus Reiterer (Secretary General of the Alpine Convention) and Andrea Cottini (Alpine Convention Infopoint Domodossola)
Setting the general concept for the day

14:15 **Keynote 1:** Experiences beyond the Alps: "Wolf damage management in the Apennines: strategies for prevention and compensation across different Regions"
(*Valeria Salvatori and Paolo Ciucci*)

14:45 **Session 1:** "Damage prevention and compensation in the Alps – status quo, priorities and challenges"
Presentations (Representatives of the WISO Platform and other invited guests) on the status of prevention and compensation systems in the Alpine area.

- Catherine de Roince (Terröiko, France): "Damage prevention and compensation systems in the French Alps"
- Rok Černe (Slovenia Forest Service) "Damage prevention and compensation systems in the Slovene Alps"
- Claudio Groff (Autonomous Province of Trento): "Bear attacks on humans in Trentino: a new management challenge"
- Francesca Marucco (Life WolfAlps): "Prevention of wolf damage in the Italian Alps: state of art, challenges, priorities and possible solutions"

15:45 Coffee break

16:00 **Session 1:** continues

- Olivier Nägele (Liechtenstein Office for the Environment): "Damage prevention and compensation systems in Liechtenstein"
- Georg Rauer (University of veterinary medicine, Vienna): "Damage compensation systems and first steps in damage prevention in the Austrian Alps"
- Mirjam Pewsner (Swiss Federal Office for the Environment): "Damage prevention and compensation systems in the Swiss Alps"
- Manfred Wölfl (Bavarian Office for the Environment): "Damage prevention and compensation systems in the German Alps"

17:00 **Session 1:** Discussion in break-out groups on the following topics, based on the systems presented:

1. Main challenges to be tackled and priorities;
2. Main issues in implementing prevention/compensation systems in the Alps;
3. Communication with stakeholders and public: challenges, bottlenecks and positive experiences.

18:00 End of day 1

19:30 "0 Km" dinner at "Locanda Piemonte da Sciolla" in the city center of Domodossola.

Day 2

28.02.2018, 09:15 – 16:00

09:15 Reports with results from break-out groups from day 1

10:00 **Keynote 2:** “EARDF funds for financing mechanisms for damage prevention. Insights and experiences from the EU Platform on Coexistence between People and Large Carnivores”
(Katrina Marsden, *Adelphi - EU Platform Secretariat*)

10:30 **Session 2:** “Damage prevention and compensation in the Alps – financing opportunities”
Discussion in break-out groups. Topics:

- EARDF and other EU funds: experiences and application, good examples and limitations;
- Other financing systems for damage prevention and compensation: examples, opportunities and limitations;
- Priorities for structuring financing systems.

11:00 Coffee break

11:20 **Session 2:** Break-out groups - continuation

12:00 Presentation of the results of the Break-out session 2 and closing of the workshop

Excursion on the topic “Damage from ungulates and mountain agriculture: examples of compensation and prevention in the Domodossola area”.

12:45 – 16:00 Visit to the mountain farm “La Tensa” to see the measures in place for the prevention of damages by ungulates. Discussion with the owners and light lunch. Q&A on damage prevention and compensation with representatives of the local provincial police (responsible for managing the notification of damages), representatives of the Val Grande Nature Park and the Protected areas Val d’Ossola. Presentation of a project for the valorization of local game.

The excursion place will be reached by minibus and a short walk (approximately 1 km). Although the road is suitable for vehicles, we kindly ask the participants to be prepared with sturdy shoes and clothing appropriate for the outdoor weather of a late February afternoon.

A limited number of participants who do not wish to walk can be transported by car. Please inform the organizers directly at the beginning of the meeting.



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Platform "Large Carnivores, Wild Ungulates and Society"

Invitation

International workshop "Prevention and Compensation of damages from large carnivores"

Domodossola (I)
27-28 February 2018

Aim of the workshop is to exchange information and solutions among experts from the Alpine countries on the issue of prevention and compensation of damages caused by large carnivores. Current systems already in place and possible solutions will be shared and discussed in an interactive setting.

The workshop is organized by the Alpine Convention Platform "Large Carnivores, Wild Ungulates and Society" (WISO).

You are kindly invited to confirm your participation before February 2, 2018 to wiso@alpconv.org

*Detailed programme and logistic information attached.
Working language: English.*



Alpine Convention

Large Carnivores, Wild Ungulates and Society Platform (WISO)

Statement on the DINALPBEAR report “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region”

The Platform Large Carnivores, ungulates and society of the Alpine Convention thanks the project LIFE DINALPBEAR for the fruitful cooperation and for the elaboration of the document “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region”; several members of the WISO Platform have participated in its elaboration.

The Platform recognizes the high quality and significance of the guidelines. The actions identified constitute a solid basis for joint further steps towards a harmonized Alpine-wide brown bear management.

All fields of intervention highlighted in the guidelines need to be harmoniously tackled at Alpine-wide level: conflict management, stakeholder involvement, monitoring and research, connectivity and habitats as well as the respective legal backgrounds. In particular, the Platform highlights the importance of transnational dialogue and cooperation for the discussion about the most appropriate transnational measures to be adopted.

WISO acknowledges its role in the cross-sectorial coordination on international level, as highlighted by the guidelines.

The Platform points out the need of continuing the exchange on measures concerning both the Alpine and Dinaric populations beyond the closure of the project, keeping as a basis the recommendations highlighted in the “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region”.

In conclusion, the Platform stresses in particular the importance of the measures related to the communication to and with the stakeholders; in this context, the experts and chair will further disseminate the results of the report “Guidelines for Common Management of Brown Bear in the Alpine and Northern Dinaric Region” in the appropriate fora and events.



Alpine Convention

Large Carnivores, Wild Ungulates and Society Platform (WISO)

Statement

“Prevention of damages by large carnivores in the Alps – activities and results by the WISO Platform”

Background

The Alpine Convention Platform Large Carnivores, Wild Ungulates and Society (WISO), in its 2017–2018 mandate, has foreseen to analyse the use in the Alps of the European Agricultural Fund for Rural Development (EAFRD) for financing prevention measures for damages by large carnivores. The activity is also in line with priority area “Conserving and valuing biodiversity and landscape”, as formulated in the Alpine Conference Multiannual Work Programme 2017-2022. The EAFRD is the second pillar within the Common Agricultural Policy (CAP), providing 100 billion Euro of European funds (co-financing from the Member States is additional to this) over the period 2014-2020.

As concrete activity for the implementation of the task, following a decision of the WISO Platform, the Permanent Secretariat of the Alpine Convention as Chair of the Platform has mandated an Alpine-wide study on the topic. The study provides an overview and recommendations concerning the use of the EAFRD in the Alpine countries and includes also an overview on the national legislation concerning damage prevention in the non-EU Alpine countries.

Moreover, in its 2017–2018 mandate, the WISO Platform has organized on February 27-28, 2018 in Domodossola (IT) the international workshop “Prevention and compensation of damages by large carnivores”, which has brought together relevant stakeholders at alpine level.

Statement

Based on the results of these activities and the subsequent exchanges in the WISO Platform, the Platform:

- Acknowledges its role as a forum for the exchange of information as well as of national and regional approaches and good practices concerning sustainable damage prevention at international level. In this context, the Platform highly values the practical relevance of the results of the workshop in Domodossola and of the report on the use of the EAFRD for preventing damage by large carnivores in the Alpine countries.
- Draws the attention on the uneven distribution of the use of EAFRD budget in EU member states in the Alps for damage prevention measures and highlights the substantial, yet to be fully untapped, potential for its broader utilization for the scope.
- Highlights that the measures included in the EAFRD are flexible enough to include further actions compared to the ones (such as fencing, purchase of guarding dogs and flat rate payments) currently mainly covered through the EAFRD budget and most commonly used at Alpine level for protection against damages by large carnivores.
- Stresses the highly important and determinant role decision-makers play in the use of EAFRD funds for damage prevention.
- Stresses in particular the following points, which should be taken into account in order to increase and optimize the use and Alpine wide allocation of rural development programmes for protection measures against damages by large carnivores in the Alpine Countries: coordination between administrators; testing of measures and combination of measures; provision of advice; alignment of the prevention measures with the other goals of the programme; more innovative uses of the EAFRD; engagement of stakeholders; timely planning for the rural development programmes post 2020.



REPORT

Preventing damage by large carnivores:

A comparative overview of the use of the European
Agricultural Fund for Rural Development to protect livestock in
the Alpine countries

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This report has been written by a consultant contracted by the Large Carnivores, Wild Ungulates and Society Platform for the Alpine Convention (WISO) Platform of the Alpine Convention. It does not necessarily reflect the official view of the WISO Platform nor the countries represented by the WISO Platform.

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Abbreviations

CAP – Common agricultural policy

CF – Cohesion Fund

CSF – Common Strategic Framework – framework for funding the ESIFs

EAFRD – European agricultural fund for rural development

EAGF – European Agricultural Guarantee Fund

EMFF – European Maritime and Fisheries Fund

ERDF – European regional development fund

ESF – European social fund

ESIF – European social and investment funds

EU – European Union

FCS – Favourable conservation status

LEADER - Liaison Entre Actions de Développement de l'Économie Rurale – community led EU financing programme

LIFE + Programme – EU funding programme for the environment

MFF - Multi-Annual Financial Framework – 7 year funding programme for the European Union

Natura 2000 – network of protected sites for the EU designated under the Birds and Habitats Directives

PAFs – Priority Action Frameworks – member states plans for financing Natura 2000

PMC – Programme Monitoring Committee – established to monitor the rural development programmes

SAC – special area of conservation

WISO – Large Carnivores, Wild Ungulates and Society Platform for the Alpine Convention

Introduction

The three large carnivore species present across the Alps brown bear (*Ursus arctos*), wolf (*Canis lupus*) and Eurasian lynx (*Lynx lynx*)¹, present a conservation and coexistence challenge. Their large, cross-border ranges mean they require management which goes beyond territorial borders and integrates existing national and local management structures.

Large carnivores' biological needs can potentially bring them into conflict with a range of human interests and economic activities. Conflict around large carnivore management tends to be particularly intense in areas where large carnivores have been absent for long periods and are currently returning (as is the case in most Alpine countries). Conflict may not be purely about the economic impacts of large carnivores (Linnell 2013), however compensating and especially preventing or mitigating the economic damage they cause is seen as an essential step in helping to reduce conflict or preventing it developing in the first place.

