Good practice toolkit for facilitation and mediation of environmental conflicts

Environmental Mediation Initiative

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01.

Introduction

The present Intellectual Output (IO) is titled "Good practice toolkit for facilitation and mediation of environmental conflicts" and it has been **delivered by the Environmental Mediation Initiative** within the frame of the Erasmus + project titled **"New European training curricula for facilitating environmental conflicts" (KA210-ADU - Small-scale partnerships in adult education)**. It has been developed with input from all project partners gathered during the kick off meeting of the project and during the two experiential online learning activities, which have taken place during the course of the project (12 & 15 December, 2022; 2 & 24 February, 2023).

The IO starts with an introduction to provide our rationale and main objectives. Then, it presents some key features of environmental conflict, which would largely outline the skills and role description of an environmental facilitator/mediator. The next chapter is devoted to social learning as a theoretical and methodological framing of our approach. The rest of the IO focused on tools and methods for addressing environmental conflict, how these were implemented or how they should be implemented and how they would be embedded in a draft module structure for a relevant training program.

The IO aims to provide tools and methods reflecting good practices **for facilitating and mediating environmental conflicts.** These tools and methods have been either tested in previous case studies or are suggested as eligible for being employed in future instances of environmental conflict. Selected tools and methods **can be embedded in training programs** of environmental conflict facilitation/ mediation.

The toolkit can be used by professional associations, primarily, facilitators' and mediators' organizations to update their training programs in order to integrate environmental conflict or develop and deliver new training programs explicitly addressing environmental conflict. Selected tools and methods can also be used by professional trainers and in train-the-trainer programs. The toolkit can further help local or regional authorities structure calls for environmental facilitation/ mediation and enrich them with desirable deliverables according to each environmental conflict

context. Protected area authorities and Forest Services can benefit from the toolkit as well, especially when incentivizing their staff to complete such training programs. The same applies to environmental non-governmental organizations and hunters' organizations. In the short-term, all stakeholders will be able to access and make use of the toolkit. Trained facilitators/mediators will be able to employ the toolkit in environmental conflict contexts.

The present IO is complementary with the other IO to be delivered in the present project, namely, "A transformative approach to the mediation of environmental conflicts: from entry to exit points". Anytime we realized that there was any overlap between the two IOs, we took as a consortium the decision to include the main content we worked on in one of the two IOs and make explicit reference in the other so that the reader is guided appropriately.

The content of this IO was based on our previous experience in facilitating/mediating environmental conflicts. We are grateful to all people, whom we engaged in participatory processes in several localities all over Europe during the last years. Without their contribution, this toolkit would not have been ever possible. We consider them as our co-authors and we hope that the toolkit will be further employed to co-author our futures in these and other localities enabling dialogue, resolving environmental conflicts, and allowing stakeholders to design and implement joint action.

02.

Features of environmental conflict and implications for their facilitation/mediation

In this chapter we singled out some features of environmental conflict, based on the relevant experience of consortium partners, that need to be taken into account, in particular, to help outline the skills and role description of an environmental facilitator/mediator. The first aspect is the number of stakeholders usually involved in environmental conflict. In most mediation case studies, there are two parties engaged, were there is usually one actor in each party. Environmental conflict, however, involves a relatively **increased number of stakeholders.** Since all stakeholders need to endorse any solution, we can expect that the chances of concluding a facilitation/mediation with agreement decrease with increasing number of engaged stakeholders. Each stakeholder may be interested in different parts of a solution, meaning that different stakeholders may be pursuing slightly different agendas, with a marked effect on the mediation process. What is more, securing stakeholder adequate engagement and commitment would be challenging, the higher the number of stakeholders involved. Other challenges, which would intensify with increasing number of stakeholders, are: increased odds for a stakeholder being represented by more than one representatives/spokespersons, which may have crucial implications in the dynamics of the mediation process; increased odds for infrequent stakeholders; and increased odds for stakeholders dropping out during the process.

The second aspect to highlight is **clustering of stakeholders**. It may be that stakeholders are clustered in coalitions, which are often a pro-environmental coalition and another coalition of actors with marked reservations concerning environmental objectives. This clustering creates an issue of balancing representation of interests between the contrasting coalitions. Stakeholders who may enter a mediation process from

a minoritarian status may develop a defensive position due to this status only. On the other hand, key stakeholders with substantial social power may not risk entering a negotiation, especially if they perceive their position in the mediation process as minority.

The next feature of environmental conflict is that mediation processes with representatives/ spokespersons of stakeholders run **parallel to ongoing** intergroup (social) **interaction.** These parallel trajectories may have considerable implications the one on the other, e.g., there can be intergroup interaction in the form of conflict escalation, which could cancel any progress made within an environmental facilitation/mediation process. Since a full overlap of "internal" (in the facilitation/mediation process) and "external" (social) interaction is not possible, "external" (social) influences on facilitation/mediation "internal" (facilitation/ mediation) process should be expected.

Mandate of representatives/spokespersons is the next aspect to discuss. In facilitation/mediation processes, all decision-making is usually "encircled" within the process, where participants are authorized to make decisions. In environmental facilitation/mediation, however, representatives/spokespersons cannot commit unless consulting their stakeholder group first. Here the chances of a "black sheep" effect are quite high, where representatives/spokespersons taking part in mediation processes are blamed for having crossed the red lines of the ingroup. Additional difficulties in the same direction are possible delays caused by multiple briefing/debriefing sessions. The dynamics of the facilitation/mediation process are strongly influenced by the way developments are communicated to stakeholder members not directly involved in the mediation process.

03.

Skills and role description of an environmental facilitator/ mediator

In this section, we will concentrate on the skills and role description of an environmental facilitator/mediator, which will largely build on the previous section, where we outlined some key features of environmental conflict. For instance, environmental facilitators/ mediators should have been trained in inclusionary processes with a relatively increased number of stakeholder representatives/spokespersons. Related to the number of stakeholders is the need to balance between **stakeholder clusters/coalitions** (i.e., pro-environmental cluster vs. cluster of stakeholders holding reservations). This need may be much more salient in intense conflicts. Environmental facilitators/ mediators should be trained to be able to strike and maintain such a balance.

Another skill of environmental facilitators/mediators is to **distinguish between parameters** or drivers of "internal" origin (stemming from the facilitation/mediation process itself) vs. "external" origin (stemming from social interaction outside the confines of the facilitation/ mediation process). "Internal" aspects should be made salient by the environmental facilitator/mediator and should be addressed/resolved in plenary sessions. Based on the nature of "external" aspects, these may be handled internally, provided that such a handling would not block stakeholder interaction. Alternatively, "external" aspects may be managed in separate sessions with each involved stakeholder to safeguard the process of facilitation/ mediation from adverse external influence. A related skill is to handle issues connected to the mandate of representatives/ spokespersons in the process. Again, it will depend upon the specific aspect at hand and the local context if the environmental facilitator/mediator would choose to handle that issue internally, in a plenary session, or if she will decide to convene separately with involved stakeholders.

Environmental facilitators/mediators should be knowledgeable of **background documentation**, the legal and policy landscape, as well as the main funding schemes of the environmental conflict context. In the case of human-carnivore conflict, for instance, an environmental facilitator/ mediator should be informed about key documentation on good practices in large carnivore conservation and management (see, for example, Hovardas & Marsden, 2022) as well as potential funding schemes for damage prevention and compensation, the creation of emergency teams with experts to handle emergency situations as well as the possibility to enhance alternative types of tourism based on carnivore presence of certify local products and services which are carnivore-friendly. All this background information would be insightful for scaffolding stakeholder interaction.

Two last but equally crucial points are "bottlenecks" and positive feedback loops which **may escalate** environmental conflict. A "bottleneck effect" appears when a sharp decrease in a reference population is accompanied by an analogous decrease in the heterogeneity of values, attitudes and behavior within this same population. This refers often -but not exclusively- to the ability of representatives/spokespersons to convey key takeaways from the process to their constituencies and vice versa (see the "black sheep" effect mentioned in the previous section). A positive feedback loop describes the situation when the outcome of an event or process amplifies the effect of this same event or process. If tension between stakeholder groups, for instance, is transferred between representatives/spokespersons of these stakeholder groups in facilitation/mediation processes, then a special treatment is needed to avoid a positive catalysis of environmental conflict.

04.

Social learning – theoretical and methodological framing

In this chapter we aim to showcase that social learning can be a **comprehensive theoretical and methodological framework** for resolving environmental conflicts. This position will have crucial implications for how the desirable skills and the role description of environmental facilitators/ mediators can adapt to varying environmental conflict contexts. A first example to discuss is how human dimensions actions in LIFE projects have shifted from a focus on stakeholder knowledge, attitudes, and behaviour to participatory processes. Here we do not wish to mean that the study of knowledge, attitudes and behaviour is obsolete. Instead, we aim to highlight the inadequacy of the "knowledge deficit" model (or "information deficit" model) to effectively address environmental conflict (see for more details Hovardas, 2020).

According to the "knowledge deficit" model, any stakeholder group which lacks basic background knowledge or information about a topic can adopt a desirable attitude or behaviour if that knowledge/ information gap is overcome with the provision of proper scientific/technical knowledge. Previous research has documented how the assumptions of the "knowledge deficit" model do not hold (Hovardas, 2018a; McLaughlin and Cutts, 2018) and how any linear and unidirectional transmission of knowledge or information from a knowledgeable source to an unknowledgeable target actor cannot guarantee any long-term learning, in particular, one that could enable any learner to assume ownership of their knowledge and apply that knowledge to different contexts.

A series of more recent LIFE projects have incorporated actions that build on the establishment and operation of inclusionary stakeholder schemes termed "platforms", which initiate and support multi-stakeholder participatory processes. Such schemes reveal all necessary conditions for social learning, for instance, stakeholder agreement on a minimum set of objectives and joint action and reflection to accomplish these objectives. **Social learning** is realized by the transformative change it brings to participants and the innovative byproducts of that change, for example, the co-creation of solutions that did not exist before stakeholder engagement. Learning emerges out of a constructive stakeholder interaction that proceeds in iterative cycles, where tangible outcomes of stakeholder collaboration are tested and optimized (Van Epp and Garside, 2019).

