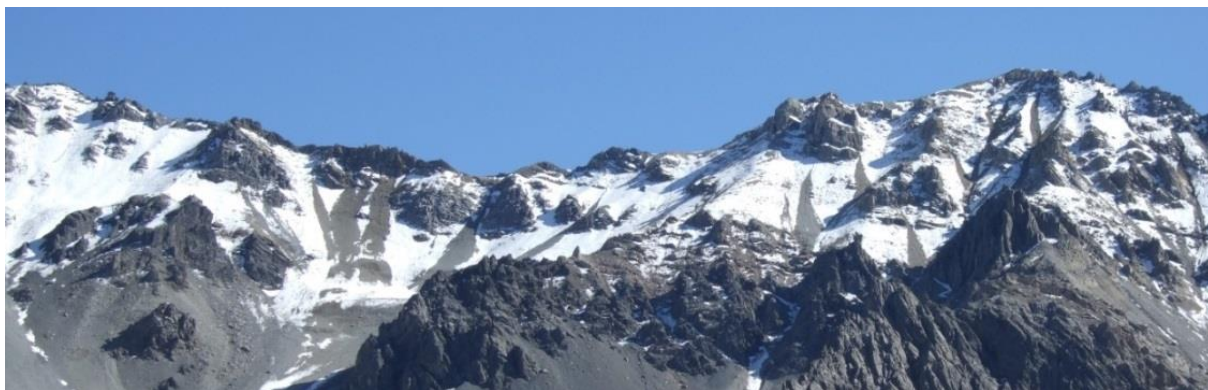


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## Synthesis report

# Stock-taking as basis for defining activities of the Alpine Climate Board

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**Version September 2017 as agreed by the Alpine Climate Board  
during its 2<sup>nd</sup> meeting**

Updated in February 2019

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This report has been prepared by the Alpine Climate Board of the Alpine Convention, with inputs from the Contracting Parties, Observers, Thematic Working Bodies and the Permanent Secretariat of the Alpine Convention. It has been finalized thanks to the financial and technical support of the Swiss and Austrian delegations to the Alpine Convention.

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# 1 Background: A comprehensive stock-taking as starting point for the ACB

## **Background: launch of the Alpine Climate Board and role of stock-taking**

On 13 October 2016, the XIV. Alpine Conference identified “Taking action on climate change” as one of the six priorities of its Multi-Annual Work Programme for the period 2017-2022 and decided “to establish an Alpine Climate Board in order to bundle together existing climate change initiatives and contributions in the alpine area and to elaborate proposals for a concrete system of objectives of the Alpine Convention in regard to the perspective of a “climate-neutral Alpine space””.

The first meeting of the Alpine Climate Board (ACB) took place on 22-23 February 2017 in Vienna, with a focus on discussing the further roadmap and work programme of the ACB (see minutes of the ACB meeting for further details). All members of the ACB agreed that the ACB should take forward specific activities related to mitigation and adaptation: i) which have an Alpine-specific character and ii) for which a common approach on the level of the Alpine Convention creates an added value.

To support the selection of the most relevant potential activities, the ACB decided to first analyse the starting point with a comprehensive “stock-taking” exercise. This stock-taking shall explore relevant decisions of the Alpine Conference with a link to climate change, relevant links in the existing Protocols and Declarations, relevant activities of the Platforms and Working Groups with a link to climate change and shall also take into account European projects (Alpine Space, Horizon 2020 etc.) and further activities and ideas reported by the Contracting Parties and observers.

Based on this systematic stock-taking, a synthesis shall be derived which also includes an analysis of gaps, deficits and potential fields of action. Out of this synthesis, first proposals for potential activities of the ACB shall be derived which will then be evaluated and discussed within the ACB in the next step. In addition, the stock-taking exercise shall give an overview on existing objectives and targets with a link to climate change which can be used as basis for defining a system of objectives of the Alpine Convention.

*To keep up with ongoing and new activities, the ACB further decided to review the stock-taking in regular intervals. The first update took place in February 2019 to enable an up-to-date input and discussion basis for the XV. Alpine Conference in April 2019. As the recommendations of the initial stock-taking report (version September 2017) built the basis for further steps of the ACB, the recommendations of the initial report are left unchanged. The update relates to chapters 3 and 4 as well as the Annex tables only. All changes which are based on the updating are highlighted in italics and blue font.*

## **Stock-taking: involvement of all relevant stakeholders of the Alpine Convention**

In order to involve all relevant stakeholders in this stock-taking exercise, targeted questionnaires with leading questions have been prepared. Questions focused on key information for relevant climate-related activities, reported in the form of factsheet with key information:

- Does the relevant activity have a link to mitigation or adaptation or both?
- Which level of commitment is linked to the relevant activity: this could reach from a general commitment (e.g. inclusion in a strategy/action plan) to very specific commitment with first implementation steps.
- Which timeframe is foreseen for implementing the relevant activity?
- Which (other) fields of activities of the Alpine Convention are linked to the relevant activity (fields of activity according to the Platforms and Working Groups, other fields of activity if any)? Which field of activity is the main focus of the activity? Which links to other activities can be identified?
- What is the Alpine-specific character of the activity?

- Multilevel-governance and stakeholder involvement: which territorial levels are involved in the activity (national, region, local) and which stakeholders are involved for implementing the activity (e.g. specific stakeholders like associations or NGOs or the general public)?
- How is the value added for common action under the Alpine Convention justified? A value added can be created through: 1) exchange of information and good practices, 2) development of common data sources and common tools, 3) enlarging the geographical scope and thus coverage of measures, creating synergies, 4) developing new common measures at the level of the Alpine Convention.

In addition, recipients of the questionnaire were asked to provide recommendations for further activities of the ACB: Which fields of action, decisions etc. concerning mitigation and adaptation in the frame of the Alpine Convention should be taken forward? How can the role of climate change action be strengthened in the frame of the Alpine Convention.

### **Objectives and structure of this report**

This synthesis report provides an overview on the feedback of this stock-taking exercise. Between mid-March and the end of April 2017, Contracting Parties, representatives of the thematic groups, observers and further stakeholders as well as the Permanent Secretariat have reviewed their activities regarding links to climate adaptation and mitigation and have provided a vast amount of feedback to the questionnaire.

*During January and February 2019, additional activities were reported by ACB members and the Permanent Secretariat in the frame of the update (chapters 3 and 4 and Annex tables).*

Also, the Permanent Secretariat has screened all relevant Protocols of the Alpine Convention and relevant recent decisions regarding their consideration of climate change mitigation and/or adaptation. For the decisions, the timeframe since 2012 has been considered. These are presented in chapter 2 as they provide the overall framework and political mandate for all other reported activities. Chapter 3 then presents the overall picture of the feedback and a short overview on reported activities (*updated version as of February 2019*). Chapter 4 provides a more detailed insight into the feedback and summarizes the key information per indicator as provided by the questionnaires (*updated version as of February 2019*). Chapter 5 then presents a synthesis as basis for defining further activities of the ACB.

## **2 Overview on consideration of climate change in Protocols and Decisions**

### **2.1 Protocols of the Alpine Convention**

All currently existing protocols of the Alpine Convention<sup>1</sup> were signed in the period 1994-2000, when climate change was less prominently on the agenda than today. The only protocols in which climate is specifically mentioned are the Energy Protocol (signed 1998) and the Mountain Forests Protocol (signed 1996).

In the Energy Protocol, the commitment to climate change mitigation is set out in the preamble and in the objectives (art.1), and reference to climate is made in the context of energy-saving provisions (art. 5 (3) g), research and observation (art. 15 (1)) and training and information (art. 16 (2)).

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<sup>1</sup> The Protocols and Declarations are available in all Alpine languages and in English at <http://www.alpconv.org/en/convention/protocols>.

In the Mountain Forests Protocol, the essential role of forests for the regional climate balance is mentioned as a basis in its preamble, and among the social and ecological functions of mountain forests as well (art. 8).

Furthermore, the reduction of harmful emissions to a level not detrimental to the absorption capacity of the environment is defined as one of the main goals of the Transport protocol (signed 2000), but the pollutants – including greenhouse gases – are not specified.

Even if none of the keywords climate, carbon or greenhouse gas is mentioned in any of the other protocols, their implementation often contributes to climate change mitigation or adaptation or, reversely, climate action is required to reach the protocols' objectives. This was recognised with the adoption of a Declaration on climate change<sup>2</sup> by the IX. Alpine Conference in 2006. The Declaration contains a series of recommendations in various sectors of intervention, which were specified in an Action Plan adopted by the X. Alpine Conference in 2009. The progress in the implementation of the Action Plan was reported to the XI. Alpine Conference in 2011, as well as to the XII. Alpine Conference in 2012, which identified several actions to be supported<sup>3</sup> and decided the establishment of an Energy Platform (2013-2014).

## 2.2 Recent decisions of the Alpine Conference<sup>4</sup>:

Climate change has featured prominently on the agenda of the two Alpine Conferences which took place during the period considered in this report.

Discussions on climate change at the XIII. Alpine Conference (Turin 2014)<sup>5</sup> regarded:

- welcoming Guidelines for Climate Change Adaptation at the Local Level in the Alps prepared by the Italian Presidency;
- approving a Common Declaration of the Alps and Carpathians on Climate Change Adaptation;
- recognising climate related work by the Working Groups and Platforms, especially Planalp, Water Management, Mountain Forests – approving the Statement On the Value of Alpine Forests – and Energy – welcoming its Background Report;
- affirming a “Vision Renewable Alps”, requiring further reporting on it and its consideration within EUSALP;
- urging the Contracting Parties to support the following initiatives to the implementation of the Energy Protocol: Constructive Alps architecture award launched by Liechtenstein and Switzerland, best-practices collection on energy projects taking land-use and nature conservation issues into account carried out by Germany, side-event organised by Switzerland at Expo 2015 in Milan;
- noting the importance of conceiving the development of the European electricity and electricity storage in a way acceptable for the Alps.

Discussions on climate change at the XIV. Alpine Conference (Grassau 2016)<sup>6</sup>, regarded:

- welcoming the Paris Agreement and, after collection of ideas for its implementation from Contracting Parties, Observers and the Permanent Secretariat, deciding the establishment of the Alpine Climate Board;
- approving the 6<sup>th</sup> Report on the State of the Alps on “Greening the Economy in the Alpine Region”<sup>7</sup>, which provides guidance towards establishing, among others, a low-carbon economy;

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<sup>2</sup> <http://www.alpconv.org/en/convention/protocols>

<sup>3</sup> Document ACXII – B4

<sup>4</sup> The decisions of the biannual Alpine Conference and reference documentation are available in all Alpine languages at <http://www.alpconv.org/de/organization/conference/XIV>

<sup>5</sup> Documents ACXIII – B1a

<sup>6</sup> Documents ACXIV – A10

<sup>7</sup> Documents ACXIV – A9

- approving the Multi-Annual Work Programme of the Alpine Conference (MAP) 2017-2022 (and its Roadmap for 2017-2018), in which one of the six priorities is “Taking action on climate change”<sup>8</sup>;
- recognising the work of CIPRA, Alliance in the Alps, the Alpine Town of the Year association and Germany in climate action at municipal level and requesting the continuation of the efforts, for instance within an Alpine-wide partnership;
- welcoming the activities carried out by Germany in the field of climate change mitigation and energy efficiency in the hotel and gastronomy sector as well as in sustainable and energy-efficient building, and encouraging the Contracting Parties to participate in their further development;
- welcoming the continuation of Constructive Alps by Switzerland, Liechtenstein and Austria;
- welcoming the report prepared by Germany on best-practice examples of energy projects and requesting its active dissemination;
- welcoming the report on the vision “Renewable Alps” prepared by Switzerland and the Permanent Secretariat, requesting a further report at the XV. Alpine Conference and encouraging the Contracting Parties to continue working towards its implementation, especially in the area of sustainable energy systems;
- welcoming the establishment of the Virtual Alpine Observatory (VAO), requesting the Contracting Parties and Observers and especially the European Union to support this cooperation.