This report examines how the Alpine countries are using available EU funding, in particular, the European Agricultural Fund for Rural Development (EAFRD) to prevent or mitigate large carnivore damages. The report was commissioned by the Alpine Convention's WISO Platform in order to provide information to its membership on this topic.

1.1 Large carnivores and livestock in the Alps

The populations of large carnivores in the Alps follow the trends across much of Europe (Chapron et al, 2014) with significant declines up until the mid-twentieth century, and then a partial recovery in population numbers and range in the second half of the twentieth century. The situation for the individual species is described briefly below.

Lynx were almost eradicated from the Alps in the 1800's and early 1900's but were reintroduced in the 1970's. Currently, it is estimated that ca. 130 lynx (Schnidrig et al., 2016, LIFE Lynx, 2018) live in the Alps, mostly in the northwestern Alps of Switzerland and the south-eastern Alps of Italy and Slovenia. The biggest conservation problem they face is inbreeding due to the small population. This is currently addressed by activities to reinforce the population from the Carpathian Mountains. In general, lynx generate less conflict than bear or wolves in the Alps though regionally, conflict can be high.

The main Alpine population of bears is concentrated in two core areas: the Adamello-Brenta nature Park in the Italian region of Trentino (population of approximately 52 to 63 individuals including cubs, Groff et al., 2018) and the Slovenian Alps (population of around 50 individuals, Skrbinšek et al. 2018). In addition, the presence some dispersed animals was recorded in other areas in 2016, especially in the south of Switzerland.

Wolves are mainly located in the French and Eastern Italian Alps but there are also smaller populations in Switzerland the central and eastern Italian Alps and Slovenia. The sporadic presence of scattered individuals has also been recorded in the Austrian Alps. The latest

¹ The golden jackal (*Canis aureus*) is also returning to some Alpine countries but is not yet widely present.

status of the Alpine wolf population assessed by the Large Carnivore Initiative Europe in 2012 reports around 280 individuals (Kaczensky et al., 2012)², while the Alpine Wolf Group documented for the same year 35 packs and 3 pairs, the majority of which were between Italy and France (Wolf Alpine Group, 2014). Wolves generally cause the greatest conflict with livestock managers.

1.2 Protection of livestock against large carnivores

Effective mitigation of damage to livestock caused by large carnivores is seen as essential to prevent conflicts. Over centuries, humans developed ways to guard livestock against large carnivores. However, in parts of Western Europe, large carnivores were effectively absent for much of the twentieth century and the need for protecting livestock was reduced. This, together with new farming techniques, and rural lifestyles, led to a decline of shepherding and the use of guarding dogs (Kaczensky, 1999).

The return of large carnivores to almost the entire European continent (Chapron, et al 2014) has led to a renewed interest in the protection of flocks and herds against large carnivores. The main measures used (Eklund et al, 2017) are listed below:

- Enclosure of livestock - fencing, mobile and stationary electric fencing
- Shepherding of livestock
- Use of livestock guarding dog
- Averse conditioning of large carnivores e.g. shock collars
- Visual and auditory deterrents for large carnivores

In Europe, the first three measures are most commonly used. Eklund et al (2017) reported a lack of peer-reviewed research into the effectiveness of all deterrent measures. None-the-less the studies that exist, indicate that these three measures can be effective, so long as they are carefully targeted for the large carnivores present, the livestock to be protected and the natural conditions of the area. If the measures are applied in an inappropriate manner, they can be useless or even counter-productive for example by trapping livestock but not effectively preventing carnivores entering the area. Studies also suggest that often a combination of measures, such as livestock guarding dogs, shepherding and fencing, is most effective at preventing attacks (de Roince, 2017).

1.3 The Alpine Convention's WISO Platform

The Alpine Convention was signed in 1989 with the aim for the Alpine Countries to jointly look for the balance between protection and sustainable development of the Alpine area. Article 2 of the Framework Convention lists the priority areas of work, amongst which are spatial planning and nature protection and landscape conservation. The different topics are addressed further with specific thematic protocols; such as one on "Nature protection and landscape conservation" (Alpine Convention 1989). Specific topics are selected for further development in the Multiannual Work Programme, set in place for 6 years. For the period 2017-2022, "Conserving and valuing biodiversity and landscape" is one of the priority areas.

² Update currently being carried out. New figures should be available by the end of 2018.

For the active engagement of contracting parties and observers on different topics of the Convention, so called thematic working bodies are established. To address the relation between wildlife and society and to exchange experience and look for joint work in the future on wildlife management the X. Alpine Conference in 2009, established the Large Carnivores, Wild Ungulates and Society Platform (WISO). The set objective of WISO is “to find solutions to manage large carnivores and wild ungulates harmoniously, and based on an integrated approach”. The Platform goes beyond a strictly ecological approach and endeavours to take into account economic and social aspects in a balanced manner. The Platform focuses on promotion of information exchange, dialogue and coordination among the Contracting Parties and among authorities, wildlife managers, hunters and foresters.

In the mandate period 2017-2018, the platform, on an exceptional basis chaired by the Permanent Secretariat of the Alpine Convention, focused on sustainable damage prevention and compensation, through the report and exchange of national and regional approaches and good practices. This included the following activities: an agreement to analyse possible application of the EU Agricultural Fund for Rural Development (EAFRD) for financing damage prevention measures (addressed through this report); the development of recommendations for internationally coordinated Brown Bear management actions at the Alpine level, taking into account the results of the LIFE DINALP BEAR project, the Bear Alpine Group indications and other relevant initiatives; the further development of programmes for alpine-scale coordinated genetic monitoring of large carnivores; and the promotion of initiatives to counteract inbreeding in alpine lynx sub-populations.

2 The Policy Framework

2.1 Requirements for large carnivore conservation and management

Large carnivores in the Alpine area are protected under the 1979 Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention, signed by all Alpine states) (COE 1992) and in the EU countries under the 1992 Habitats Directive (European Council 1992).

The Bern convention is a binding international legal instrument, covering the European continent and parts of Africa, which lists habitats and species to be protected by the convention signatories. Species included in Appendix II are strictly protected: it is prohibited to deliberately capture, kill or disturb these species or their refuge areas/habitat. Species included in Appendix III are protected: they can be hunted but hunting should be regulated in order to keep the populations out of danger, e.g. measures such as closed hunting seasons and temporary or local bans to allow population recovery. Signatories could make reservations to not consider particular species as protected under the convention.

The EU Habitats Directive implements the Bern convention in the European Union (EU), adding stronger enforcement and reporting mechanisms. A key concept of the Directive is that all the species and habitats listed (no matter which annex) must be maintained in or restored to favourable conservation status (FCS). The types of action required and / or permitted to achieve FCS, vary depending on species or habitat. Annex II lists the species which require the designation of special areas of conservation (SACs), Annex IV lists strictly protected species (defined in the same way as the Bern Convention) and Annex V lists species which can be exploited but only if this is compatible with maintaining them in FCS. There is however some overlap between the Annexes: while species listed in Annex IV are strictly protected, derogations under article 16, permit removals from the population (lethal management) under particular circumstances (for example for protecting other fauna and flora or for preventing serious damages e.g. to crops or livestock or for public safety). This means that, even in member states where large carnivores are included in Annex IV, they may effectively be hunted in a targeted manner if required as a management measure.

Bear and wolf are strictly protected under Appendix II of the Bern Convention in all Alpine countries with the exception of Slovenia, which made reservations to the Appendix II for the species of wolf and brown bear. This is however irrelevant given their protection under the Habitats Directive. Lynx is protected under Appendix III in all Alpine countries. In the Alpine countries, which are EU member states, bears, wolves and lynx are strictly protected under Annex IV of the Habitats Directive.

The European Commission completed a thorough evaluation of both the Birds and the Habitats directives (European Commission,2016). The evaluation found that the directives remain highly relevant and are fit for purpose within the framework of broader EU biodiversity policy. Nonetheless, there are some common problems with their implementation in the member states. The European Commission therefore developed the Action Plan for nature, people and the economy (European Commission,2017) which lays out 15 actions to be carried out between 2017 and 2019. These included actions to update guidance on species protection and management (action 1); bring together authorities and stakeholders at the biogeographical region level to address common challenges, including on cross-border

issues (action 6); and further develop species and habitat action plans as well as stakeholder platforms on the coexistence with conflict species (action 7). This includes providing continued support to the EU-level stakeholder representatives group, the EU Platform on coexistence between people and large carnivores³. The Action Plan does not propose to re-examine the protection-level of species or habitats (no changes will be made to the Annexes of the Directives under the action plan).

A further legislative framework is provided by the Alpine Convention, signed by all eight Alpine countries (Alpine Convention, 1995). Although the Alpine Convention does not contain any specific provision related to large carnivores, several references to the protection of species can be found in its Protocol on Conservation of Nature and Landscape Protection which follow the requirements of the Habitats Directive. Specifically, Paragraph 1 of Article 14 of the Protocol (“Protection of the Species”) envisages that “the Contracting Parties undertake to pursue the measures appropriate for preserving the indigenous animal and plant species with their specific diversity and in sufficient populations, particularly ensuring that they have sufficiently large habitats”. Moreover, Article 15 envisages that “the Contracting Parties shall prohibit the capture, possession, injuring and killing of certain animal species, and disturbing them particularly during their periods of reproduction, growth and wintering [...]”. Exceptions to this provision are regulated by Paragraph 4 of the same Article, which states that such exceptions can be applied as required by the needs of a.) scientific nature b.) protecting the fauna, the wild plants or the natural environment c.) public health and safety and d.) preventing significant economic damage, particularly for crops, breeding, forests, fishing and waters. The Article foresees that these “exceptions are allowed on condition that there are no other suitable solutions and the actions are not such as to threaten the natural balance of the complex of the species concerned.” The exceptions “must be accompanied by control measures and, if necessary, means of compensation”.

2.2 EU funding to support large carnivore conservation and management

The EU provides funding for a broad range of projects and programmes covering areas such as: regional and urban development; employment and social inclusion; agriculture and rural development and research and innovation. The spending for different areas is broadly agreed in the Multi-Annual Financial Framework (MFF) normally for a period of seven years. Discussions on the next MFF (2021-2028) are currently ongoing.