An insightful aspect of all effective processes is that conflict is not avoided, since it will most probably resurface again. Instead, conflict should be harnessed as a resource (Hallgren et al., 2018; Turner et al., 2020; Van Mierlo & Beers, 2020). A challenge here for the environmental facilitator/ mediator is to **let stakeholders collaborate even under conflict,** which is frequently encountered as a necessity in environmental conflict context. Then, we may see environmental facilitation/mediation as the initial step towards a trajectory leading to social learning. To that end, environmental facilitators/mediators need to catalyze participant interest and process in the long-run and let participants own the process.

At this point, we would like to note that facilitating participatory processes and mediating conflict in environmental issues is highly dependent on the context and the wider socio-cultural frame. Even in the same location, stakeholder interaction may take a quite different course at a later point in time. The toolkit in this IO will provide environmental facilitators/ mediators and trainees a set of basic tools and methods to steer participatory processes, which will be applicable in different settings and levels of conflict escalation. It goes without saying that the experience needed to effectively manage environmental conflicts can only gained by the implementation of these tools in real-world situations.

05.

Tools and methods for addressing environmental conflict – Draft training module structure

In this section we will present the toolkit for addressing environmental conflict, which has been based on our previous experience. More specifically, we will present: (1) **Tools and methods** to be employed by environmental facilitators/mediators in environmental conflicts; and (2) how these tools and methods can **be embedded in training modules**. We singled out nine tools/methods which are shown in Table 1. For each tool/method, we completed a template with core info, including: Name of original training course, where the tool/method is embedded, its purpose and length; name, purpose/objectives, process, length, and target group of

the module, which is based on the selected tools/methods; story to share about the training module, with a focus on which other modules the current module links to and the rationale of using the module in training environmental facilitators/mediators; method for assessing outcomes; any further remark; and description of any previous implementation or prospective implementation (implementation beyond training). This last aspect is included in the next chapter ("Open repository of case studies with implementations of tools and methods"). References cited can be found in the last section of this Intellectual Output.

Table 1. Tools and methods in the toolkit for addressing environmental conflict

Tool/method	Organization	Author
(1) Adapted SWOT template for stakeholder analysis	CALLISTO-Wildlife and Nature Conservation Society	Tasos Hovardas
(2) Mixed-motive template for structured negotiation	CALLISTO-Wildlife and Nature Conservation Society	Tasos Hovardas
(3) Participatory scenario design	CALLISTO-Wildlife and Nature Conservation Society	Tasos Hovardas
(4) How to find common ground	Ingenieurbüro Eva-Maria Cattoen Austria	Eva-Maria Cattoen
(5) Conflict dynamic and escalation	Ingenieurbüro Eva-Maria Cattoen Austria	Eva-Maria Cattoen
(6) The attitude of the facilitator	flow-ing	Yorck von Korff
(7) A dialogic process	Dialogues	Bernard le Roux
(8) Adapted SAFE System Approach	ALTEKIO	Javier Fernández Ramos
(9) Active listening	IEA	Andrea Panzavolta

Regard to terminology, we distinguish between "training courses", **"training modules"** and "training activities": A "training module" is a section of a training course that concentrates on a specific theme. It is made up of training activities that have the purpose of enabling course participants to learn a specific aspect of that theme. A **"training activity"** is some process that the trainer facilitates that engages trainees and contributes to their learning (objectives of the training module). Learning may relate to a skill, a method, a tool, or some broader aspect such as the

facilitator's or mediator's attitude (meta-skills) or understanding of the subject matter in a theme. A training activity may involve **"tools" and "methods"** to structure work/scaffold stakeholder interaction (e.g., templates, etc.).

Another crucial distinction is between the use of tools/ methods by professional facilitators/ mediators to address environmental conflict, and their use in training programs to train environmental facilitators/ mediators, (see "description of any previous implementation or prospective implementation" in the next chapter).

5.1. Adapted SWOT template for stakeholder analysis

Name of original training course	Stakeholder analysis
Purpose of training course	Conduct stakeholder analysis using stakeholder input
Overall length of training course	36h
Name of training module	Adapted Strengths, Weaknesses, Opportunities and Threats (SWOT) template for stakeholder analysis
Purpose of training module	Use stakeholder input to outline core ingroup aspects (aspects pertaining to each stakeholder group) and intergroup aspects (aspects pertaining to intergroup relations between stakeholders), which frame (i.e., enable or constrain) environmental conflict.
Objectives of training module	By the end of the module, trainees should be able to use the adapted SWOT template (see an example in Table 13 in the next chapter) to structure coding results (Table 2, activities No 4 and 5) of stakeholder input into Strengths (ingroup aspects which favour resolution of environmental conflict), Weaknesses (ingroup aspects which hinder resolution of conflict), Opportunities (intergroup aspects which favour resolution of conflict) and Threats (intergroup aspects which hinder resolution of conflict).
Process of training module	The training module is embedded in a course for stakeholder analysis based on stakeholder input and necessitates a familiarization with key social science methods for data collection and analysis (i.e., interviews and focus groups). The module includes an explanation of how the classical SWOT analysis can be adapted to suit purposes of stakeholder analysis. Table 2 presents a detailed description of the process of the training module with all its activities.
Overall length of module	4h
Target group of this training module	Members/employees of organizations/institutions, which are interested in performing Stakeholder analysis within the frame of addressing environmental conflict (e.g., Ministries of Environment, Forest Service, local and regional authorities, protected area authorities, environmental non-governmental organizations); (2) freelance human dimensions experts; (3) environmental facilitators/mediators; (4) facilitators or mediators and their associations interested in professional development or ongoing training.

Which other modules the current module links to	The module is the first out of three subsequent modules used for a holistic process of stakeholder engagement. The adapted SWOT template (activity in this module) is used as the organizing principle of a stakeholder analysis designed to map ingroup and intergroup aspects of stakeholders based on their own input. Stakeholder input is gathered by means of interviews and focus groups and the first modules in the same training course focus on these data collection methods. The course also involves: A module for how to employ the adapted SWOT template for strategic decision-making, an empirical session with trainees planning and executing a data collection and analysis process delivering a populated (adapted) SWOT template; a peer and expert assessment session; and a concluding session with an open discussion between instructors and trainees. The second module in this series concentrates on how stakeholders can be supported to initiate and conclude a structured negotiation process focusing on localized aspects of their ongoing or future interaction. This is facilitated by the use of a mixed-motive perspective template, which is based on the core assumption that stakeholders need to acknowledge and negotiate both benefits and costs related to any present or future course of action. The third module focuses on participatory scenario development, which would allow stakeholders to plan possible futures, invest resources pursuing shared objectives, and undertake joint action to accomplish these objectives. This method would also allow for monitoring and optimizing stakeholder interaction.
Rationale of using the module in training environmental facilitators/ mediators	The three modules in this series with their templates (adapted SWOT template; mixed motive template for structured stakeholder negotiation; template for participatory scenario development) can be combined to allow for a comprehensive process of stakeholder engagement even if environmental conflict is ongoing at that moment in time. The templates can help environmental facilitators/mediators diagnose and address bottleneck effects (i.e., instances where the multiplicity of stakeholder positions and demands cannot be effectively communicated or processed) and feedback loops (i.e., instances where the outcome of an event or phenomenon brings more of this same outcome), which block constructive stakeholder interaction. The adapted SWOT template (first module) can showcase both highly conflictual aspects (global overview) as well as prospects for convergence or agreement or collaboration (localized opportunities). This is frequently the case in several instances, where stakeholders in conflictual contexts should be able to maintain some communication and interaction for maneuver. The mixed-motive perspective (second module) can build on these localized opportunities to allow for a structured negotiation between stakeholders. If this stage does also deliver some points of convergence, then participatory scenario development (third module) can follow for joint stakeholder action under varying stakeholder commitment and input. Overall, the three templates can scaffold stakeholder interaction, initiate joint action, and enable social learning in the long run. They are procedure-based and can be used in different contexts of environmental conflict. All are based on stakeholder input, which empowers stakeholders through the process and allows them eventually to assume ownership of the entire procedure.
Any further remarks	Prior knowledge and skills as well as information/data that needs to be available for the module to work should be taken into consideration by instructors. For instance, trainees need to have basic knowledge and skills with regard to social science methods for collecting and analysing qualitative data (e.g., interviews; focus groups; inter-coder reliability).
Method for assessing outcomes of the activity	There are two assessment methods in the module: (1) The use of pre-selected interview and focus group extracts (see activity No4 in Table 2) allow for a comparison between expert and peer (trainee) coding. Second, the calculation of inter-coder reliability between trainee coders (see activity No5 in Table 2) will lead to a comparison of coding results between peers (trainees). Both assessment methods provide the opportunity to the instructor to perform formative assessment, namely, to be able to assess the performance of trainees during the module and intervene to address any significant deviations from the objectives of the training module.