Most of these decisions relate to activities which have been reported in the frame of the stock-taking (see chapter 3 and overview table in the Annex). This shows that there is overall a high level of commitment at the level of the Alpine Conference.

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<sup>8</sup> Documents ACXIV – B2

### 3 Overview on feedback to the stock-taking exercise

The feedback to the stock-taking exercise clearly show that there is a high commitment in the Alpine area to contribute to climate change mitigation and adaptation policies. Overall, exactly 100 relevant activities have been reported in the stock-taking exercise *in the initial feedback round (as of September 2017)*. This includes 84 factsheets completed by Contracting Parties, thematic groups, observers and the Joint Secretariat of the Alpine Space Programme and 16 activities directly integrated in the overview table by the Permanent Secretariat.

#### *Feedback in the initial feedback round*

The following table presents an overview on factsheets provided by Contracting Parties, thematic groups of the Alpine Convention, observers as well as the Joint Secretariat of the Alpine Space Programme. It shows that all relevant stakeholders to the Alpine Convention are active in the field of climate change and that the need for ambitious action seems to be well recognized. All Contracting Parties except Monaco have participated in the stock-taking and six out of 14 (9 ongoing and 5 past) thematic groups have provided an answer. In addition, four observers which participate in the ACB have provided several factsheets and the Joint secretariat of the Alpine Space Programme has provided information on all relevant projects in the frame of the Programme (ongoing and recently finished).

**Table 1:** Feedback to the stock-taking exercise *(as of September 2017)*

	<b>Respondent</b>	<b>Number of factsheets</b>
<b>Contracting Parties</b>	Germany (BMUB + Bavaria)	7 (including 1 from Bavaria, 1 factsheet divided into 2 activities)
	Slovenia (Ministry for the Environment and Spatial Planning)	2
	Austria (Federal Ministry for Sustainability and Tourism and UBA)	19
	Tyrol	4
	Liechtenstein	1
	Italy	4
	Switzerland (ARE)	2
	France (MTES/ONERC)	2
<b>Thematic groups</b>	Platform Ecological Network	1
	Platform PLANALP	1
	Green Economy Advisory Board	2
	Ad-hoc groups Spatial planning	1
	Platform Water Management	3
	Platform Mountain agriculture	2
<b>Observers</b>	CIPRA International	12 (13 factsheets, 1 overlap)
	WWF	1
	ALPARC	1
	DAV	6
<b>Others</b>	Joint Secretariat Alpine Space Programme	13 (15 factsheets, 2 overlaps)
		<b>Total: 84</b>

In addition to these 84 factsheets, the Permanent Secretariat has provided detailed information on 16 activities which relate to activities implemented directly by the Permanent Secretariat as well as relevant key publications.<sup>9</sup>

### **Feedback for the update**

*For the update of the stock-taking, members of the ACB were asked to provide information on new activities and on activities that have been further developed in the last 1,5 years. The following inputs were provided for the update:*

- *Germany (Bavaria) provided information on three additional activities.*
- *Tyrol provided information on two additional activities.*
- *ALPARC provided information on one specific project which is however part of a broader strategy that is already included in the stock-taking.*
- *The Permanent Secretariat reviewed the ongoing activities of the thematic working bodies of the Alpine Convention as well as activities of the Permanent Secretariat itself and provided information on nine additional activities.*
- *Four additional projects under priority 2 “Low Carbon Alpine Space” were approved in the frame of the Alpine Space Programme’s third call and were launched in 2018. These four projects are also added to the list of activities.*

*All in all, 18 new activities were added for the first update of the stock-taking in February 2019.*

### **3.1 Overview on specific activities**

As basis for the analysis, the content of all reported activities was transferred to an evaluation table which provides an overall picture and which, for the next step, allows an assessment per indicator. The overview table in the Annex provides information for some key indicators of this evaluation table. Activities are clustered into four groups, according to the different levels of implementation (*activity numbers relate to the updated version as of February 2019*):

- Activities implemented by Alpine Convention bodies (thematic groups, Permanent Secretariat, Contracting Parties on behalf of thematic groups or the Alpine Conference) (activities 1-35): These activities mainly include the specific activities of the thematic groups (recent activities as well as outputs of past activities, e.g. in form of statements or guidelines), some key publications of the Alpine Convention (e.g. RSA or Alpine Signals) as well as activities directly implemented by the Permanent Secretariat (We Are Alps press tour, cooperation with EEA, etc.)
- Activities implemented by Contracting Parties with direct reference to Alpine Convention (activities 36-44)  
These include activities that were launched during previous presidencies of the Alpine Convention and which are now taken forward by specific Contracting Parties (e.g. activities of Germany related to energy efficiency in Alpine hotels or activities of Switzerland as follow-up to the Energy Platform) or on a cooperation basis (e.g. award “Constructive Alps”).
- Platforms and networks with a transnational focus with a status beyond project character (activities 45-48).  
These include institutionalized activities like the Alpine Pearls network, the collaboration of climate adaptation policy makers or the newly developed network of Alpine municipalities (Alpine Partnership for Local Climate Action).
- Projects and activities with a clear project character with a transnational focus (activities 49-83):  
These include all projects under the Alpine Space Programme as well as several activities implemented by the observers with a project character (and respective project funding),
- Best practice projects and activities with national focus but with a clear potential for transferability to other regions/countries or to the overall Alpine Space (activities 84-118).

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<sup>9</sup> In addition, the Permanent Secretariat provided information on some specific events, mainly presentations and speeches at other events which have not been integrated in the overview (speeches and side-events at UNFCCC COP20 to 24, participation in the ECCA-Conference 2015 etc.).



Some of these activities can be seen as “blueprints” for other regions/countries, others could be enlarged in their territorial scope to become more effective.

## 4 Indicator-based analysis of feedback

The questionnaire provided for the stock-taking exercise included information for several specific indicators. These have been assessed with the help of the overall evaluation table to get an overall picture on the state of climate change mitigation and adaptation activities in the Alps: which types of activities have been taken forward? Which fields of action are most relevant? Which stakeholders have been involved? Etc. This chapter provides a detailed overview on results for the main indicators of the stock-taking exercise to provide a basis for a synthesis and for developing further recommendations.

*Results in chapter 4 are provided for the updated version of the stock-taking of February 2019, including all 118 activities (100 activities of initial stock-taking and 18 additional activities of update).*

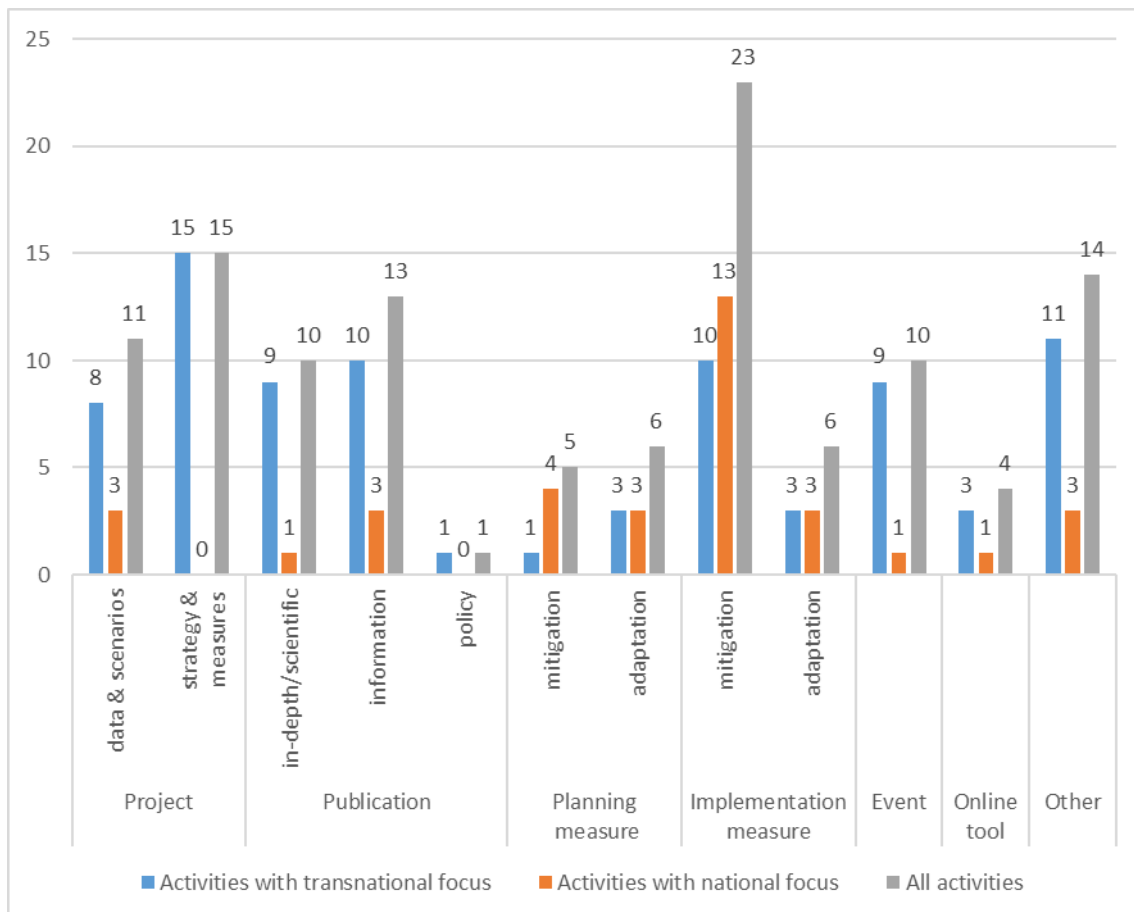
### 4.1 Type of activity and relevance for climate change

In order to identify the main types of activities, a pragmatic classification scheme has been used for the synthesis. The following types of activities have been differentiated:

- Project: focus data & scenarios, focus strategy & measures)
- Publication (in-depth/scientific, focus information, focus policy)
- Planning measure (mitigation or adaptation)
- Implementation measure (mitigation or adaptation)
- Event
- Online info tools
- Other (set-up of networks, training, etc.)

The following figure provides an overview on the main types of activity, differentiated by activities with a transnational focus (activities 1-83 in overview table) and for activities on national level (84-118 in overview table).

