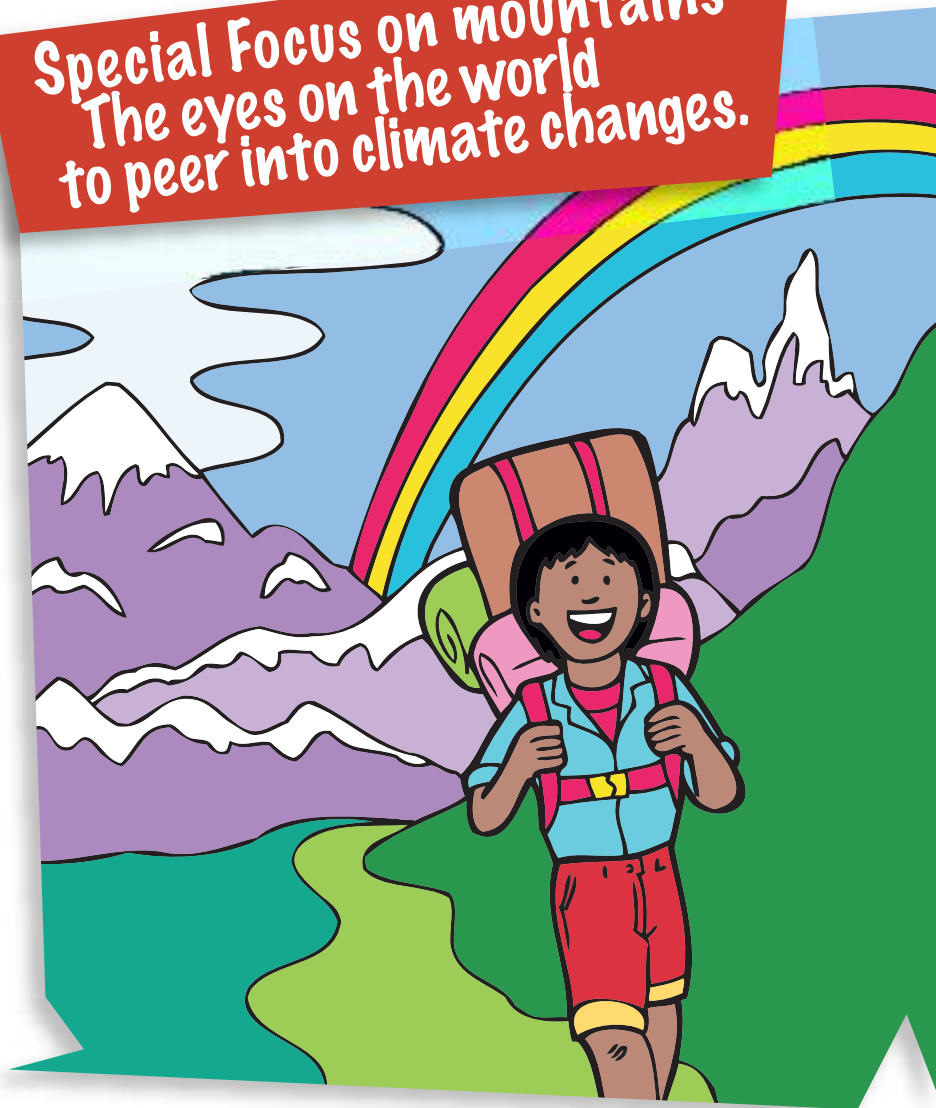




WORLD ENVIRONMENT DAY | 05 JUNE
Green Economy: Does it include you?

Special Focus on mountains
The eyes on the world
to peer into climate changes.



SHARE
Status of High Altitude Research on the Environment

The high mountain regions are source of fresh water and life for millions of people, are *sentinels* of environmental and climatic changes.

They can be considered "*barometers*" of climate change and early indicators of the fragility of the environment.



In the KHUMBU Valley, the **PYRAMID INTERNATIONAL OBSERVATORY** sited at 5050 m a.s.l., helps us to understand the secrets of climate change and the Himalayan environment



What is Climate?

Climate is the average of long-term weather patterns.

What is Climate change?

Is the change of long-term weather patterns. They can become warmer or colder. Annual amounts of rainfall or snowfall can increase or decrease.

