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Climate change adaptation in mountain areas

What role is there for parliamentarians?

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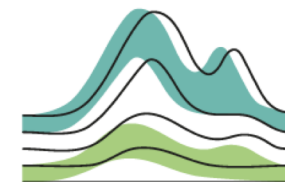
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ADAPTATION
AT ALTITUDE

Taking Action in the Mountains

Climate change adaptation in mountain areas

What role is there for parliamentarians?

Manfred Kaufmann, Programme Manager, Swiss Agency for Development and Cooperation

Carolina Adler, Executive Director of the Mountain Research Initiative

Grammenos Mastrojeni, Deputy Secretary General of the Union for the Mediterranean

Nicolas Walder, MP, National Council, Switzerland

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Federal Department of Foreign Affairs FDFA
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Climate change adaptation in mountain areas: What role is there for parliamentarians?

December 11, 2020, UN International Mountain Day



Webinar co-organized by the Inter-Parliamentary Union and the Adaptation at Altitude Programme of the Swiss Agency for Development and Cooperation (SDC)

Manfred Kaufmann, SDC
Global Programme Climate Change and Environment

Why mountains matter

- 22% of the earth land surface
- 13% of the global population
- 60-80% of global freshwater
- 25% of terrestrial biodiversity
- 60 % of all biosphere reserves
- 15-20% of global tourism
- mountain ecosystems among the most vulnerable to and affected by climate change



Major Global Reference Frameworks



Holistic plan of action for sustainable development at the global level

- 17 goals, 169 targets
- Detailed indicator system for monitoring



Global roadmap for reducing human and economic loss as a direct result of disasters

- 4 priorities for action,
- 7 global targets with indicators



Preventing “dangerous” human interference with the climate system, and limit global warming to 2 degrees

- Nationally Determined Contributions
- National Adaptation Plans

Mountains in the 2030 Agenda



■ Target 6.6

By 2020, protect and restore water-related ecosystems, **including mountains**, forests, wetlands, rivers, aquifers and lakes



■ Target 15.1

By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, **mountains** and drylands, in line with obligations under international agreements



■ Target 15.4

Ensure by 2030 the **conservation of mountain ecosystems**, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

Swiss commitment to mountain development



■ **National: Swiss domestic legislation**

Promotion of economic development of Swiss mountain regions through various instruments (e.g. for elaboration of pilot measures) and support of agriculture in mountains through subsidies (e.g. for cultivating steep slopes or for alpine animal husbandry)



■ **Regional: Alpine Convention**

The Alpine Convention is the world's first treaty under international law designed to protect a mountain region. It is unique in defining a mountain region independently of national borders as a geographical unit, and as an important heritage and economic area that faces a common set of challenges

■ **Global: Development Cooperation**

Switzerland's international cooperation includes i.a. activities in the areas of technical and financial cooperation with developing countries and humanitarian aid. Sustainable mountain development is a specific objective of many interventions of SDC



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Objectives of SDC engagement in mountains



- Supporting initiatives and projects that promote sustainable mountain development with the aim of **improving the livelihoods of mountain communities** and strengthening their resilience against climate change



- Strengthening governance in mountain regions through support of regional science – policy processes and **influencing national, regional and global policy processes**

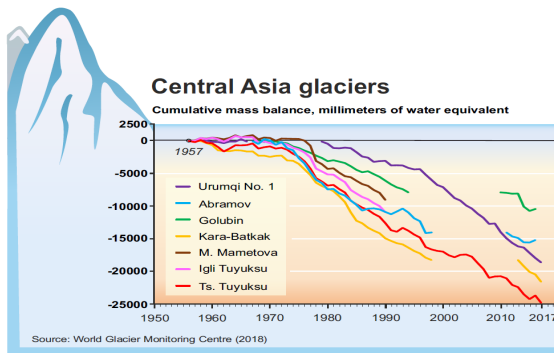


- Fostering **knowledge generation, dialogue and capacity building** on climate change adaptation in mountain regions between stakeholders at all levels