**Figure 1:** Overview: Type of activity (transnat, focus, national focus, all activities; *as of February 2019*)



Considering the underlying feedback, the following conclusions can be drawn:

- Focusing on the transnational activities, the largest number of activities can be characterized as projects – with a stronger focus on strategy & measures (15 activities) than on data & scenarios (11 activities). Many of these activities have been reported by the Joint Secretariat of the ASP and CIPRA international, two very active participants in the stock-taking. Also, publications and events play an important role in the transnational activities. Many of these have been reported by the Permanent Secretariat. Events with a national focus have not been reported as they are not in the focus of this stock-taking exercise (exception is activity no. 110 which is a national implementation measure related to the Climate Action Plan of the Alpine Convention).
- Planning and implementation measures are rather taken forward on the national level, fewer activities with this focus have been reported with a transnational focus. Planning measures at transnational level focus at activities of the thematic groups (Green Economy Action Programme (no. 9) and strategic planning drought (no. 10) whereas implementation measures at transnational level are mostly implemented by observers (e.g. activities of the Alpine Clubs focusing on mountain sports no. 61-64, ALPARC no. 60). A good practice example for implementation measures at transnational level is the SINFONIA project implemented by Bolzano and Innsbruck together with further Alpine and non-Alpine cities (no. 78).
- Only four activities have a major focus on online tools. However additional online tools are implemented in the frame of other activities with other main focuses. This means that this number needs to be interpreted with care.
- Other activities include: networks and temporary task forces (4 activities), political statements and frameworks of the Alpine Convention (3 activities), trainings (2 activities), awards (2 activities), campaigns (1 activity) and funding programmes (2 activities).

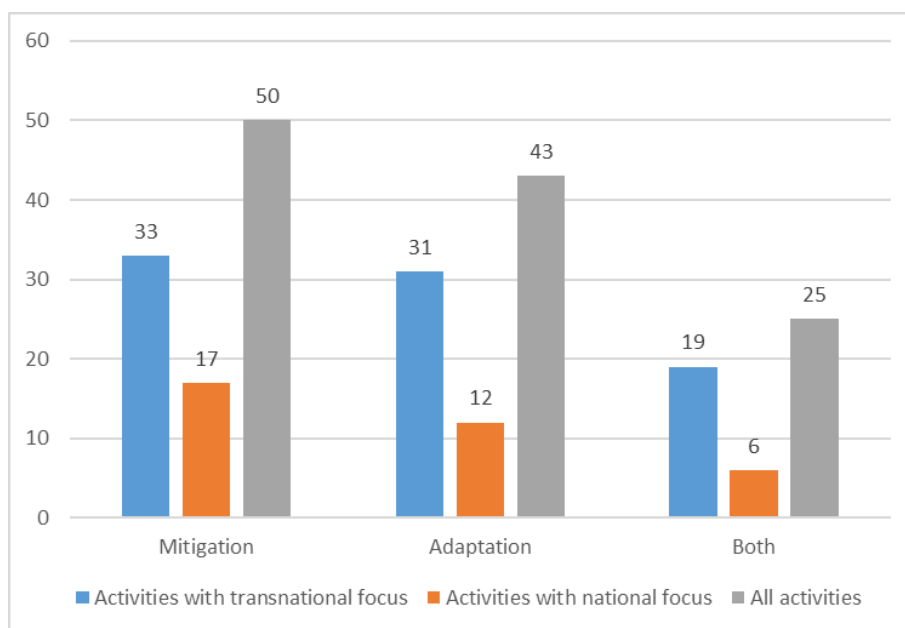
→ Synthesis:

- Overall, projects and publications seem quite well represented in the stock-taking.

- Planning and implementation measures have a good representation at national level and a number of relevant measures is implemented at the level of observers, but there is a clear potential to strengthen these types of measures at transnational level (moving from project/research status towards implementation).
- Several types of measures which play an important role for climate action are currently underrepresented. These include activities related to training/education as well as campaigns, awards and the development of “brands”.

Looking at the relevance of activities for climate change mitigation and/or adaptation, the picture looks well-balanced. Mitigation and adaptation measures are equally represented and one *fifth* of the activities take an integrated approach with focus on both mitigation and adaptation. In this respect, there is no specific need for action from the ACB. The ACB can take forward adaptation and mitigation measures with an equal weight.

**Figure 2:** Relevance of adaptation & mitigation (*as of February 2019*)



#### 4.2 Relevance for different fields of action (main focus and further links)

An important element of the stock-taking process was to check the relevant fields of action of the reported activities. In order to link the stock-taking to the other ongoing activities of the Alpine Convention, the fields of action as defined for the thematic groups have been used for the analysis. The overview illustrates which fields of action are already well covered and where additional action could be necessary.

##### Analysis differentiated according to transnational and national focus

The following table illustrates the relevant fields of actions of the reported activities, differentiated by activities with a transnational focus (activities 1-83 of the overview table) and activities with a national focus (84-118) of the overview table).

- Transversal activities take up the largest share, both for activities with a transnational and with a national focus (21 activities with transnational focus, 15 with national focus). These activities with a transversal focus take an integrated approach and cover all or a broad spectrum of fields of activity:
  - Co-operations and networks which take an integrated focus: e.g. the Task Force Climate Change of the Italian Presidency, the Cooperation between the Permanent Secretariat and the EEA, the Alpine Partnership for Local Climate Action, etc.
  - Publications and statements with a focus on all fields of action: Alpine Signals 7, Joint Alpine-Carpathian Statement on Adaptation to climate change, Austrian Assessment Report, etc.
  - Events with an integrated focus: e.g. Alpen-Forum Innsbruck, Conference on climate action at municipal level, etc.
  - Integrated online tools and decision support tools: e.g. the CAPA platform or decision making tools which are implemented at national level.
  - Projects with integrated focus: AlpStar with the objective to develop solutions for a carbon-neutral Alpine Space, project “100max” with households testing climate-friendly lifestyles, etc.
- Energy then takes up the second most important field of action, with 13 reported activities with transnational focus and 7 activities with a national focus.

- Especially for mitigation-related activities, the field of tourism also plays an important role with **10** reported activities with transnational focus and four activities with national focus. Six of those were reported by the Alpine Clubs (DAV).
- Looking at the activities with transnational focus, some further fields of action take a medium importance with **four to nine** reported activities: transport, natural hazards, ecosystems, water and mountain forests.
- For Green Economy and Mountain agriculture two activities each are reported as main focus.
- The category “others” includes **six** activities of which two activities relate to spatial planning, two activities to soil and land-use and **two activities to the monitoring of atmospheric conditions**.
- No activities with major focus are reported for activities related to the WISO platform.

**Table 3: Fields of action: main focus of activities and links** (as of February 2019)

	Activities with transnational focus		Activities with national focus		All activities	
	Main focus	All links	Main focus	All links	Main focus	All links
Transversal	21	26	15	16	36	42
Energy	13	24	7	10	20	34
Tourism	10	19	4	11	14	30
Transport	9	15	4	11	13	26
Water	8	14	0	4	8	18
Natural Hazards	6	10	0	3	6	13
Mountain forests	5	10	0	1	5	11
Ecosystem	4	9	0	1	4	10
Mountain farming	2	8	2	3	4	11
Green Economy	2	10	0	3	2	13
WISO	0	1	0	0	0	1
others	3	11	3	4	6	15
<b>Total</b>	<b>83</b>		<b>35</b>		<b>118</b>	

The composition of fields of action of the activities with national focus need to be interpreted with care, as mostly activities with a transversal character and with a potential for transferability to the broader Alpine Space have been reported. Thus, sector-specific activities are clearly underrepresented in this segment.

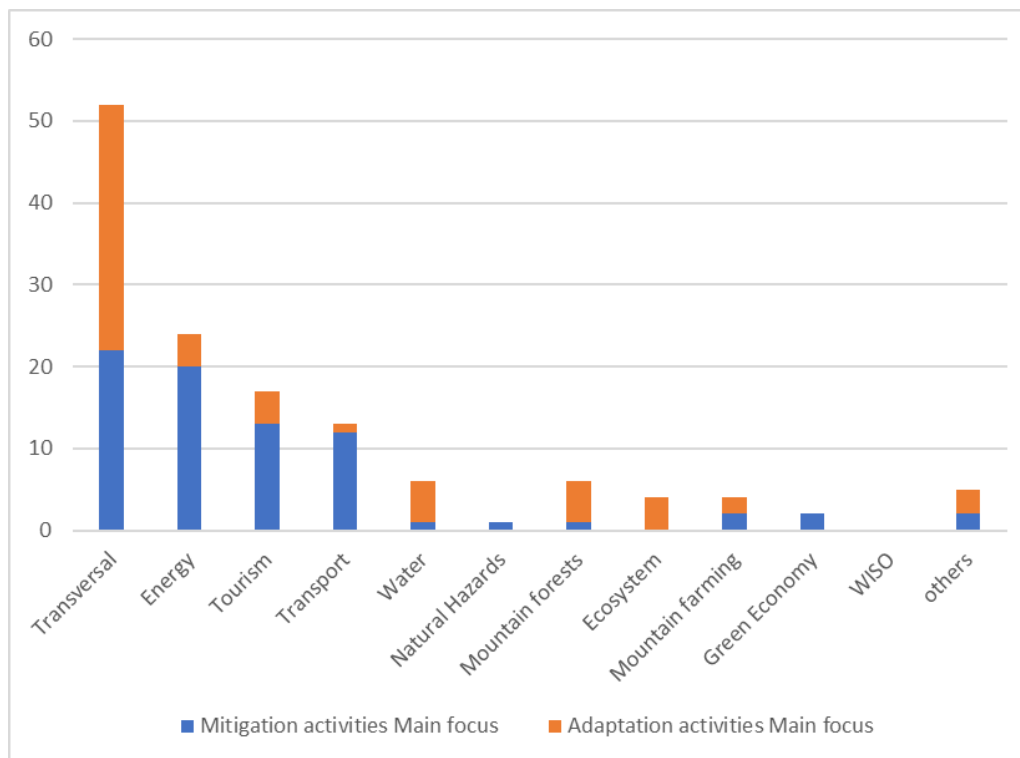
#### Fields of action – adaptation and mitigation

When differentiating into adaptation and mitigation related activities, some major focuses become clearly visible:

- The fields of action transport, energy, tourism and green economy are clearly dominated by mitigation related activities. Adaptation only plays a role in specific activities (e.g. the PARAmount project with respect to transport infrastructures, some overall activities of the Energy Platform which also consider adaptation).
- On the other hand, the fields of activity natural hazards, ecosystems, water, mountain forests have a stronger link to adaptation as they are highly vulnerable to climate change impacts.
- Tourism, mountain agriculture as well as the transversal activities are linked to both aspects.

The following figure provides an overview on how the activities are split up into mitigation and/or adaptation focus.