Table 2. Description of the training module on adapted SWOT template for stakeholder analysis

Time required	Name of specific activity (serial number)	Objective (of each activity)/ Skills to be acquired	Process (of activity)	Specific preparations required or other remarks
45min	(1) Introduction into Ingroup and intergroup aspects in environmental conflict	Acknowledge and discuss impact and implications of ingroup and intergroup aspects in environmental conflict	Small group discussion to identify ingroup and intergroup aspects crucial for environmental conflict (15min); presentation and discussion of group work in a plenary session (30min)	Prior knowledge about root causes and manifestations of environmental conflict required; basic socio-psychological knowledge of intergroup relations required
45min	(2) Compare the classical SWOT template with the adapted SWOT template	Acknowledge and discuss differences between the classical and adapted SWOT templates	Familiarization with the classical and adapted SWOT templates through selected case studies (30min; plenary); small group discussion about how ingroup and intergroup aspects may coevolve through environmental conflict (15min)	Prior knowledge about strategic decision making and tools for strategic decision making required
30min	(3) Anchor the SWOT template in the environmental conflict context	Orient the completion of the adapted SWOT template with explicit reference to the conflict context	Discuss in a plenary session how intergroup relations between stakeholders may vary in different contexts	Examples of intergroup relations between stakeholders under varying contexts should be available
60min	(4) Empirical session with the adapted SWOT template	Use the adapted SWOT template to classify interview and focus group extracts	Classify pre-selected interview and focus group extracts by means of the adapted SWOT template (group work)	Interview and focus group extracts should be available from previous/ongoing research/projects
40min	(5) Examine inter-coder reliability of coding by means of the adapted SWOT template	Estimate reliability between two independent coders; be able to distinguish between sensitivity and specificity	Use results of the previous activity to estimate inter-coder reliability, sensitivity and specificity (group work)	An introduction to SPSS is required for novices in statistics
20min	(6) Concluding session with an open discussion between instructors and trainees	Voice and resolve any final questions and concerns	Conduct a plenary discussion to express, group and resolve any final questions and concerns	Trainees should go through the notes taken during the activities of this module

5.2. Mixed-motive template for structured negotiation

Name of original training course	Structured negotiation
Purpose of training course	Conduct structured negotiation using stakeholder input
Overall length of training course	36h
Name of training module	Mixed-motive template for structured negotiation
Purpose of training module	Use stakeholder input to outline both manifest and latent cost and benefits related to environmental conflict.
Objectives of training module	By the end of the module, trainees should be able to identify the cost-benefit calculus with which stakeholder groups enter a conflictual situation as a major heuristic for their decision-making and as a main interpretation of their overall positioning. Trainees should also be able to employ the mixed-motive template (see an example in Table 14 in the next chapter) to classify costs and benefits related to either the conflict at hand or any potential solution of that conflict. Finally, trainees should be able to discuss the implications of the mixed-motive template for environmental mediation.
Process of training module	The module includes activities to be undertaken by individual trainees, group activities, as well as plenary sessions (see Table 3). All activities converge on the elaboration on both the costs and benefits linked to environmental conflict or its solutions. The module also involves empirical sessions with coding of pre-transcribed workshop extracts and a calculation of inter-coder reliability of this coding process. Trainees can store in portfolios all products created by themselves while undertaking the activities of the module.
Overall length of module	4h
Target group of this training module	(1) Members/employees of organizations/institutions, which are interested in facilitating/mediating a structured negotiation between stakeholders for addressing environmental conflict (e.g., Ministries of Environment, Forest Service, local and regional authorities, protected area authorities, environmental non-governmental organizations); (2) freelance human dimensions experts; (3) environmental facilitators/mediators; (4) facilitators or mediators and their associations interested in professional development or ongoing training.

Which other modules the current module links to	The module is the second of three modules which are interrelated and can be employed for a comprehensive process of stakeholder engagement. The first module is the adapted SWOT template, which is used for stakeholder analysis and can reveal ingroup and intergroup aspects related to the conflictual situation, which may either help address conflict ("Strengths", among ingroup aspects; "Opportunities", among intergroup aspects) or perpetuate it ("Weaknesses", among ingroup aspects; "Threats", among intergroup aspects). The mixed-motive template (this module) is the second in this series, and it uses the results from stakeholder analysis to make costs and benefits for all actors known to all and create the background conditions for a structured negotiation. At a third stage, the results of the structured negotiation between stakeholders, as processed through the mixed-motive template, can feed in a participatory planning process (third and final module of the series). Potential solutions are elaborated upon by means of a participatory scenario development template, which will reveal the resources needed to support stakeholder joint action for accomplishing shared goals. The three templates (adapted SWOT template; mixed-motive template; participatory scenario development template) present a complete toolkit for scaffolding stakeholder analysis, structured negotiation between stakeholders as well as participatory planning for joint action, respectively. Overall, the toolkit is expected to facilitate social learning in the long-term. What is more, the three templates are populated by stakeholder input (interviews and focus groups for the adapted SWOT template; workshops for the mixed-motive template; working group action and self-reflection for the participatory scenario development template). Therefore, they catalyse a procedure-based engagement of stakeholders, can be employed in multiple contexts and favour stakeholder empowerment to take over the entire process.
Rationale of using the module in training environmental facilitators/ mediators	The mixed-motive template enables trainees to effectively facilitate/mediate conflict and set the stage for conflict resolution. It may be insightful for conflict contexts of varying intensity. For conflicts of relatively increased intensity, in particular, it may promote reframing from positions to needs and desires of stakeholders, and thereby, also promote recognition of the views of engaged social actors. The latter aspects may prove crucial for marginalized or underprivileged or underrepresented social groups.
Any further remarks	Instructors need to take into consideration that this module necessitates considerable prior knowledge for trainees, for instance, in strategic decision making (e.g., cost-benefit analysis), environmental facilitation and mediation, as well as reframing strategies. Workshop data and extracts will be also needed to implement the coding session (Table 3, activity No4).
Method for assessing outcomes of the activity	Two assessment methods have been integrated in the module. The first is the use of pre-recorded and transcribed workshop extracts to undertake a coding task (Table 3, activity No4), which would enable a comparison between expert and peer (trainee) analysis. The second assessment method is the estimation of inter-coder reliability, which can give a measure of overlap between peer (trainee) coding results (Table 3, activity No5). When combined, these two methods give the opportunity to instructors to monitor the performance of trainees during the module and provide on-the-fly feedback, whenever needed (formative assessment).

Table 3. Description of the training module on mixed-motive template for structured negotiation

Time required	Name of specific activity (serial number)	Objective (of each activity)/ Skills to be acquired	Process (of activity)	Specific preparations required or other remarks
40min	(1) Explore costs and benefits for stakeholder groups engaged in environmental conflict	Acknowledge that conflicts and their potential solutions involve both benefits and costs (to be) allocated between stakeholders	Small group discussion to record costs and benefits of stakeholders in hypothetical conflicts (20min); plenary session to create a shared map of costs and benefits (20min)	Prior knowledge about root causes and manifestations of environmental conflict required
40min	(2) Explore the cost-benefit calculus of stakeholders in environmental conflict	Recognize that each stakeholder group integrates (current or potential) costs and benefits in a calculus s used as a decision-making heuristic	Explore how the cost-benefit calculus operates based on past research (20min; group); integrate costs and benefits in the previous activity in a cost-benefit calculus (20min; plenary)	Prior knowledge about strategic decision making and tools for strategic decision making required (e.g., cost-benefit analysis)
40min	(3) Translate the cost-benefit calculus into a mixed-motive template	Know how to steer stakeholder negotiation using the mixed-motive template	Video demonstration (20min; plenary and critical discussion (20min; plenary)	Some basic knowledge on environmental facilitation and mediation is necessary
40min	(4) Empirical session with the mixed-motive template	Employ the mixed-motive template to classify workshop extracts	Classify pre-selected workshop extracts using the mixed motive template (20min; individual activity); discuss under-represented aspects of the template (20min; plenary)	Workshop extracts need to be available from previous/ongoing research or projects
40min	(5) Assess inter-coder reliability of coding by means of the mixed-motive template	Calculate a reliability index for two independent coders; provide peer feedback	Use results derived during the previous activity to calculate inter-coder reliability (20min; individual); discuss mis-matches in a plenary session (20min)	An introduction to SPSS should be required for trainees with no prior experience in statistics
40min	(6) Discussion on the potential use of the mixed-motive template for operationalizing reframing	Be able to employ the mixed-motive template to operationalize reframing	Create a shared template with the results of the previous activity (20min); discuss how to operationalize reframing with the mixed-motive template (20min; plenary)	Some basic background knowledge on environmental mediation and reframing strategies is necessary

5.3. Participatory scenario development template for participatory planning

Name of original training course	Participatory planning
Purpose of training course	Conduct participatory planning using stakeholder input
Overall length of training course	36h
Name of training module	Participatory scenario development template for participatory planning
Purpose of training module	The module aims to train participants to use the participatory scenario development template (see an example in Table 15 in the next chapter) to arrange shared goals between stakeholders, available or needed resources to support the accomplishment of these goals and timeline of stakeholder joint action.
Objectives of training module	When completing the module, trainees should be able to structure fragmented stakeholder input on current or potential collaboration and joint action (shared goals; resources; timeline of joint action) into three scenario types in the participatory scenario development template: (1) A business-as-usual scenario (projection of current conditions into the future); (2) a small effort scenario demarcating identifiable departure from current conditions based on relatively confined stakeholder investment; (3) a best case scenario describing an ideal future.
Process of training module	The module includes activities of group work and plenary discussion which alternate to let trainees recognize participatory planning through the participatory scenario development template as a driver of innovation, change, and eventually, social learning even under conditions of conflict between stakeholders. The experimental character of iterations of stakeholder collaboration and joint action will be exemplified.
Overall length of module	4h
Target group of this training module	(1) Members/employees of organizations/institutions, which are interested in undertaking strategic planning within the frame of addressing environmental conflict (e.g., Ministries of Environment, Forest Service, local and regional authorities, protected area authorities, environmental non-governmental organizations); (2) freelance human dimensions experts; (3) environmental facilitators/mediators; (4) facilitators or mediators and their associations interested in professional development or ongoing training.

Which other modules the current module links to	The module is the last in a series of three modules presenting a toolkit with methods for handling prolonged stakeholder interaction to address environmental conflict. This involves: (1) an adapted Strengths, Weaknesses, Opportunities and Threats (SWOT) template for stakeholder analysis; (2) a mixed-motive (perspective) template for structured stakeholder negotiation; and (3) the participatory scenario development template and participatory planning. All templates are populated with stakeholder input and, when coordinated effectively, they can favor the ownership of the process by stakeholders themselves. In the first stage, points of converge and divergence between stakeholders are outlined, either ingroup or intergroup (adapted SWOT template for stakeholder analysis). The second stage wishes to decipher the cost-benefit calculus according to which stakeholders frame their positioning in the conflict and is expected to catalyse a reframing procedure from positions to needs and desires (mixed-motive template for structured stakeholder negotiation). The third stage has been exemplified in this module (participatory scenario development template for participatory planning).
Rationale of using the module in training environmental facilitators/ mediators	Environmental facilitators/mediators usually engage in environmental conflicts in a short- to mid-term frame, facilitating stakeholder interaction in one or few meetings and mediating differences, once again, over confined temporal intervals. A characteristic feature of environmental conflict, however, is that it may set the stage for prolonged stakeholder interaction, which may involve a considerable planning dimension. This is especially pronounced in multi-stakeholder governance schemes (Hovardas, 2021). The current module would be particularly insightful for these cases.
Any further remarks	To go through the module, trainees need to have prior knowledge on environmental conflict; participatory planning; statistics; optimization of stakeholder engagement and joint action; as well as communication and facilitation skills. Part of this knowledge will be developed in the previous modules of the course, which additional knowledge can be developed in a flipped classroom fashion (in an asynchronous mode at time convenient to trainees).
Method for assessing outcomes of the activity	Two assessment methods have been built in this module. The first refers to activity No4 in Table 4, where trainees will have the chance to compare their own coding to expert coding. Such a comparison can be regarded as a measure of the validity of peer coding and indicate the development of knowledge and skills necessary to perform such coding. The second refers to activity No5 in Table 4, where trainees will be able to compare different versions of peer coding on the same material. This latter comparison should be treated as an index of reliability of peer coding (i.e., degree of overlap between peer coders) and is expected to augment self-reflection and metacognition in the process. Taken together, these two activities will give to instructors the option of undertaking formative assessment to diagnose and address failures of gaps in trainee performance during the module.

