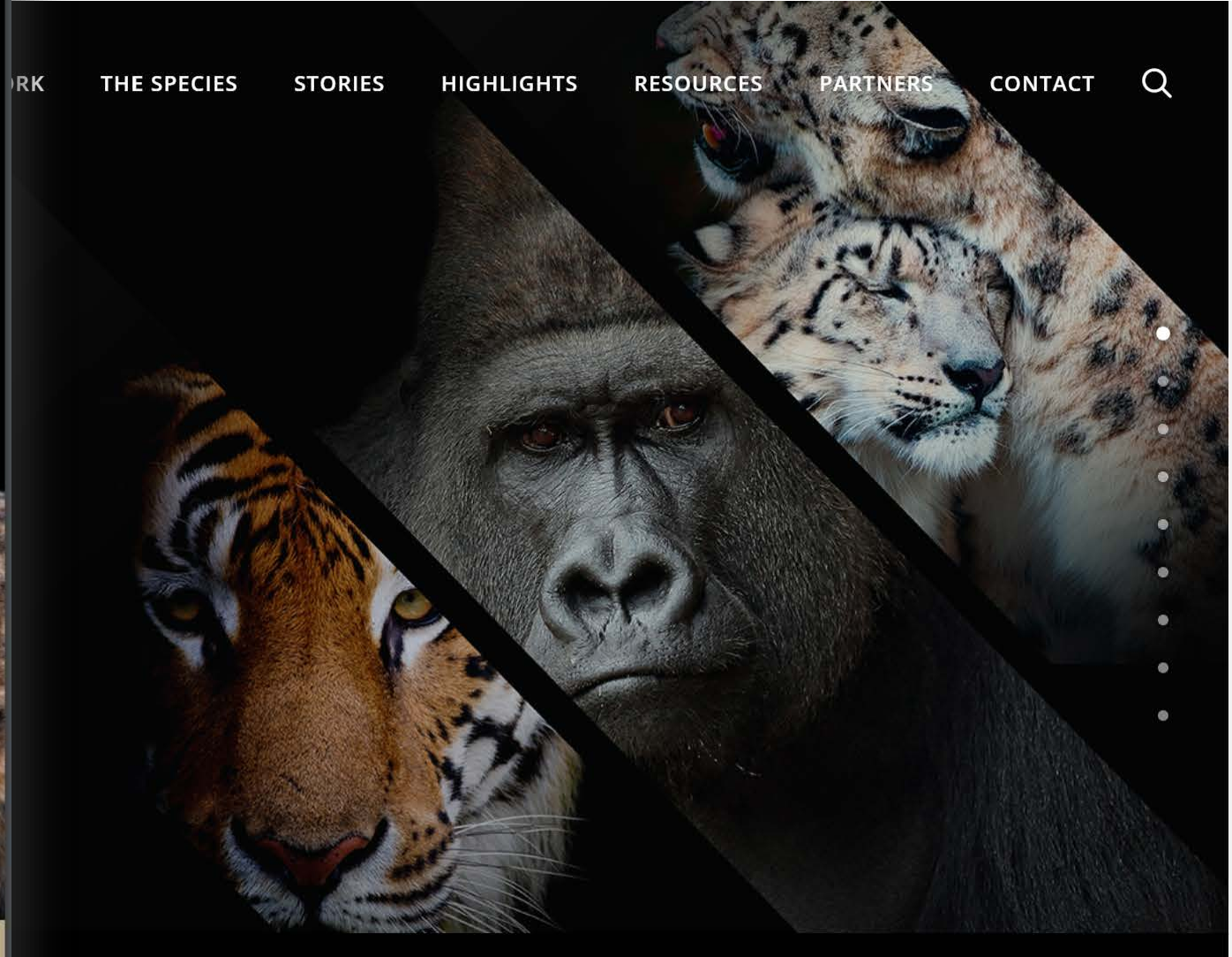
