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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

38th meeting
Strasbourg, 27-30 November 2018

**Management of protected areas
from climate change perspective**

**QUESTIONNAIRE FOR BERN CONVENTION
CONTRACTING PARTIES AND PARTNERS**

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QUESTIONNAIRE ON MANAGEMENT OF PROTECTED AREAS FROM CLIMATE CHANGE PERSPECTIVE

Addressed to Bern Convention Contracting Parties and Partners

Introduction

In the past decade the effects of Climate Change on biodiversity have been increasingly recognised by the Bern Convention. During this period, several recommendations¹ to Contracting Parties have been endorsed by the Standing Committee to the Bern Convention. Thousands of highly relevant scientific papers and many books have been published. Several of them cover the whole European territory (i.e. climatic atlases such as for birds and butterflies), thus this information is very informative for all European countries, including those outside the European Union. Based on this existing and constantly improving knowledge, many international and national guidelines have been prepared by various governmental and non-governmental institutions.

A special issue is the role of **protected areas** in adapting biodiversity and its conservation to Climate Change. In the European context, the most relevant and up-to-date guidance to policy makers and site managers is given in the 2013 “Guidelines on Climate Change and Natura 2000”². Although this guideline is primarily dedicated to European Union’s Natura 2000 network of protected areas, all principles are also applicable to the Emerald Network of sites in the non-EU countries .

Yet, it has been observed that Climate Change adaptation/mitigation measures linked to the management of protected areas have been implemented at different scales with various success in different Contracting Parties to the Bern Convention³. Thus the aim of this questionnaire is to reveal and take stock of particular needs of Contracting Parties for tackling Climate Change in the context of the **management of protected areas**, particularly Emerald Network sites. Based on the answers received from the Contracting Parties to this questionnaire, the Bern Convention Secretariat will assess the needs of Contracting Parties and identify appropriate responses which will provide orientations on how to help countries integrate Climate Change in protected areas management frameworks in a more systematic way.

The questionnaire is addressed to Focal Points to the Bern Convention in all its 51 Contracting Parties. As a minimum one response (i.e. filled questionnaire, representing the institution of the Focal Point) from each country should be returned, but Focal Points are free to distribute this questionnaire further to other institutions if they may have an active position with regards to the subject of Climate Change and protected areas.

This questionnaire does not cover issues related to the constitution of Natura 2000 or the Emerald Network, where the elements of mitigation and adaptation to climate change are embedded in the methodology⁴ of setting-up these networks, namely addressing site size and connectivity between sites (even across country borders) which is discussed in the Biogeographical evaluation seminars or bilateral meetings on network sufficiency for both EU and non-EU countries. But it is assumed that more sites, or adjustments to site boundaries (both under the Natura 2000 or the Emerald networks) in future would be necessary to face Climate change challenges.

¹ <https://www.coe.int/en/web/bern-convention/recommendations-on-climate-change>

² <http://ec.europa.eu/environment/nature/climatechange/pdf/Guidance%20document.pdf>

³ An analysis of the implementation of recommendations made by the Group of experts on Biodiversity and Climate change (2006-2011) <https://rm.coe.int/1680746249>

⁴ <https://rm.coe.int/168074669d> (p 82)

CLIMATE CHANGE AND PROTECTED AREAS: QUESTIONNAIRE

Abbreviations: CC=Climate Change, PA=Protected Areas (i.e. Natura 2000 and Emerald Network)

GENERAL INFORMATION			
Country	Andorra	Compiler	
Date of submission		E-mail	
		Telephone	00376 875707
		Institution	Andorra Government

Part I. General indicative self-assessment of progress in the implementation of CC adaptation / mitigation measures linked with protected areas

1. Please provide score from 0 (no CC related issues were addressed) to 5 (ideal situation both in quantity and quality) in the grey area corresponding to each question.

I-1_A	Is the awareness about CC and acceptance that it is unavoidable sufficient/appropriate in your institution?	4
I-1_B	Are conservation objectives for protected areas developed so as to take into account the species, habitat types and ecosystems which are most likely to be affected by CC?	1
I-1_C	Are there adequate pro-active conservation measures in place for PAs which take into account CC aspects?	0
I-1_D	Is the success of conservation measures monitored, and are monitoring results publicly available and taken into account in reviewing conservation objectives and management techniques?	0

Additional comments if appropriate:

In 2014, the Ministry of Environment, Agriculture and Sustainability of Andorra organized a public participation process to identify and prioritize adaptation measures to be more resilient to face climate change. The department of the Ministry that has fauna and flora management competencies participated in the process, which contributed to identify and prioritize adaptation measures. The measures prioritized in the process were:

- Develop specific studies in order to have information to identify the most suitable adaptation measures for the protection of the biodiversity.
- Sustainable grassland pastures management to prevent the proliferation of woody species which can affect floristic biodiversity and increase the risk of fire.
- Control of the livestock load in wetlands, which already suffer the effects of climate change. Management of the hydrological system. Maintenance of traditional activities.
- Selective felling to enhance the growth and survival of endangered species.