The biggest EU funds are the Common Agricultural Policy (CAP), which makes up around 38% of the budget, and the five European Social and Investment Funds (ESIF). The CAP is funded through the European Agricultural Guarantee Fund (EAGF), also known as Pillar 1 and the European Agricultural Fund for Rural Development (EAFRD), Pillar 2. Pillar 1 is entirely financed by the EU whereas the fund supporting Pillar 2 (the EAFRD) is one of the five European Structural and Investment Funds (ESIF) which all need to be co-financed by the member states in order to draw down the European funding. The other funds are the

³ The EU Platform on coexistence between people and large carnivores is a grouping of seven organisations representing different interests groups which have agreed a joint mission: "To promote ways and means to minimize, and wherever possible find solutions to, conflicts between human interests and the presence of large carnivore species, by exchanging knowledge and by working together in an open-ended, constructive and mutually respectful way": http://ec.europa.eu/environment/nature/conservation/species/carnivores/coexistence_platform.htm

European Regional Development Fund (ERDF); European Social Fund (ESF); Cohesion Fund (CF); European Maritime and Fisheries Fund (EMFF). The ESIF are managed together under Common Strategic Framework (CSF) which lays out their common objectives. Member states must sign up to Partnership Agreements with the Commission describing how they will manage their ESIFs to meet the commonly agreed targets.

Both the CAP and the ESIFs have objectives related to species and habitat management (compare Figure 1 and Figure 2). One of the CAP specific objectives (for both Pillars) is to provide environmental public goods while the ESIFs have six priorities, number four being “restoring, preserving and enhancing ecosystems”. These funds are the EU member states main means to reach the goals of the Habitats Directive. Funding is not ring-fenced for this purpose but member states must describe how they will target funding in documents called Priority Action Frameworks (PAFs). The only European financial instrument which is specifically targeted at biodiversity is the LIFE + Nature and Biodiversity instrument. At 3.4 billion in the 2014-20 funding period, much smaller in size than the above-mentioned funds, it supports projects co-financed by the beneficiaries. The projects tend to concentrate on innovative or demonstration actions which have the potential for wider role out through the above-mentioned funding streams. A number of LIFE projects have already been used to trial measures to reduce depredation of livestock. In the Alps, LIFE DINALP BEAR and LIFE WOLFALPS have been particularly influential in this regard (LIFE DINALP BEAR 2018, LIFE WOLFALPS 2018). A further relevant project under development is the LIFE Lynx project.

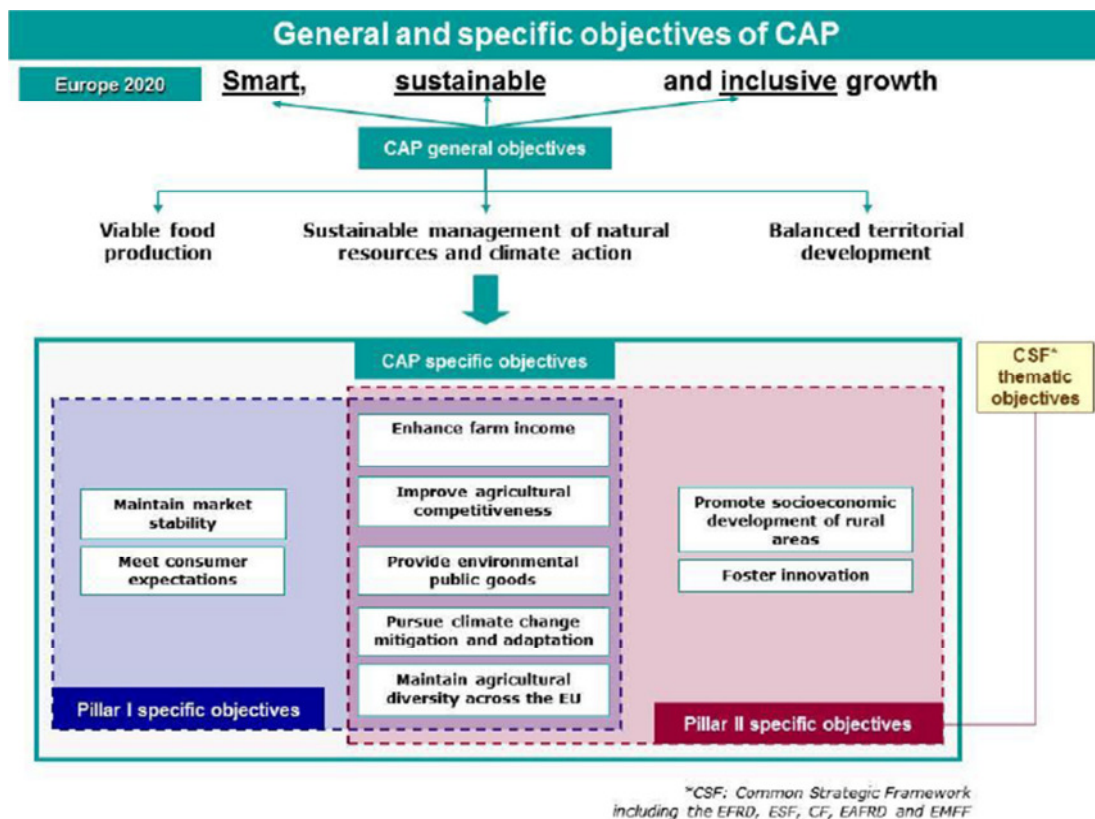


Figure 1. Objectives of the CAP (source: European Commission).



Figure 2. Priorities of the ESIF (source: European Network for Rural Development, ENRD).

3 The European Agricultural Fund for Rural Development (EAFRD)

This report focuses specifically on the EAFRD which funds Pillar 2 of the CAP and its potential to support large carnivore management. The EAFRD provides the EU level financing to the national or regional rural development programmes which every EU member state must put in place to “help the rural areas of the EU to meet the wide range of economic, environmental and social challenges of the 21st century”. The EAFRD provides €100 billion over the seven-year funding period of 2014-2020 which the member states must co-finance with their own funding.

The rural development programmes, funded by the EAFRD, have high potential to support measures related to human-large carnivore coexistence. The advantages of this funding stream is that it is available in all member states, is significantly larger than the (more targeted) LIFE fund and it is possible for a wider range of beneficiaries to access it. The programming approach means that member states have a significant amount of flexibility as to what they support through their rural development programmes and how they do it. Rural development support is therefore appropriate for addressing all types of issues faced by rural stakeholders including the prevention of depredation of livestock by large carnivores.

The EAFRD is already used by many member states to support measures related to the protection of livestock and beehives from large carnivores (Marsden et al. 2016).

3.1 Establishing a rural development programme

Regulation (EU) 1305/2013 of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) (European Union 2013) lays out the requirements for member states or regions in establishing their rural development programmes and drawing down EAFRD financing. This is supplemented by regulations laying out the common provisions and horizontal rules for the CAP as well as by the delegated and implementing regulations⁴.

Establishing a national or regional rural development programme is compulsory for all member states. The programmes cover a seven-year period (2014-20 currently) and describe the implementation of a national rural development strategy to meet EU priorities. Article 8 describes the structure of a rural development programme which member states must follow when setting up their programmes. The programmes must include: an ex-ante evaluation of the situation in the area targeted by the programme; a SWOT analysis of the situation and identification of needs; a description of the strategy; and financial tables describing how the budget will be distributed and the component of national or regional financing that will be added.

⁴ See the ENRD website for a full list of the regulations and further background information: https://enrd.ec.europa.eu/policy-in-action/rural-development-legislation_en

3.2 Rural development measures

Included in every national or regional programme (chapter 8 in the structure pre-defined by the EU) is a description each of the measures and sub-measures selected by the member state / region and the conditions attached to them. The measures are referred to by measure numbers in the EU regulations and the national programmes (see Annex 1, Part 5 of the implementing regulation (European Commission, 2014)). There are 20 measures and 60 sub-measures available which should contribute specifically to the priorities for rural development identified in the ex-ante and SWOT.

Measures and sub-measures can have varying characters and cover a wide range of activities: from land management measures such as agri-environment-climate measures⁵; to support developing a new business; to help with rolling out broadband in rural areas. While the majority of the measures are aimed at farmers, they can be open to different types of beneficiaries e.g. foresters, other land managers, advisory services and local communities.

The financing of rural development measures also varies. Certain measures compensate the applicants for actual costs to meet the programmes objectives. Others are paid at a set rate per hectare calculated based on a national or regional level average. Unlike Pillar 1 of the CAP, the EAFRD does not provide direct income support though certain measures can be used to kick-start private businesses with the final aim of increasing income. For the measures aimed at delivering environmental benefits, beneficiaries should be compensated for income lost or additional costs.

The voluntary or compulsory nature of the measures also varies. Certain measures must be included in every rural development programme, for example, all programmes must include the LEADER approach⁶ and agri-environment-climate measures. Additionally, member states must ensure that at least 30% of the total EAFRD contribution goes to environmental measures (agri-environment climate, forest-environment, areas of natural constraint, organic farming). Applying for rural development support is however optional for farmers or other beneficiaries (there is no obligation for example, for farmers to apply for rural development funding as a condition of receiving support from other parts of the CAP).

3.3 Decision making and monitoring

The regulation also establishes strict monitoring and evaluation requirements for the rural development programmes. Member states or regions in charge of a rural development programme (referred to as managing authorities), are obliged to establish a Programme monitoring committee (PMC). The PMC shares the responsibility for monitoring with the managing authority. There are requirements about including a range of different stakeholders on the committee (conservation interests, farming and forestry representatives, rural communities). As well as monitoring the implementation of the programme, the PMC

⁵ Agri-environment measures provide payments to farmers who subscribe, on a voluntary basis, to environmental commitments related to the preservation of the environment and maintaining the countryside. In the 2014-20 funding period, the concept has been expanded to include measures to protect the climate.

⁶ LEADER, also known as Community-Led Local Development, is a bottom-up local development method which has been used for twenty years and which was included in the European Rural Development regulation in 2007 (previously funded through the structural funds). It involves the establishment of Local Action Groups to carry out projects of their own conception and design.

can make suggestions for alterations, additions or deletions of measures within the programme.

The programme is evaluated using a set of common indicators on the EU level which have been agreed between the member states and the European Commission. These indicators, which make up the Common Monitoring and Evaluation System, include output, result, impact and context indicators⁷ which should be used to monitor both pillars of the CAP. The evaluation framework aims to show whether or not the rural development programmes are meeting their targets and also provide an opportunity to learn from the programmes.

⁷ https://ec.europa.eu/agriculture/cap-indicators_en

4 Potential to use the rural development programmes to support coexistence

The current use of the rural development programmes for coexistence measures across the EU was analysed in 2016 (Marsden et al. 2016) for the EU Platform on coexistence between people and large carnivores and an update of this work is currently being carried out (see Marsden 2018).