What is global warming?

An average increase in the Earth's temperature, which in turn causes changes in climate. A warmer Earth may lead to regional changes in rainfall patterns, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans. When scientists talk about the issue of climate change, their concern is about global warming mainly caused by human activities.

The decade 2001-2010 was the warmest since records began in 1850.

Global temperature raised in the last century of about 0.8°C, while in mountain regions the increase is up to 1.6°C in the only last 30 years. Climate prediction shows larger changes in mountain regions than in lowlands.

CLIMATE CHANGE ON MOUNTAINS

Mountain Glaciers

Are source of water for many of the world's river systems and for million of people and are melting at unprecedented rates.

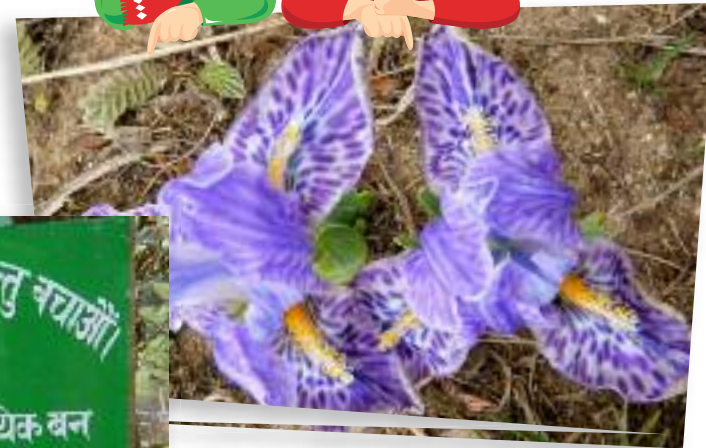


Mountains Flora and Fauna

Increase of global temperatures is causing broader ecological changes, with effects on plant and animal communities.

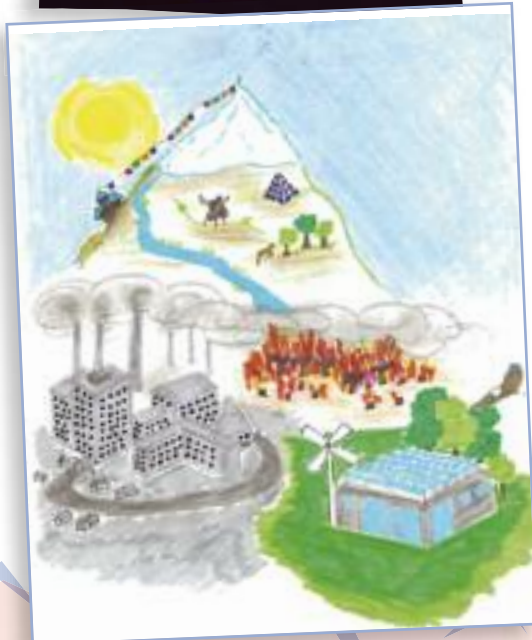
Understanding how climate change affects mountains, and learning how to manage any negative effects, is vital for all of us,

wherever we live!



Mountains are ideal sites for studying environmental and climate changes. In the mountains, changes are revealed earlier than in the lowlands.

It is important to carry out research to detect the earliest signals of global environmental change activities on high altitudes areas in order:



- To define the consequences of global environmental change for mountain regions as well as lowland systems dependent on mountain resources
- To protect fragile mountain ecosystems
- To provide information for sustainable land, water, and resource management for mountain regions at local to regional scales
- To improve the quality of life of mountain inhabitants



Study the atmosphere, climate and environment is the main purpose of the **SHARE project** and the heart of the observations made at the **Nepal Climate Observatory – Pyramid**, for helping to:

- reduce the melting glaciers
- improve the quality of the air that we breathe
- safeguard the drinking water support life of ecosystems and biodiversity
- invite to reduce emissions of pollutants and promote the green economy



located at 5050 m (16568 ft.) a.s.l., in the Khumbu Valley, at the Everest foothills.

At the Pyramid, Nepalese staff permanently runs the Pyramid and NCO-P laboratories. To date, 520 scientific field missions have been carried out at the facility by 230 researchers from 143 different research institutions in several nations.