Table 4. Description of the training module on participatory scenario development template for participatory planning

Time required	Name of specific activity (serial number)	Objective (of each activity)/ Skills to be acquired	Process (of activity)	Specific preparations required or other remarks
40min	(1) Explore the contribution of participatory planning in social learning	Acknowledge participatory planning as a process which drives innovation and change for social learning	Discussion of examples of iterations of stakeholder joint action leading to social learning (20min; group); elaboration on these iterations as prerequisites for innovation and change (20min; plenary)	Some basic familiarization with participatory planning would be necessary to undertake this activity; for an elaboration of social learning in environmental conflicts, see Hovardas (2020)
40min	(2) Discuss how participatory planning can proceed or can be initiated even under conflict	Acknowledge that respecting differences between stakeholders is a necessary condition for their collaboration even for stakeholders under conflict	Discussion of examples of participatory planning between stakeholders in conflict (20min; group); elaboration on inclusion and recognition as indispensable for effective participatory planning (20min; plenary)	Some very basic knowledge about environmental conflict required, in particular with concentration on real-world case studies
40min	(3) Explore how to arrange shared goals, resources and timeline of action in the template	Be able to distinguish between business-as-usual, small effort and best case scenarios for stakeholder joint action	Classify pre-given examples the three types listed in the previous column (20min group work followed by 20min plenary session)	Pre-given examples to be offered by the trainer to the trainees; relevant case studies can be also offered to trainees in a flipped classroom mode
40min	(4) Empirical session with the template	Use the participatory scenario development template to classify pre-given extracts	Classify pre-selected scenario extracts in the above types (20min group work followed by 20min plenary session)	Extracts from real-world settings of stakeholder collaboration and/or joint action should be given by the trainer to trainees
40min	(5) Examine inter-coder reliability of coding by means of the template	Calculate a reliability index for two independent coders; provide peer feedback	Trainees will use coding results in the previous activity to calculate inter-coder reliability (20min; individual); discuss mismatches (20min; plenary)	Novices in statistics should be introduced to SPSS
40min	(6) Discuss template use for optimizing joint stakeholder action	Be able to justify how the template could be employed for optimizing joint action	Discuss in groups (20min) and present in plenary (20min) relevant examples for optimizing joint action	Key knowledge on optimization of stakeholder engagement and joint action necessary

5.4. How to find common ground

Name of original training course	Stimulating and fostering dialogue and cooperation with interest groups
Purpose of training course	By using case studies and the group´s wisdom, illuminate success factors for establishing dialogue and cooperation e. g. in the work environment "Coexistence with large carnivores"
Overall length of training course	1-3 days
Name of training module	How to find common ground
Purpose of training module	Developing options with participants on how and what to collaborate with different stakeholders considering a complex or conflicted atmosphere
Objectives of training module	By the end of the module, participants understand the Harvard concept and can reframe their positions by using interest-based communication. Based on this, participants get to know useful methods on how to (re)stimulate dialogue and cooperation by addressing common interests.
Process of training module	Table 5 presents a detailed description of the process of the training module with all its activities.
Overall length of module	Half day
Target group of this training module	(1) Conservation managers, e. g. (regional) employees of environmental NGOs, CSOs or public representatives; (2) freelance human dimensions experts; (3) facilitators or mediators and their associations in multistakeholder processes
Which other modules the current module links to	The module "How to find common ground" is highly linked to modules concerning conflict dynamics (before), non-violent communication (before) and reframing (after).
Rationale of using the module in training environmental facilitators/ mediators	This module helps to become aware about the importance to look beneath the surface (positions) at the often-hidden interests and to gain understanding for other people´s motivation and behaviour. Reflecting on interests helps to widen the angle, enhances reframing, and creates opportunities to find (once more) common interests and ground to get (back) into dialogue or even cooperation. The exercise can also be useful for facilitators to understand the field, to understand complexity and to map the conflict and to help facilitators connect to actors (ability training). When discussing the interests of different groups (based on reality-based examples of the working environment of participants) participants often show an "AHA"-effect, which means they gain better understanding (surprises included). The tool "common ground matrix" helps to visualize opportunities which common interests can create. Sometimes, participants can get excited because they become aware of new possibilities and alternatives to get out of a stuck situation.

	Any further remarks	Societies or stakeholders in regions and countries have proven to be more resilient in dealing with challenges (e. g. the coexistence with large carnivores), where there is a strong networking between the actors concerned (e.g., Grossmann et. al 2020). That´s why it is so crucial trying to collaborate with different stakeholders even in complex or conflicted atmosphere. Common (and sometimes even diverse) interests deliver a precious basis for this.
	Method for assessing outcomes of the activity	When people start to understand the Harvard concept, they develop skills to describe their own interests and the interests of others. Even if they are expressed in the form of a position, the participants get an increasing sense to identify the interest(s) behind. Once the logic of looking for common interests was trained with the matrix, people start to find examples for common ground more easily and can integrate this logic in their strategic work.

Table 5. Description of the training module on how to find common ground

Time required	Name of activity	Objective (of each activity)	Process (of activity)	Specific preparations required or other remarks
20 min	(1) Introduction	Understanding the Harvard concept and its logic (from positions to interest)	Presentation of the Harvard concept and short discussion with the group	Prior knowledge about conflict dynamic and mechanisms useful (should be addressed beforehand in the course)
30-45 min	(2) Selecting real life examples	Working with concrete examples of/ or familiar to participants; Gaining a deeper insight on positions, barriers, and interests; Experiencing the needs behind positions	Using mails, articles, or other examples (e. g. from the participants) to list and reflect on position, barriers, and interests behind	Prior knowledge about terms like needs and interests is helpful (should be addressed beforehand in the course), examples should be available
60-90 min	(3) Identify common ground	Gaining an overview on all relevant interests; Identifying common and contrary interests	Using a common ground matrix to collect and describe interests of various stakeholder groups on a topic; Reflection and discussion of overlaps and differences in interests	The matrix can be prepared based on an example of the instructor or by examples from the participants.
30-45 min	(4) Get into action	Developing actions that meet the various interests to establish an action plan for fostering collaboration	Discussion in pairs/small groups leading into a larger group conversation	Part (4) can take more time, if it is linked with another module of the training course

5.5. Conflict dynamics and escalation

Name of original training course	Conflict management training in consensus-oriented approaches
Purpose of training course	Enhance communication and conflict management skills of key actors
Overall length of training course	1-3 days
Name of training module	Conflict dynamics and escalation
Purpose of training module	Developing knowledge on conflict management by studying the mechanisms and correlating them with real-life examples
Objectives of training module	Understanding what drives conflicts and how they escalate, learning about the different levels of conflicts and the mechanisms and consequences of escalation
Process of training module	Table 6 presents a detailed description of the process of the training module with all its activities.
Overall length of module	2,5 – 4h
Target group of this training module	(1) Conservation managers, e. g. (regional) employees of environmental NGOs, (2) CSOs or public representatives of stakeholders; (3) facilitators or mediators and their associations in multistakeholder processes, (4) in general all open and constructive stakeholders
Which other modules the current module links to	This module is the core-module of every mediative training and is used in the introductory parts of training in environmental conflicts because it helps a lot to understand the dynamics of conflict issues. It is highly linked with the module concerning methods for de-escalation (e. g. communication and listening skills, etc.).
Rationale of using the module in training environmental facilitators/ mediators	This module is the core module of every training course dealing with mediation and conflicts. Only if we understand what drives conflicts and how conflicts escalate, we can consciously use methods to de-escalate or avoid certain escalation level. The Glasl scale for escalation works with 3 levels and 9 escalation steps: Within the first level (means the three escalation steps) it is still possible for both parties to get out without damage or even with profit (win-win). On the second level, one of the two must be the loser (win-lose) and on the third level there are only losses on both sides until mutual destruction (lose-lo-se). When reality-based examples of the working environment of the participants are used, it gets very clear for people to understand the mechanisms of conflict escalation and their role in it. They find a lot of connection to their own experiences and may get deeper understanding for situations they did not understand so far.

Any further remarks	Table 6 shows the basic version of this module, but it can be broadened by helpful theory or case studies on conflict escalation and polarization if there is time and interest.
Method for assessing outcomes of the activity	When people start to understand the conflict dynamics and escalation, it gets easier for them to imagine methods for de-escalation and for avoiding escalation. This is immediately visible in the training when the module about de-escalation starts and people are asked for methods and examples.