Examples from SDC project portfolio



- **Productive Use of Water from Glaciers, Peru**
Establishment of early warning systems for Glacier Lake Outburst Floods and planning of cross-sectoral multi-purpose investment projects to increase resilience to climate change



- **Climate Services in Central Asia**
Generation and exchange of cryosphere and climate data to improve modelling and forecasting of water flows and the reduction of related disaster risks in Central Asia



- **Strengthening State Strategies for Climate Action, India**
Increasing capacities of state level institutions to prioritize, plan and undertake specific interventions in climate sensitive sectors in the Indian Himalayas

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11 December 2020



Carolina Adler
Executive Director
The Mountain Research Initiative



OBJECTIVE

Increase the resilience and adaptive capacity of mountain communities and ecosystems to climate change by:

- **Improving the knowledge of appropriate climate change adaptation strategies in the mountains**
- **Transferring that knowledge through science–policy platforms to inform decision-making in national, regional and global policy processes**

Adaptation at Altitude: Taking Action in the Mountains

will foster exchange among the mountain areas of the world and seek short- and long-term solutions to the problems arising from climate change



PARTNERS



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de la Ecorregión Andina

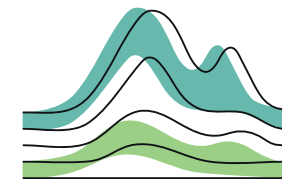
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www.adaptationataltitude.org

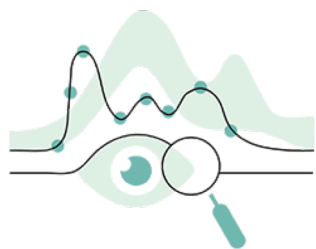


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Climate Change Vulnerability & Mountain Areas



