

Mountain Education & Innovation Manifesto

October 8, 2021 - Expo 2020 Dubai

Bearing in mind that:

Mountains cover 27% of the earth's land surface, providing up to 60-80% of all freshwater resources for our planet. They host some of the most intact and well-preserved habitats and ecosystems worldwide and are home to many endangered species.

About 1.1 billion people globally reside in mountain areas, with a great diversity of cultures and traditional knowledge. At the same time, mountains are often characterised by lack of work opportunities and qualified jobs, which are often centralised in urban areas.

Mountains are suffering from lack of infrastructures and basic services. Also for this reason, youths living in mountain areas have less chances to access high quality education within their territory and often pursue their career in urban centres located in the lowlands.

Despite the specificities of mountain environments, cultures and economies, schools and universities do not address these specificities: the majority of curricula lack a mountain-oriented focus. However, we consider mountain education as a key driver to overcoming global sustainability challenges, these challenges require new ideas and innovative solutions to overcome them.

We recognise that:

Climate change is having concrete impacts on mountain areas, which can be considered as "sentinels of change" due to their close links with the surrounding regions and lowlands. At present, average temperatures are increasing more rapidly in mountain areas than in flatlands. At the same time, the increased pace of ice and snow melting, as well as the shortening of cold seasons, is affecting the availability of water resources with consequent negative impacts on agricultural practices and other vital activities located in mountain areas and in the nearby lowlands. Species composition and abundance are being increasingly impacted from changes in the cryosphere temperature. **The risk for natural hazards is steadily increasing putting pressure on human settlements.** The profitability of winter tourism is declining mostly due to temperature increasing affecting local economies.

Mountains are hotspots of biodiversity. Covering only 27% of the world's surface, they host more than 85% of the species of mammals, birds, and amphibians, many of which are found only in mountain regions.

About 75% of the world's agro-biodiversity has been lost over the last century. Food diversity is crucial to preserve the cultural landscape and ensure food security within mountain communities. Mountains represent an important repository of agrobiodiversity that might be key to the future of world food security in the face of climate change by providing a gene pool of resilient crops.

We live in an interconnected world empowered by data and information, and technology is part of our life. However, there is still a digitalisation and technology access gap especially to be found in mountains and remote areas.

Virtual and physical connections, focused on the promotion of concrete action on strategic topics in line with the Agenda 2030 for Sustainable Development, as well as and cooperation among schools, universities and local communities **enable us to think differently and imagine a better future for all**. Moreover, interconnections enable youth living in remote areas to share their own uniqueness, expand their horizons and build a lively community.

Entrepreneurship, research and innovation are key prerequisites to foster economic livelihoods and contribute to sustainable development in mountain areas. Research and Innovation can address lack of services, goods, and other basic needs empowering youths to become innovators and entrepreneurs, especially in the framework of small and medium enterprises, in their mountain territories.

We, the Youth, call for:

MOUNTAIN ORIENTED EDUCATION

- to include specific lessons and interdisciplinary experiences on climate change, biodiversity, interconnections and technology, innovation and entrepreneurship in mountains for promoting a better environment for everyone to live in;
- to include interdisciplinary practice-oriented training, mentoring and incubation in school and university curricula, including experience and best practices from mountain entrepreneurs;
- to have access to information about all higher education courses and opportunities among different countries and different mountain areas;
- to have access to information about local projects, meet and work together on community projects overcoming physical distances;
- to promote transnational and international experiences - e.g. students exchanges, summer camps, capacity building meetings - promoting exchange on strategic environmental and societal challenges that mountain areas are currently facing;
- to promote high quality education in mountain areas through the use of technological tools to ensure that no one is left behind. A university centre well-connected to different stakeholders and networks, from the local to the international level, can attract young people in mountain areas, preventing those who have finished their studies from going abroad while at the same time promoting place-based research and technology transfer able to answer to the needs of the local communities;
- to link school programs with projects able to bring value to our territories and enhancing local communities, for example promoting experiences related to sustainable tourism in mountain areas, as a way to foster the understanding and valorisation of their cultural and natural heritage;
- to sustain school attendance through the promotion of public transports as a way to foster physical connections and reduce environmental impact.

MORE SPECIFICALLY WE ASK

- to be taught about the risks and changes linked to **climate change** and about the environmental impact of fast-paced production and consumption.
- to be taught about concrete and innovative actions we can take in order to reduce our environmental impact and mitigate climate change.
- to be taught about natural hazard prevention, mitigation and adaptation and understand the risks linked to climate change.
- to be taught about **mountain biodiversity**, its loss, its value, the problems it is currently facing, and its crucial importance for all human activities.
- to be taught about actions that can be taken on the local, national and global scale in order to tackle the phenomenon of biodiversity loss in mountains.
- to be taught about the value of mountain biodiversity also on economical terms and be empowered with tools to measure and assess that value.
- to be taught about **connections, networks and technologies**, and how to benefit from existing information and technical knowledge to connect territories and culture for contributing to sustainable mountain development.
- to be taught about the opportunities for **entrepreneurship and innovation** in mountain areas, as well as about business regulations and financment opportunities in our regions.
- to be taught how to create new value from traditional production practices and develop new value chains, as well as manage production and consumption in a sustainable way preserving natural resources and fragile mountain ecosystems.