Table 6. Description of the training module on conflict dynamics and escalation

Time required	Name of activity	Objective (of each activity)	Process (of activity)	Specific preparations required or other remarks
30-45 min	(1) Introduction	Learning and understanding about conflict dynamics and escalation	Presentation (e. g. Glasl escalation model) and short conversation with the group	
60-90 min	(2) Evaluation of examples	Using examples (e. g. from the participants) to reflect on level of conflict escalation and the consequences with the Glasl scale	First reflection on its own (or in small groups), discussion and evaluation with the whole group	Here it is good to deal with the examples of the participants (e. g. death threats by mail), as well to bring in examples from other countries/ regions/ projects.
45-60 min	(3) Into conflict management	Using the insights to reflect about potential de-escalation methods	Discussion in pairs/ small groups leading into a larger group conversation	Can be connected with the module concerning methods for de-escalation, where different methods are presented, tested and discussed

5.6. The attitude of the facilitator

Name of original training course	Designing and facilitating participatory workshops
Purpose of training course	Enable participants to see, understand and experience the attitude, systemic outlook, design approach and method implementation of a group facilitator. Train a few of the methods as a facilitator.
Overall length of training course	3 days (21 hours)
Name of training module	The attitude of the facilitator
Purpose of training module	Deeply understand the attitude of a facilitator. See that work on oneself is required. Understand that the most important "tool" of a facilitator is him/herself. Understand the preponderance of congruence in the facilitator's qualities.
Objectives of training module	See and understand the qualities of congruence, empathic understanding, unconditional positive regard, trusting in an invisible constructive force, being open to the unknown. Understand that living these qualities is required for effective process interventions and for effective micro interventions/communication. Understand that this is more important than anything else in facilitation. Congruence is treated first because it is the most important of the qualities. The other qualities follow in this order mostly due to the different training activities that go with them and the specific rhythm that they create in the training.
Process of training module	The module includes activities on congruence, empathic understanding, unconditional positive regard, believing in a constructive attitude of the other, being open to uncertainty. They are the basis for the activities on Nonviolent Communication, which is also part of the module.
Overall length of module	Three quarters of a day.
Target group of this training module	Consultants, facilitators, directors managing staff, mediators
Which other modules the current module links to	The module is the first of essentially three basic elements to facilitation: The attitude (which the module is about), systemic understanding (understanding the context you are in and your connection to it. This is another module) and being able to apply various facilitation methods. You need the attitude for whatever you do in facilitation, so the module automatically links to the others.

Rationale of using the module in training environmental facilitators/ mediators	This is the basis for facilitation. Without the qualities nothing will work.
Any further remarks	This module flows organically into the module on the communication of the facilitator. It is also the basis for other modules such as the module on methods: When methods are practiced the qualities must be applied.
Method for assessing outcomes of the activity	Through the feedback the trainer gets after the training, she can see that for most partici-pants this is an eyeopener to deeper aspects of facilitation and to acknowledge the need for further practice on these qualities.

Table 7. Description the training module on the attitude of the facilitator

Time required	Name of activity	Objective (of each activity; please refer to knowledge/skills to be acquired by trainees)	Process (of activity)	Specific preparations required or other remarks
50 min	Quality 1 : Congruence	Understand congruence	Facilitator: Next activity will serve to unders-tand the concept of congruence. Individually draw two circles on an A4 sheet: Title of left-hand circle (write now): "My current life." Take an average weekday. The circle repre-sents 24 hours of this day. Make segments in the circle with the actual activities on this average day. Try to be specific. When this is done, participants continue to work individually on the right-hand circle. Title: "My ideal life". Now participants design segments in a way that an ideal day would have for them. Facilitator then asks participants for differen-ces between left- and right-hand circles. Facilitator explains congruence based on these results using the congruent com-munication concept (see below) and the Mental-Physical Model (see below). Facilitator takes questions.	A4 sheets

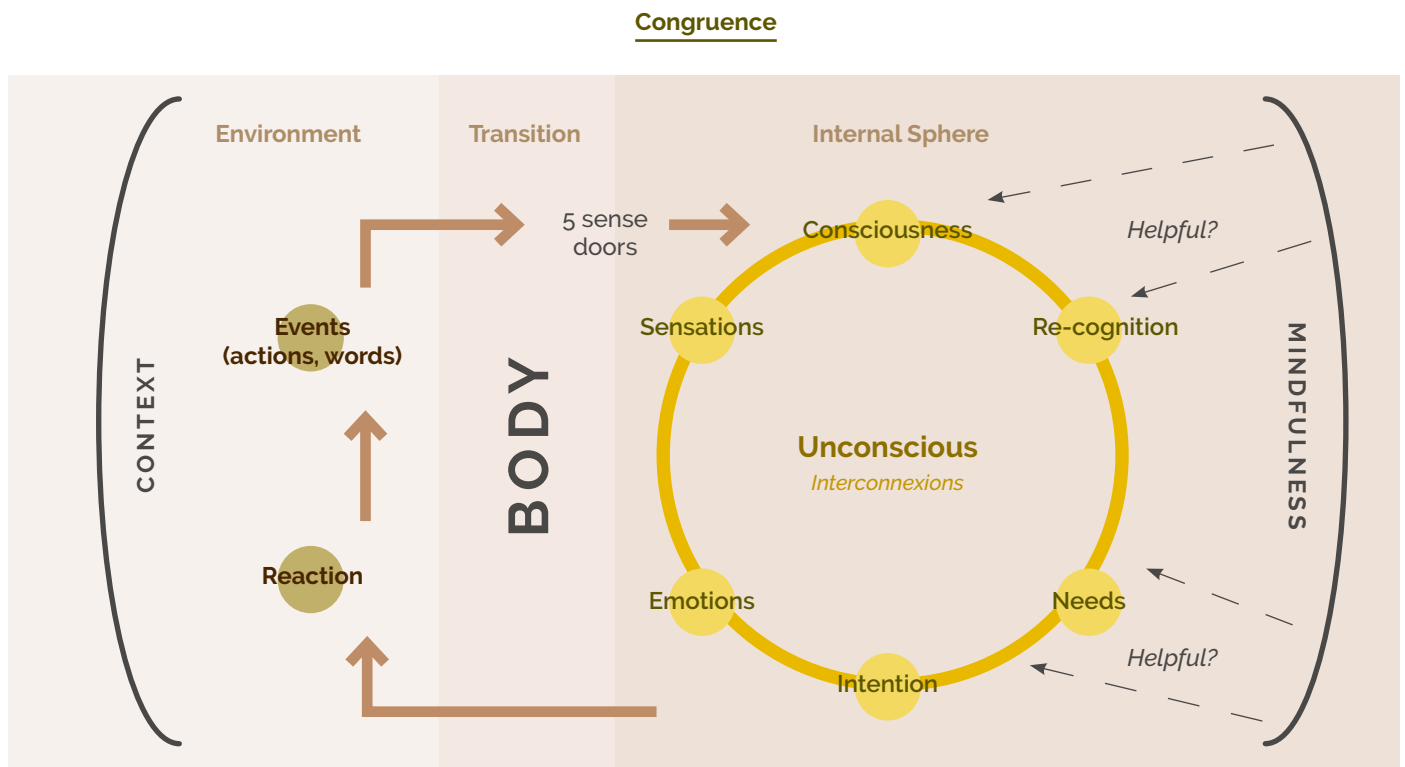| Time required	Name of activity	Objective (of each activity; please refer to knowledge/skills to be acquired by trainees)	Process (of activity)	Specific preparations required or other remarks
50 min	Quality 2: Empathic Listening	Practicing Empathic Listening; Understanding that a facilitator does not give advice on the issues of the group (neutrality); Realizing what this means for one's own consultancy or management practice.	Empathy Labs according to Rogers & Freiberg (1994). Threesomes. Each threesome has F: Facilitator/Listener C: Client O: Observer Each C thinks of a challenging professional (or personal) situation (can be facilitation but does not have to be) where s/he wants to find a good next step. C describes this situation to F F only listens and asks questions (no hidden suggestions in the questions!) O observes body language, atmosphere and whether only listening and questioning (no advice) takes place. 8 minutes for this. Then feedback. Each participant says how it was for him/ her (Sequence: C, F, O who also gives observations) 4 minutes. The roles change in the threesome. New round. 3 rounds altogether.	
20 min	Break			
70 min	Qualities 4 and 5 (Believing in a Constructive Force; Being Open to the Unknown) Usually end of day after this (checkout activity before)	Understanding qualities 4 and 5.	The process for this is a systemic constellation (facilitation case of one of the participants). In the debriefing facilitator asks participants to what extent they have seen the qualities 4 and 5 at work. Discussion of their importance in facilitation.	

Table 8. Transition from the module of the qualities to the module on the communication of the facilitator which typically comes on the next day

Time required (minutes)	Name of activity	Objective (of each activity; please refer to knowledge/skills to be acquired by trainees)	Process (of activity)	Specific preparations required or other remarks
35 min	Nonviolent Communication (NVC) and Quality 3 : Unconditional Positive Regard congruent.	Understand the relationship btw Quality 3 and NVC. Understand NVC. Understand why NVC is so important for facilitation	Facilitator explains NVC (with visualizations of its elements). Demonstrates NVC on the case of a participant (also to explain the process of the next activity). Links NVC to Quality 3 (and to the other qualities).	
45 min	Small group work on NVC	Trainees practice NVC and understand its challenges, benefits, limitations, and applications for a facilitator	Threesomes. Each participant thinks of a challenging speech situation (tension and importance to get message across). C: Case bringer OP: Other person O: Observer Context: C briefly describes context of the situation (who was there, why, roles, what was said originally). OP signalizes s/he understood (2 minutes) Roleplay: C and OP role play the original situation. This time C uses NVC. OP reacts according to C's behaviour/ words. C tries to sustain NVC for 3 to 5 minutes. Debriefing: C, OP and O say how it was for them. Was it nonviolent? What was the effect? (5 minutes) New round. Three rounds in total.	
15-20 min	Debriefing on previous activity in the plenary	Re-connecting the activity to Quality 3 and to the micro-interventions of the facilitator.	Participants share experiences. Trainer reexplains importance of NVC for facilitation. Reexplains importance of Quality for NVC	

Figure 1. Congruent communication concept and mental-physical model

Congruent communication

		Context (outer situation)	
		Corresponding	**Not corresponding**
Person (inner situation)	**In agreement with oneself**	Congruent	Off-key
	In disagreement	Conformist	Absurd