OUTCOMES



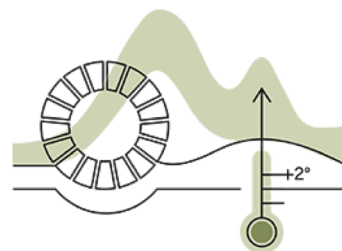
1.
DATA, INFORMATION
& MONITORING



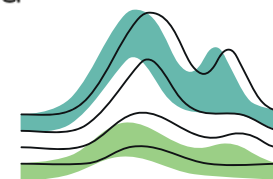
2.
REGIONAL EXCHANGE
& COLLABORATION



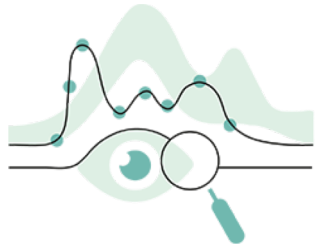
3.
KNOWLEDGE
& SHARING



4.
GLOBAL POLICY
MAINSTREAMING

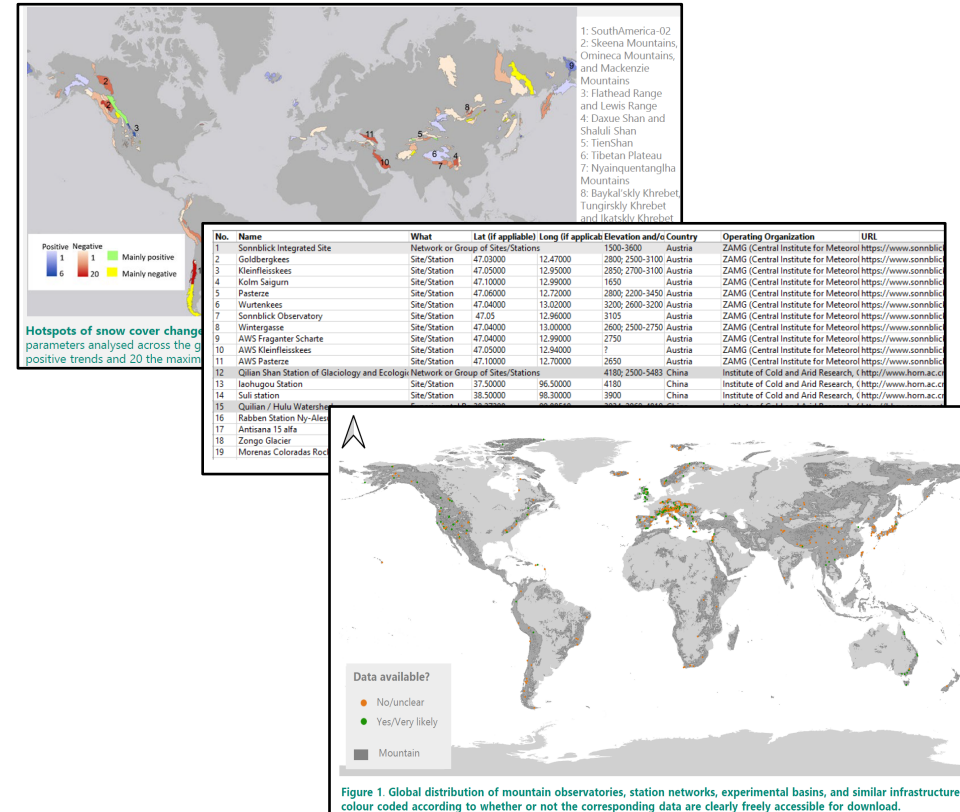


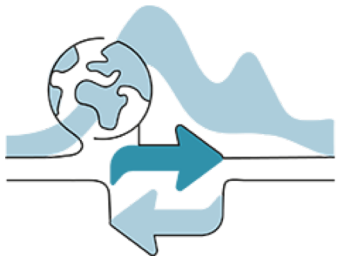
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1.
DATA, INFORMATION
& MONITORING

- Our aim is to contribute to local, regional and global knowledge on the impacts of climate change in mountains through the **improved availability and use of mountain observation data and information services.**
- We do this by supporting and strengthening the **Global Network for Observations and Information in Mountain Environments, GEO Mountains**, a flagship activity of the **Mountain Research Initiative (MRI)**, under the framework of the intergovernmental Group on Earth Observations (GEO).

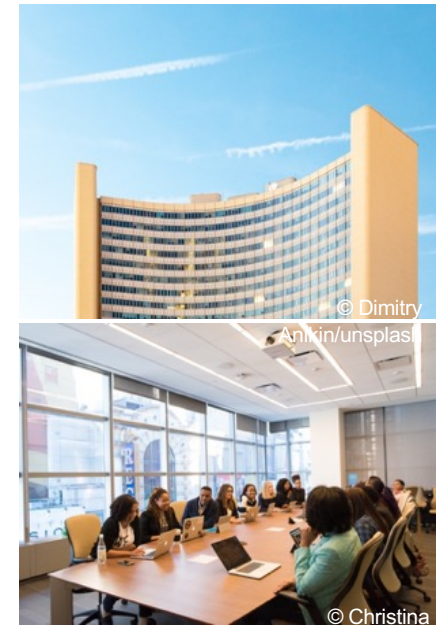




2. REGIONAL EXCHANGE & COLLABORATION

Our aim is to:

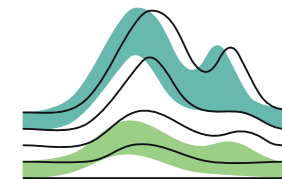
- Foster in-depth regional science-policy dialogues on practical solutions and evidence-based policy support and the establishment and/or strengthening of structures for regional governance of mountain areas in the **Andes, East Africa, Hindu Kush Himalaya and South Caucasus**
- Further link regional processes to ongoing activities at the national level towards inclusion of **mountain-specific adaptation in relevant policy frameworks**
- Connect mountain regions for **inter-regional action learning** towards inspiring each other and supporting a better understanding of challenges and solutions for regional mountain governance



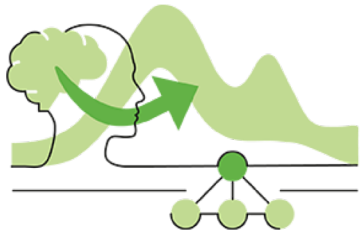
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3. KNOWLEDGE & SHARING

