

Mapping vulnerability in mountains

COFO 2014 - Side event

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COFO 22
WORLD FOREST WEEK



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In this presentation:

Mountain areas of the world

First findings on:

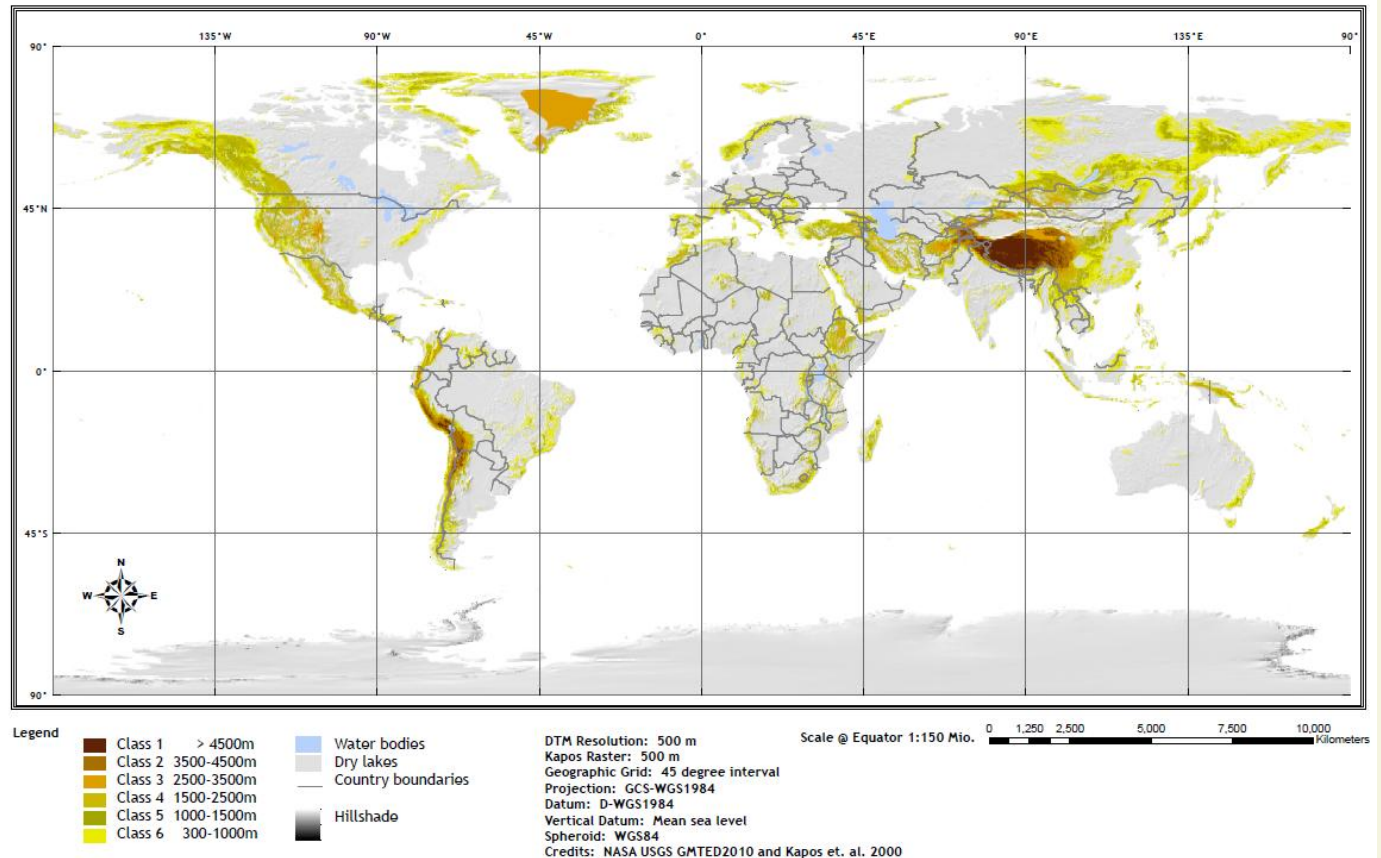
- Mountain population
- Land cover
- Climate constraints
- Terrain constraints

The overall goal

Mountain areas of the world

Mountains cover 32,444,156 km²
meaning **22% of earth's land area**

Map1: Mountains of the world based on 6 Kapos classes and SRTM/GMTED2010 terrain data