Congruence

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5.7. A Dialogic Process

Name of original training course	Pre-empting and managing conflict
Purpose of training course	A course for officials from agencies working with conservation with the purpose of equipping them to deal constructively with conflict situations that arise in their work.
Overall length of training course	Usually three full days in total. Two days face-to-face and one-day digital (divided into two half days)
Name of training module	The dialogic mindset and process
Purpose of training module	To provide participants with a structure for conversations, meetings and larger processes
Objectives of training module	Understanding of the process the group will experience. Knowledge of the dialogic mindset; To give participants an experience of the four stages of the process logic (i.e., observe, explore, find synergy and potential and concretise) so that they can apply it to their context and improve their skill in facilitation; To ensure understanding of the context of elements of the training in real life facilitation; Reflection and learning as a result of the process (not the content of the dialogue). To experience and ground facilitation skills combined in the art of facilitation; To identify areas where this process logic is applicable
Process of training module	Presentation and short conversation with the group; Conduct a dialogue going through the four stages of the process logic (i.e., observe, explore, find synergy and potential and concretise); A discussion in pairs leading into a larger group conversation; Discussion in small groups leading into a gathering ideas in the larger group
Overall length of module	Approximately 3hours including a break
Target group of this training module	Officials working with dialogue, facilitation and mediation as part of their job with conservation.
Which other modules the current module links to	The module has been used at the start of a training course in order to provide a context for the principles of conflict management and facilitation. It was also used it after the first day when participants had learned some of the basic facilitation skills and had been introduced to aspects of the dialogic mindset. The second option allows for "time outs" during which details of the facilitator's task are explained. It also allows for participants to act as "participant facilitators" during the process. Both worked equally well but the second has a stronger effect - which for some groups may be rather overwhelming
Rationale of using the module in training environmental facilitators/ mediators	The module has been used in training facilitators who work with environmental conflicts. As explained above, it can be used in different phases of a training course. The module solves the problem that the combination of many loose elements (analysis, skills, meta-skills and methods) presents by giving the participants a taste of dialogue and an experience of how the elements work together;

Rationale of using the module in training environmental facilitators/ mediators	Typically, participants are very interested in the topic of the dialogue. The trainer should try to choose something that stimulates interest in the participants. If the activity is used after the introduction of basic skills and mindset, and the trainer makes use of "time out" to highlight certain aspects of facilitation or ask for suggestions on how to deal with a particular challenge, then the trainer may receive feedback from participants that they never realised that one needs to be aware of so many things simultaneously. For some this is quite overwhelming and the trainer should usually encourage them to practice the elements and slowly build up their practice of facilitation; Placing the module at the start of a training course offers the trainer an opportunity to refer back to the dialogue at the start. It is then usually a shorter module and less challenging for the participants; What usually happens is that the participants become very involved in the conversation. They think only of what they wish to say, particularly if it is a contentious issue or one in which they are very involved. The multi-focus required in order to facilitate such a conversation often comes as a surprise; The module can result in participants using the dialogic process in smaller conversations as a way of testing or practising it.
Any further remarks	The process works best in physical meeting sessions, but it is possible to do it online too.
Method for assessing outcomes of the activity	Understanding the context: In following discussions regarding the elements and the art of facilitation, group participants should be able to make clear connections between analysis, preparation, skills, meta-skills (attitude) and methods to the art of facilitation; Applying the process-logic to their work: The discussion on how this approach can be applied should lead to concrete suggestions from the participants (see activity 4) as to how they can apply this approach in the meetings, conversations and processes that they are responsible for.

Table 9. Description of the Dialogic Process Module

Time required	Name of activity	Objective (of each activity)	Process (of activity)	Specific preparations required or other remarks
20 min	Introduce the process logic and context	Understanding of the process the group will experience. Knowledge of the dialogic mindset.	Presentation and short conversation with the group	The module follows introduction of basic skills and mindset.
1 hour (4 x 15 minutes sections)	A dialogue	To give participants an experience of the four stages of the process logic (i.e., observe, explore, find synergy and potential and concretise) so that they can apply it to their context and improve their skill in facilitation; To ensure understanding of the context of elements of the training in real life facilitation.	Conduct a dialogue going through the four stages of the process logic (i.e., observe, explore, find synergy and potential and concretise).	If the facilitator is also a participant, it may be necessary to have raised this duplicity of roles in advance. We usually place two chairs to make the role shifts clear to participants.

Time required	Name of activity	Objective (of each activity)	Process (of activity)	Specific preparations required or other remarks
20 - 30 min	Reflections	Reflection and learning as a result of the process (not the content of the dialogue). To experience and ground facilitation skills combined in the art of facilitation.	A discussion in pairs leading into a larger group conversation.	Warning: the process may generate a fair amount of learning and more time could be added if the course provides for it.
30 - 40 min	Integration	To identify areas where this process logic is applicable.	Discussion in small groups leading into a gathering ideas in the larger group	

5.8. Adapted SAFE System Approach

Name of original training course	Analyse, understand and intervene in socio-environmental conflicts.
Purpose of training course	The training aims to understand the social dynamics of environmental conflicts through specific case studies and the facilitation techniques that were used. Objectives: (1) Understand the social dynamics of environmental conflicts; (2) Become aware of the patterns and common characteristics of the environmental conflicts; (3) Identify opportunities for intervention and transformation; (4) Define strategies and tools to manage them.
Overall length of training course	25 hours (3 days). This course was done together with the Spanish University of Distance Education, therefore, the entire course was developed online.
Name of training module	Diagnosing the baseline conflict situation and establishing a joint roadmap: SAFE System Approach a collaborative multi-stakeholder dialogue tool
Purpose of training module	Through a tool created by Tigers Alive Initiative of WWF, the module will build skills in trainees to promote multi-stakeholder dialogue processes, where facilitators can take care of the different parties, identify with them the baseline of the conflict and agree on possible actions to improve the situation.
Objectives of training module	By the end of the module, trainees should be able to (1) Embrace a systemic view of the conflict (2) Generate an approach where all stakeholder can express their needs and ideas (3)Understand the importance of defining with stakeholders the conflict baseline and planning (4)Use a specific tool tested in different contexts

Process of training module	The training module is embedded in a course where different experiences and case studies developed in Spain were presented. The module includes a general reflection about the importance of generating a participatory baseline of the conflict to follow up in a better way and to generate a robust planification together with stakeholders. At the same time, it reflects the importance of taking a global view of the conflict and the different measures that can be implemented (prevention, response, mitigation, understanding the conflict, monitoring, etc.). Participants also will know how to use a participatory tool called SAFE System Approach developed by the Tigers Alive Initiative of WWF, inspired by safe systems in road safety. This tool has been modified for the Spanish context to work on an environmental conflict between rabbits and agriculture.
Overall length of module	2h
Target group of this training module	(1) Students of Sociology, Environmental Sciences, Biology, Political Science, Law, Forestry Engineering and Educational Sciences; (2)Public workers involved in the environment and rural development (3) Mediators and facilitators (4) Local stakeholders linked with situations in which environmental conflicts may arise.
Which other modules the current module links to	For a better understanding of this module and the specific tool that is presented, trainees should have learnt other contents before. Some of them are: what are environmental conflicts and why they arise; the role of facilitation and skills; communication and listening tools; general design of multi-agent dialogue processes. After these contents, trainees will be more prepared to use the SAFE System Approach as a guiding process to create dialogue between stakeholders. The SAFE tool helps to understand a dialogue process in a conflict situation, but the people who facilitate must first know how to deal with moments of polarisation, accompany different people to express their opinion in a safe way, etc. Therefore, it is important to previously work on the skills to conduct meaningful dialogues.
Rationale of using the module in training environmental facilitators/ mediators	Environmental conflict facilitators must understand conflict dynamics and have specific listening and communication skills. But it is also important to know tested methods (as SAFE System Approach) that help to design a dialogue process and allow a follow-up of the conflict dynamics. This method creates a framework where each stakeholder is important. It also provides recognition and certain support to each stakeholder, which is helpful for conflict management. SAFE System Approach: (1) proposes a global approach incorporating the different dimensions to create proposals (response measures, mitigation, prevention, monitoring, understanding the conflict, policy) (2) propel long term direction (3) propose a basis to measure progress and impact by defining a conflict baseline (4) Include stakeholder in a participatory way (5)help stakeholders and facilitators to focus on the most significant topics.
Any further remarks	The module can be complemented by other tools for the diagnosis of the conflict situation. It is important that the trainers know specific examples of the tool's implementation.
Method for assessing outcomes of the activity	The assessment of the level of understanding of the tool will be done in two ways: through the practical exercise in which participants become potential stakeholders in a conflict. At the same time, the final part of questions and answers will serve to test the overall understanding.

Table 10. Description the training module on adapted SAFE System Approach

Time required (minutes)	Name of activity	Objective (of each activity; please refer to knowledge/skills to be acquired by trainees)	Process (of activity)	Specific preparations required or other remarks
10min	Understand the importance of process design in environmental conflicts	Understand the relationship btw Quality 3 and NVC. Understand NVC. Understand why NVC is so important for facilitation	Group discussion on possible stages of a process.	Trainer indicates when SAFE could be used, types of contexts related to polarisation (division and segregation of different social groups within a society)
5min	Broadening the view on possible conflict solutions	Trainees practice NVC and understand its challenges, benefits, limitations, and applications for a facilitator	Reflecting on the different elements for responding to environmental conflict	
30min	Know the tool and the participatory process to create it	Re-connecting the activity to Quality 3 and to the micro-interventions of the facilitator.	(1) general presentation of the tool; (2) presentation of the process of the participatory construction; (3) presentation of the process of filling in the tool among stakeholders	Trainer uses examples where it has been implemented and also presents examples of results.
45min	Practise with the trainees the process of participatory tool creation		Practical exercise: (1) Chose an environmental conflict and different stakeholders involved; (2) divide the participants into groups, each group is a different stakeholder; (3) each group starts creating the SAFE tool first they ask themselves about their needs (strategic intent) and second they define possible actions to achieve these needs (criteria); (4) We exchange the work done by each group for another stakeholder to review and give feedback; (5) final sharing	As there will not be enough time to generate the complete tool, the following steps are explained.
30min	Answer questions about the implementation of the tool		Open discussion with Q&A	The trainer may ask to trainees for other examples of contexts where the tool could be used

5.9. Active listening

Name of original training course	Constitution of a team to co-define the action plan to manage conflicts and proposals of the Local Landscape Observatory
Purpose of training course	A course for the members of the Local Landscape Observatory, a voluntary institutional group composed by representatives of local institutions, associations and organizations (e.g. voluntary ecological guards, officials of local administrations, politicians, volunteers from local associations, teachers, etc...), with the purpose of improving their skills in tackling environmental conflicts while developing the action plan (biennial)
Overall length of training course	Six days. Normally in presence. In 2020/21 it was organized online due to the Pandemic situation (except the last day). Each day was a half-day length (3-4 hours).
Name of training module	Active listening
Purpose of training module	To support participants with a helpful method for open dialogue and discussion and to work efficiently in small/medium groups (max. 20 participants)
Objectives of training module	Support team-work; provide tools for mutual understanding; create a protected work frame
Process of training module	See Table 11
Overall length of module	Approximately 2/3 hours including a break
Target group of this training module	Voluntary ecological guards, officials of local administrations, politicians, volunteers of local associations, teachers, presidents of local institutions, presidents of UNESCO ecological areas, technicians, etc...
Which other modules the current module links to	The training module is part of a course. The course aims to give participants the basic method to work together. This course is thought to be facilitated by a professional facilitator that increasingly helps the group to co-define mutual understanding, needs, objectives and actions. To support the group to work together in the future, in a more autonomous way, it's important to add more training modules on some specific methods, such as helping to change points of view (e.g. role plays exercises, etc...) or decisional methods (e.g. consensus conference, etc...).