- Our aim is to increase the resilience of communities through **better knowledge on climate change adaptation opportunities** in the mountains
- This will be achieved by establishing a **knowledge base and community of practice** to encourage collaboration and sharing between practitioners including through an online platform on **weADAPT**
<https://www.weadapt.org/knowledge-base/adaptation-in-mountains>
- We will also create an open-access **database of solutions**, based on quality-controlled information submitted by practitioners – survey now open <https://www.weadapt.org/adaptation-at-altitude-survey>



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ADAPTATION AT ALTITUDE
Taking Action in the Mountains

Adaptation At Altitude Survey

Highlight your work in an open access database on adaptation solutions for mountains [here](#).

Home › Learn › Themes › Climate Change Adaptation in Mountains

Theme:

Climate Change Adaptation in Mountains

Mountains cover roughly one quarter of the Earth's land surface but host an impressive array of natural resources – 25% of terrestrial biodiversity, 60% of all biosphere reserves, freshwater supplies for lowland irrigation and domestic use, and important raw materials such as minerals and timber. They provide essential ecosystem services for livelihoods as well as opportunities for recreation and tourism.

Mountains are also currently home to about 1 billion people. And both the people and the mountains are particularly vulnerable to climate change.

Rising temperatures and changing precipitation patterns are disrupting water flows and affecting ecosystems, creating and worsening natural hazards and threatening livelihoods across the globe. But mountain ecosystems are more sensitive to climate change compared to other terrestrial ecosystems, and mountain dwellers have less income on average compared to people living downstream. As a result, the effects of climate change in the mountains fall disproportionately on both ecosystems and people.

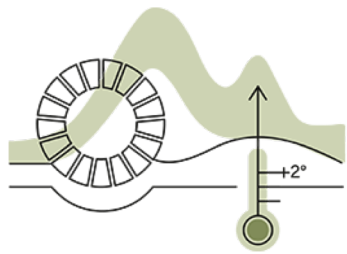
Join the Theme *Climate Change Adaptation in Mountains*

Join to share content with Network Members.

Unsubscribe from Theme

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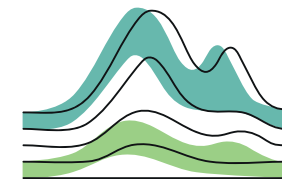


4. GLOBAL POLICY MAINSTREAMING

- Our aim is for major global policy processes (UNFCCC & the Paris Agreement, the Sendai Framework for DRR, and the 2030 Agenda) to take climate change adaptation in mountains into account
- We will achieve this by contributing to global policy processes related to climate change, disaster risk reduction and the Sustainable Development Goals
- Current activities include establishing relationships with relevant stakeholders, including the Inter-Parliamentary Union.

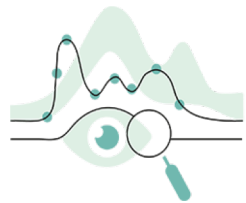


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Contributions to sustainability across Outcomes



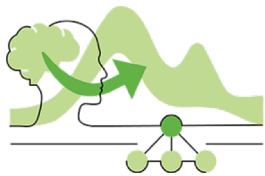
1
DATA, INFORMATION
& MONITORING

Data: By supporting the accessibility of long-term data and information and thereby respond to the monitoring and reporting needs on climate impacts and adaptation, while help track their progress as relevant development priorities



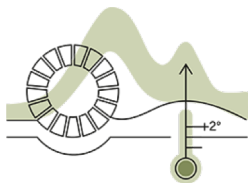
2
REGIONAL EXCHANGE
& COLLABORATION

Bottom Up: By establishing, strengthening and supporting regional mountain governance structures, institutions, frameworks and processes, that also respond to the regional development needs



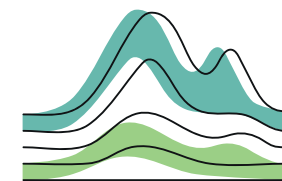
3
KNOWLEDGE
& SHARING

Engagement: By actively participating in and contributing to the promotion and the sharing of knowledge on adaptation and sustainable development opportunities in mountain areas



4
GLOBAL POLICY
MAINSTREAMING

Global Policy: Mainstreaming mountains into the major policy processes addressing climate change, disaster risk reduction and the Sustainable Development Goals



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Thank you!