Despite this, there is not a strategy or a plan approved by the Government.

We would like to emphasize that a new law (Law 21/2018, de 13th of September, for the impulse of the energy transition and climate change) has recently entered into force (4th October of 2018), which establishes that the public administration must incorporate the impacts of climate change into all its plans, programs and strategies.

Referring to the protected areas, their management plans do not provide for specific measures for the monitoring of species and habitats that indicate climate change. However, they are monitoring sensitive species and habitats that can also be indicators of the effects of climate change. They also participate in standardized national data-making programs such as the BMSAnd program, the ropalòcers monitoring network, considered as good indicators of climate change and the natural state of the countries, at Catalan level (Natural History Museum of

Granollers) and even European level to. At the moment the results of more than ten years of data of butterflies do not allow to conclude on the relation of the variations of the populations with the climatic change. In this regard, changes in ornithological communities are also being evaluated in the framework of national ring programs in which protected areas participate. In addition, the protective spaces collaborate with the Andorran Institute of Studies in research programs related to climate change (see below). In the protected areas no significant changes have been detected in populations and species. We can highlight a public session on climate change and biodiversity that took place in the park of Comapedrosa.

Additional questions		
I-1_E	Please provide an indicative coverage of sites (in %) of PA network in your country which have operative management plans in place that are systematically reviewed based on monitoring data:	0
I-1_F	<p>Are there species and/or habitats or protected areas for which CC effects have been already documented in your country? Please provide a list with comments as appropriate. This is a free text. Where appropriate, please add also links to any relevant publication or web-resource (preferably in English):</p> <p><i>Variations in functional diversity in snowbed plant communities determining snowbed continuity (CENMA, 2014). Variations in Salix herbacea</i> http://www.tandfonline.com/toc/tplb20/current#.VFCgl8IMTfc</p> <p><i>Cartography and evolution of the Rhododendron ferrugineum coating.</i> https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0147324</p> <p><i>Monitoring of Andorra's butterfly butterflies (BMSAnd project).</i> https://www.iea.ad/presentacio-bmsand</p> <p>Cross-border project “FOREST” from 2011 to 2014, 2019 led by the Pyrenees Climate Change Observatory. Provided an overview of the impacts of climate change on the mountain range’s wooded areas in the Pyrenees, monitoring the phenology of various forest species found in the Pyrenees (whose variation depends solely on the climate), changes in defoliation and distribution according to climatic area.</p> <p>Cross-border project “CANOPEE” from 2016 to 2019 led by the Pyrenees Climate Change Observatory. The project aims to continue monitoring the indicators of the project “FOREST” and extend the network to the southern slopes, for which there is still a lack of data. https://www.opcc-ctp.org/en/canopee</p> <p>Cross-border project “Biodiversity Action” from 2011 to 2014 led by the Pyrenees Climate Change Observatory. The project objective was to shared resources of Pyrenees Flora Atlas and Pyrenean snowbeds monitoring system. The project identified the most vulnerable species in the Pyrenees to climate change and created a monitoring system to <i>Salix herbacea</i> in snowbeds.</p> <p>Cross-border project “FLORAPYR” from 2016 to 2019 led by the Pyrenees Climate Change Observatory. The project objectives are to develop a red list of Pyrenean vascular flora exemplary in Europe by a biogeographic and cross-border territory-wide approach,</p>	Yes

	<p>and an involvement of a wider audience in data collection in order to inform about the possible climate change effects of on mountain flora, its phenomena and issues, in the Pyrenees.</p> <p>https://www.opcc-ctp.org/en/florapyr</p> <p>Cross-border project “<i>REPLIM</i>” from 2016 to 2019 led by the Pyrenees Climate Change Observatory. The Project objectives are to define the most appropriate protocols for the characterization of the impacts of climate change and human activities in the lakes and peat bogs of the Pyrenees, and to prepare a report on the current situation of the lakes and peat bogs of the Pyrenees, their recent evolution and the possible impacts of the climate change on them.</p> <p>https://www.opcc-ctp.org/en/replim</p>	
<p>Additional comments if appropriate:</p>		

Part II. Specific account of problems and obstacles encountered in the implementation of Climate Change adaptation/mitigation measures linked with the management of protected areas

1. Please indicate (by ticking X in the corresponding box) the problems/obstacles in reaching sufficient awareness of CC in your institution. Select one or more of offered options, or describe in your own words:

II-1_A	None	<input type="checkbox"/>
II-1_B	Lack of information supporting the importance of CC for your country, or lack of knowledge where such information can be found	<input checked="" type="checkbox"/>
II-1_C	Information exists but there are difficulties in interpreting the evidence in a meaningful way for your country	<input checked="" type="checkbox"/>
II-1_D	There are no documented observations of negative trends of wild species and habitats in your country which can be attributed to CC	<input checked="" type="checkbox"/>
II-1_E	Other, please specify:	<input type="checkbox"/>