Rationale of using the module in training environmental facilitators/ mediators	The module was used to create the direction group of the Local Landscape Observatory representatives of 9 municipalities. The group had the duty to define an action plan and to choose at least 3 actions to implement the next year related to environmental priority in the local territory. The Regional Observatory for the quality of the landscape of the Region Emilia Romagna has the objective of promoting the dissemination of landscape culture and promoting its quality, guiding regional policies and actions for the protection and enhancement of the landscape itself. In implementation of the principles of the European Landscape Convention, it deals with issues that affect the entire regional territory. As local Observatory for the quality of the landscape, it's an institution that could contribute to local environmental plans and monitors the implementation of the plan and related actions. The members of the Landscape Observatory must deal with policies and conflicts and involve citizens, politicians, etc… This module is the first step of a training course that aimed to support the members of the Landscape Observatory to define the biannual action plan and to present the plan to the community in a public event.
Any further remarks	The process works best in physical meeting sessions, but it is possible to do it online too (was done online except the final public meeting addressed to the community).
Method for assessing outcomes of the activity	Organize maintenance meetings and after action review meeting with the support of the facilitator; Check if the biennial action plan goes on and if the group still works together; Applying independently the active listening method in the meetings of the direction group

Table 11. Description the training module on Active listening

Time required (minutes)	Name of activity	Objective (of each activity; please refer to knowledge/skills to be acquired by trainees)	Process (of activity)	Specific preparations required or other remarks
10 min	Present the activity of active listening (and all the training course)	Understanding of the process the group will experience.	Presentation and Q&A	Use a presentation to show all the process of the training module and the objectives of each single module
20 min	A dialogue warm up	To give participants an experience of what "is not active listening"	Participants work in pairs. Each participant describes to the other something that has happened recently (in work field, family, etc...) The listener must do everything to be distracted and not listen to the interlocutor. At the end the group works in plenary with the support of the facilitator, using the question: How did you feel during the activity?	Prepare the settings of the room verifying it's possible to work in pairs easily, or use a video tool that allows creating parallels rooms
30 min	Contents on active listening	Give information on the active listening rules	1. Don't be in a hurry to come to conclusions. 2. What you see depends on your point of view. 3. Emotions are fundamental cognitive tools if you can understand their language 4. A good listener is an explorer of possible worlds 6. A good listener welcomes the paradoxes of interpersonal thought and communication 7. To become an expert in the art of listening you must adopt a humorous methodology	It's possible to present examples of each of the rules or to do some practical exercise on each rule. It depends on the time available for the module.

Time required (minutes)	Name of activity	Objective (of each activity; please refer to knowledge/skills to be acquired by trainees)	Process (of activity)	Specific preparations required or other remarks
30 min	Using active listening – first part	Participants experiment the approach of active listening	Participants work in pairs. Think about a conflict you have in place or a situation that has happened to you in the workplace, family, association, etc … Speak one at a time and describe the conflict The listener must apply active listening: • Make participants feel comfortable • Use voice markers to support speech • Ask questions only to better understand the situation • Remain silent as much as possible	Provide sheets in which the instructions of the exercise are remembered.
20 min	Plenary to reflect	After action review	The group works in plenary with the support of the facilitator, using guiding questions to help participants share feelings and describe how the activity has gone	Remember the time to participants during the exercise.
40 min	Using active listening – second part	Participants experiment the approach of active listening and rephrasing	Participants work in groups of three (Narrator, listener, observer); then, they change the roles • Speak one at a time and re-describe the conflict • The listener must apply active listening and paraphrase/return the conflict using his/her own words and clarifying the situation as much as possible (for example, describing it using "emotions", citing concepts, moods, etc.) • The observer takes notes	
20 min	Plenary to reflect	After action review	The group works in plenary with the support of the facilitator, using guiding questions as: what did I like about the method? What scared me about the method? What skills will I acquire in using the method?	

06.

Open repository of case studies with implementations of tools and methods

In this chapter, we describe any previous implementation or prospective implementation (implementation beyond training) of tools and methods in the toolkit (see Table 12 for a synopsis). Since these descriptions present a marked overlap with what is further presented in the second IO of the project (Mapping entry and exit points of environmental conflicts), this chapter will present some key information on each implementation. For a detailed account of each case study, please refer to the other Intellectual Output.

Table 12. Case studies where the tools and methods in the toolkit for addressing environmental conflict have been used in the past/suggestions for their prospective use

Tool/method	Case study
(1) Adapted SWOT template for stakeholder analysis	LIFE AMYBEAR project (LIFE15 NAT/GR/001108); LIFE ARCPROM project (LIFE18 NAT/GR/000768)
(2) Mixed-motive template for structured negotiation	LIFE AMYBEAR project (LIFE15 NAT/GR/001108); LIFE ARCPROM project (LIFE18 NAT/GR/000768)
(3) Participatory scenario design	LIFE AMYBEAR project (LIFE15 NAT/GR/001108); LIFE ARCPROM project (LIFE18 NAT/GR/000768)
(4) How to find common ground	LIFE EUROLARGECARNIVORES project (LIFE16/GIE/000661)
(5) Conflict dynamic and escalation	LIFE EUROLARGECARNIVORES project (LIFE16/GIE/000661)
(6) The attitude of the facilitator	Frequently used for micro-interventions such as empathic listening or congruent "climate reports"
(7) A dialogic process	National Large Carnivore Council in Sweden
(8) Adapted SAFE System Approach	PreveCo Task Force project
(9) Active listening	Direction Group of the Regional Observatory for the quality of the landscape of the Region Emilia Romagna

(1) Adapted SWOT template for stakeholder analysis

The template (see a populated example in Table 12) was used in LIFE projects in Greece (see also Hovardas, 2018b; Hovardas, 2020; see also Marsden et al., 2023) and it is currently implemented during the operation of three Regional Platforms for Coexistence between Bears and Local Communities in the LIFE ARCPROM project (LIFE18 NAT/GR/000768), in three Greek National Parks. The template, together with the other two templates (i.e., mixed-motive template; participatory scenario development) have been used as an alternative conceptualization of human dimensions actions in LIFE projects, based on social learning. The templates can also prove valuable for informing after-LIFE plans, especially, in supporting stakeholder interaction and collaboration after a LIFE project is concluded.

Links
https://lifeamybear.eu/
https://lifearcprom.uowm.gr/

Table 13. Strengths, Weaknesses, Opportunities and Threats Analysis template populated with stakeholder input for the theme of livestock guarding dogs (LGDs) in the LIFE AMYBEAR project (LIFE15 NAT/GR/001108)

	Stock breeders	Hunters	Forest Service	eNGOs	Veterinarians
Strengths (in-group aspects promoting innovation or change)	There are many good LGDs in the project area Adequate experience in training LGDs	Spent a substantial amount of money on their hunting dogs	Responsible by the law for investigating cases of illegal poisoned baits	Supply LGDs through an already existing network, which they have set up covering many different areas	Engaged in LGD care
Weaknesses (in-group aspects hindering innovation or change)	Least-cost investment strategy per dog capita Empathy for peers who wish to take matters in their own hands Many hire shepherds and do not themselves accompany their flocks while grazing In-group tension inhibits exchange of dogs	May lose hunting dogs when engaged in fight with LGDs	Cannot easily detect perpetrators due to a local omerta	Local demand for LGDs surpasses the supply that eNGOs can currently support	There is no effective outreach for disseminating good practice in veterinarian care for LGDs
Opportunities (inter-group aspects promoting innovation or change)	Supply anti-poison kit	Supply anti-poison kit	Decrease the use of illegal poisoned baits	Increase overall supply of LGDs in the project area and other areas	The local LGD network will improve veterinarian care, nutrition, training, and reproduction
Threats (inter-group aspects hindering innovation or change)	Inter-group tension with hunters catalyses the use of poisoned baits Sone obtained big dog breeds from other areas of the world	Inter-group tension with stock breeders catalyses the use of poisoned baits	Illegal poisoned baits present a substantial threat for many wildlife species	Illegal poisoned baits are among the primary causes of loss of LGDs in the project area	Cannot succeed unless stock breeders deal with their dogs as a long-term investment

Note: The table is presented in Hovardas (2020); eNGOs = environmental non-governmental organizations.

(2) Mixed-motive template for structured negotiation

The mixed-motive template (see a populated example in Table 14) was employed in several LIFE projects implemented in Greece (e.g., Hovardas, 2018b; Hovardas, 2020; see also Marsden et al., 2023), with the most recent application in the frame of Regional Platforms for Coexistence between Bears and Local Communities established in the LIFE ARCPROM project (LIFE18 NAT/GR/000768). In these projects, the mixed-motive template was used in synergy with the other two templates of the "social learning" series (adapted SWOT template, see former paragraph; participatory scenario development template, see next paragraph supported tasks in human dimension actions), offering an alternative rationale and structure for human dimension actions in LIFE projects.