Carolina Adler
Executive Director
The Mountain Research Initiative



CONTACTS

website: www.adaptationataltitude.org

DATA, INFORMATION AND MONITORING

GEO Mountains, Co-Leads

Carolina Adler (MRI) - carolina.adler@unibe.ch

Elisa Palazzi (ISAC-CNR) - e.palazzi@isac.cnr.it

GEO Mountains, Scientific Project Officer

James Thornton (MRI & GEO Mountains) – james.thornton@unibe.ch

KNOWLEDGE GENERATION AND SHARING

Zoï Environment Network, Director

Otto Simonett – otto.simonett@zoinet.org

University of Geneva, Co-Leads

Anna Scolobig - anna.scolobig@unige.ch

Simon Allen - simon.allen@unige.ch

Stockholm Environment Institute, Lead

Julia Barrott - julia.barrott@sei.org

REGIONAL SCIENCE-POLICY EXCHANGE AND COLLABORATIVE ACTION

Andes (CONDESAN)

Luis D. Llambi – Luis.Llambi@condesan.org

María Arguello – María.Arguello@condesan.org

Hindu Kush Himalaya (ICIMOD)

Philippus Wester – Philippus.Wester@icimod.org

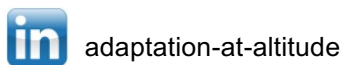
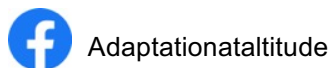
East Africa and South Caucasus (UNEP)