Additional comments if appropriate:

2. Please indicate (by ticking X in the corresponding box) any obstacles in setting appropriate conservation objectives for protected areas taking into account CC. Select one or more of offered options, or describe in your own words:

II-2_A	None	<input type="checkbox"/>
II-2_B	Lack of analytical skills and experience in searching for relevant information and data interpretation	<input checked="" type="checkbox"/>
II-2_C	Poor information on presence of species and habitats in protected areas Lack of up-to-date data	<input type="checkbox"/>
II-2_D	The procedure for setting conservation objectives for individual species and habitats for	<input checked="" type="checkbox"/>

	each protected area is not established	
II-2_E	Other, please specify: Diversity of competent administrations and cross-border areas and lack of communication between them.	<input checked="" type="checkbox"/>
Additional comments if appropriate:		

3. Please indicate (by ticking X in the corresponding box) why appropriate conservation measures for CC adaptation/mitigation are not either fully or partly implemented. Select one or more of offered options, or describe in your own words:		
II-3_A	None	<input type="checkbox"/>
II-3_B	Lack of knowledge/experience about appropriate management techniques	<input checked="" type="checkbox"/>
II-3_C	Difficulties to act in private land and to involve landowners	<input type="checkbox"/>
II-3_D	Lack of cross-sectoral cooperation	<input checked="" type="checkbox"/>
II-3_E	Lack of funding	<input type="checkbox"/>
II-3_F	Other, please specify:	<input type="checkbox"/>
Additional comments if appropriate:		

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4. Please indicate (by ticking X in the corresponding box) the obstacles/problems in monitoring management results and sharing such information at national and/or international level. Select one or more of offered options, or describe in your own words:

II-4_A	None	<input type="checkbox"/>
II-4_B	Lack of general monitoring scheme for PAs	<input checked="" type="checkbox"/>
II-4_C	Lack of sufficiently qualified staff	<input checked="" type="checkbox"/>
II-4_D	Information exists but the importance of sharing it is not recognised	<input type="checkbox"/>
II-4_E	Other, please specify:	<input type="checkbox"/>

Additional comments if appropriate:

Part III. Ideas and suggestions on how the Bern Convention Secretariat could assist Contracting Parties to improve the implementation of Climate Change adaptation/mitigation measures associated with management of protected areas

1. Please indicate (by ticking X in the corresponding box) possible suggestions for improving awareness of CC in your institution. Select one or more of offered options, or describe in your own words:

III-1_A	Demonstrate (through seminars and study visits) how the experience from Natura 2000 can be transferred to the Emerald Network	<input checked="" type="checkbox"/>
III-1_B	Provide positive examples to show that many adaptation/mitigation measures “work in real life” and in some cases do not even require a lot of resources	<input checked="" type="checkbox"/>
III-1_C	Showcase examples of working organisational structures at national level and strategic policy documents supporting the awareness of CC at institutional level	<input checked="" type="checkbox"/>
III-1_D	Other, please specify:	<input type="checkbox"/>

Additional comments if appropriate:

2. Please indicate (by ticking X in the corresponding box) suggestions which could support the setting up of conservation objectives for protected areas taking into account CC. Select one or more of offered options, or describe in your own words:		
III-2_A	Training seminars on practical setting of conservation objectives at site level	<input checked="" type="checkbox"/>
III-2_B	Training on how to find, use and interpret data on the vulnerability of ecosystems / species / habitats to CC and how they relate to site- and country-specific contexts	<input checked="" type="checkbox"/>
III-2_C	Other, please specify:	<input type="checkbox"/>
Additional comments if appropriate:		

3. Please indicate (by ticking X in the corresponding box) suggestions which could support the implementation of conservation measures for CC adaptation/mitigation. Select one or more of offered options, or describe in your own words:		
III-3_A	Study tours to sites which already implement conservation measures for CC adaptation/mitigation	<input checked="" type="checkbox"/>
III-3_B	Launch of an international knowledge exchange on site management similar to the “new bio-geographical process” in the EU ⁵ [This also relates to all other points in this section]	<input checked="" type="checkbox"/>
III-3_C	Provide guidance on where to find published materials on adequate management techniques	<input checked="" type="checkbox"/>
III-3_D	Other, please specify:	<input type="checkbox"/>
Additional comments if appropriate:		

4. Please indicate (by ticking X in the corresponding box) suggestions which could support the monitoring of management results and the sharing of this information at national and/or international level. Select one or more of offered options, or describe in your own words:		
III-4_A	Seminars aimed to foster the development of monitoring systems of species and habitats	<input checked="" type="checkbox"/>
III-4_B	Training on adaptive management planning: how to use monitoring results to review conservation objectives	<input checked="" type="checkbox"/>
III-4_C	Other, please specify:	<input type="checkbox"/>
Additional comments if appropriate:		

⁵ http://ec.europa.eu/environment/nature/natura2000/seminars_en.htm