Links
https://lifeamybear.eu/
https://lifearcprom.uowm.gr/

Table 14. Mixed-motive template populated with stakeholder input for the theme of livestock guarding dogs (LGDs) in the LIFE AMYBEAR project (LIFE15 NAT/GR/001108)

	Network of stockbreeders for exchanging LGDs	Illegal poisoned baits
Benefits, added value of innovation/ change	• Participation in the network was accompanied by a substantial improvement of in-group and intergroup relations • The local network, as part of a broader network in thecountry, would support stockbreeders in overcoming inbreeding	• An anti-poison dog unit was operating close to the project area and could be called to detect poisoned baits and examine poisoning events • Key stakeholders would be willing to sign a Memorandum of Understanding for sanctioning poisoned baits
Costs, unintended consequences of innovation/ change	• Many stockbreeders were reluctant to join the LGD network due to the increased investment needed • There were stockbreeders who deviated from good practice to decrease the cost of maintaining LGDs	• Many stockbreeders were reluctant to join the LGD network given the risk of losing one's dogs to poisoned baits • Anti-poison kits may provide a counter-motive for an effective sanctioning of poisoned baits

Note: The table is presented in Hovardas (2020).

(3) Participatory scenario design

The template (see a populated example in Table 15) was used in LIFE projects in Greek areas (see Hovardas, 2018b; Hovardas, 2020; see also Marsden et al., 2023) ad it is currently employed in synergy with the other two templates of the "social learning" series (adapted SWOT template, mixed-motive template; see two previous paragraphs) in three Greek National Parks in the LIFE ARCPROM project (https://lifearcprom.uowm.gr/). In the frame of that project, stakeholders have established and operate Regional Platforms for Coexistence between Bears and Local Communities. The template has proven insightful for guiding stakeholder interaction and joint action, while it is expected to also contribute substantially in drafting after-LIFE plans.

Links
https://lifeamybear.eu/
https://lifearcprom.uowm.gr/

(4) How to find common ground

Tools and methods of this module were used in the LIFE EuroLargeCarnivores project (2017-2022), where stakeholder engagement processes in the field of "coexistence with large carnivores" were stimulated in 14 European countries (see also Grossmann et al., 2020, 2021).

Links
https://www.eurolargecarnivores.eu/en/
https://lechtalps.com/leistungen/

(5) Conflict dynamic and escalation

Tools and methods in this module were employed in the LIFE EuroLargeCarnivores project (2017-2022), for instance, the Glasl scale, for diagnosing core dimensions of environmental conflict contexts.

Links
https://www.eurolargecarnivores.eu/en/
https://lechtalps.com/leistungen/

(6) The attitude of the facilitator

Tools and methods of this module were frequently used for micro-interventions such as empathic listening, which serves as an open-eyer, congruent "climate reports" for reporting the facilitator's perception of the atmosphere in the room to participants, especially when things are tensed, and deciding whether to use a specific type of intervention or not.

Links
https://flow-ing.fr/tools/

(7) A dialogic process

Tools and methods in the module were used by Dialogues to plan and conduct conversations meetings and larger processes. A recent implementation of the four stage approach of "observe, explore, find synergy and potential and concretize" was in the frame of the National Large Carnivore Council in Sweden to structure a dialogue on protective hunting and interpretation of relevant national and EU legislation.

Links
https://dialogues.se/conflict_complexity/

Table 15. Template for participatory scenario development populated with stakeholder input for the theme of livestock guarding dogs (LGDs) in the LIFE AMYBEAR project (LIFE15 NAT/GR/001108)

Themes	Business-as-usual	Small-effort	Best case
Network for exchanging livestock guarding dogs	Stock breeders enter the network after an eNGO initiative	Stakeholder interaction for sustaining good practice in the local LGD network	Stakeholder ownership of the network for exchanging LGDs
Veterinarian care, nutrition, and training	Veterinarian care, nutrition, and training incomplete and/or incorrect	Low cost guidelines developed and made available to stakeholders for good practice in veterinarian care, nutrition, and training	Good practice in veterinarian care, nutrition, and training established as a social norm among stock breeders
Illegal poisoned baits	Illegal poisoned baits threaten livestock guarding dogs and wildlife	Competent institutions sign an agreement for banning illegal poisoned baits	Illegal poisoned baits effectively sanctioned by social norms
Dog breeds	Some stock breeders obtained big dogs breeds from other areas of the world	Other breeds are not mixed with LGDs in reproduction	Breeds of LGDs developed and maintained locally established as necessary and sufficient for preventing damage from bears

Note: The table is presented in Hovardas (2020); a column with high-effort scenarios has been deleted from the original version for simplicity.

(8) Adapted SAFE System Approach

The SAFE System Approach was developed by the Tigers Alive Initiative of WWF (Barlow & Brooks, 2019; WWF, 2015; WWF-Bhutan & National Plant Protection Center, 2016). The tool was adapted in the Spanish context by ALTEKIO to initiate and sustain stakeholder dialogue on a conflict between rabbits and agriculture within the frame of the PreveCo Task Force project.

Links
https://preveco.es/
https://altekio.es/en/

(9) Active listening

Tools and methods in this module were employed during the process of creating the Direction Group of the Regional Observatory for the quality of the landscape of the Region Emilia Romagna. Specifically, the module supported members of the Landscape Observatory to work in a biannual action plan and present this plan to the wider community.

Links
https://edizionicafoscari.unive.it/en/edizioni4/libri/978-88-6969-563-6/losservatorio-regionale-dellemilia-romagna/

07.

References

Grossmann, C., Patkó, L., Ortseifen, D., Kimmig, E., Cattoen, E.-M., & Schraml, U. (2020). Human-large carnivores co-existence in Europe – A comparative stakeholder network analysis. *Frontiers in Ecology and Evolution, 8*, 266.
https://doi.org/10.3389/fevo.2020.00266.

Grossmann, C., Cattoen, E.-M., & Elmauer, K. (2021). Systematic networking and stakeholder engagement for coexistence with large carnivores. In: E. M. Gross, N. Jayasinghe, A. Brooks, G. Polet, R. Wadhwa, & F. Hilderink-Koopmans (Eds.), *A Future for all: The need for human-wildlife coexistence* (pp. 73-74). Gland, Switzerland: WWF.
https://wwfint.awsassets.panda.org/downloads/a_future_for_all___the_need_for_human_willdife_coexistence.pdf.

Hallgren, L., Bergeå, H., & Westberg, L. (2018). Communication problems when participants disagree (or avoid disagreeing) in dialogues in Swedish natural resource management—Challenges to agonism in practice. *Frontiers in Communication, 3*, 56.
https://doi.org/10.3389/fcomm.2018.00056.

Hovardas, T. (2013). A critical reading of ecocentrism and its meta-scientific use of ecology: implications for environmental education and ecology education. Science and Education 22, 1467–1483.
https://doi.org/10.1007/s11191-012-9493-1.

Hovardas, T. (2018a). Addressing human dimensions in large carnivore conservation and management: insights from environmental social science and social psychology. In: T. Hovardas (Ed.), *Large carnivore conservation and management: Human dimensions* (pp. 3-18). London: Routledge.
https://doi.org/10.4324/9781315175454.

Hovardas, T. (2018b). A methodology for stakeholder analysis, consultation and engagement in large carnivore conservation and management. In: T. Hovardas (Ed.), *Large carnivore conservation and management: Human dimensions (pp. 79-96). London: Routledge.*
https://doi.org/10.4324/9781315175454.

Hovardas, T. (2020). A social learning approach for stakeholder engagement in large carnivore conservation and management. *Frontiers in Ecology and Evolution, 8*, 525278.
https://doi.org/10.3389/fevo.2020.525278.

Hovardas, T. (2021). Social sustainability as social learning: Insights from multi-stakeholder environmental governance. *Sustainability*, *13,* 7744.
https://doi.org/10.3390/su13147744.

Hovardas, T., & Marsden, K. (2022). Trade-offs in the implementation of good practice in large carnivore conservation and management. *Ecology & Society,* 27, 15.
https://doi.org/10.5751/ES-13434-270415.

Marsden, K., Röttger, C., Froese, I., Hovardas, T., La Roux, B., Salvatori, V., Hickisch, R., Von Korf, Y., & Bailan, E. (2023). *Toolkit: Supporting establishment of regional/local platforms on large carnivores. EU Platform on Coexistence between People & Large carnivores.*
https://ec.europa.eu/environment/nature/conservation/species/carnivores/toolkit.htm.

McLaughlin, D.M., & Cutts, B. B. (2018). Neither knowledge deficit nor NIMBY: Understanding opposition to hydraulic fracturing as a nuanced coalition in westmoreland county, Pennsylvania (USA). *Environmental Management, 62*, 305–322.
https://doi.org/10.1007/s00267-018-1052-3.

Rogers, C. R., & Freiberg J. H. (1994). Freedom to learn. New York: Merrill.

Turner, J. A., Allen, W., Fraser, C., Fenemor, A., Horita, A., White, T., Chen, L., Atkinson, M., & Rush, M. (2020). Navigating institutional challenges: Design to enable community participation in social learning for freshwater planning. *Environmental Management, 65*, 288–305.
https://doi.org/10.1007/s00267-020-01256-x.

Van Epp, M., & Garside, B. (2019). Towards an evidence base on the value of social learning-oriented approaches in the context of climate change and food security. *Environmental Policy and Governance, 29*, 118–131.
https://doi.org/10.1002/eet.1835.

Van Mierlo, B., & Beers, P. J. (2020). Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions, 34,* 255-269.
https://doi.org/10.1016/j.eist.2018.08.002.

WWF (2015). SAFE SYSTEMS. *Revolutionizing human wildlife conflict.*
http://zeropoaching.com/pdfs/HWC_concept_note.pdf.

Barlow, A., & Brooks, A. (2019). *Human wildlife conflict response teams: Global lessons in design, operation, monitoring and sustainability.* HWC SAFE Series, WWF Tigers Alive.
https://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/WWF-Report-Tx2-Human-Wildlife-Conflict-Design-Operation-Monitoring-Sustainability.pdf.

WWF-Bhutan & National Plant Protection Center (2016). *Human wildlife conflict strategy: Nine Gewogs of Bhutan.* WWF-Bhutan & National Plant Protection Center, Thimphu, Bhutan.
http://d2ouvy59p0dg6k.cloudfront.net/downloads/final_report_hwc_safe_system13_feb_for_printing_2.pdf.