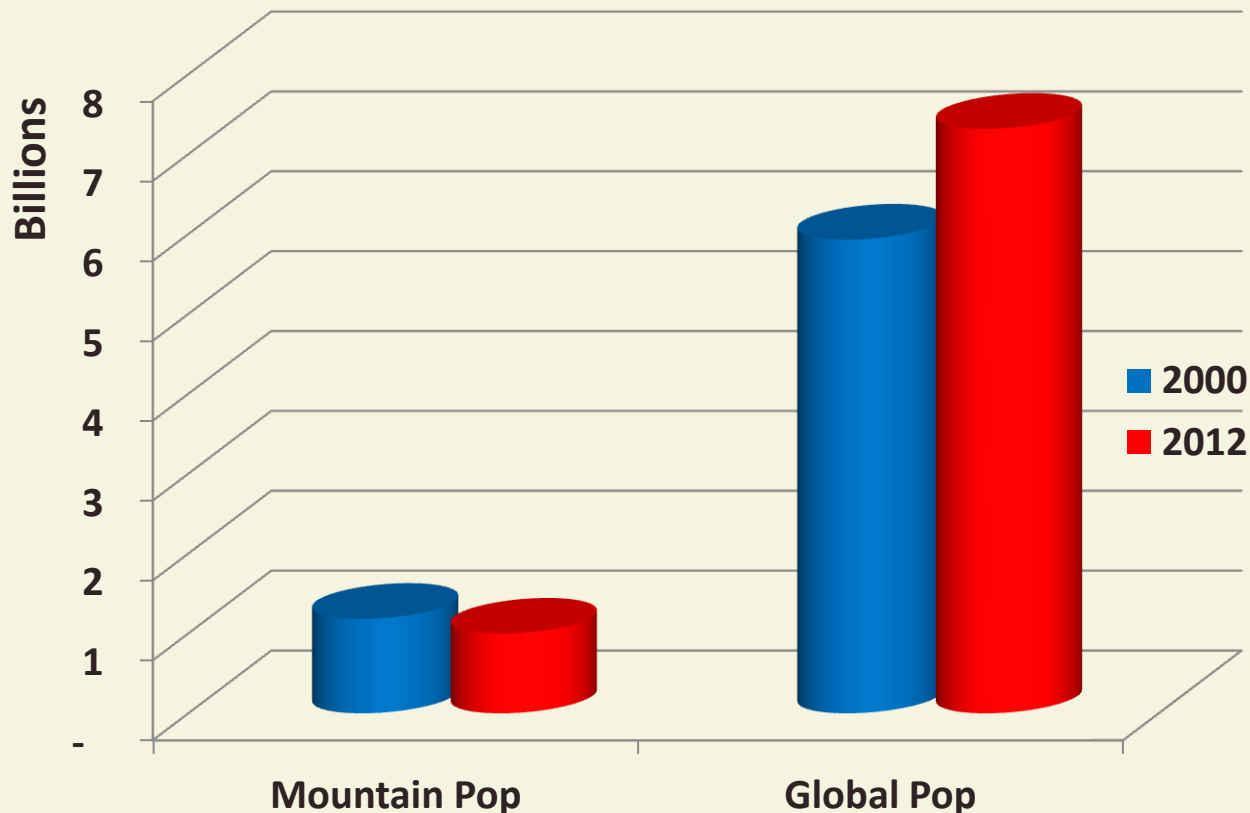
First findings - Population

Today **almost one billion** people live in mountain areas = 14% of the world's population



