

**Tagung der Alpenkonferenz**

**Réunion de la Conférence alpine**

**Sessione della Conferenza delle Alpi**

**Zasedanje Alpske konference**

**TOP / POJ / ODG / TDR**

**XVIII**

**A5**

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23-12-2024

## **ANNEX**

- 1 Mandate proposal of the ad hoc Working Group for the elaboration of the Eleventh Report on the State of the Alps for the period 2025-2026**

**MANDATE OF THE  
AD HOC WORKING GROUP FOR THE ELABORATION OF  
THE ELEVENTH REPORT ON THE STATE OF THE ALPS  
FOR THE PERIOD 2025-2026  
(BETWEEN THE XVIII AND XIX MEETINGS OF THE ALPINE CONFERENCE)**

**1. Introductory remarks**

Importance of the issues selected and relevance of the proposed way to tackle them, including reference to the Alpine Convention and its Protocols and further strategic documents

*Taking ambitious climate action* is one of the three priorities of the Alpine Conference's Multi-Annual Work Programme for the period 2023-2030.

Climate change is leading to chronic and extreme weather phenomena, which, combined with the characteristics and spatial planning of the Alpine region, are generating an intensification of natural hazards in the Alpine region and a consequent increase in their direct and indirect impacts on public and private assets, infrastructure, service provision, ecosystems and environmental resources, and in some cases also leading to loss of life. In particular, the topic is central to the Working Group on Natural Hazards (PLANALP), which has been developing common strategies for natural hazard prevention and adaptation since 2000.

Over the years, emphasis has been placed on the state of glaciers and the degradation of permafrost, both from the point of view of scientific research and in terms of awareness-raising campaigns, especially following disastrous events in recent years. This is why it is proposed to dedicate the Eleventh Report on the State of the Alps (RSA 11) to the topic of Alpine glaciers and establish an ad hoc Working Group in charge of its elaboration (RSA 11 WG). The RSA 11 will establish the state of the art in the Alpine countries in the four topic areas of risks of glaciated and deglaciated areas, glaciers as essential water reservoirs, permafrost and water cycle, and will produce recommendations for relevant stakeholders. These issues and initiatives will also be the subject of in-depth and specific collaborations with international initiatives and organisations operating at the Alpine level as well as within the International Year of Glaciers' Preservation 2025.

**2. Planned topics and activities**

Topic No. 1: **Risks of glaciated and deglaciated areas**

Topic outline and objective until the XIX Alpine Conference (knowledge sharing, policy setting etc.)

The scope of the study will encompass not only glaciers per se, but also the destabilised areas they leave behind, such as moraines and rock glaciers. Special emphasis will be placed on the dangers associated with the management of deglaciated areas and evolutionary scenarios.

Contributions will also be made to the conservation pillar of the Alpine Biodiversity Action Plan, with a focus on the specialised biodiversity of glaciers (92/43/CEE code 8430) and new post-glacial ecosystems.

| Envisaged activities (desk research, collection of good practices, workshop etc.)                                                                                                                                                                                                                                                                                                                                                                       |                           |
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| <i>Description</i>                                                                                                                                                                                                                                                                                                                                                                                                                                      | <i>Tentative timeline</i> |
| a. <b>Glacier risk workshops:</b> Organisation of workshops in collaboration with PLANALP to collect data and develop adaptation strategies.                                                                                                                                                                                                                                                                                                            | Until end of 2025         |
| b. <b>Monitoring of deglaciaded areas:</b> Collating and analysing available data from all countries on the biodiversity of glaciers (92/43/EEC code 8430), new post-glacial ecosystems, and geomorphological instability caused by glacier retreat                                                                                                                                                                                                     | Until end of spring 2026  |
| c. <b>Awareness campaigns:</b> Information campaigns to educate residents, tourists, and professionals about glacial hazards and the impact of climate change on natural environments.                                                                                                                                                                                                                                                                  | Until end of 2025         |
| d. <b>Training of mountain technicians and professionals:</b> Mountain guides and other high-mountain professionals supporting glacier research teams must receive initial and ongoing training on glacial hazards and their impacts, including changes to the organisation of their work, through dedicated modules (e.g. training sessions, training materials, training recommendations, etc.).                                                      | Until end of spring 2026  |
| Expected outputs (statement, report, brochure, exhibition, etc.)                                                                                                                                                                                                                                                                                                                                                                                        |                           |
| <p><b>The expected results include products directly integrated into the RSA, annexes, and collateral products.</b></p> <ul style="list-style-type: none"> <li>• Guidelines for managing natural hazards in glaciated and deglaciaded areas</li> <li>• Technical report on best practices for hazard prevention</li> <li>• Informative brochure to raise awareness among local communities</li> <li>• Workshops and their respective reports</li> </ul> |                           |
| Potential follow-up after the XIX Alpine Conference                                                                                                                                                                                                                                                                                                                                                                                                     |                           |
| <ul style="list-style-type: none"> <li>• Updates to the Climate Action Plan 2.0 to include emerging challenges and lessons learned</li> <li>• Continued integration of natural hazard management into the Alpine Convention's strategic plans (PLANALP, ACB, ABB, Soil Protection WG, SPSPD WG, MAMF WG etc.)</li> <li>• Expansion of cooperation with neighbouring mountain regions and international networks</li> </ul>                              |                           |