**Figure 3:** Differentiation into mitigation and adaptation related-projects per field of action  
(as of February 2019)



Regarding this overview, the following results can be drawn:

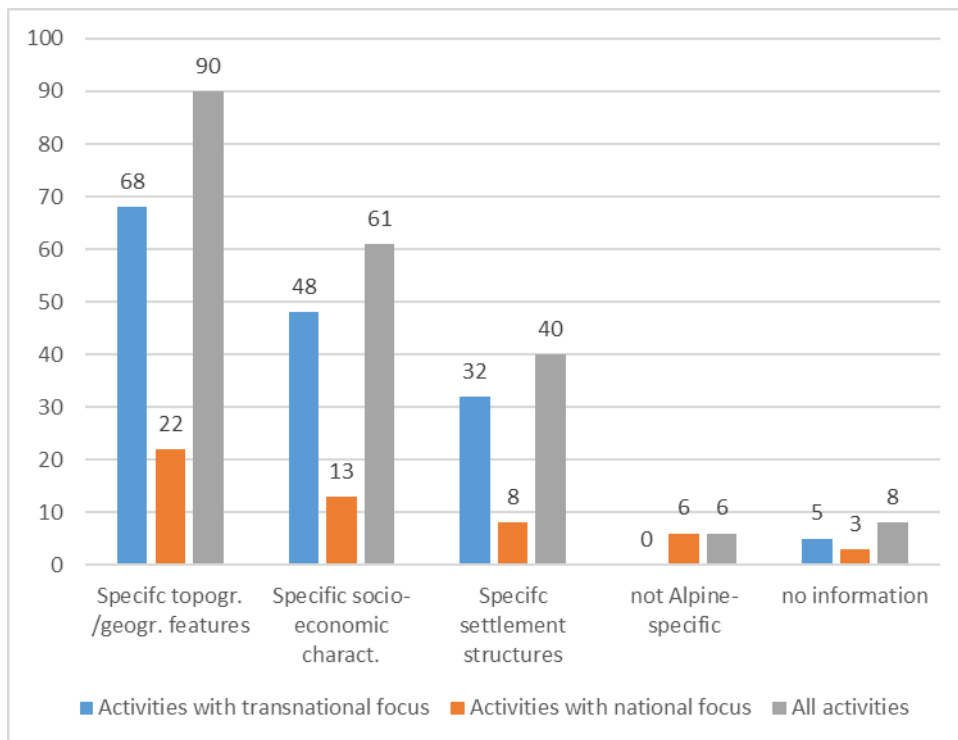
- For the fields of action energy, transport, green economy and tourism, further sector-specific activities focusing on mitigation need to be designed in a targeted approach in order to avoid overlaps with the many existing activities. However, few integrated concepts for these sectors – including adaptation and including cross-sectoral activities – have been reported and thus could be taken forward by the ACB.
- Some field of action have a clear adaptation focus and several activities are already reported (natural hazards, ecosystems, water). For these fields of action, additional activities need to be designed with care in order to avoid overlaps and to create a clear value-added.
- For those fields of activity with few reported activities (e.g. mountain agriculture and spatial planning), additional information needs to be collected. Especially, the ongoing activities in the relevant thematic groups need to be closely monitored with the objective to develop synergies and to use the knowledge of the ACB group for these thematic groups

#### 4.3 Alpine specific character

For nearly all reported activities, the Alpine-specific character and justification has been described. Only some national activities can rather be seen as general approaches which can however also be applied in an Alpine setting (e.g. general funding schemes adopted on national level, e.g. no. 94, no. 105-109).

When looking at the descriptions, it becomes obvious that for most activities the specific vulnerability of the Alpine environment and ecosystems are described. This is especially true for all activities related to adaptation. Other specific characteristics of mitigation and/or adaptation activities which related to socio-economic structures or specific settlement structures are only mentioned in a smaller number of activities. The following figure provides an overview:

**Figure 4:** Consideration of different characteristics of the Alpine area (as of February 2019)



Regarding this overview, the following results can be drawn:

- The specific vulnerability of the Alpine area to impacts of climate change lies at the heart of most of the recent activities and clearly is a crucial justification. Activities of the ACB should of course also consider this rationale.
- Other specific characteristics of the Alpine area, e.g. specific socio-economic structures and specific settlement structures are also considered in recent activities but could be considered more systematically within activities launched under the ACB.

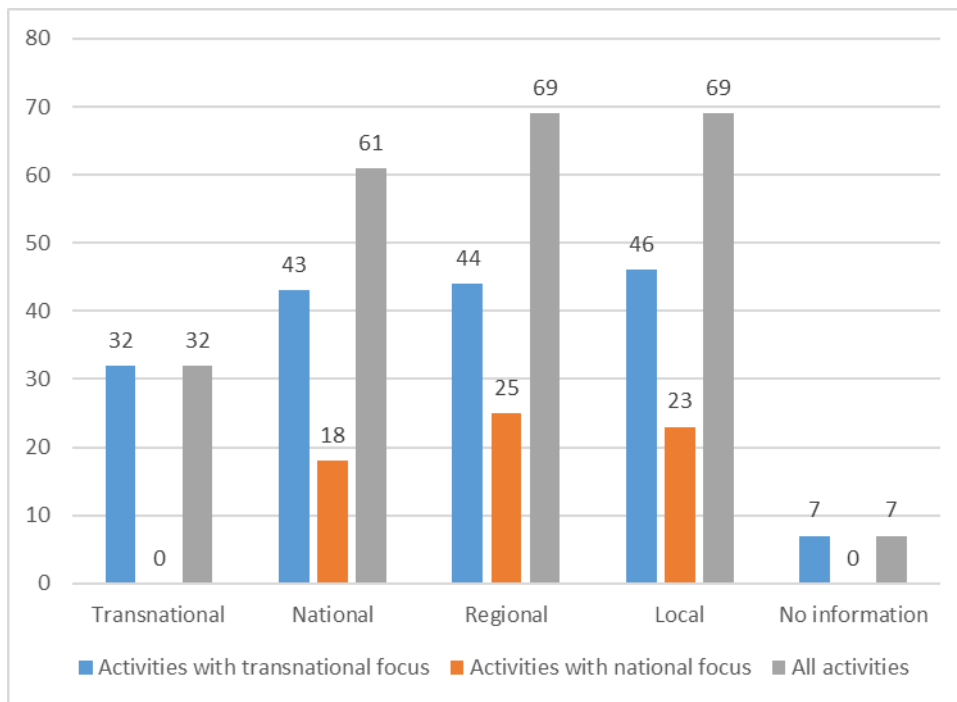
#### 4.4 Level of involvement

For the level of involvement, all feedback have provided information on the different levels of governance involved and for the involvement of further stakeholders. Here again, the picture is rather well-balanced:

Activities include all levels of government, reaching from the transnational to the local level. None of the levels has been neglected. The transnational level is under-represented, this is however due to the fact that the transnational level was not specifically mentioned by all relevant activities



**Figure 5:** Participation of different levels of government in the reported activities (as of February 2019)



In terms of stakeholder involvement, all types of stakeholders reaching from experts/research community/university to private stakeholders to the general public have been reported. Especially all activities with a project-character include a broad range of stakeholders and have the objective to bring together public and private stakeholders. No specific need of action can be derived from this overview.

Regarding this overview, the following results can be drawn:

- The reported activities include all government levels in an equal way, the national, rational and local levels are about equally targeted. It thus seems not necessary to target the activities of the ACB at specific levels. Rather a balanced approach should be taken.
- The same argument applied to the involvement of stakeholders.

#### 4.5 Value added for implementation on the level of the Alpine Convention

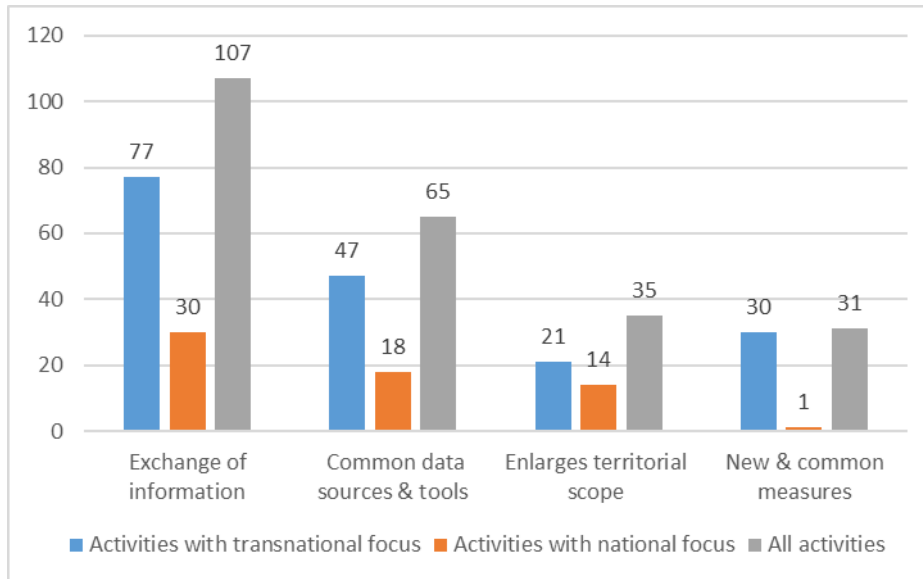
The information reported for each activity also included a description of the value-added for implementing the activity on the level of the Alpine Convention:

- The highest number of activities were reported to “support an exchange of information”. Nearly all reported activities create an added value in this respect.
- “Common data sources and tools” are also an important added value, especially the reported projects (implemented within the Alpine Space Programme and by observers) contribute to this objective.
- “Enlarging the territorial scope of existing activities” and “implementing new and common measures” each are reported as value added for about one third of the activities. As these measures are really at the heart of reducing CO<sub>2</sub>-emissions and the vulnerability of the Alpine area, they should find specific consideration for defining further activities of the ACB.

This indicator has a direct correlation with the indicator “type of activity”. Activities defined as type “publication” and “event” support the exchange of information, projects focus on all specifications for value added and most of the planning and implementation measures focus on enlarging the territorial scope and the implementation of new and common measures.

As 87 activities are reported to support the exchange of information, this objective seems to be a basic objective for nearly all of the reported activities.

**Figure 6:** Different specifications for the added value *(as of February 2019)*



## 5 Synthesis: main findings of the stock-taking

The indicator-based assessment as illustrated in chapter 4 provides a general picture on recent climate change activities in the Alpine area. For some indicators clear focuses can be observed, for other indicators the picture is rather well-balanced. Based on this general picture, some main findings can be summarized as basis for defining further specific activities of the ACB:

### Type of activity:

- At transnational level, the largest number of reported activities are either projects (focus strategy & measures and information) as well as activities related to sharing information (publications and events). These activities are thus well represented. Several of the projects focus on developing platforms/networks to foster exchange of information and to institutionalize a transnational cooperation (see table 4 below)
- However, planning and implementation measures have mostly been reported for activities with national focus, several implementation measures have also been reported by observers (e.g. activities related to mountain sports/tourism as reported by the Alpine Clubs). Only few reported planning and implementation measures which involve public authorities have a transnational focus.
- Several “soft” measures related to training/education as well as the development of campaigns, awards or brands are currently underrepresented in the stock-taking but have an important function in the frame of other climate change mitigation and adaptation policies (e.g. national Action Plans as implemented by European countries). Here, the ACB could provide further support to strengthen such activities.
- Similarly, only few activities target the development of carbon-free lifestyles, sustainable consumption patterns and behavioral change. Only one specific project (100max, no. 50) focuses on the development of innovative approaches for this main direction. As the sensibility of the Alpine population regarding their sensitive and changing environment is probably higher than in other non-sensitive regions, it seems interesting to strengthen relevant pilot approaches.