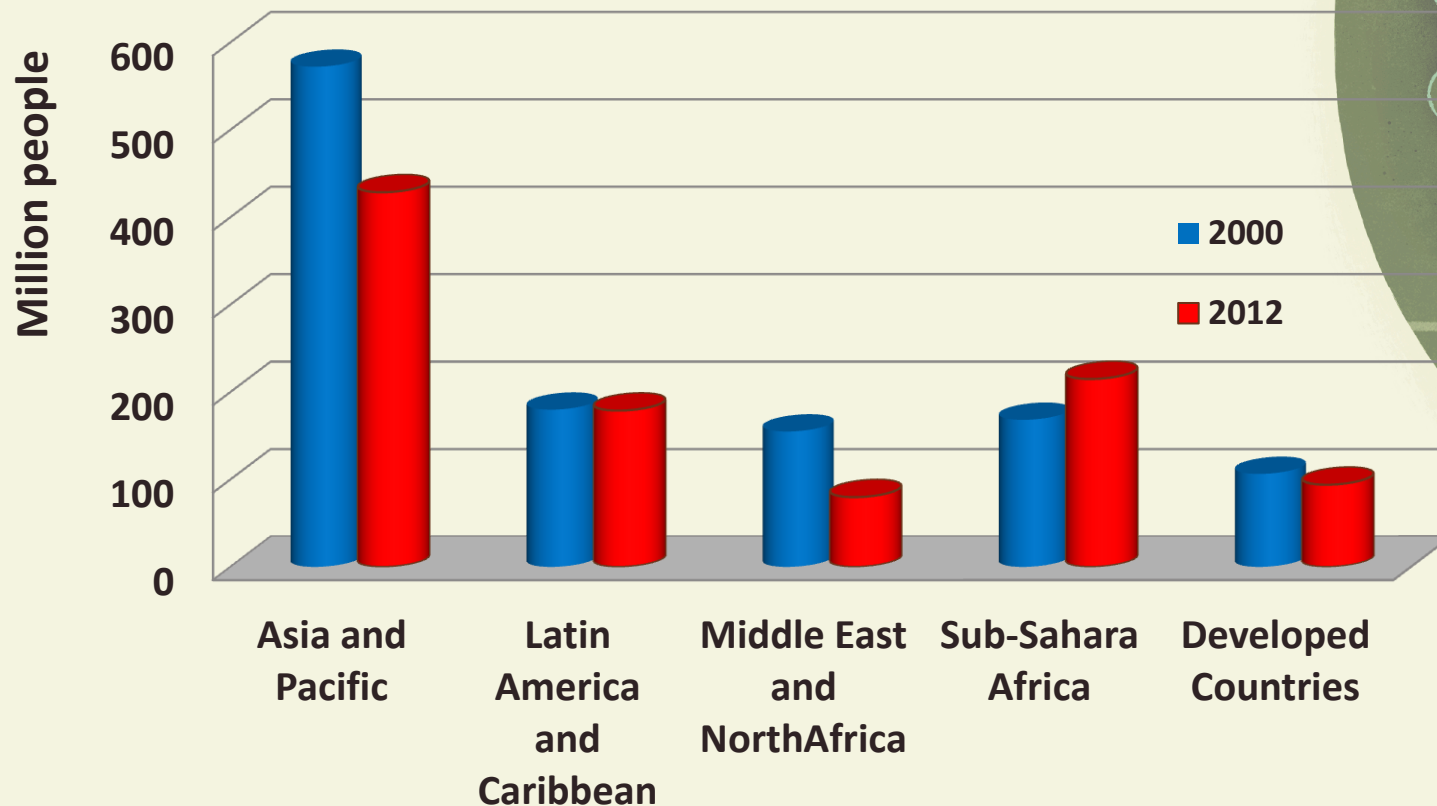
First findings - Population

While global population grew of 23% over the past decade, mountain population decreased of 16%



First findings - Population

Mountain population trends evolved differently according to the geographic region



First findings - Population

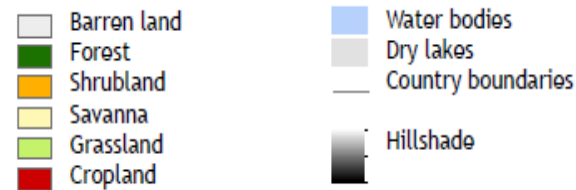
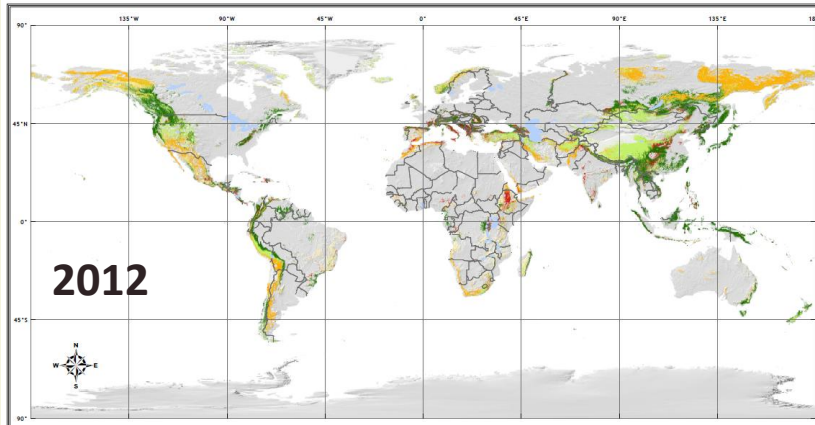
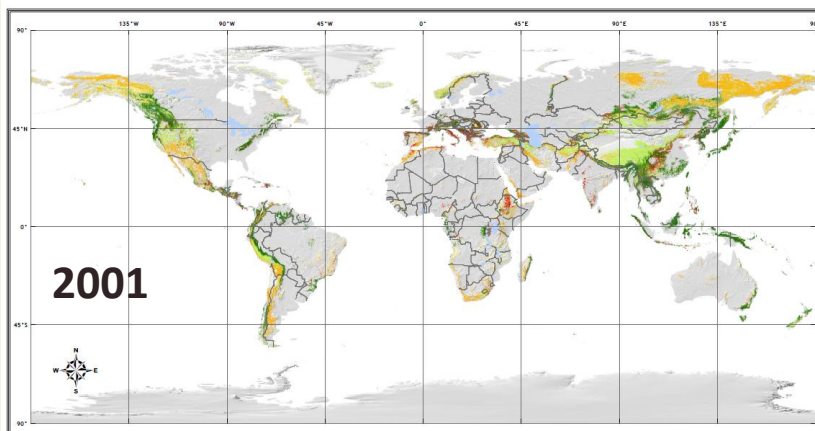
Mountain population decreased at all altitudes but the higher the altitude the stronger the phenomenon