Matthias Jurek – Matthias.Jurek@un.org

Sabine McCallum – Sabine.McCallum@un.org

Ansgar Fellendorf – Ansgar.Fellendorf@un.org

Essey Daniel – Essey.Daniel@un.org



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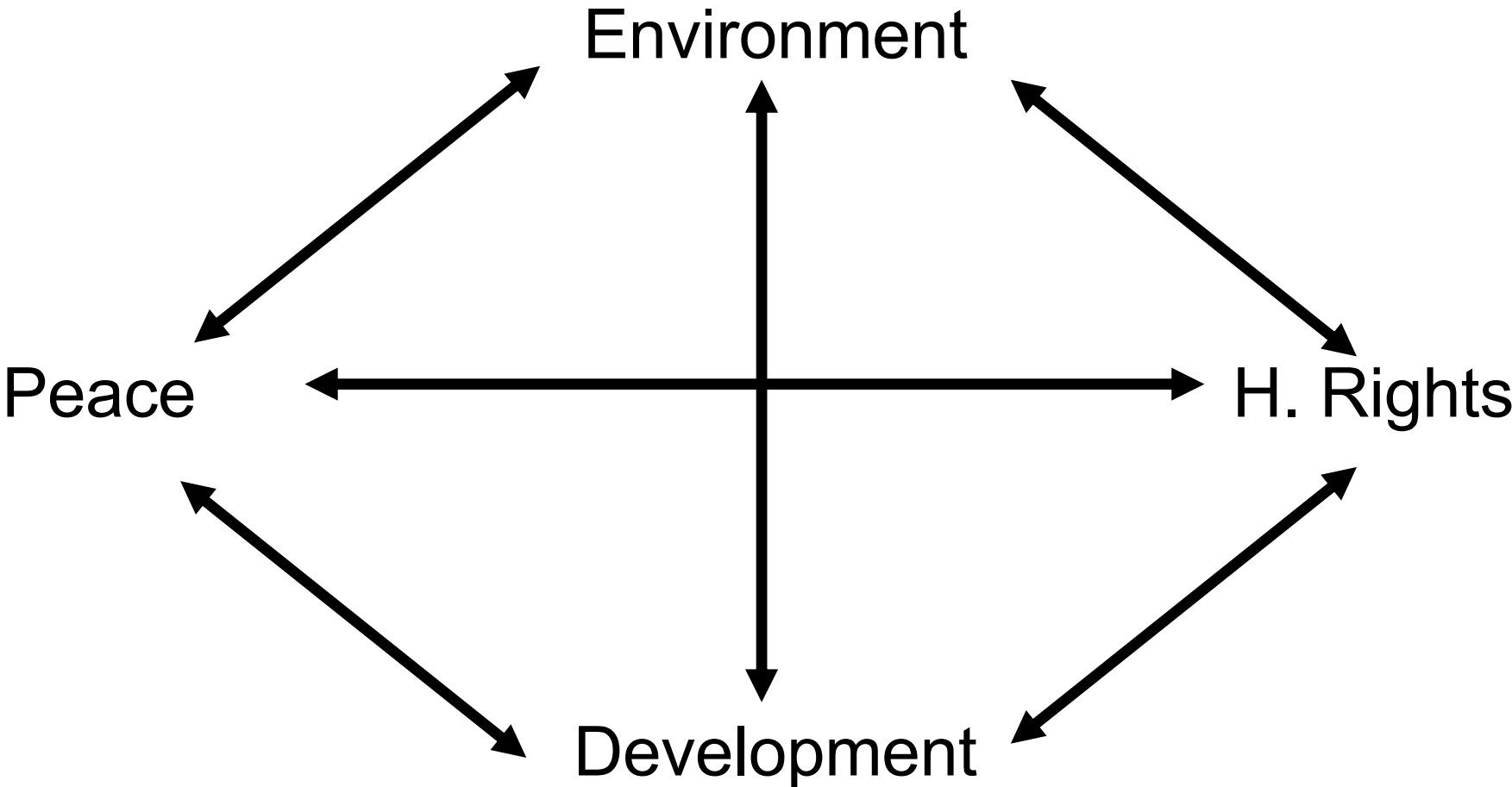
Sebastián Torrealba Alvarado, MP, Chamber of Deputies, Chile



Mountains: the Global Security Challenge



GAIA'S MATRIX: no isolated sector SYSTEMIC GLOBALITY



4 TERRITORIES WHERE FRAGILE ECOSYSTEMS OVERLAP FRAGILE SOCIETIES...

- Arctic
- Islands
- Drylands and...