The Pyramid international laboratory staff





In the first 6 years of measurements a clear annual seasonality with very high pollution peaks was observed at NCO-P during pre-monsoon seasons.

The NCO-P is not working alone but together with a team of weather sentinels (7 monitoring stations), located starting from Lukla, along the Khumbu valley.

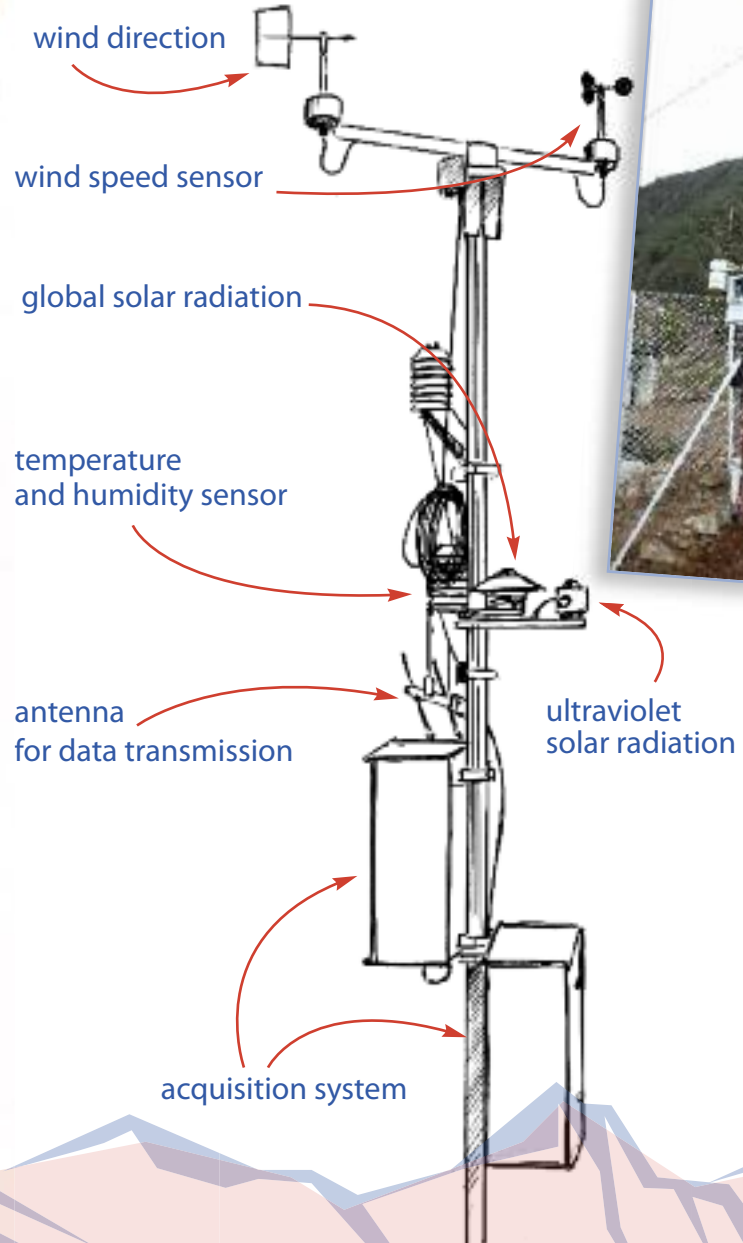
The NCO-P collects very precious information and data about the Earth's climate and together with its 8 little friends about the health of Himalayan mountains. They are trying to oppose the effects of climate change, not only in the Himalyan range but worldwide:

the NCO-P and the 7 nepali stations SHARE their data with international networks and programmes (UNEP-ABC, WMO-GAW, WCRP-CEOP, NASA-AERONET, ILTER) that are collaborating to reach a common objective:

Since 2006 nearby the Pyramid there is a laboratory called Nepal Climate Observatory - Pyramid that hosts sophisticated equipments able to carry out measures of atmospheric compounds and pollutants, and meteorological parameters.



preserve the mountain eco system for the Future GENERATION !



...Draw your mountains



Name _____

Age _____



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For more information:
www.evkc2cnr.org - www.evkc2.isac.cnr.it
email evkc2cnr@evkc2cnr.org



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