4.1 Current use

Four main sub-measures of the EAFRD are currently used to support protection measures in Europe. These are:

- 4.1: Support for investment in agricultural holdings;
- 4.4: Support for non-productive investments linked to the achievement of agri-environment-climate objectives;
- 7.6: studies/investments associated with the maintenance, restoration and upgrading of the cultural and natural heritage of villages, rural landscapes and high nature value sites; and
- 10.1: Agri-Environment-Climate.

The main actions funded through these sub-measures are capital costs of installing equipment including the establishment of electric fences, the purchase of livestock guarding dogs as well as alert systems and video surveillance. In many of the rural development programmes supported through the EAFRD in which such actions are included, the actual costs for installing the systems or buying the dogs are funded up to a certain percentage. Some member states, however, pay a top-up per hectare through agri-environment climate for the maintenance of the above measures. Staff costs for shepherding are also covered as well as advice provision (in France only). Table 1 describes the types of action which are currently paid for through these measures (see Marsden et al. (2016) for information on which member states use which measures.

Table 1 Description of the main measures used for coexistence

Code and measure	Example actions covered	Points to note
4.1, art 17: Support for investment in agricultural holdings	Covers a percentage of the costs of buying equipment. Examples include: <ul style="list-style-type: none"> • Buying fencing material; • Costs of building fences; • Costs of improving existing fencing systems; • Electrical systems; • Bee-hive protection; • Initial costs of buying dogs; • Improving infrastructure needed for shepherding (accommodation, etc.) 	This measure can be used in the case that the infrastructure has other purposes in addition to livestock protection e.g. increasing the viability of the farm.

Code and measure	Example actions covered	Points to note
4.4, art 17: Support for non-productive investments linked to the achievement of agri-environment(-climate) objectives	Covers 100% of the costs of buying the equipment described above.	The infrastructure must be clearly targeted at preventing depredation or other agri-environmental objectives. Land manager cannot use the measure to increase profitability of their business / meeting other farming objectives.
7.6, art 20: Studies for supporting village and rural landscapes	Can cover a percentage of the costs of buying the equipment described above. Additional actions:; <ul style="list-style-type: none"> • Vulnerability analysis; • Technical advice; 	Similar to 4.1, this measure covers costs of infrastructure but can also be used to cover accompanying studies and advice. Such actions could also be covered under other sub-measures (see below).
10.1, art 28: Agri-environment -climate	Area-based , annual payment covering 100% of income foregone and additional costs associated with measures linked to agri-environment objectives. Covers annual costs associated with: <ul style="list-style-type: none"> • Using livestock guarding dogs; • Putting shepherding in place; • Fence maintenance; • Changing grazing practice (through fencing etc.). 	Annual payment which can be used in combination with the above measures to cover the maintenance costs associated with new infrastructure.

4.2 Potential use

Marsden et al. (2016) identified potential for the EAFRD including using further measures to contribute to additional actions to support coexistence with large carnivores. A mapping exercise comparing good practice identified through case studies collected by the EU Platform and the measures available through the EAFRD was carried out and showed potential to fund the following activities:

- Advice – under measure 2, “advisory services”. This measure is generally used to provide agricultural and environmental advice but could include advice on how to put prevention measures in place and maintain them. It is open to advice providers.
- Awareness raising activities – under measure 1, “knowledge transfer”. This measure could be used to raise awareness about prevention measures e.g. by organising advisory events for farmers, information campaigns or knowledge platforms. It is applicable to advice providers / NGOs.

- Establishing innovative businesses e.g. eco-tourism or labelling schemes – under measure 6, “farm business development”. Individual businesses could apply to this measure to support e.g. labelling schemes to show that cheese or meat is produced in a manner which promotes coexistence with large carnivores. It is most applicable to farmers and other rural business owners.
- Pilot projects and collaborations for sharing of good practice – under measure 16, “cooperation”. This could include encouraging groups of farmers to work together to share information on prevention techniques. It is most applicable to NGOs or authorities.

These activities could be supported on a project basis, open to the above-mentioned beneficiaries. The potential to use these measures for these purposes already exists in many member states but has not yet been put into practice.

5 Overview from the Alpine countries

The following tables show the current use of the EAFRD to support measures to prevent depredation by livestock in the Alpine area. The information was gathered through structured telephone interviews with the WISO Platform members or experts identified by the members in the Alpine countries. Background information was also collected on the non-EU countries who are members of the Alpine convention. Clearly for these countries, however, the more detailed information on the use of specific EU funds is not relevant.

5.1 Austria

The large carnivore population in Austria is very small. One wolf pack is established outside the Alpine area. Within the Alpine area, individual wolves pass through as do individual male bears. There is a small lynx population in Upper Austria and some lynx cross the border from Switzerland.

Nonetheless, the main conflict regarding large carnivores is currently the risk of wolf taking livestock. The actual number of livestock affected is low (21 sheep in 2017, the high was 160 individuals), however, the return of the wolf has been widely discussed since 2009 when individuals began to enter Austria and the level of conflict is relatively high.

The management system in Austria is influenced by the federal structure of the state, which means that the main responsibility for decision resides at the level of the States (*Länder*). Compensation schemes vary between regions. Prevention measures were researched through a National Advice Centre (*Nationale Beratungsstelle*) established in 2012 following the established of national guidelines on wolf management. The advice centre carried out two pilot projects to look at protection measures. It was found that there were significant barriers to putting prevention measures in place (including cultural and socio-economic problems as well as some physical problems) Currently there is no broad-scale funding for prevention measures, meaning that farmers must fund them themselves.

Table 2. Austrian fiche

Background information	
Alpine area	54,592 km ²
Alpine human population	3,318,045 inhabitants
Management bodies	Entirely regionalised. Large carnivores are normally managed under hunting law or nature protection law in each region. Agricultural support is federalised and managed by the Ministry of Sustainability and Tourism (<i>Bundesministerium für Nachhaltigkeit und Tourismus</i>)
Management plans	National guidelines on wolf and bear management, (<i>Wolfsmanagement in Österreich. Grundlagen und Empfehlungen</i> (KOST, 2012)) and <i>Managementplan Braunbär Österreich</i> (KOST 2005)) provides a template / advice for management for the Regions.

Background information	
Stakeholder groups	<p>The Cross-regional Coordination Office for Brown Bear, Lynx and Wolf (<i>Länderübergreifende Koordinierungsstelle für den Braunbären, Luchs und Wolf</i> (KOST 2018)) brings together a core group of the regional administrations with some stakeholders (hunters, livestock, etc.) involved in the extended group. Meets 1-2 times a year.</p> <p>A working group on livestock protection was set up as part of the work on the National guideless and was instrumental in establishing the National advice centre.</p> <p>Some regional administrations are establishing stakeholder groups focusing on wolf e.g. in lower and upper Austria, Styria and Salzburg</p>
Main conflict	<p>Livestock depredation.</p> <p>Fear of large carnivores is also an issue.</p>
Large carnivore populations in the Alpine area (2017)	
Wolf	Individuals passing
Bear	Males passing (sporadically resident)
Lynx	Small population in Upper Austria (reintroduction). Few individuals crossing the border from Switzerland (first evidence of reproduction in Vorarlberg in 2017).
Depredation of livestock in the Alpine area (2017)	
Compensation scheme	<p>Varies between regions. Often covered by hunting insurance or by regional administration or a mixture of the two (direct losses are paid through insurance and indirect losses by the administration) e.g. in Salzburg and Carinthia, compensation is covered by regional hunting laws (<i>Jagdgesetz LGBl.Nr.100/1993 §91 Abs 5, Kärntner Jagdgesetzes am 1.3.2018, LGBL. Nr. 13/2018</i>) and in Tyrol it is covered by a decision of the Tyrolean regional authority producing a Guideline for the phase-out of damages by wolves and bears</p>
Number of livestock killed	21
Level of compensation	Unknown
Prevention measures in the Alpine area (2017)	
Prevention scheme	<p>Measures were researched by the National advice centre.</p> <p>Salzburg recently introduced support for partially covering the costs of fencing (35%)</p>
Level of prevention payments	Unknown
EAFRD measure used	None

5.2 Germany: Bavaria

Similar to Austria, there are few large carnivores in the German Bavarian Alps, only individual wolves passing through. The wolf population in Germany as a whole is however growing, with around 60 packs and 13 pairs in the country in 2017 and around 10 territorial

wolves in Bavaria. The wolf returned to Germany only in 2000 (crossing from Poland), so the expansion of the population size and its distribution has been rapid. The level of public debate on the return of the wolf is therefore high.

In the Bavarian Alps, the main conflict around large carnivores is the potential for wolves to cause damage to pastoral farming, particularly Alpine sheep and cattle production. So far, there have not been any losses in the Alps, however there have been some small-scale losses of livestock to wolves in lowland Bavaria, outside the perimeter of the Alpine Convention.

There is an established compensation scheme in Bavaria but no schemes to support farmers in putting in place prevention measures. The environment and agricultural ministries are however working on such a scheme and intend to submit it to the European Commission as state aid this year. The scheme should start in 2019 and will support fencing, livestock guarding dogs and their maintenance. Currently there is no plan to use EAFRD support as rural development financing is regarded as important for farmers for other purposes.

Table 3. German, Bavaria fiche

Background information	
Alpine area	11,160 km ²
Alpine human population	1.476,519 inhabitants
Management bodies	The Bavarian State Ministry of the Environment and Consumer Protection, for large carnivore management and conservation (<i>Bayerische Staatsministerium für Umwelt und Verbraucherschutz</i>) The Bavarian State Ministry of Food, Agriculture and Forestry is in charge of agricultural policy (<i>Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten</i>)
Management plans	The environment and agricultural ministries are working together on a Wolf Management Plan in consultation.
Stakeholder groups	A working group has been established discuss the Wolf Management Plan, currently under development. Several other “users” groups and conservation focussed groups exist. German national level Wolf Round Table (<i>Runder Tisch Wolf</i> . National level Documentation and Advice Centre for the regions (<i>Dokumentations- und Beratungsstelle des Bundes zum Thema Wolf</i> , 2018)
Main conflict	Potential for livestock depredation
Large carnivore populations in the Alpine area (2017)	
Wolf	Single wolves passing through
Bear	None
Lynx	None

Depredation of livestock in the Alpine area (2017)	
Compensation scheme	100% of the price of livestock lost is paid by a consortium of NGOs. The environment ministry refunds the NGOs 80% of the total costs.
Number of livestock killed	None
Level of compensation	None
Prevention measures in the Alpine area (2017)	
Prevention scheme	No scheme currently. Under development.
Level of prevention payments	None
EAFRD measure used	No

5.3 France

Wolves began returning to France from Italy in the early 1990s. Since then, the population has increased annually to reach the current numbers of 52 packs (around 360 individuals). Bear and lynx populations in France are still small and geographically contained.