- Regarding the split into mitigation and adaptation related activities, the stock-taking provided a well-balanced approach and no specific need for action can be derived for the ACB.

**Table 4:** Matrix on existing platforms, networks and projects with focus “exchange” (numbers refer to activities as reported in overview table).

	Focus national level	Focus regional & Local
<b>Mitigation</b>	<p>ALPSTAR (carbon neutrality) (no. 54)</p> <p>Online platform “Alpine-energy” (no. 43)</p>	<p>DynAlp-climate (network municipalities and regions) (no. 56)</p> <p>Recharge.Green (RES development) (no. 57)</p> <p>Alpine Pearls (no. 47)</p>
<b>Adaptation</b>	<p>Network Adapt. Policy Makers (no. 46)</p> <p>CAPA Climate Adapt Platform (no. 45)</p> <p>C3-Alps Capitalization project (no. 49)</p> <p>Clisp- Spatial planning (no. 58)</p> <p>GoApply – Multidimensional governance (no. 69)</p>	
<b>Both</b>		Alpine Partnership for Local Climate Action (no. 48)

- Moving from project/information status towards implementation seems critical for activities at transnational level. The knowledge base seems to be well developed and effective networks and co-operations have been institutionalized, they should now put their knowledge into action. As several observers have already launched effective implementation measures, it seems important to build on their knowledge for further developing specific activities of the ACB.
- Knowledge gaps still remain but should be completed in a targeted approach (e.g. in cooperation with the existing knowledge platforms, see table 4).
- Regarding “soft” measures, the ACB could provide further support to strengthen such activities.

**Fields of action:**

- Some fields of action lie at the heart of mitigation policies and are well represented in the stock-taking. Especially, for the fields of action of energy, transport, green economy and tourism, the sector-specific knowledge base is already well-developed and several projects and networks are already focusing on these fields of action.
- Some other fields of action have a clear adaptation focus and have been the main focus of adaptation-related activities reported in the stock-taking (e.g. natural hazards, ecosystems, water, mountain forests). Also for these activities, there is a large knowledge base and many ongoing co-operations exist.
- For some fields of action, only few activities have been reported. E.g. for mountain agriculture, only the relevant platform has provided inputs to the stock-taking, the same is true for spatial

planning. For these fields of action, which have indeed a crucial function for designing climate-proof settlement and land-use structures and for further infrastructure planning, the knowledge base could be further developed.

- Regarding the fields of action with clear mitigation focus, further activities should focus on developing integrated concepts, including adaptation and including cross-sectoral activities (plenty of activities with focus on mitigation and with sectoral focus already do exist).
- For these fields of action with adaptation focus, additional activities need to be designed with care in order to avoid overlaps and to create a clear value-added. Especially regarding the further development of networks and platforms, the broad range of existing activities with an institutionalized character (see table 4) need to be considered.
- For some fields of action which few reported activities, further information needs to be collected and a close cooperation with the relevant thematic groups seems crucial for creating synergies (e.g. mountain agriculture, spatial planning).

#### **Level of involvement**

- The reported activities include all government levels in an equal way, the transnational, national, regional and local levels are about equally targeted.
  - Also, all relevant stakeholders and the general public are well integrated in the reported activities. Many activities also include private stakeholders. Thus, no major gaps regarding involvement became obvious.
- It thus seems not necessary to target the activities of the ACB at specific government levels. Rather a balanced approach should be taken. The same argument holds for the involvement of stakeholders.

#### **Alpine-specific character:**

- The specific vulnerability of the Alpine area to impacts of climate change lies at the heart of most of the recent activities and clearly is a crucial justification.
  - Other specific characteristics of the Alpine area, e.g. specific socio-economic structures and specific settlement structures are also considered in recent activities but are clearly highlighted for a smaller number of activities.
- Activities of the ACB should of course also consider the specific vulnerability of the Alpine area. However, it seems interesting to consider other specific characteristics in a more systematic way in order to provide co-benefits and for improving acceptance of climate change policies (e.g. by illustrating how climate change policies could generative positive effects related to tourism or for economic development of peripheral regions, etc.).

#### **Value added for implementation on the level of the Alpine Convention:**

- The highest number of activities were reported to support an “exchange of information”. Nearly all reported activities create an added value in this respect. “Common data sources and tools” are also an important added value, especially the reported projects (implemented in the scope of the Alpine Space Programme and by observers) contribute to this objective.
  - “Enlarging the territorial scope of existing activities” and “implementing new and common measures” each are reported as value added for only about one third of the activities.
- As common approaches, in the long-term, need to create additional CO<sub>2</sub>-reduction potentials (as compared to un-harmonized approaches), activities need to move from the justification “exchange of information” to the objective to create common and large-scale solutions with a focus on implementation.

## 6 Recommendations for further activities

On the basis of the general findings of the stock-taking, the following recommendations for further activities of the Alpine Convention can be drawn. They were formulated by the ACB at its meeting on 18-19 September and are clustered in three main focuses. While some recommendations stay on a general basis at this point of time and need to be specified later in the process, others can already be defined in more detail.

### Main focus 1: Bringing together existing information and closing knowledge gaps

- **Streamlining existing information:** The stock-taking has clearly shown that many projects, networks and platforms already aim at bringing together existing information, providing common platforms/online tools as well as networks of practitioners and experts (see table 4 in stock-taking report).

*Recommendation:* It could be worth exploring existing activities (e.g. CAPA or EU Climate-ADAPT platform) rather than creating new ones (to avoid overlaps and duplication of work) in view of including mitigation and adaptation-related information in an integrated information hub and in providing a better access to climate services. An integrated knowledge hub should be maintained in a dynamic way to keep track of most recent state-of-the-art and it should include elements for active user involvement (e.g. an exchange forum for municipal stakeholders).

- **Filling remaining knowledge gaps:** Many national as well as alpine-wide publications on climate change mitigation and adaptation already exist. Additional research could be targeted at generating co-benefits with sectoral policies and other cross-cutting topics (e.g. demographic change) as well as investigating the potential of climate mainstreaming and climate proofing.

*Recommendation:* Knowledge gaps could be systematically identified and then filled by targeted research. For the fields of action on mountain agriculture and spatial planning with few activities reported in the stock-taking, it seems crucial to collaborate closely with the relevant thematic groups of the Alpine Convention. In addition, it seems important to systematically explore the co-benefits of each climate change mitigation and adaptation activity, e.g. the development of specific settlement structures, socio-economic and health issues, nature conservation, in order to improve acceptance of these activities and to support the transformation into a carbon-free society.

### Main focus 2: Further developing existing activities:

- **Streamlining activities at different levels and strengthening activities of non-state actors:** A rather large number of activities already target the municipal level, and specific networks have already been created (e.g. the Alpine Climate Partnership (no. 39), specific activities in the frame of C3-Alps (no. 40)). Similarly, several activities focus on the involvement of private stakeholders (company level, associations, etc.)

*Recommendation:* For the different levels of governance, it seems crucial to bring together mitigation and adaptation information sources and to explore integrated solutions that create co-benefits (e.g. renovation measures that both reduce CO<sub>2</sub>-emissions and impacts of heat, integrated measures for the mountain farming sector, for tourism, etc.). Here it would be relevant to keep track of and, if possible, to support the further developments of existing partnerships (e.g. the Alpine Partnership for Local Climate Action, the Covenant of Mayors). Also, it seems important to support ongoing activities which incentivize an involvement of the private sector.

- **Integrated approaches for sustainable tourism:** Further developing integrated climate change measures for the tourism sector could be a focus for Alpine-wide activities.  
*Recommendation:* Several activities with mitigation or adaptation focus have been identified in the stock-taking which could be extended to also cover more integrated concepts or which could be transferred to other regions/countries (e.g. Carta di Cortina, no. 98, activities of the Alpine Clubs). For example, it could be interesting to explore whether the Alpine Pearls concept could take up activities regarding energy-efficient hotels and restaurants (follow-up of German presidency) as well as adaptation-related activities (e.g. climate-proofing of tourism infrastructures).
- **Extension of existing awards:**  
*Recommendation:* Rather than initiating new awards, it could be explored if existing ones, such as the Constructive Alps award, could be further developed, e.g. with annual focus topics (e.g. focusing on innovative concepts in the tourism sector, sustainable public buildings in the Alps, etc.). Also, it seems possible to extend the award to lighthouse projects in the context of sustainable spatial/regional planning.
- **Pooling information on sustainable mobility:** In this field of action, many national projects as well as initiatives with a clear project character already exist, and a lot of knowledge is already available, which could be better used at the Alpine level.  
*Recommendation:* It seems interesting to explore the added value of a common network, which pools information and supports the transfer and implementation of sustainable mobility solutions, including tourism transport, but also local/regional transport (commuting traffic), building upon existing initiatives.
- **Enhancing the development and implementation of adaptation strategies at different levels:** Adaptation strategies mostly exist at national level. Under these national focuses, some adaptation issues which require a common approach at Alpine level are however underrepresented. Specifically, approaches focusing on ecosystem based adaptation (e.g. through improving ecological connectivity) cannot become fully effective under unharmonized national approaches but could strongly profit from international approaches such as results from INTERREG Alpine Space projects (e.g. ALPBIONET2030) and a strong cooperation with the Alpine Convention platform about ecological connectivity.  
*Recommendation:* It seems important to develop coordinated strategies at regional and local level (municipal or valley/massif level), taking into account *inter alia* natural hazards, water resources, mountain forests, biodiversity including invasive species.

### **Main focus 3: Topics/activities with additional need for further action:**

- **Strengthening activities with respect to spatial planning and housing/buildings:** Activities related to spatial planning are underrepresented in the recent activities. The project CLISP for instance has a focus on adaptation, but mainstreaming climate change into spatial/regional planning is also highly relevant for mitigation activities (e.g. by creating compact neighbourhoods/"towns of short distances"). Also, spatial planning can take a strong function for improving energy-efficiency in buildings, e.g. by integrating criteria related to energy standards into spatial planning.  
*Recommendation:* This field of action could be further developed in close collaboration with the ongoing projects (GoApply, ESPON Alps2050, Alpine Building Conference etc.).
- **Integrated solutions in the field of energy:** It became obvious that most activities in this field follow a rather "traditional" focus and concentrate on specific elements of the energy sector (RES development, electric mobility, etc.).  
*Recommendation:* It would be interesting to develop integrated solutions, including smart mobility (link to transport/tourism), combined heat and power (link to agriculture), and/or creating integrated solutions which have a co-benefit with adaptation and lead to less energy consumption.