- Lowlands: +33%
- 300-1000 m: -14%
- 1000-1500 m: -27%
- 1500-2500: -8%
- 2500-3500 m: +10%
- 3500-4500 m: **-42%**
- ≥ 4500 m: **-46%**



First findings – Land cover

Six land covers are considered: forest, cropland, shrubland, savanna, grassland and barren land



First findings – Land cover

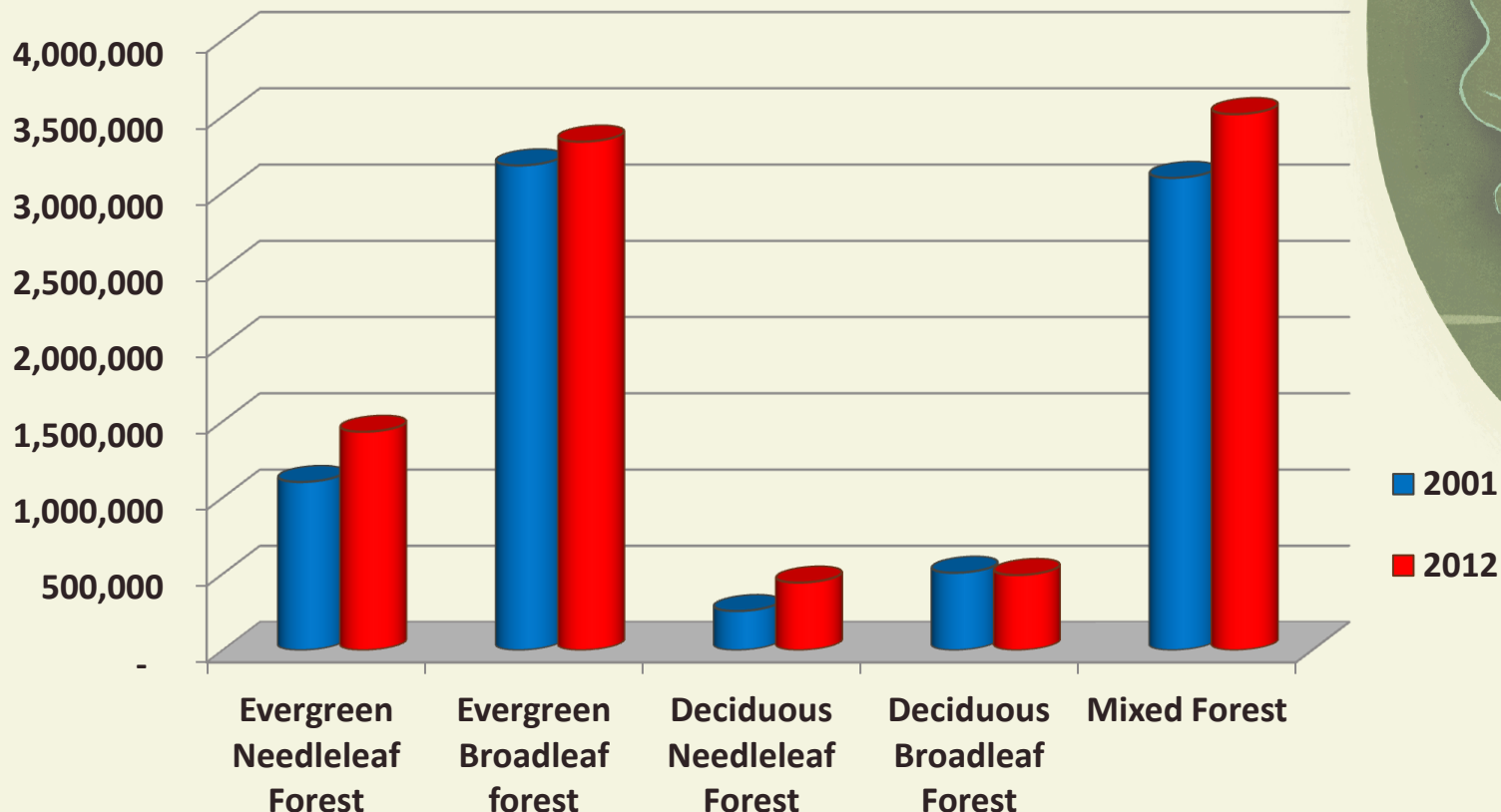
Overall, forest coverage expanded while cropland and savanna areas decreased