Conflict with livestock managers is the most significant conflict for all large carnivore species. Conflict is particularly high relating to the presence of wolves since the population in the Alps recovered in a relatively short space of time and prior to this, there was little need to contain flocks or use livestock guarding dogs so free-ranging sheep flocks are common and depredation levels are high. Livestock depredation has increased with the number of wolves returning (from around 6,000 in 2013 to around 12,000 in 2017 (mainly sheep) in France as a whole) (DREAL, 2018). There is currently a national level compensation scheme which compensates farmers for livestock killed, livestock which disappear and indirect costs caused by stress, abortion of young, etc.

The prevention of livestock depredation is managed under the framework of the rural development programmes. Funds to support the prevention of depredation have been available since the previous programming period (2007-13) and have risen over this period (from 4.5m€ in 2008 to over 21m€ in 2017). In the current programming period, France has a national framework for rural development and 21 regional rural development programmes. The national framework puts in place the basic structure for the regional programmes and describes the measures which are considered to be national priorities as well as those which are optional. The same measure is therefore used for measures to prevent depredation in all regions. It is available to farmers in both Alpine regions: Provence-Alpes-Côte d'Azur (PACA) and Auvergne-Rhône-Alpes. As well as being identified as a priority nationally, it is identified as an "environmental risk" in the SWOT analysis for the PACA region.

Table 4. French fiche

Background information	
Alpine area	40,801
Alpine human population	2,683,801

Background information	
Management bodies	<p>The national ministries of Environment (<i>Le ministère de la Transition écologique et solidaire, MTE</i>) and Agriculture (<i>le ministère de l'Agriculture et de l'Alimentation, MAA</i>) are jointly responsible for the National Wolf Action Plan. The plan is coordinated by the Prefect (state representation in the region) of the Auvergne-Rhône-Alpes.</p> <p>The regional environmental authorities (<i>Direction régionale de l'environnement, de l'aménagement et du Logement (DREAL)</i>) are responsible for compensation claims.</p> <p>The regional agricultural authorities, (<i>Direction Régionale de l'Alimentation, de l'Agriculture et de la Forêt (DRAAF)</i>) are responsible for prevention measures.</p> <p>The National office for hunting and wildlife (<i>Office national de la chasse et de la faune sauvage (ONCFS)</i>) is a public institution which is in charge of implementing particular aspects of the Plan.</p>
Management plans	The National Wolf Action Plan (<i>Plan national d'actions 2018-2023 sur le loup et les activités d'élevage</i>) was agreed in 2017.
Stakeholder groups	The National Wolf Group (<i>Groupe National Loup</i>) meeting once to twice a year led by the Auvergne-Rhône-Alpes region and bringing together conservationists, farming groups and hunters to share information and comment on policy decisions. Similar groupings have been established on the regional level.
Main conflicts	Livestock depredation
Large carnivore populations in the Alpine area (2017)	
Wolf	44 packs
Bear	Only present in the Pyrenees
Lynx	10-20 individuals in the French Alps
Depredation of livestock in the Alpine area (2017)	
Compensation scheme	National level compensation scheme for livestock killed, livestock which disappear and indirect costs caused by stress, abortion of young, etc., where these can be linked to wolves. Tables at the national level set the amount of compensation depending on the type of livestock, labelling, organic, etc. Currently no obligation to have prevention measures (likely to change – proposal under discussion).
Number of livestock compensated (wolf)	10,805 individuals
Level of compensation	3,492,630 €
Prevention measures in the Alpine area (2017)	
Prevention scheme	Managed under the framework of the rural development programmes.
Level of prevention payments	21,294,653 € from the rural development programmes (co-financed at just under 50% of national financing for the two regions)

Prevention measures in the Alpine area (2017)	
EAFRD measure used	<p>Sub-measure 7.6: support for studies/investments associated with the maintenance, restoration and upgrading of the cultural and natural heritage of villages, rural landscapes and high nature value sites including related socioeconomic aspects, as well as environmental awareness actions</p> <p>The following prevention measures are available:</p> <ul style="list-style-type: none"> • Vulnerability analysis (funded 100%) • Shepherding and accommodation for shepherds (funded 80%) • Livestock guarding dogs (funded 80%) • Electric fenced sheep parks (funded 80%) • Technical advice for prevention measures (funded 100%) – opened 2018
Support available to	<p>Farmers, pastoral associations, groups of shepherds, local collectives, unions, associations of livestock breeders. Vulnerability analysis and technical assistance measures are open to associations and advisors.</p> <p>The measures are open to those within the core areas for large carnivore (circle 1) and the areas with passing wolves (circle 2).</p>
Effectiveness of measures	<p>Assessment found that a combination of measures works but individual measures likely to be ineffective (De Roince et al. 2017). Currently no obligation to choose a particular set of measures together, nor to seek advice. This gap is being addressed with a new measure focused on technical advice provision.</p>

5.4 Italy

Italy has a small bear population focused in Trentino which was never extinct and has grown following reintroductions from the Dinaric population to its current level of 53-63 bears and their young. The Italian wolf population joins with the French and the Apennine population in the Western Alps. There are around 31 packs here and the population is dynamic (it has grown from around 15 packs in 2012), gradually moving east. The wolf population in the eastern Alps is smaller and consists mainly of passing individuals, but six packs are now established between Veneto and Trentino effectively joining the Dinaric and Alpine populations. The Italian lynx population is small and decreasing (around 5 individuals near the Austrian border following a reintroduction there). A currently running project, LIFE Lynx intends to “rescue the Dinaric-SE Alpine lynx population from extinction and to preserve it in the long term” (LIFE Lynx 2018).

The main conflicts around the presence of wolves and bears are related to their depredation of livestock. In some areas fear wolves is also causing conflict. Following incidents where people were injured by bears in Trentino, fear of bears has also increased.

Large carnivore management is divided between the national and the regional level. Protected species management (including establishing derogations and quotas) is a national competence. A national level working group has been focusing on the establishment of a Wolf Management Plan which has however been blocked due to controversy surrounding the issue of lethal management. A National Bear Management Plan was agreed in 2008 and modified in 2015 (PACOBACE, 2015). There is a duty for the regions to compensate for damages caused by wild species including large carnivores. The wolf management plan would also require them to support protection measures.

There are 6 regions in the Italian Alpine area: Aosta Valley (VD), Piedmont (PM), Lombardy (LM), Veneto (VN), Friuli Venezia Giulia (FVG) and Trentino Alto Adige which is divided into two autonomous provinces: South Tyrol / Bolzano (BZ) and Trentino (TN) which are dealt with separately here. Practical implementation of damage prevention measures as well as agricultural support measures (the regions all have their own rural development programmes) are regional competences and the regions take different approaches. Projects such as LIFE WOLFALPS have helped significantly with sharing information and testing protection measures, however, the interviews carried out for this report have highlighted how there is still potential for improving the sharing and exchange between the regional administrations.

Table 5. Italian fiche

Background information	
Alpine area	51,995 in total
Alpine human population	4,346,538 inhabitants
Management bodies	<p>Italy: State with Environment ministry and related technical institution (I.S.P.R.A.) for technical-scientific support.</p> <p>At regional and provincial level in the Alps:</p> <p>VD – Office “Flora, fauna, hunting and fishing” deals with the environment and protected species and also with payments and RD measures</p> <p>PM – Piedmont agricultural department</p> <p>LM- DG Environment and climate (<i>Direzione Ambiente e clima</i>), deals with environment and protected species management; DG Agriculture (<i>DG Agricoltura</i>) deals with agriculture and RD measures</p> <p>VN - Agri-environmental, game and fish department (<i>Direzione Agroambiente, Caccia e Pesca</i>), deals with agriculture and the environment</p> <p>FVG – Directorate General of landscape services and biodiversity (<i>Direzione generale servizio paesaggio e biodiversità</i>), Central Directorate for the management of agriculture, forestry and fishing resources (<i>Direzione centrale risorse agricole, forestali e ittiche</i>)</p>

Background information	
	<p>BZ - Autonomous Province of Bozen/Bolzano, Fish and Wildlife office for large carnivore management (<i>Ufficio caccia e pesca/Amt für Jagd und Fischerei</i>).</p> <p>TN – Forest and Wildlife Service (<i>Servizio Foreste e Fauna</i>) for forestry and large carnivores, Agricultural Department for other agricultural support.</p>
Management plans	National level plans for bear (PACOBACE, 2015) and Wolf plan in elaboration.
Stakeholder groups	<p>VD – discussion and technical table on wolf management including local authorities</p> <p>PM – no</p> <p>LM - discussion table on bear management involving local authorities</p> <p>VN - regional discussion table on large carnivores. It involves environmentalists, farmers and agricultural associations and hunters (regional representatives), and local authorities. Newly established it met 2 times in 2017.</p> <p>FVG – no</p> <p>BZ – no</p> <p>TN – three round tables: users (farmers, beekeepers, breeders), information and participation (all stakeholders) and communication (public authorities and tourism). EU contract for regional coexistence platform</p>
Main conflicts	<p>VD – Livestock depredation; fear is also an issue.</p> <p>PM – Livestock is the biggest problem. Some conflicts with hunters but not as severe.</p> <p>LM - livestock depredation and damage to beehives. Fear also an issue.</p> <p>VN – Focus on wolf and livestock conflict. Fear of wolves is also an issue.</p> <p>FVG – livestock depredation and damage to beehives. Fear and competition with hunters also an issue.</p> <p>BZ – Pastoral farming and to a lesser extent beekeeping.</p> <p>TN – Fear of bears, livestock secondary issue.</p>
Large carnivore populations in the Alpine area (2017)	
Wolf	31 wolf packs
Bear	53-63 bears including young
Lynx	5 lynx individuals
Depredation of livestock in the Alpine area (2017)	
Compensation scheme	<p>VD - 100% of the costs of dead animals, injured animals, vet expenses and disposal of carcasses are covered through regional contribution and an insurance scheme. Currently there is no requirement to have prevention measures in place.</p>