- **Strengthening activities with respect to agriculture:** Only few activities related to the agricultural sector have been reported in the stock-taking.  
*Recommendation:* It will be crucial to closely keep track of ongoing activities, especially activities of the working group “mountain farming” in order to collect updated information and to specify the recommendations in the further process of the ACB.
- **Strengthening activities with focus on training and communication:** In the stock-taking only few activities relate to training, education, communication and public awareness. This is a crucial element in maintaining and spreading the relevant knowledge, especially within target groups that also have insight knowledge of further Alpine-specific needs (e.g. including preservation of cultural heritage, landscape management, ecosystem management).  
*Recommendation:* There seems to be a need to support the development of communication activities on climate change in the Alps, and in particular contribute to the inclusion of climate-change related information in the curricula of relevant study programmes in Alpine universities/schools for further education as well as to the (continued) education of policy and decision makers.
- **Exploring innovative approaches regarding mitigation and adaptation:** Similarly, “soft” measures which explore innovative approaches with respect to lifestyles and consumption patterns which are compatible with the objective of a carbon-neutral Alpine Space are underrepresented in the stock-taking.  
*Recommendation:* It would be interesting to further explore the impacts of existing activities, projects and innovative approaches with a focus on lifestyles/consumption patterns/behavioural change, especially regarding their acceptance. Identified good practices could be communicated in the frame of the other proposed activities in order to extend the approaches to other pilot regions and to strengthen the objective of developing the Alps into a carbon-neutral model-region.



## Annex: Overview table on reported activities – main information

*All activities in italics and blue font were added during the update of the stock-taking in February 2019.  
(activities 28-35, activity 44, activities 79-83, activities 115-118)*

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
<b>Activities implemented by Alpine Convention bodies</b>						
1	Energy Platform (2013-2014, 3 workshops and background report)	Publication (in-depth/scientific)	Background report and accompanying workshops, agenda setting for implementing "renewable Alps" vision	Both	Energy	Energy Platform
2	Platform Ecological network	Implementation measure adaptation	Raise awareness for the needs and methods to Increase ecosystem resilience by creating natural landscape elements in the form of corridors or stepping stones	Adaptation	Ecosystems	Ecological network Platform
3	Alpine strategy for adaptation to climate change in the field of natural hazards (2013, PLANALP)	Publication (focus information)	Alpine strategy for adaptation to climate change in the fields of natural hazard (2012), brochure (2014), recent development RSA7	Adaptation	Natural hazards	Natural Hazards Platform PLANALP
4	Statement on the "Role of Ecological Connectivity for Adaptation to Climate Change Impacts in the Alps" (Platform Ecological Network, 2016)	Publication (focus information)	2 pages introductory document	Adaptation	Ecosystems	Ecologic network Platform
5	6th Report on the State of the Alps "Greening the Economy in the Alpine Region" (+ Declaration of the XIV. Alpine Conference on Fostering a Sustainable Economy in the Alps)	Publication (in-depth/scientific)	Report with Good Practice examples, data and information (focus energy efficiency and low carbon economy)	Mitigation	Green Economy	Ad-hoc expert group RSA6 "Green Economy"
6	Task Force Climate Change of the Italian Presidency (2013-14)	Other	Agenda setting on Climate Change	Both	Transversal	Italy
7	Alpine Signals 7: Guidelines for Climate	Publication (focus	Guidelines for Climate Change Adaptation at the	Adaptation	Other (local	Italy

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
	Change Adaptation at the Local Level in the Alps (IT, 2014)	information)	local level		action)	
8	Guidelines on local adaptation to Climate Change for Water Management And Natural Hazards in the Alps (Platform Water Management, 2014)	Planning measure adaptation	Guidelines with focus water resources management and natural hazards Support for assessing vulnerability and resilience capacity	Adaptation	Water	Water Management Platform
9	Action Programme for a Green Economy in the Alpine Region	Planning measure mitigation	Development of Action Programme for Green Economy in the Alps	Mitigation	Green Economy	Green Economy Advisory Board
10	Facing droughts in the Alpine Region	Planning measure adaptation	Expert paper, based on a questionnaire, two expert workshops and the 7 <sup>th</sup> Alpine Water Conference (cf infra)	Adaptation	Water	Water Management Platform
11	Alps2050 - Common spatial perspectives for the Alpine Space. Towards a common vision (Project with the ESPON programme)	Project (focus data & scenarios)	Implementation of the Declaration on sustainable spatial development in the Alps, scientific base	Adaptation	Other (spatial planning)	Ad-hoc working group spatial planning
12	Joint Alpine-Carpathian Statement on Adaptation to Climate Change (2014)	Other	Joint statement with the Carpathian Region on adaptation, focus on exchange of information	Adaptation	Transversal	All contracting parties
13	Statement On the Value of Alpine Forests and the Alpine Convention's Protocol on Mountain Forests in the framework of the international forestry policies beyond 2015 (2014)	Publication (focus information)	Political statement, report on the state of Alpine forests, recommendations for monitoring, research, management, communication, and overview of the international institutional context	Both	Mountain forests	Mountain Forests Working Group
14	Statement on "Contribution of mountain farming to food security in Alpine regions"	Publication (focus information)	Statement on contribution of mountain farming to food security in Alpine regions (work programme 2014-2016), climate change adaptation with co-benefits	Adaptation	Mountain agriculture	Mountain Agriculture Platform
15	Statement on "Mountain agriculture and energy "	Publication (focus information)	Overview of the potential role of mountain agriculture in energy production and energy saving, highlighting co-benefits and with innovative examples from the entire alpine	Mitigation	Mountain agriculture	Mountain Agriculture Platform

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
			region			
16	Best Practice Examples for land-use and nature conservation-compatible renewable energy projects in the Alps (DE, 2016)	Publication (in-depth/scientific)	Report with 28 exemplary renewable energy examples that avoid land-use conflicts and protect nature	Mitigation	Energy	BMUB Germany
17	Towards Renewable Alps	Publication (focus information)	Progress report towards the "vision Renewable Alps" for 2015-16	Mitigation	Energy	Permanent Secretariat
18	Flyer on Climate change in the Alps	Publication (focus information)	Information flyer on climate change in the Alps	Both	Transversal	Permanent Secretariat
19	Recommendations for the sustainable organisation of meetings and events of the Alpine Convention (2016)	Publication (focus information)	Check-list and recommendations drafted by the Permanent Secretariat, referring to existing standards	Mitigation	Energy	Permanent Secretariat
20	We are Alps Press Tour	Other	Annual press tour with changing specific focus topic (2015: Climate change); every edition is carried out with sustainable transportation means	Mitigation	Transport	Permanent Secretariat
21	Alpen-Forum-Innsbruck	Event	Series of discussion workshops on specific fields of action on climate change	Both	Transversal	Permanent Secretariat
22	5 <sup>th</sup> Alpine Water Conference 2014 and workshop "Water and risk management facing climate change: towards the local adaptation"	Event	Conference based on results of the Water Management platform, including other mountain regions	Adaptation	Water	Water Management Platform
23	International Conference and Appeal on climate protection at municipal level (Alliance in the Alps, Alpine Town of the Year, CIPRA International, 2015)	Event	International conference + joint appeal to the UN Climate Conference	Mitigation	Transversal	Alliance in the Alps, Alpine Town of the Year, CIPRA
24	Contribution to the report by the European Environmental Agency "Climate change, impacts and vulnerability in Europe 2016"	Publication (in-depth/scientific)	Inputs to EEA report, especially chapter on climate change in the Alps	Both	Transversal	Permanent Secretariat

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
25	Multi-Annual Work Programme of the Alpine Conference 2017-2022 + Alpine Conference Declaration	Other	"Taking action on climate change" is one of the 6 priorities	Both	Transversal	All contracting parties
26	Multi-Annual Work Programme of the Alpine Conference 2011-2017 (+ Declaration of the XIV. Alpine Conference on the Multi-Annual Work Programme)	Other	Climate change was one of the 5 priorities	Both	Transversal	All contracting parties
27	Cooperation with the European Environmental Agency	Other	Partnership agreement with EEA and contribution to EEA's activities (incl. Climate-ADAPT platform, Technical Paper on Adaptation in Mountain Regions)	Adaptation	Transversal	Permanent Secretariat
28	<i>7<sup>th</sup> Report on the State of the Alps "Natural Hazard Risk Governance"</i>	<i>Publication (in-depth/scientific)</i>	<i>Principles and good practices in the field of risk governance</i>	<i>Adaptation</i>	<i>Natural hazards</i>	<i>Natural Hazards Platform PLANALP</i>
29	<i>6<sup>th</sup> Alpine Water Conference</i>	<i>Event</i>	<i>Conference "Water Management in a Field of Conflicting Interests: Between Natural Hazards and Nature Protection" (Herrenchiemsee, DE, 2016)</i>	<i>Adaptation</i>	<i>Water</i>	<i>Water Management Platform</i>
30	<i>ForumAlpinum &amp; 7<sup>th</sup> Alpine Water Conference</i>	<i>Event</i>	<i>Conference "Alpine Water – Common Good or Source of Conflict" (Breitenwang, AT, 2018)</i>	<i>Adaptation</i>	<i>Water</i>	<i>ISCAR, Water Management Platform</i>
31	<i>Application of the Common Guidelines for the use of Small Hydropower in the Alpine region</i>	<i>Publication (in-depth/scientific)</i>	<i>Evaluation of the implementation of the Alpine Convention's guidelines for balancing the interests of energy production and ecology</i>	<i>Mitigation</i>	<i>Water</i>	<i>Water Management Platform</i>
32	<i>Report on Interactions between mountain forests and flood protection</i>	<i>Publication (in-depth/scientific)</i>	<i>Overview of the role and requirements of protective forests, also in the view of climate change</i>	<i>Adaptation</i>	<i>Mountain forests</i>	<i>Mountain Forests Working Group</i>
33	<i>Mobility solutions in the Alps Database</i>	<i>Publication (in-depth/scientific)</i>	<i>Best-practice examples of sustainable mobility solutions in remote Alpine territories and for logistics and freight delivery</i>	<i>Mitigation</i>	<i>Transport</i>	<i>Transport Working Group</i>