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| <b>Topic No. 2: Glaciers as essential water reservoirs</b>                                                                                                                                                                                                                                                                                |
| Topic outline and objective until the XIX Alpine Conference                                                                                                                                                                                                                                                                               |
| <p>Glaciers are essential natural reservoirs that play a crucial role in the hydrological systems of many regions, providing vital water for ecosystems, agriculture and human consumption. Given the accelerating impacts of climate change on glacier dynamics, it is imperative to thoroughly assess and monitor these ice masses.</p> |

| Envisaged activities (desk research, collection of good practices, workshop etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |
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| <i>Description</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <i>Tentative timeline</i> |
| a) <b>Data Comparison and Analysis:</b> To conduct a systematic comparison of existing data and databases related to ice dynamics and glacial evolution. This will involve the elaboration of detailed reports on the status of glacial ablation, including the current condition of existing glaciers and projected melt scenarios. These analyses will help identify trends and inform stakeholders on the implications of glacier retreat.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Until end of spring 2026  |
| b) <b>Collaboration with Local Authorities:</b> Working with the actors and organisations of each country, such as (in Italy) the Italian Glaciological Committee (CGI), the Civil Protection, the Regional Agency for Environmental Protection (ARPA), the 'Montagna Sicura' Foundation, EURAC Research, the Permanent Observatories on the Use of Water Resources and the District Authorities. This collaboration will ensure an integrated and multidisciplinary approach to data collection and analysis.                                                                                                                                                                                                                                                                                                                                                                                                   | Until end of 2025         |
| c) <b>Awareness and Information:</b> It will be essential to inform local communities and decision-makers about the importance of glaciers as a water resource, communicating the quantities of water stored in glaciers and the evolutionary scenarios related to their melting. This information will highlight the impact that climate change may have on water availability in surrounding regions. To support this awareness-raising effort, local events with a unified direction will be organised to present the progress of the work and promote dialogue between experts, decision-makers, and local communities. These meetings will strengthen understanding of the importance of glaciers and encourage knowledge sharing. Finally, a national event, for example in Rome, will be organised to disseminate the results achieved and present the recommendations emerging from the local workshops. | Until end of spring 2026  |
| Expected outputs (report, brochure, exhibition etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |
| <p><b>The expected results include products directly integrated into the RSA, annexes, and collateral products.</b></p> <ul style="list-style-type: none"> <li>• Guidelines for glacier and projected melt scenario interpretation</li> <li>• Technical report on best practices for application of glacier and projected melt scenario results.</li> <li>• Informative brochure to raise awareness among local communities</li> <li>• Workshops and their respective reports</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |
| Potential follow-up after the XIX Alpine Conference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |
| <ul style="list-style-type: none"> <li>• Updates to the Climate Action Plan 2.0 to include emerging challenges and lessons learned</li> <li>• Continued integration of water scarcity management into the Alpine Convention's strategic plans (ACB, ABB, Soil Protection, SPSP WG, MAMF WG etc.)</li> <li>• Expansion of cooperation with neighbouring mountain regions and international networks</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |

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| Topic No. 3: <b>Enhancing Resilience to Permafrost Thaw in Alpine Regions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |
| Topic outline and objective until the XIX Alpine Conference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |
| <p>Permafrost is a fundamental component of Alpine ecosystems, its degradation influences these ecosystems and the natural stability with a reduction in the safety of infrastructures located at high altitudes. As climate change accelerates its thaw, communities face mounting challenges, including structural vulnerabilities and increased natural hazards. This proposal outlines a streamlined approach to address these challenges by consolidating existing knowledge, developing practical management guidelines, and ensuring widespread dissemination of information. These steps aim to foster informed decision-making, enhance safety, and build resilience in Alpine regions.</p> |                           |
| Envisaged activities (desk research, collection of good practices, workshop etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |
| <i>Description</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <i>Tentative timeline</i> |
| a) <b>Collate Existing Knowledge.</b> The first step is gathering existing data from international and regional research on permafrost degradation and infrastructure stability. A call for experts that are facing the same problems in the Alps to share their experience should synthesise this knowledge into a clear, actionable framework, emphasising findings that are directly relevant. Additionally, identifying key gaps in data or understanding will help prioritise future research and interventions.                                                                                                                                                                                | Until end of 2025         |
| b) <b>Best practice and dissemination.</b> The findings from step a will serve as the foundation for practical, evidence-based guidelines for facing permafrost related risks. This collaborative effort aims to equip stakeholders with the tools and knowledge necessary to safeguard infrastructure and communities against the growing threats posed by permafrost thaw.                                                                                                                                                                                                                                                                                                                         | Spring 2026               |
| Expected outputs (report, brochure, exhibition etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |
| <p>a) <b>Collate Existing Knowledge.</b> A synthetic report summarising current research, data, and case studies on permafrost thaw and infrastructure stability in the Alps, highlighting key gaps and priorities for action in the Alpine region.</p> <p>b) <b>Best practice and dissemination.</b> A set of practical, evidence-based guidelines for infrastructure construction, maintenance, and monitoring in permafrost-affected areas. Dissemination: an accessible collection of educational materials, including brochures designed to inform stakeholders, communities, and decision-makers about permafrost risks and mitigation/adaptation strategies.</p>                              |                           |
| Potential follow-up after the XIX Alpine Conference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |
| <p><b>The expected results include products directly integrated into the RSA, annexes, and collateral products.</b></p> <ul style="list-style-type: none"> <li>Continued integration of permafrost monitoring into the Alpine Convention's strategic plans (PLANALP, ACB etc.)</li> <li>Expansion of cooperation with neighbouring mountain regions and international networks</li> <li>Long-term operation of a "PERMANET" network</li> </ul>                                                                                                                                                                                                                                                       |                           |

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| Topic No. 4: <b>Water cycle</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                  |
| Topic outline and objective until the XIX Alpine Conference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |
| Climate change, due to its impacts and the modifications it also makes on the cryosphere, is capable of profoundly altering hydrological cycles at high altitudes. Some of the main consequences include a reduction in the stability of walls and slopes or the loss of habitats for highly specialised biodiversity. The effects of the intensification of the hydrological cycle then spill downstream, increasing the natural risk due to the ingress of large masses of water as well as generating situations of extreme drought and compromising economic activities as much as at higher altitudes. |                                                                                  |
| Envisaged activities (desk research, collection of good practices, workshop etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                  |
| <i>Description</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <i>Tentative timeline</i>                                                        |
| a. <b>Collection and technical analysis of data</b> for quantitative and qualitative measurements of the degree of alteration of the upstream water cycle.                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2025                                                                             |
| b. <b>Collaboration with other TWBs of the Alpine Convention (e.g. MAMF, ABB) and experts (e.g. Tourism)</b> for a competent assessment of upstream and downstream impacts of the intensification of the hydrological cycle.                                                                                                                                                                                                                                                                                                                                                                                | 2025 – early 2026 incl. ABB and RSA11 <i>ad hoc</i> WG in Grenoble 25-26.06.2025 |
| c. <b>Focus on water communication</b> , dissemination of solutions (e.g. Collection of good practices) and gathering feedback from the population in Alpine areas.                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2025-2026                                                                        |
| Expected outputs (report, brochure, exhibition etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                  |
| <b>The expected results include products directly integrated into the RSA, annexes, and collateral products</b> <ul style="list-style-type: none"> <li>• Technical basis and contribution for the other three main topics of the RSA mandate</li> <li>• Evaluation of the water cycle's alteration on ecological and economical aspects of the Alpine arc</li> <li>• Awareness-raising among decision-makers, stakeholders and citizens through thematic meetings, dissemination of documents and sharing of recommendations and good practice</li> </ul>                                                   |                                                                                  |
| Potential follow-up after the XIX Alpine Conference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |
| <ul style="list-style-type: none"> <li>• Implementation of recommendations within the RSA 11 in the three-year period 2027-2030</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                  |

### 3. TWB meetings schedule

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| Tentative dates and settings of meetings (month or quarter, online/in presence)                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>- 4 and/or 5 March 2025, Bolzano/IT: first meeting of the RSA 11 WG: drafting of the work plan and tasks, and collection of information and data;</li> <li>- 25-26 June 2025, Grenoble/FR: 2nd meeting of the RSA 11 WG and workshop;</li> <li>- 17-18 September 2025, Aosta/IT: 3rd meeting of the RSA 11 WG;</li> <li>- PC82, 1-2 October 2025: progress information to the Permanent Committee;</li> </ul> |