Depredation of livestock in the Alpine area (2017)	
	<p>PM – Since 2012, an insurance scheme has been in place. Farmers must buy insurance in order to receive compensation. Estimate around 85% of farmers are covered. Insurance covers more than 100% of costs – also some indirect costs and higher payments for a second attack. Theoretically, farmers should have prevention measures in place to receive insurance but the responsibilities for checking this are not clear. The scheme is partially supported by the regional government.</p> <p>LM - 100% of the costs of dead animals, injured animals, vet expenses and disposal of carcasses are covered through regional insurance scheme. Currently there is no requirement to have prevention measures in place.</p> <p>VN – 100% of the costs of dead animals, injured animals, vet expenses and disposal of carcasses are covered. Currently compensation paid under the de minimis rules is not dependent on prevention measures being in place. Veneto plans to notify the compensation as state aid. Once this is done, farmers will be obliged to put in place prevention measures in order to receive compensation.</p> <p>FVG – Regional law addressing the conflicts with large carnivores covers compensation and prevention measures. Direct damages to livestock and beehives are compensated within one month.</p> <p>BZ – regional funds used to compensate 100% of costs as well as an extra indirect costs fee. Currently there is no requirement to have prevention measures in place. After a transition period with the new scheme, a requirement to have prevention measures will be introduced.</p> <p>TN – compensation scheme exists covering 100% of proved damage to livestock and apiaries, funded by the regional government.</p>
Number of livestock compensated	<p>VD – wolf: 30 sheep, 7 goats, 4 cows.</p> <p>PM – wolf: 354 animals</p> <p>LM – wolf: 60 sheep, bear: 1 sheep</p> <p>VN – wolf: 241 sheep, bear: 2 sheep / cattle</p> <p>FVG – wolf: 12, bear: 22 (in 2018, compensation also for golden jackal kills).</p> <p>BZ – wolf: 40 sheep, bear: 32 sheep / cattle, 1 apiary</p> <p>TN – bear: 144 compensation claims (38% apiaries, 20% crops, 35% livestock) ~700 livestock claimed; wolf: 120 livestock killed or lost</p>
Level of compensation	<p>VD - 9.781,39 €</p> <p>PM - unknown</p> <p>LM – 9,464 €</p> <p>VN – 121,186€</p> <p>FVG - 6,206.69€ (bear), € 1,438.00 (wolf)</p> <p>BZ – 16,000€</p> <p>TN - 82,979.54 € (bear), 46,925.59 € (wolf)</p>

Prevention measures in the Alpine area (2017)	
Prevention scheme	<p>VD - Measures financed through regional funding (financed according to the same regional law of compensation measures – l.r.17/2010).</p> <p>PM – Measures were funded through regional funding until the start of the last rural development regulation. They are now supported through the rural development programme (as well as some project funding).</p> <p>LM - Measures funded through LIFE WOLFALPS project and other regional funding (funded under the same regional law as compensation measures). A proposal for new regional budget has been previewed for 2018. A modification has been submitted to the rural development programme to include a measure.</p> <p>VN – Measures trialled through LIFE DINALP BEAR and LIFE WOLFALPS projects. The regional government has introduced a scheme which compensates farmers for the purchase of fencing. The regional government also supports advice in the field. European Social Fund financing has supported reintroduction of shepherding into certain areas. A modification has been submitted to the rural development programme to include a measure (see below).</p> <p>FVG – Prevention measures are funded under the same regional law as compensation measures. Prevention measures include electric fences, livestock guarding dogs, electronic alarms. Stakeholders can apply at any time of year the application should be processed within 2 months. Currently only regional financing is used as the number of large carnivores (and consequently the demand) is not very high. Stakeholder can also borrow fences to test them before buying them.</p> <p>BZ – A provincially funded prevention scheme is starting this year (2018) for supporting farmers buying electric fences. There may be interest in using the rural development programme in future.</p> <p>TN – Use a combination of regional funding and the rural development programme to support prevention measures. The rural development programme covers larger fencing projects over 4,000€ (see below). Regional funds are used for advice, smaller scale mobile fencing and livestock guarding dogs. The Forest service is in direct contact with the applicant and an on-site meeting is organised to agree the area that should be fenced, rotation etc. Normally they start with small application and add to this over time.</p>
Level of prevention payments	<p>VD – regional funds provided: 2017 16,084€; 2018 60,203€; regional funds estimated for 2019 and 2020 160,000€</p> <p>PM - The planned budget for the rural development programme 2014-2020 is 3,434,133m€ (with co-financing).</p> <p>LM – no budget allocated for rural development programme 2014-2020 still. Regional funds estimated on 100,000 € for 2018-2020</p>

Prevention measures in the Alpine area (2017)	
	<p>VN – Financing of 1M€ planned from the start of the scheme until end of 2020.</p> <p>Under the new RD measure, up to 30,000€ would be distributed to each project – 100% of costs.</p> <p>FVG – Planned total annual budget for prevention and compensation measures – 50,000€. In 2017 the following was spent on large carnivores prevention measures: 12,368,110€.</p> <p>BZ - NA</p> <p>TN – The planned budget for the rural development programme is 4.5m€ for whole period (around 1m€ per year) for the specific measure (which can also be used for other purposes). Around 60% was used by the end of 2017.</p> <p>In 2017, the following was spent on bear prevention measures: (total costs from regional and rural development support): 134,450€ (137 claims). Wolf 4,550€ (7 claims).</p>
EAFRD measure used	<p>VD – Not used</p> <p>PM – Uses both 4.4 non-productive investment and 10.1 “agri-environment-climate”:</p> <ul style="list-style-type: none"> • 10.1.6 Defence of livestock from predation by canids on hill and mountain pasture (measure open since 2016). Livestock breeders must use electric fences, livestock guarding dogs and continuous shepherding to receive a flat-rate payment of 350€ / ha. • 4.4.2 Defence of livestock from predation by canids in the pastures (only open in 2018 for this year). The measure covers the capital costs associated with the above (i.e. buying dogs and fencing equipment). <p>LM – modification submitted to include 4.4.1. non-productive investments this would cover costs for electric fences and guarding dogs</p> <p>VN – A modification has been submitted to the programme, sub-measure 4.4 “non-productive investment”:</p> <p>4.4.3. non-productive investment – equipment durable goods, etc. (waiting for approval). The measure will support 100% of the costs of equipment such as fencing.</p> <p>FVG – Not used.</p> <p>BZ – Not used.</p> <p>TN – 4.4. non-productive investment:</p> <p>4.4.2: traditional wooden fences, reconstruction of stone fences, prevention of damages by wolf and bear: electric systems to apply to traditional fences</p> <p>This measure was chosen to meet landscape requirements (attractive fences) and also help to manage livestock even where bear and wolf are not a problem.</p> <p>The measure can be well combined with 4.4.1 “restore habitats e.g. Natura 2000”. Fencing can also help prevent damage also from wild animals to protected habitats.</p>

Prevention measures in the Alpine area (2017)	
Support available to	<p>VD – farmers, shepherds and their associations PM – single or groups of breeders. The measure 4.4.1 is only open those who have applied to 10.1.6 in the last 3 years. A points system is used to allocate funding e.g. farmers in Natura 2000 sites receive more points.</p> <p>LM - farmers and their associations</p> <p>VN – farmers through open application system (call which opens every year)</p> <p>FVG – Not available</p> <p>BZ – Not available</p> <p>TN – Farmers (20%) and foresters (80%). Forest owners who put the measures in place and rent the land to graziers. Applications through an annual call 1 January-30 April (Fauna and Flora service 2018).</p>
Effectiveness of measures	<p>VD - the regional funding works well. They are used for compensations and prevention payments</p> <p>PM – Some of the conditions attached make the measures difficult to implement in practice (e.g. number of dogs required).</p> <p>TN – the combination of regional and rural development funding works well. The regional funding is used for smaller applications and for testing new methods. The rural development funding for established measures and bigger schemes such as fencing.</p>

5.5 Liechtenstein

In Liechtenstein, both prevention and compensation of damages caused by large carnivores are regulated through art. 28 c of the State law on the protection of nature. This article, which in fact refers to damages by all specifically protected species and not only large carnivores foresees prevention measures both of technical nature (fences or electric fences) and measures concerning livestock guarding (purchase of guarding dogs and herding).

The regulation on prevention and compensation of damages by protected species has been effective since October 1st 2018. It specifies prevention measures and distinguishes between measures that are compensated and measures that are not compensated by the State. For example, fences are compensated with 0.70 CHF per linear meter. Shepherding is viewed as a form of livestock guarding but cannot be compensated by this measure. The Office of Environment (*Amt für Umwelt*) provides free advice for livestock owners and also emergency help (fencing and counselling) in case of an incident.

In order to receive compensation payments, damage prevention measures are required to be installed before unless the incident could not have been foreseen. Moreover, the prevention measures have to be deemed appropriate for the location and keeping of animals in order to get compensation payments. The amount of the compensation payments is the

same as in Switzerland. Sheep and goats are compensated according to valuations of the Sheep and Goat Breeders' Associations.

The current budget is an estimation and will be adjusted with time. Based on the number of livestock in Liechtenstein and the experiences from neighbouring Swiss cantons, it is estimated that it will be between 10,000 and 30,000 CHF per year if wolves are constantly present in Liechtenstein.

5.6 Slovenia

Slovenia never entirely lost its large carnivore population and there is more experience living with large carnivores. Slovenia has a significant bear population in the country as whole (around 700-750 individuals, though the Alpine population is considerably smaller, around 50 individuals) and the trend has been an increase in the last decade (Skrbinšek et al. 2018). This recovered from a low at the end of the 19th century. The wolf population is smaller (14 packs; around 75 individuals, Bartol et al., 2018) and there is a very small lynx population (10-20 animals, MOP 2016) which may be boosted through a planned reintroduction through the LIFE lynx project.

Slovenia has been using its rural development programme to support prevention measures since it joined the EU. Support for prevention measures was supplemented by the two LIFE projects Slowolf and DINALP BEAR which trialled and provided advice on a number of different fencing and livestock guarding techniques. These measures are now available with the support of national financing from the Slovenian Environment Agency (ARSO). Thus, currently, a mixture of an area based payment supported through the rural development programme and a national fund for the capital costs of purchasing equipment is used.