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
34	<i>Analysis of innovative technologies for freight transport</i>	<i>Publication (in-depth/scientific)</i>	<i>Studies on combined transport, rail freight and alternative fuels</i>	<i>Mitigation</i>	<i>Transport</i>	<i>Transport Working Group</i>
35	<i>ClimaHost competition</i>	<i>other</i>	<i>Contest rewarding good practices in mitigation and energy management in Alpine hotels and restaurants</i>	<i>Mitigation</i>	<i>Tourism</i>	<i>Germany, Austria, Permanent Secretariat</i>
<b>Activities implemented by Contracting Parties with direct reference to Alpine Convention</b>						
36	Energy Forum (CH, during the "Mountain week" at EXPO2015)	Event	Workshop during the Expo 2015 to discuss the potential role of common principles and guidelines for RES development in the Alps	Mitigation	Energy	Switzerland
37	Constructive Alps (since 2010)	Other	4th Constructive Alps award for sustainable architecture in the Alps (new construction and renovation); travelling exhibition	Both	Energy	Switzerland, Liechtenstein
38	Alpine Building Conference (DE, 2016)	Event	International conference	Both	Energy	BMUB Germany
39	Virtual Alpine Observatory VAO (DE, since 2014)	Project (focus data & scenarios)	Network of High Altitude Research Stations; <i>including symposia on bi-annual basis</i>	Adaptation	Transversal	Project consortium of alpine research stations
40	Workshop "The future of Alpine forests in light of the potential impacts of climate change: threats and opportunities" (Udine/I, 17.05.2013)	Event	Final conference of MANFRED and ALPFFIRS projects	Adaptation	Mountain forests	Project consortium MANFRED and ALPFFIRS (see below)
41	Best practice guide on energy management in alpine hotels	Publication (focus information)	Best practice guide for hotels, based on one specific example in South Tyrol	Mitigation	Energy	BMUB Germany
42	Workshop "Sustainable Economy in the Alps – Climate mitigation and Energy Efficiency in Hotel and Restaurant businesses"	Event	Workshop for exchanging experiences and launching a network for climate change initiatives in the hotel and restaurant industry	Mitigation	Energy	BMUB Germany
42	Online platform "Alpine Energy" for	Online info tools	Online info tool on energy efficiency in the hotel	Mitigation	Energy	BMUB Germany

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
	knowledge transfer on Energy Efficiency in the Hotel and Restaurant businesses		and restaurant business			
44	<i>AlpInfoNet project</i>	<i>Other</i>	<i>Pilot activities and handbook for cross-border information on sustainable mobility</i>	<i>Mitigation</i>	<i>Transport</i>	<i>Bavarian Ministry of the Interior, for Building and Transport and further partners, Transport Working Group</i>
<b>Networks and platforms with transnational focus</b>						
45	CAPA – Climate Adaptation Platform for the Alps	Online info tools	Transnational knowledge portal for climate adaptation, filling gaps of EU Climate Adapt platform	Adaptation	Transversal	UBA Austria with other partners, EUSALP AG8
46	Network of national adaptation policy makers of the Alpine countries	Other	Transnational network of national adaptation policy makers	Adaptation	Transversal	All contracting parties
47	Alpine Pearls	Implementation measure mitigation	Umbrella brand of tourism destinations with focus on sustainable mobility for guests	Mitigation	Transport	Network of Alpine tourism destinations, initiated by Austrian Federal Ministry for Sustainability and Tourism
48	Alpine Partnership for Local Climate Action (ALPACA)	Other	Information, exchange and joint awareness raising action on climate mitigation and adaptation measures with focus on local level, bringing together existing initiatives and networks	Both	Transversal	CIPRA, Alliance in the Alps, Alpine Town of the Year Association with support from Germany, associated partners
<b>Projects/activities with project character with transnational focus</b>						

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
49	C3-Alps - Capitalizing Climate Change Knowledge for Adaptation in the Alpine Space	Project (focus data & scenarios)	Capitalisation project bringing together existing knowledge on adaption in the Alps	Adaptation	Transversal	Project consortium under the lead of UBA Austria
50	100max	Project (focus strategy & measures)	100max is an Alpine game for climate protection: 70 household testing climate-friendly lifestyles	Mitigation	Transversal	CIPRA
51	Project "cc.alps"	Project (focus data & scenarios)	Improve the performance of climate mitigation and adaptation measures; state-of-the art reports for different sectors	Both	Transversal	Project consortium under lead of CIPRA
52	Project "climAlp"	Other	Information campaign for the promotion of energy efficient building and renovation, using regional timber	Mitigation	Energy	CIPRA
53	Project "PEMO"	Project (focus strategy & measure)	Effective reduction of CO2 emissions by motivating employees to commute to work by sustainable means of transport	Mitigation		Project consortium under lead of CIPRA
54	Project "Alpstar"	Project (focus strategy & measure)	Development of strategy and measures to make the Alps carbon-neutral; pilot projects, e.g. on mobility	Mitigation	Transversal	Project consortium under lead of Ministry for Environment Slovenia
55	Project "MountEE"	Project (focus strategy & measure)	Support for energy-efficient buildings and renovation, focus on public buildings; support to municipalities in three mountain areas	Mitigation	Energy	Project consortium under lead of CIPRA
56	Project "dynAlp-climate"	Implementation measure mitigation	20 municipalities and regions put into practice concrete actions for climate protection	Adaptation	Transversal	Project consortium under the lead of Alliance in the Alps
57	Project "Recharge Green"	Project (focus strategy & measures)	Strategies and tools to reconcile renewable energy development and nature conversation; cost and benefits of different strategies	Mitigation	Energy	Project consortium under the lead of Forschungsinstitut für

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
						Wildtierkunde und Ökologie, Veterinärmedizinische Universität Wien
58	CLISP Transnational Strategy for Climate Proof Spatial Planning	Project (focus strategy & measures)	Mainstreaming climate adaptation into spatial planning, vulnerability assessment for sectors with relevance to spatial planning	Adaptation	Other (spatial planning)	Project consortium under lead of UBA Austria
59	Alpine Climate Strategy (WWF)	Publication (focus policy)	A position paper of the WWF European Alpine Partnership	Both	Transversal	WWF
60	Alpine ecological connectivity for the next generations – Alpine Nature 2030	Implementation measure adaptation	Strategy and measures towards Alpine ecological connectivity; <i>specific measures are currently developed in the frame of the ALPBIONET2030 project: coherent and complementary Alps-wide system of Strategic Alpine Connectivity Areas (SACA) and integrated wildlife management.</i>	Adaptation	Ecosystems	ALPARC
61	Bergsteigerdörfer (Mountaineering villages)	Implementation measure adaptation	Initiative of Alpine clubs to promote sustainable tourism; villages that participate in the initiative agree to dissociate from classical forms of tourism	Both	Tourism	Alpine Clubs (ÖAV, DAV, Alpenverein Südtirol, Alpenverein Slovenia)
62	Energy efficiency in mountain huts	Implementation measure mitigation	Tool to measure CO <sub>2</sub> footprint of Alpine huts and to identify measures for reducing energy consumption and CO <sub>2</sub> emissions	Mitigation	Energy	Club Arc Alpin (CAA)
63	Umweltgütesiegel für Alpenvereins-hütten - Environment Certificate for mountain huts	Implementation measure mitigation	Reward of Alpine huts with a certification when certain criteria of environmentally friendly and sustainable management are met; these include the use of biofuel, increase of energy efficiency, reduction of CO <sub>2</sub> emissions	Mitigation	Tourism	DAV, ÖAV, AVS



No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
64	Project "So schmecken die Berge" (taste of the mountains)	Implementation measure mitigation	In the framework of alpine hut management, hut owners are motivated to increasingly use ingredients and products that are produced/ cultivated in the close vicinity of the alpine hut	Mitigation	Tourism	Alpine Clubs
65	Adapt-Alp (Project ASP)	Project (focus strategy & measures)	Products and recommendations for natural hazard and disaster management	Adaptation	Natural hazards	Project consortium under lead of Bayerisches Staatsministerium für Umwelt und Gesundheit
66	ALP FFIRS - Alpine Forest Fire Warning System (Project ASP)	Project (focus strategy & measures)	Development of the Alpine Forest Fire Danger Scale; tool equipped with a warning system that issues a daily alert level bulletin for the Alpine Space	Adaptation	Mountain forests	Project consortium under lead of Agenzia Regionale per la Protezione Ambientale del Piemonte
67	Alp-Water-Scarce - Water Management Strategies against Water Scarcity in the Alps (Project ASP)	Project (focus strategy & measures)	Tools to mitigate the risk of water scarcity and instruments for the long-term management of water resources	Adaptation	Water	Project consortium under lead of Université de Savoie
68	ClimAlpTour - Climate Change and its Impact on Tourism in the Alpine Space (Project ASP)	Project (focus strategy & measures)	Vulnerability assessment for tourism in the Alps and development of adaptation strategies	Adaptation	Tourism	Project consortium under lead of Regione de Veneto
69	GoApply – Multidimensional governance of climate change adaptation in policy making and practice (Project ASP)	Project (focus strategy & measures)	Improve adaptation governance: vertical implementation, mainstreaming, involvement of different governance levels	Adaptation	Transversal	Project consortium under lead of UBA Austria
70	MANFRED - Management strategies to adapt Alpine Space forests to climate change risks (Project ASP)	Project (focus strategy & measures)	Development of adaptive forest management strategies and tools to support forestry practice	Adaptation	Mountain forests	Project consortium under lead of Forstliche Versuchs- und Forschungs-

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
						anstalt Baden-Württemberg
71	PARAMount - imProved Accessibility: Reliability and security of Alpine transport infrastructure related to mountainous hazards in a changing climate (Project ASP)	Project (focus data & scenarios)	Vulnerability assessment for transport infrastructures with respect to natural hazards; implementation of early warning systems	Adaptation	Transport	Project consortium under lead of Austrian Federal Ministry for Sustainability and Tourism
72	PermaNET - Long-Term Permafrost Monitoring Network (Project ASP)	Project (focus data & scenarios)	Development of permafrost monitoring network and strategy for dealing with natural hazards and their consequences	Adaptation	Natural hazards	Project consortium under the lead of Provincia Autonoma di Bolzano-Alto Adige
73	RocktheAlps – Harmonized ROCKfall natural risk and protection forest mapping in the ALPine Space (Project ASP)	Project (focus data & scenarios)	Development of rockfall risk zoning tool and harmonised map of rockfall risk and protection forests	Adaptation	Natural hazards	Project consortium under the lead of National research institute of science and technology for environment and agriculture (Grenoble)
74	SEAP_Alps – Supporting local authorities in the implementation of Sustainable Energy Action Plans in the Alpine Space Area (Project ASP)	Project (focus strategy & measures)	Adapting the SEAPs concept of the EU Covenant of Mayors to the Alpine region, platform for knowledge transfer	Both	Energy	Project consortium under the lead of Città Metropolitana di Torino
75	SedAlp -Sediment management in Alpine basins: integrating sediment continuum, risk mitigation and hydropower (Project ASP)	Project (focus data & scenarios)	Mapping and monitoring sediment and woody debris processes in Alpine basis; predictive tools and strategies to manage sediment-related hazards	Both	Water	Project consortium under the lead of Austrian Federal Ministry for Sustainability and Tourism