EMPOWERING OUR ACTIONS

- to be provided with interactive and engaging tools to participate in climate change and biodiversity preservation discussions;
- to be heard and to be involved in political decisions concerning climate change and biodiversity preservation measures in mountains at local, national, and global level;
- to be able to meet and exchange best practices, and learn from each other, as well as to encourage bottom-up actions and participation in concrete projects at home and abroad;
- to be empowered with the tools to understand local economy trends, develop innovative ideas for the sustainable improvement of local mountain businesses and services;
- to promote the development of specific policies able to take into account mountain biodiversity's economic, cultural and environmental value;

- to be granted with the means to move within mountain areas and towards urban centres in order to learn, exchange and innovate with a systemic approach;
- to grant free and high-quality access to technology and infrastructures to all young people even in the most remote mountain village, as well as promote technology transfer and technology adaptations to mountain communities' needs reducing the interregional gap between cities and mountain areas.

LIST OF SUBSCRIBERS:

Europe:

Albania:

Albanian Alps Alliance

Andorra:

Andorra Research + Innovation/snow and mountain center

Azerbaijan:

Mountain Culture and Landscape Research Institute
Western Caspian University

Bulgaria:

University of forestry, Faculty of forestry

France:

CNRS
Labex ITTEM: Universite Grenoble Alpes (UGA), Université Savoie Mont Blanc (USMB) et INRAE
Euromontana

Greece:

University of the Mountains

Italy:

"Alla scoperta di.." Escursioni Naturalistiche
A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883
Aasterlab
Anci Abruzzo
APS Creativi108
Associazione culturale Ecomuseo Lis Aganis Dolomiti Friulane
Associazione culturale Lunezia
Associazione Fondiaria AsFo La Chiara
Associazione Riabitare l'Italia
Associazione Va' Sentiero
Business Creator Consulting
Centro Studi Piemontesi-Ca dè Studi Piemontèis
CIPRA Italia
CNR - IRCrES
Collegio Regionale Veneto Guide Alpine
Collettivo Op
Comune Traversella
Comune Albaredo per San Marco
Comune di Bologna
Comune di Fortunago
Comune di Monte Isola
Comune di Onore

Comune di Ovaro
Comune di Peglio
Comune di Pratovecchio Stia
Comune di Resia
Comune di Ronco Canavese
Comune Vezza d'Oglio
Confartigianato Brescia Lombardia Orientale
Confindustria Belluno Dolomiti
Confindustria Como
Confindustria Lecco e Sondrio
Confindustria Sardegna Centrale
EuCliPa.Italy
Euroleader scrll
Federazione Italiana Escursionismo
Federturismo Abruzzo
Fondazione Cocchetti
GeoTeC-Geologia Tecnica Camuna
Intramontes Aps
Istituto di Istruzione Superiore "25 Aprile Faccio" di Cuorgne
Kite Association
L'Umana Dimora
Libera Università di Bolzano
Liceo Daniele Crespi
Mountain Partnership
MUSE
PiuValliTv
Polo UNIMONT dell'Università degli Studi di Milano
Pro loco Paesana
Rubbettino editore
Stati Generali delle Donne
StudioLeDriadi
UNCEM
UNIFI / Forest Sharing
Università del Molise
Unione Lucana del Lagonegrese
Università degli Studi di Torino
Università di Trento
WAYouth APS

Romania:

Lucian Blaga University of Sibiu
Romanian Academy- CE-MONT
Romanian Mountain Forum
RoMontana

Russia:

Institute of Geography Russian Academy of Sciences
Gorno-Altai State University

Spain:

Basque Centre for Climate Change (BC3)
Cryosanabria
MOVING H2020 Project
Universitat Autònoma de Barcelona

The Netherlands:

True Nature Foundation

Turkey:

Akdeniz University Faculty of Sport Sciences

Ukraine:

Institute of Socio-Economic Regional Studies

Asia:

Afghanistan:

Aga Khan foundation

Bangladesh:

OTHOWAIN Bandarban Hill Tract

India:

Central Himalayan Institute for Nature and Applied Research (CHINAR)
Centre for Sustainable Development
Doers
EduCARE India
Iucn India

Kyrgyzstan:

Institute for sustainable development strategy
International University of Kyrgyzstan

Nepal:

EcoHimal Nepal
Environment and Household Energy Services
Environment Nepal

Pakistan:

Aga Khan Council for Pakistan
University of Baltistan Skardu

Tajikistan:

Tajik Social and Ecological Union

America:

Argentina:

Instituto Argentino Recursos Hídricos
VICAM: Vicuñas, camelidos y ambiente

Chile:

Mujeres a la cumbre

Colombia:

Fundación Lugares
Fundacion Pangea

Peru:

Tinkuy Consult
UNIA

USA:

The Porter Voice Collective
University of Georgia
University of Massachusetts Boston; ATREE-USA
Wild Rose Education

Africa:

Nigeria:

Cross River State Government

Morocco:

Association Ayur pour le Développement de la Femme Rurale

Cameroon:

ICENECDEV

Malawi:

Mulanje Mountain Conservation Trust

Togo:

Platform of Civil Society Organizations for the Safeguarding of Mountains