Table 6. Slovenian fiche

Background information	
Alpine area	6,796 km ²
Alpine human population	385,973 inhabitants
Management bodies	Ministry of the environment and spatial planning (<i>Ministrstvo za okolje in prostor</i>) – protected species, compensation claims and some prevention funding Slovenia Forest Service– hunting (<i>Zavod za gozdove Slovenije</i>) Institute of the Republic of Slovenia for Nature Conservation (<i>Zavod Republike Slovenije za varstvo narave</i>)– opinion on hunting quotas Ministry of Agriculture, forestry and food (<i>Ministrstvo za kmetijstvo, gozdarstvo in prehrano</i>) – protection funding through Rural Development programme

Background information	
Management plans	Management or action plans were established for all three species (MOP 2018) but only the lynx plan is to date. The wolf plan finished in 2017 and the bear plan in 2012. Work is currently ongoing to update the plans.
Stakeholder groups	A stakeholder group meets once a year when the quotas are discussed. It involves hunters, agricultural unions, local representatives
Main conflicts	Damage to livestock from bear and wolf, damage to beehives and orchards from bear. Fear of bears and wolves is an increasing problem
Large carnivore populations in the Alpine area (2017)	
Wolf	14 packs (around 75 wolves)
Bear	Around 50 individuals in the Alps
Lynx	10-20 individuals
Depredation of livestock in the Alpine area (2017)	
Compensation scheme	A compensation scheme exists under the Nature Conservation Act. Officials from the forest service estimate the damage. The Environment Agency decides whether the damage should be compensated.
Number of livestock compensated (wolf)	88 livestock (85 sheep and 3 cows damaged by bear).
Level of compensation	19,816€
Prevention measures in the Alpine area (2017)	
Prevention scheme	Electric fencing distributed under LIFE DINALP BEAR project, national financing for fencing and rural development programme support for implementing prevention measures.
Level of prevention payments	LIFE DINALP BEAR – 50,000€ since 2015 (53 sets of fences – 17 for sheep breeders, 36 for bee keepers). Environment Agency funding – 39 farmers and beekeepers applied for funds to cover 80% of purchase costs for fencing (between 2015-mid 2018). The total amount of support distributed in this period is 42.188,72 €. EAFRD – 225,230€
EAFRD measure used	10.1 Payment for agri-environment-climate commitments. The following flat rate area-based payments are applied: 120€ / ha for mobile electric fences and electric nets, 112€ / ha for livestock guarding dogs, 108€ for shepherding. The following support was provided in the current funding period until early 2018. <ul style="list-style-type: none"> - high electric netting: 55 farmers (together: 1077 ha) - livestock guarding dogs: 22 farmers (together: 177 ha) - use of shepherd: 4 farmers (together: 819 ha)
Support available to	Open to farmers and stockbreeders carrying out livestock management on grassland in areas with large carnivores.

Prevention measures in the Alpine area (2017)	
Effectiveness of measures	<p>The support provided through the rural development programme has been criticised because the payments are applicable for only one measure at a time (dogs, shepherding or fencing) and there is no top-up for a combination of measures.</p> <p>The coordination of the national financing and rural development financing is not optimal. They are managed by different management bodies who are not informed about what the other is funding.</p> <p>Some other measures funded through the rural development programmes could have perverse incentives – e.g. electric fencing for livestock which is not wolf-proofed.</p>

5.7 Switzerland

In Switzerland, the Federation and the Cantons set the framework for prevention and compensation, specifically by the Federal Hunting and Protection of living Mammals and Birds Law (*Bundesgesetz über die Jagd und den Schutz wildlebender Säugetiere und Vögel*) and the respective implementing Federal Hunting Decree (*Verordnung über die Jagd und den Schutz wildlebender Säugetiere und Vögel*). This decree foresees the promotion of prevention measures by large carnivores as well as the integration of livestock protection by the Cantons in their spatial planning (Art. 10^{ter} as well as Art. 10^{quater} for the specific regulation of guarding dogs). Approximately 3 million Swiss Francs per year are allocated for prevention measures.

More detailed information on the proper enforcement of the legal bases are outlined in the specific management concepts for bear (DETEC/FOEN, 2009), wolf (DETEC/FOEN, 2016) and lynx (DETEC/FOEN 2016) and the guidelines for herd and bee protection (DETEC/FOEN, 2019) published by the Federal Office for the Environment FOEN (*Bundesamt für Umwelt, BAFU*).

An external organisation (at the moment AGRIDEA), mandated by the FOEN, is tasked with the coordination of the technical livestock protection as well as of the guarding dogs. The unit supports and provides consultancy to the Cantons on the technical measures available for livestock protection and their implementation – also through the management of the federal financial support – and also supports the Cantons on the issue of guarding dogs – including the monitoring of the dogs and the information to the public.

6 Discussion

6.1 Comparison of EAFRD use in the Alpine countries

Table 7 shows which EU member states in the Alps include damage prevention measures in their rural development programmes. The picture in the Alpine region is similar to that across the rest of Europe. The main activities covered are fencing, purchase of guarding dogs and flat rate payments for the implementation of prevention measures. Three EAFRD sub-measures have been used to support these in the Alps:

- 4.4 support for non-productive investments linked to the achievement of agri-environment-climate objectives
- 7.6 support for studies/investments associated with the maintenance, restoration and upgrading of the cultural and natural heritage of villages, rural landscapes and high nature value sites including related socioeconomic aspects, as well as environmental awareness actions
- 10.1 payment for agri-environment-climate commitments

Table 7 summarizes the information the Alpine countries and regions.

Table 7. Comparison of Alpine countries use of the EAFRD for damage prevention measures in the Alpine region

Country	National regional prevention support /	EAFRD measures used	Actions supported by the EAFRD financing	Budget for rural development (EAFRD and co-financing)
Austria	No	No	-	-
Germany Bayern	– Under development	No	-	-
France	Co-financing of EAFRD	7.6	Vulnerability analysis, shepherding, dogs, fencing, (technical assistance – 2018)	21,294,653 (2017, EAFRD + national)
Italy				
– VD	Regional financing	-	-	-
– PM	Co-financing of EAFRD	10.1 4.4 (starting 2018)	Flat-rate payment of 350€ / ha for use of electric fences, livestock guarding dogs and continuous shepherding. <i>4.4 capital costs associated with purchasing equipment.</i>	3,434,133€ for period
– LM	Co-financing planned	4.4 (not yet approved)	100% costs of equipment durable goods	
– VN	Currently regional financing until modification to rural development programme approved	4.4 (not yet approved)	<i>The measure will support 100% of the costs of equipment such as fencing (not yet approved).</i>	-
– FVG	Regional financing	No	-	-

Country	National regional prevention support /	EAFRD measures used	Actions supported by the EAFRD financing	Budget for rural development (EAFRD and co-financing)
– BZ	Planned	No	-	-
– TN	Smaller scale interventions funded through provincial budget.	4.4	Traditional wooden and stone fences, electrification of traditional fences.	58,800€ (2017) 4.5m€ for period for the specific measure – 10-20% specifically large carnivores
Slovenia	Co-financing and LIFE and regional financing for the costs of buying infrastructure	10.1	Area payment. Choice between electric fences, shepherding, dogs	225,230€ (2017)

A number of different approaches to implementing and financing prevention measures are used in the Alpine countries. The approaches vary depending on the existing management structures and the relative experience of living with large carnivores.

In the case that large carnivores have recently returned to an area, there may be a lack of knowledge about how to implement prevention measures which hampers their rapid implementation. Additionally, in the case that there are strong conflicts around large carnivore presence, stakeholders may feel that accepting the implementation of prevention measures is akin to accepting the return of large carnivores and may therefore reject them.

Where large carnivores have been present for longer, the country or region has taken steps to introduce national or regional financed support for prevention measures. This has allowed them to experiment with different measures and applying them in the national circumstances. At this stage, LIFE financing has often also been used to develop measures further and examine effectiveness. In particular, the LIFE WOLFALPS and LIFE DINALP BEAR projects have been helpful for trialling measures and financing them in their initial stages.

In many cases, countries and regions have then moved on to using a mixture of national / regional measures for certain aspects of prevention and rural development support for the better trialled and more expensive measures. This approach allows the authorities some flexibility to adapt their approach to a developing situation (both in terms of large carnivore numbers and public acceptance). Use of the rural development programmes demands some acceptance of the presence of large carnivores by potential beneficiaries since the application process requires not insignificant effort from their side.

The measures included in the EAFRD are flexible enough to include all the actions most commonly used to protect livestock against large carnivore depredation. The choice of whether to use national funding or the rural development programmes is therefore made on a practical / political basis (whether national funding is available, the extent to which using rural development support for this purpose is politically acceptable).

6.2 The future

The European Commission released their legislative proposals for the CAP after 2020 on 1 June 2018 (European Commission, 2018). The Commission proposes that a strategic planning approach should be applied to both pillars of the CAP in future. Closer integration of

the aims of the two pillars and a common monitoring framework could be an opportunity to ensure better collaboration between managing authorities and to reduce the risk of measures conflicting.

The number of measures and sub-measures described in detail in the programme has been reduced significantly from 69 measures and sub-measures to 8 broad types of intervention. In the new CAP, the European level regulation should only provide a framework and that the member states will have the flexibility to define the specific details of the measures within this framework. It should be possible to continue all measures currently used for large carnivore management in the new programming period.

7 Recommendations for using rural development programmes

The EAFRD provides member states with a good opportunity to top up their national financing for prevention measures and to help to reach EU conservation goals. When considering including measures in their rural development programmes, the following points could be taken into account.

Coordination between administrators

In most countries and regions, the rural development programmes are managed by the agricultural administrations while large carnivore management is a competency of the environmental administration. Good coordination is therefore needed to make sure that prevention measures are put in place in appropriate locations and are coordinated with other funding streams.

Testing of measures

While countries and regions can learn from one another's experience, it is rare that measure can be transferred without adaptation from one region to another. In general, prevention measures should be well-tested when being implemented in a new area. The physical conditions, farming traditions, socio-economic conditions, culture and attitudes all make a difference to the likely success of measures. National financing or LIFE projects may be the most appropriate financing in a testing phase.

Combination of measures

In general, a combination of different prevention measures is considered to work better than putting in place single measures (e.g. guarding dogs, shepherding and fencing). Additionally, many of these measures have ongoing maintenance costs. A combination of the use of sub-measures 4.4 and 10.1 would allow both the upfront capital costs as well as the ongoing costs to be covered. France has also shown that 7.6 can support a wide range of capital and ongoing costs.