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
76	SILMAS - Sustainable Instruments for Lakes Management in the Alpine Space (Project ASP)	Project (focus strategy & measures)	Range of tools for sustainable management of Alpine lakes + catchments; educational material	Adaptation	Water	Project consortium under the lead of Région Rhône-Alpes France
77	Links4Soils	Project (focus strategy & measures)	Link and improve soil management strategies and approaches, tools and knowledge for Alpine soil protection	Adaptation	Other (soil)	Project consortium under the lead of Tyrol
78	The SINFONIA project for Alpine Smart Cities	Implementation measure mitigation	Initiative between Bolzano and Innsbruck to deploy large-scale integrated and scalable energy-solutions; achieve 40-50% primary energy savings	Mitigation	Energy	Contracting parties and project consortium
79	<i>BB-CLEAN - Strategic tools towards a sustainable use of biomass for low carbon domestic heating</i>	<i>Implementation measure mitigation</i>	<i>Development of transnational policies for a sustainable use of biomass for domestic heating to minimise negative environmental impacts and improve a smart use of this resource in the Alpine Space</i>	<i>Mitigation</i>	<i>Energy</i>	<i>Project consortium under lead of Catholic University of the Sacred heart Milano</i>
80	<i>SMART ALTITUDE - Alpine winter tourism territories demonstrating an integrated framework for a low-carbon, high-impact and resilient future</i>	<i>Implementation measure mitigation</i>	<i>Low-carbon policy implementation in winter tourism territories, taking into account the needs of mitigation and adaptation</i>	<i>Both</i>	<i>Tourism</i>	<i>Project consortium under lead of municipality Les Orres (France)</i>
81	<i>MELINDA - Mobility Ecosystem for Low-carbon and INnovative moDal shift in the Alps</i>	<i>Implementation measure mitigation</i>	<i>Inducement of a behavioural change in mobility patterns in a bottom-up manner and support policy making on mobility, air quality and territorial development; thanks to a better integration of mobility data and real time monitoring of mobility behaviours and patterns during a test, the project partners will support the development of services for multimodality and modal shift</i>	<i>Mitigation</i>	<i>Transport</i>	<i>Project consortium under lead of Insiel S.p.A.</i>

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
82	<i>SaMBA - Sustainable Mobility Behaviours in the Alpine Region</i>	<i>Implementation measure mitigation</i>	<i>Promotion of mobility behaviour change by reducing the perceived gap between sustainable transport modes and private cars through reward/pricing policies that are equitable and directly related to the external costs of transport</i>	<i>Mitigation</i>	<i>Transport</i>	<i>Project consortium under lead of Regione Piemonte</i>
83	<i>GreenRisk4ALPs - Development of ecosystem-based risk governance concepts with respect to natural hazards and climate impacts - from ecosystem-based solutions to integrated risk assessment</i>	<i>Planning measure adaptation</i>	<i>Development of ecosystem-based concepts to support risk governance with respect to natural hazards and climate impacts</i>	<i>Adaptation</i>	<i>Ecosystems</i>	<i>Project consortium under lead of Bundesforschungszentrum für Wald Österreich</i>
<b>Projects and activities with national focus (with potential for transferability)</b>						
84	Klimafreundlicher Bergsport – Climate-friendly mountain sports (project, DAV)	Implementation measure mitigation	Awareness-raising campaign on climate change in the Alps with target group mountain sports; improve accessibility of Alps by public transport	Both	Tourism	Deutscher Alpenverein DAV
85	Bergsport mit Zukunft - Future-proof mountain sports (project, DAV)	Implementation measure mitigation	Follow-up project of Klimafreundlicher Bergsport; three thematic Work Packages: climate-friendly infrastructure of DAV, education for sustainable development, resource protection in mountaineering	Mitigation	Tourism	DAV
86	Improvement of the public transport for mountaineers in the Naturpark Karwendel (project DAV)	Implementation measure mitigation	Reduction of CO <sup>2</sup> footprint of hikers/mountaineers/climbers/bikers on their trips by choosing public transport; awareness raising	Mitigation	Tourism	DAV
87	ALPENHUMUS	Project (focus data & scenarios)	Project detecting effects of current climate change on C-storage in humus layers in the Alps	Mitigation	Other (soil)	Germany (BMEL)
88	Klima-Toolbox Surselva	Planning measure adaptation	Toolbox for developing a plan of action, together with regional decision-makers	Adaptation	Transversal	CIPRA
89	Austrian Assessment Report 2014	Publication (in-	Austrian Assessment Report 2014, based on	Both	Transversal	UBA Austria

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
	(AAR14)	depth/scientific)	model of IPCC reports			
90	CC-Act: Awareness raising, capacity building and training on climate change adaptation at municipality level	Online info tools	Interactive online decision support tool for municipalities intended for joint application with multiplier agents	Adaptation	Transversal	UBA Austria
91	FAMOUS - Methods and tools for adaptation to climate change: Manual for provinces, cities and regions	Publication (focus information)	Support adaptation processes in Provinces and at municipal level; development of methods and tools	Adaptation	Transversal	UBA Austria
92	Good Practice Brochure: Our Municipalities in Climate Change	Publication (focus information)	Good practice brochure depicts 11 diverse examples of successful adaptation from different Austrian regions	Adaptation	Transversal	UBA Austria
93	klimaaktiv mobil - Mobility management for leisure and tourism	Implementation measure mitigation	Mobility management programme with focus on tourism; supports purchase of environmental-friendly vehicles and investments in cycling infrastructures	Mitigation	Transport	Austrian Federal Ministry for Sustainability and Tourism
94	Environmental Support Schemes (Austria)	Other	Environmental Support Schemes provides financial support for environmental projects	Both	Transversal	Austrian Federal Ministry for Sustainability and Tourism
95	Implementation Plan for Electric Mobility (Austria)	Planning measure mitigation	Measures and initiatives to encourage the development and use of electric vehicles	Mitigation	Transport	Austrian Federal Ministry for Sustainability and Tourism
96	Mobility Management and Fuel saving initiative (Austria)	Implementation measure mitigation	Development and implementation of projects for the promotion of sustainable mobility; training sessions for fuel-efficient driving	Mitigation	Transport	Austrian Federal Ministry for Sustainability and Tourism
97	Sustainable mobility in practice (Slovenia)	Implementation measure mitigation	Awareness raising and information project on sustainable mobility, since 2017 with focus on	Mitigation	Transport	Slovenia, Ministry for Environm. and spatial

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
			schools			planning
98	Life ViVaCCAdapt (Adapting to the impacts of climate change in the Vipava Valley)	Implementation measure adaptation	Adaptation project for Vipava Valley with focus on pilot decision support system (DSS) for irrigation in order to rationalize water consumption	Adaptation	Mountain farming	Slovenia, Ministry for Environm. and spatial planning
99	Climate mitigation and adaptation support for municipalities in Tyrol	Publication (focus information)	Information folder for Tyrolean communities with facts and links to climate change and adaption to climate change	Both	Transversal	Tyrol
100	Course for Climate protection Consultants (Kommunaler Klimaschutzbeauftragter) (Tyrol)	Other	Training for municipal staff; participants get holistic and application-oriented information about climate protection	Mitigation	Energy	Tyrol
101	Strategy Tyrol 2050	Planning measure mitigation	Energy strategy: until 2050 the energy consumption in Tyrol is to be halved, share of renewable energies increased by 30%	Mitigation	Energy	Tyrol
102	Liechtenstein Aktionsplan Klimabericht	Planning measure mitigation	Action Plan for implementation of Liechtenstein's climate strategy	Mitigation	Transversal	Liechtenstein
103	ACRP – Austrian Climate Research Programme	Other	The ACRP supports high quality research aimed at advancing the science of climate change, adaptation and (partly) mitigation in AT	Both	Transversal	Austrian Federal Ministry for Sustainability and Tourism
104	Klimawandelanpassungsmodellregionen - climate adaptation model regions	Implementation measure adaptation	Support for climate adaptation model regions, the participants become flagship regions for climate change adaptation	Adaptation	Transversal	Austrian Federal Ministry for Sustainability and Tourism
105	Austrian Climate and Energy Fund (KLI.EN)	Implementation measure mitigation	Fund to support the reduction of GHGs in Austria; focus on research and development	Mitigation	Energy	Austrian Federal Ministry for Sustainability and Tourism

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
106	Green Electricity Act 2012 and Feed-In tariff ordinance	Implementation measure mitigation	System of fixed feed-in tariffs for various forms of renewable electricity generation; 2012 amendment includes expansion targets for RES production until 2020	Mitigation	Energy	Austrian Federal Ministry for Sustainability and Tourism
107	Increased energy efficiency in buildings	Implementation measure mitigation	Different support programmes to improve energy efficiency in buildings	Mitigation	Energy	Austrian Federal Ministry for Sustainability and Tourism
108	Increased share of renewable energy for space heating (Austria)	Implementation measure mitigation	Different support programmes for exchanging heating systems with focus renewable heating	Mitigation	Energy	Austrian Federal Ministry for Sustainability and Tourism
109	Programme for rural development (Austria)	Implementation measure mitigation	The Austrian Agri-Environmental Programme 2014–2020 includes several measures designed to reduce GHG emissions from the agricultural sector	Mitigation	Mountain farming/ agriculture	Austrian Federal Ministry for Sustainability and Tourism
110	Local adaptation to climate change in Alpine municipalities in Italy	Event	4 seminars with public officers and experts from local and subregional institutions to spread information on the Climate Action Plan of the AC, based on local adaptation guidelines	Adaptation	Transversal	Italy
111	The Lombardy Region's "Document of Regional Adaptation to Climate Change" (Plan) - DARACC	Planning measure adaptation	Action Plan for Adaptation in Lombardia; governance tool to define priority fields for action	Adaptation	Transversal	Lombardy Region
112	The Cortina Charter (La Carta di Cortina)	Implementation measure mitigation	Charter to reduce environmental footprint of winter sport (events); implementation of specific measures, e.g. renovation of existing winter sport facilities and new public transport links	Mitigation	Tourism	
113	ADAMONT Project (France)	Planning measure	Partnership and integrated research action on	Adaptation	Transversal	France

No.	Name of activity	Type of activity	Description	Mitigation/ Adaptation	Thematic Focus	Implemented by
		adaptation	adaptation in medium-mountain territory (near Grenoble); knowledge exchange and operational approach			
114	TEPCV Tarentaise Vanoise (France)	Planning measure mitigation	Regional strategy focusing on reduction of GHG; TEPCV = territory with positive energy and green growth	Mitigation	Transversal	Region Tarentaise Vanoise
115	<i>Climate adaptation consulting for municipalities (Unterstützung von Gemeinden bei der Anpassung an den Klimawandel)</i>	<i>Implementation measure adaptation</i>	<i>Support of municipalities in developing risk and vulnerability analysis, to conduct stakeholder workshops and to develop specific adaptation measure; implementation of the project in 12 municipalities in Tyrol</i>	<i>Adaptation</i>	<i>Transversal</i>	<i>Tyrol</i>
116	<i>LIFE – ClimAct: Climate action campaign for low- income households (Doppelplus Tirol)</i>	<i>Implementation measure mitigation</i>	<i>Initiating change in everyday action of low-income households; The CO2 reduction will be reached with 60 volunteer counsellors called „energy and climate coaches“ and over 1000 coachings.</i>	<i>Mitigation</i>	<i>Energy</i>	<i>Tyrol</i>
117	<i>WAVE (2019)</i>	<i>Project (focus data &amp; scenarios)</i>	<i>Atmospheric measurements</i>	<i>Adaptation</i>	<i>Other (monitoring)</i>	<i>Bavaria</i>
118	<i>AlpEnDAC I and II (2015, 2018)</i>	<i>Project (focus data &amp; scenarios)</i>	<i>Development: Alpine Environmental Data Analysis Centre</i>	<i>Adaptation</i>	<i>Other (monitoring)</i>	<i>Bavaria</i>