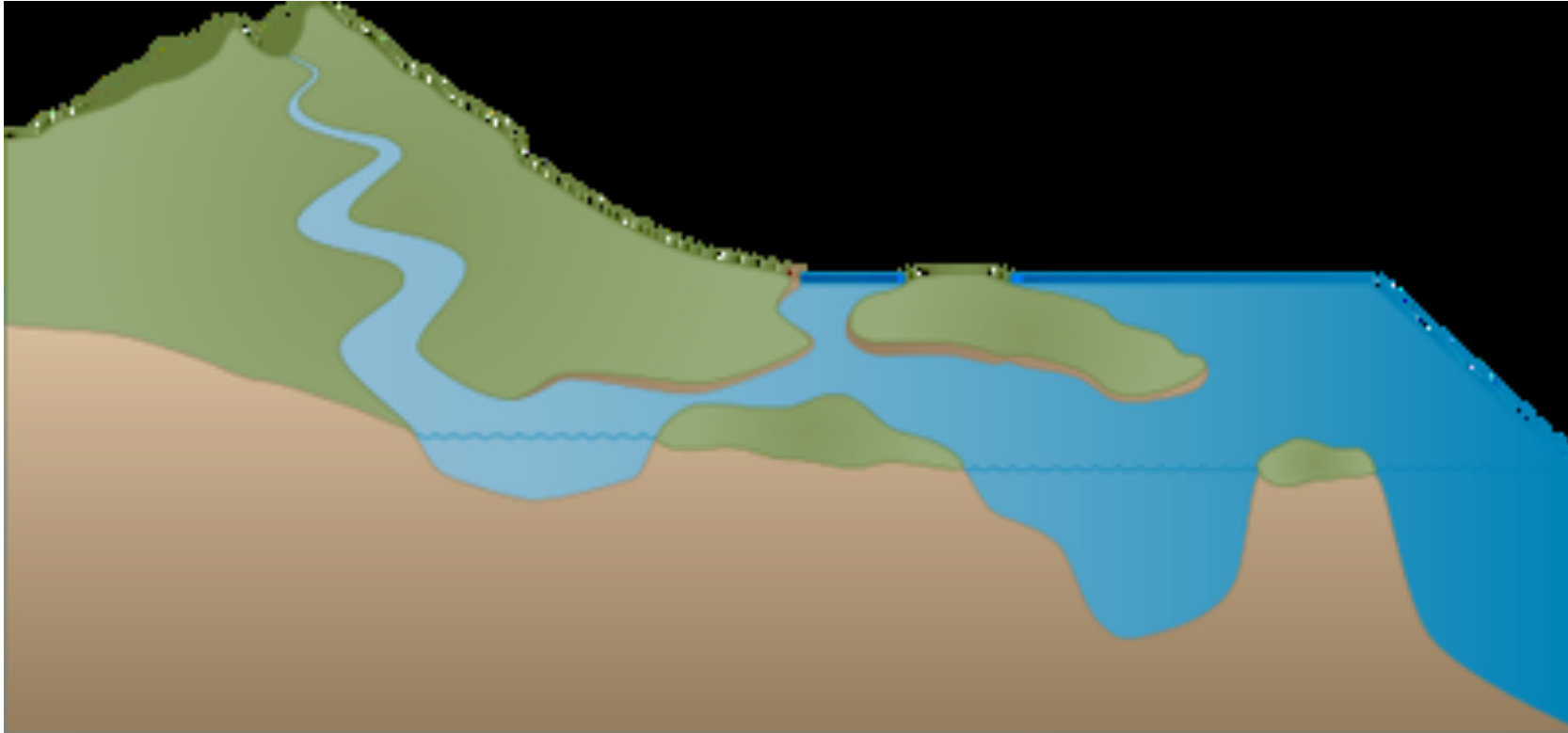
- Mountains: 913M people, 67 countries, serving 4 billion in lowlands!

THE HIMALAYA SCENARIO

Millions on the move...



Mountains: R2P



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Nicolas Walder Conseiller national

Mountain areas in Switzerland

- **2/3 of the territory**
- **25% of the population**
- **20% of the jobs**



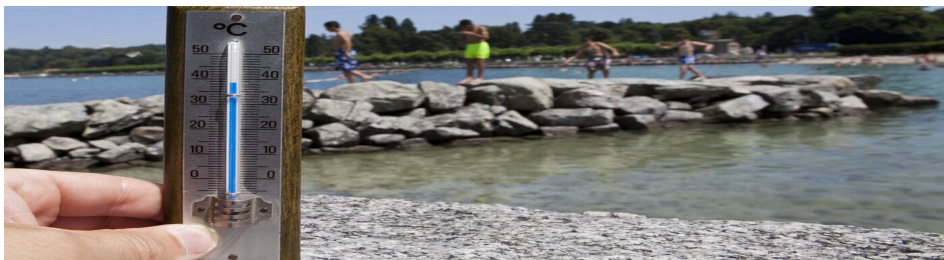
Different realities in the face of climate changes...

■ For city dwellers

- Heat waves
- Drought
- Pollution

■ For mountain dwellers

- Natural disasters
- Accessibility and viability of remote areas
- Impact on Winter tourism and agriculture



» **Relationship to growth**

The role of parliamentarians 1/2



- Listen to scientists
- Exchange with the population and stakeholders
- Provide courageous answers that meet the challenges
- ... and are adapted to each region



The role of parliamentarians 2/2



- Unify the regions (melting of the glaciers)
- Rely on local opinion leaders



- Work with local and regional institutions
- Invest in international cooperation and solidarity

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