- Forest: **+13%**
 - Cropland: **-12%**
 - Grassland: no change
 - Shrubland: 3%
 - Savanna: **-12%**
 - Barren land: -7%
- Productive land
- Unproductive land



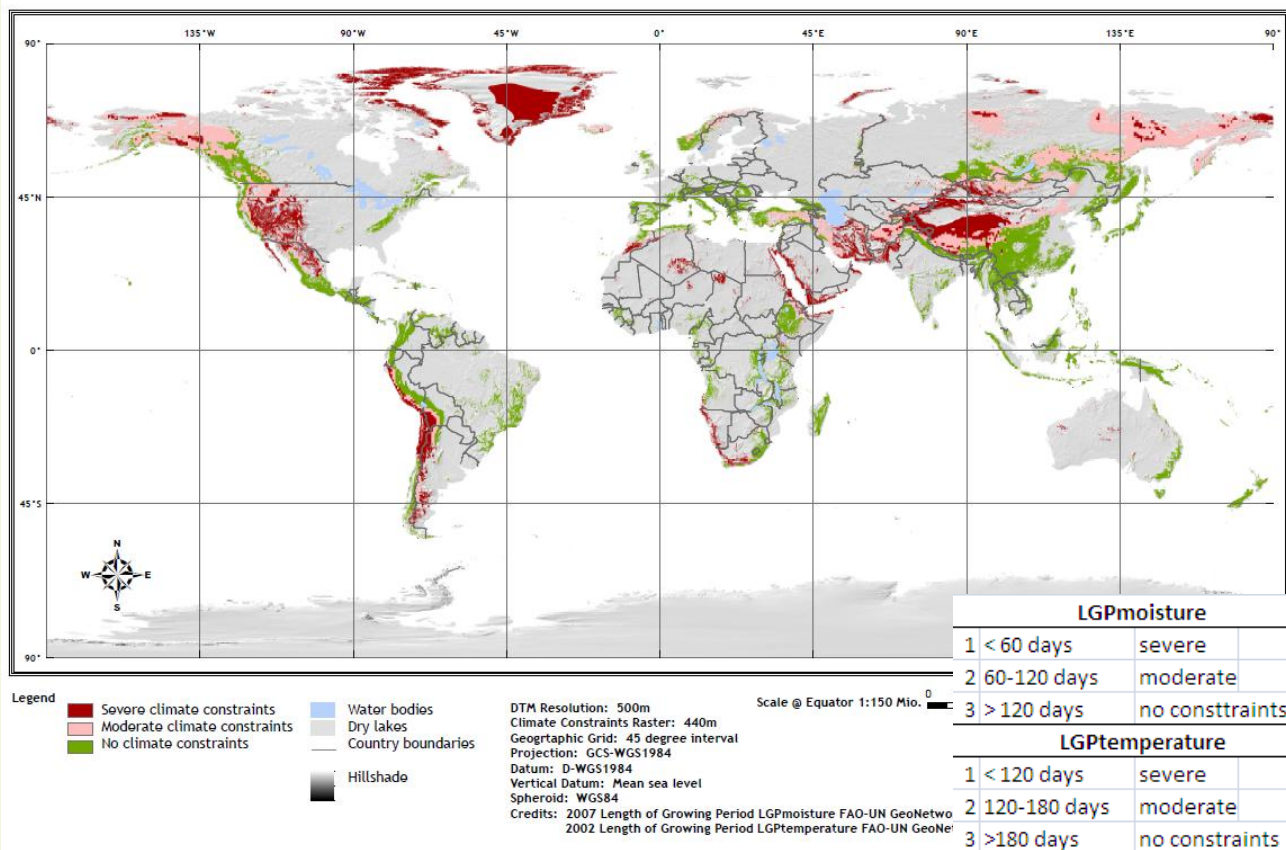
First findings – Forest cover

Forests increased 13% in mountain areas across the decade and grew at the same % pace in all classes (about 13%) but class 2 (4%)



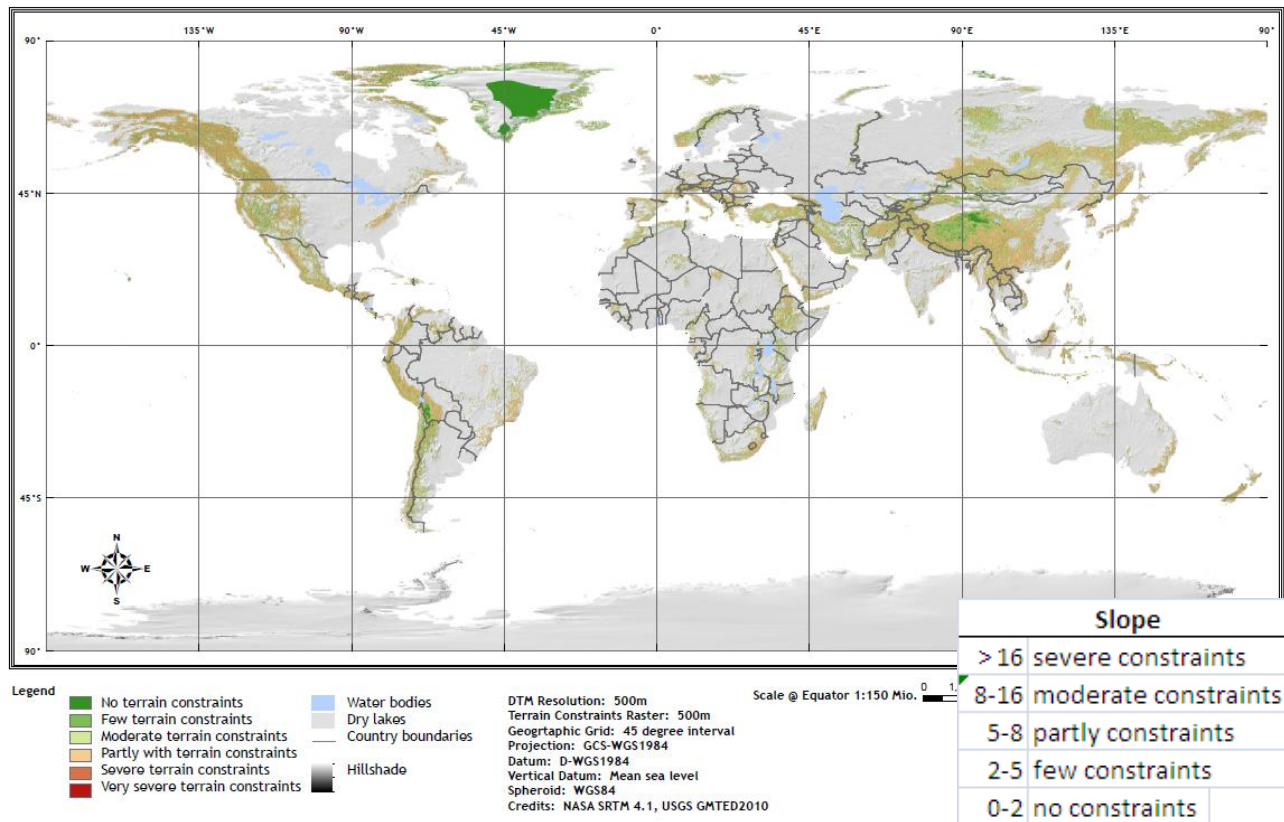
First findings – Climate constraints

Length of periods with cold temperatures and moisture limitations



First findings – Terrain Constraints

Percent slope of the terrain



The overall goal

The study will assess the **causal factors of vulnerability** and the **potential risk of food insecurity** faced by **mountain populations** of a country



Thank you for your attention!



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