Advice provision

Experience from all the Alpine countries has shown that where advice is attached to the implementation of prevention measures, they have a much greater chance of being effective. Advisors can help to select the right combination of measures for the particular location and the farmers practice and ensure that fencing is properly put in place. Advice should be focused not just on the installation but also on the maintenance of the equipment.

Fit of prevention measures with the other goals of the programme

The rural development programmes should be examined as a whole to ensure that prevention measures are complimentary with other measures. Ensuring for example that fencing is also helpful for the farmers' management of stock, fits with the landscape or protects habitats from damage from livestock could be additional aims. Additionally, care should be taken that counterproductive measures are not financed. For example, in areas with high large carnivore densities, fencing financed with public funds should be required to be large carnivore proofed.

More innovative uses of the EAFRD

As described in chapter 4, rural development support can be used for a wide variety of measures for example, funding pilot projects, collaborative efforts, awareness raising or new businesses. There is therefore good potential to use the rural development programmes for other actions related to the presence of large carnivores. Rural development support is open to a range of rural actors - not only farmers and livestock managers - and rural communities could also benefit from support related to the presence of large carnivores.

Engaging stakeholders

Engaging a range of stakeholders in discussions around livestock protection measures may contribute to the success of their implementation. Stakeholders can provide feedback on whether a measure is likely to fit with farming practice or have impacts on other rural activities. Stakeholder can be engaged through specialist large carnivore platforms (addressing a range of issues associated with large carnivores) but also through the programme monitoring committees (PMCs) which are required to monitor the implementation of the rural development programme. A note of caution should be that where acceptance of the presence of large carnivores is extremely low or non-existent, targeted support in the areas most affected may be more appropriate than opening a broad scheme where uptake may be low.

Sharing information and experience

Sharing information on current uses of the EAFRD and discussing future potential is crucial for future planning. Cooperation amongst experts internationally to exchange information on what has worked well and what difficulties have been faced in the implementation of the rural development programmes in different regions is needed. Opportunities to exchange between experts and stakeholders are provided for example by the WISO Platform and the EU Large Carnivore Platform. Further exchange between these groupings and other national and regional large carnivore groupings should be encouraged.

Planning for the rural development programmes post 2020

The reform of the CAP may provide opportunities to better coordinate and integrate the approach to protection of livestock against large carnivores. Authorities involved in large carnivore management and in agricultural policy should aim to coordinate their approaches and discuss how appropriate protection measures should be included in the strategic plans for the CAP 2021-2027. All concerned member states should also consider highlighting the need for providing support for this purpose in their prioritised action framework (PAF)⁸ identifying their priorities and funding needs for the implementation of the Habitats Directive.

⁸ http://ec.europa.eu/environment/nature/natura2000/financing/index_en.htm

8 References

- Alpine Convention (1989) Alpine Convention: Framework Convention: www.alpconv.org
- Bartol, M., Boljte, B., Černe, R., Jelenčič, M., Jonozovič, M., Konec, M., Kos, I., Kraševac, R., Krofel, M., Kuralt, Ž., Potočnik, H., Skrbinšek, T. (2018). Spremljanje varstvenega stanja volkov v Sloveniji v letih 2017/2020. Drugo delno poročilo. Ljubljana.
- Chapron, G., P. Kaczensky, J. Linnell, M. von Arx et al. (2014) Recovery of large carnivores in Europe's modern human-dominated landscapes, *Science* 19 Dec 2014: Vol. 346, Issue 6216, pp. 1517-1519
- COE (1992) Council of Europe Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention): <https://www.coe.int/en/web/bern-convention>
- DBBW (2018) National level Documentation and Advice Centre for the regions website: <https://www.dbb-wolf.de/>
- de Roince, C., S. Moulherat et J. Cornuau (2017) Évaluation de l'efficacité des mesures de protection des troupeaux contre le loup, NESE n° 42, Novembre 2017, pp. 39-58
- DETEC/FOE (2009) Eidgenössisches Departement für Umwelt, Verkehr, Energie und Kommunikation UVEK, Bundesamt für Umwelt BAFU / (2009). Konzept Bär Managementplan für den Braunbären in der Schweiz: <https://www.bafu.admin.ch/bafu/de/home/themen/biodiversitaet/fachinformationen/massnahmen-zur-erhaltung-und-foerderung-der-biodiversitaet/erhaltung-und-foerderung-von-arten/grossraubtiere/braunbaer.html>
- DETEC/FOEN (2016) Konzept Wolf Schweiz: <https://www.bafu.admin.ch/bafu/de/home/themen/biodiversitaet/publikationen-studien/publikationen/konzept-wolf-schweiz.html>
- DETEC/FOEN (2016) Konzept Luchs Schweiz: <https://www.bafu.admin.ch/bafu/de/home/themen/biodiversitaet/publikationen-studien/publikationen/konzept-luchs-schweiz.html>
- DETEC/FOEN (2019) Guidelines for herd and bee protection
- DREAL (2018) Direction regionale de l'Environnement, de l'Aménagement et du Logement Website : Données sur les dommages : <http://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/protocole-dommages-a3854.html>
- Eklund, A. J. López-Bao, M. Tourani, Guillaume Chapron & Jens Frank (2017) Limited evidence on the effectiveness of interventions to reduce livestock predation by large carnivores. *Nature Scientific Reports* volume 7, Article number: 2097
- European Commission (2014) Commission Implementing Regulation (EU) No 808/2014 of 17 July 2014 laying down rules for the application of Regulation (EU) No 1305/2013 of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD): <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32014R0808>
- European Commission (2016) Commission Staff Working Document Fitness Check of the EU Nature Legislation (Birds and Habitats Directives): http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/nature_fitness_check.pdf
- European Commission (2017) Communication: Action Plan for nature, people and the economy: http://ec.europa.eu/environment/nature/legislation/fitness_check/action_plan/communication_en.pdf

European Commission (2018) Proposal for a Regulation of the European Parliament and of the Council establishing rules on support for strategic plans to be drawn up by Member States under the Common agricultural policy (CAP Strategic Plans): <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A392%3AFIN>

European Council (1992) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>

European Union (2013) Regulation (EU) n° 1305/2013 of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD): <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32013R1305>

Fauna and Flora service (2018) Trento Fauna and Flora Service website, Rural Development Plan: <https://forestefauna.provincia.tn.it/Foreste/Attivita-forestali/Programma-di-sviluppo-rurale>

Groff C., Angeli F., Asson D., Bragalanti N., Pedrotti L., Rizzoli R., Zanghellini P. (eds.), (2018) Rapporto Grandi carnivori 2017 del Servizio Foreste e fauna della Provincia Autonoma di Trento.

Kaczensky, P. (1998) Large Carnivore Depredation on Livestock in Europe. *Ursus* 11:59-71

Kaczensky, P. G. Chapron, M. von Arx, D. Huber, H. Andrén and J. Linnell (2012) Status, management and distribution of large carnivores – bear, lynx, wolf & wolverine – in Europe: LCIE for the European Commission: http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/task_1_part2_species_country_reports.pdf

Linnell, J. (2013) From conflict to coexistence: insights from multi-disciplinary research into the relationships between people, large carnivores and institutions. Prepared under contract N°070307/2012/629085/SER/B3 for the European Commission. http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/task_4_conflict_coexistence.pdf

KOST (2012) Wolfsmanagement *in* Österreich. Grundlagen und Empfehlungen: http://www.bundesforste.at/fileadmin/jagd/2012_12_MP-Wolf_Oe_final.pdf

KOST (2018) Länderübergreifende Koordinierungsstelle für den Braunbären, Luchs und Wolf (KOST) website: <https://www.vetmeduni.ac.at/fiwi/dienstleistungen/koordinierungsstelle-fuer-den-braunbaeren-luchs-und-wolf/>

LIFE DINALP BEAR (2018) LIFE DINALP BEAR LIFE13 NAT/SI/000550 website <http://dinalpbear.eu/home-page-1/>

LIFE EuroLargeCarnivores (2018) LIFE EuroLargeCarnivores, LIFE16 GIE/DE/000661 website: <https://www.eurolargecarnivores.eu/>

LIFE Lynx (2018). LIFE Lynx, LIFE16 NAT/SI/000634 website: <https://www.lifelynx.eu/>

LIFE WOLFALPS (2018) LIFE WOLFALPS LIFE12 NAT/IT/000807 website: <http://www.lifewolfalps.eu/en/>

Marsden, K. (2018) Use of EAFRD funding and other national support measures for preventing depredation of livestock by Katrina Marsden, Platform Secretariat: http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/202_marsden-depredation-prevention.pdf

Marsden, K., T. Hovardas, S. Psaroudas, Y. Mertzanis, U. Baatz (2016) Supporting good practice for coexistence – presentation of examples and analysis of support through the EAFRD: http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/145_Case%20studies%20and%20RD-update.pdf

Ministrstvo za okolje in prostor (2016). Strategija ohranjanja in trajnostnega upravljanja navadnega risa (Lynx Lynx) v Sloveniji 2016-2026.

MOP (2018) Slovenian Ministry of the Environment and Spatial Planning: Large Carnivores in Slovenia, Website:

http://www.mop.gov.si/en/areas_of_work/nature/large_carnivores_in_slovenia_brown_bear_wolf_lynx/

PACOBACE (2015) Piano d'Azione interregionale per la conservazione dell'Orso bruno sulle Alpi centro-orientali (denominato PACOBACE) : <http://www.minambiente.it/pagina/piano-dazione-interregionale-la-conservazione-dellorso-bruno-sulle-alpi-centro-orientali>

Schnidrig R., Nienhuis C., Imhof R., Bürki R. & Breitenmoser U. (Eds) 2016. Lynx in the Alps: Recommendations for an internationally coordinated management. RowAlps Report Objective 3. KORA Bericht Nr. 71. KORA, Muri bei Bern, Switzerland, and BAFU, Ittigen, Switzerland.

Skrbinšek, T., Konec, M., Bragalanti, N., Calderola, S., Groff, C., Huber, Đ., Majić Skrbinešek, A., Molinari-Jobin, A., Molinari, P., Rauer, G., Reljić, S., Stergar, M., Černe, R., Jelenčič, M. (2018). 2018 Annual population status report for brown bears in northern Dinaric mountains and central-eastern Alps. Action C.5: Population surveillance. LIFE DINALP BEAR: http://dinalpbear.eu/wp-content/uploads/PopulationStatusReport2018_V1.pdf.

Wolf Alpine Group (2014) Wolf population status in the Alps. Pack distribution and trend up to 2012. www.lcie.org.