- 13-14 January 2026, online: 4th meeting of the RSA 11 WG;
- Early spring 2026: First draft RSA 11 for comments;
- 14-15 April 2026, Milan/IT: 5th meeting of the RSA 11 WG;
- Spring 2026: Second draft RSA 11;
- 7-8 July 2026, Rome/IT: 6th meeting of the RSA 11 WG;
- Early summer 2026: Revised draft RSA 11 for interministerial consultation;
- August 2026: Final draft;
- August/September 2026, online: (if necessary) 7th meeting of the RSA 11 WG;
- PC84, 30 September – 1 October 2026: submission of the RSA 11 to the Permanent Committee in the view of its adoption at the XIX Alpine Convention (January 2027)

#### 4. Cooperation

Planned cooperation with other Alpine Convention bodies and further relevant partners and processes, and the expected benefits

- Presentation and discussion at Permanent Committee meetings.
- Communication to the Chairs of the Thematic Working Bodies on the elaboration of the RSA 11 and exchange of views on the possible implementation of the objectives of the Multi-annual Work Programme, acquisition of relevant information and proposals.
- Close cooperation with PLANALP to develop common strategies to prevent natural hazards in the Alps and to discuss ways of adaptation.
- Collaboration with the ACB to implement the Climate Action Plan (CAP 2.0).
- Collaboration with the ABB on ecological aspects and nature-based solutions.
- Link with the next Forum Alpinum in cooperation with ISCAR.
- Potential cooperation with EUSALP Action Groups (AG6, AG7, AG8, AG9).
- Potential cooperation with the Virtual Alpine Observatory (VAO).

#### 5. Communication

Communication objectives, targets and respective planned measures

- The work and results of the RSA11 will be duly presented to the bodies of the Alpine Convention and the XIX Alpine Conference in 2027.
- The RSA11 with the main findings and recommendations will be published on the Alpine Convention website.
- The RSA11, which will be translated (in full or in summaries end of 2026) into the languages of the Alpine Convention, is to be promoted by the Contracting Parties at national level (after 2027).
- The RSA11 experience will be presented in international contexts, such as the Forum Alpinum (2026), the 28th Alpine Glaciology Meeting (27 - 28 February 2025, Innsbruck/Austria), the 29th Alpine Glaciology Meeting (2026 Milan/Italy TBC), EUSALP and to other stakeholders.

#### 6. Link to the Multi-Annual Work Programme 2023-2030 of the Alpine Conference

Contribution of the activities to some or all the priority areas of the MAP 2023-2030 (interlinkages, synergies, and trade-offs with the specific objectives below)

**MAP Priority area 1 – Biodiversity and ecosystems:** *Contribute to the achievement of the European and international objectives to protect, preserve and restore biodiversity and ecosystems in the Alps; Strengthen the Alpine Convention's own biodiversity and ecosystem-related activities and integrate the topic into the work of all its bodies*

Through close collaboration with ABB, the RSA 11 WG will be able to provide valuable contributions to the elaboration of the Alpine Biodiversity Action Plan, related to emerging post-glacial ecosystems (e.g. forests, bodies of water) that are emerging as potential new biodiversity hotspots as a result of the thawing of large water masses. These will complement the already existing framework of knowledge about glaciers and permafrost and provide the opportunity to formulate and implement the most efficient monitoring and conservation measures for species and ecosystems.

**MAP Priority area 2 – Climate action:** *Implement the Climate Action Plan 2.0 on the way to reach climate-neutral and climate-resilient Alps by 2050; Pursue cross-sectoral activities and look for cooperation beyond the environmental and climate sector*

The RSA 11 WG will contribute to the deepening and realisation of several objectives of the CAP 2.0 with a view to achieving, in support and cooperation with the ACB, the goal 'Climate neutral and climate resilient Alps by 2050' in particular those related to natural hazards and pathways:

- 4.1 IP\_NH1: Implementation of an Alpine-wide risk management plan, focusing on cross-border risks
- 4.2 IP\_NH2: Implementation of an Alpine-wide monitoring of permafrost and geomorphological processes related to permafrost warming
- 4.3 IP\_NH3: Support measures to enhance individual risk precaution
- 10.1 IP\_Eco1: Protection and management of vulnerable and Alpine-specific landscapes and ecosystems

**MAP Priority area 3 – Quality of life:** *Further the Alpine Convention's knowledge on the quality of life of people in the Alps, acknowledging and respecting territorial and individual differences; Promote the inclusion of quality-of-life measures in public policy-making processes at all territorial levels*

Quality of life is an all-embracing topic par excellence, as it is linked to the three spheres of sustainable development: economic, social and environmental.

It includes aspects such as biodiversity or the availability and quality of natural resources (air, soil and water) and sustainable management (of mountain forests, among others).

In particular, the analyses carried out will be able to contribute to better management of resources (water and biological) dependent on glaciers and permafrost, improving the capacity to manage the dangers associated with them, thus contributing to improving the quality of life of the population concerned.

## 7. Chair

The Chair will be held by Italy.