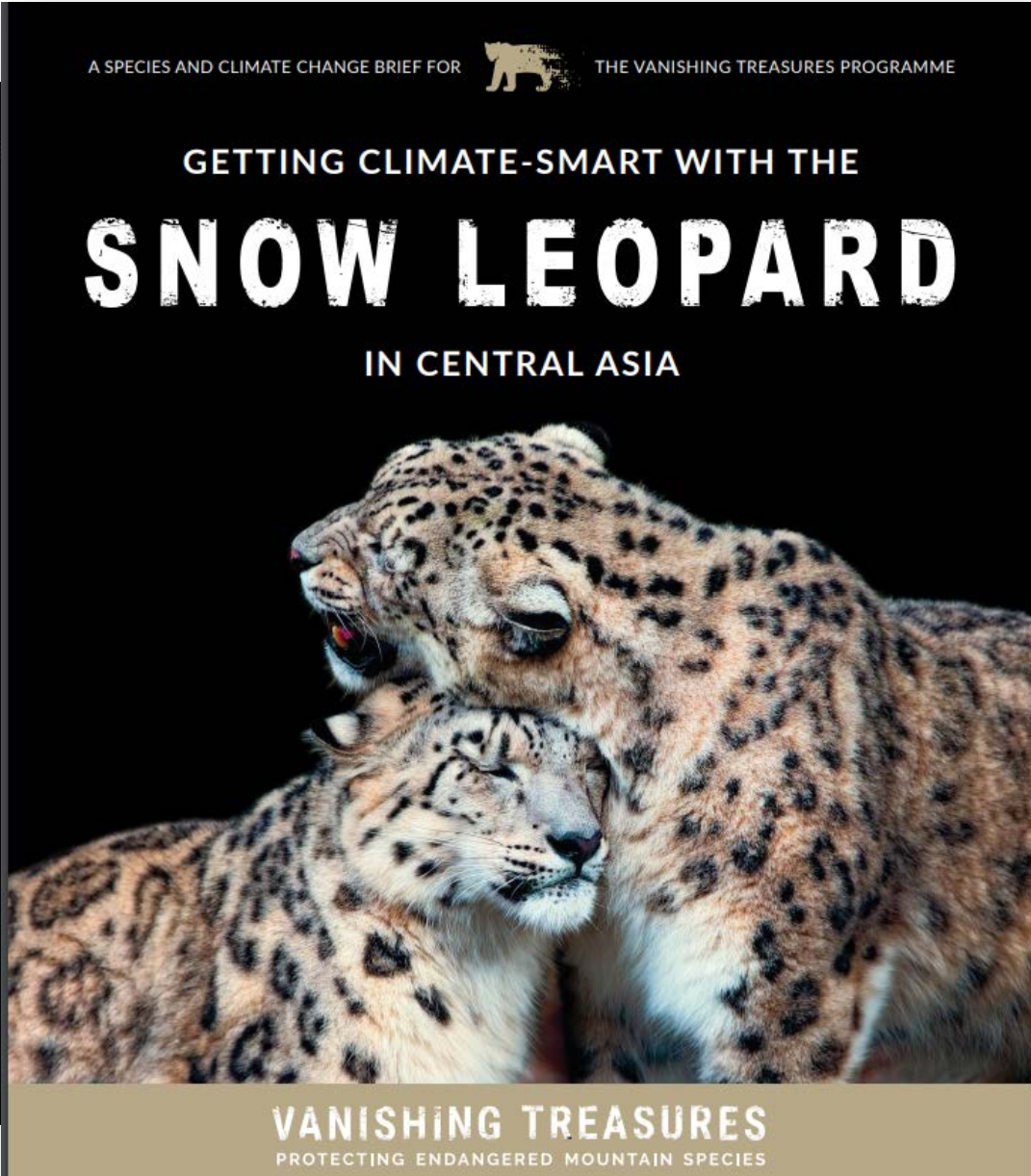
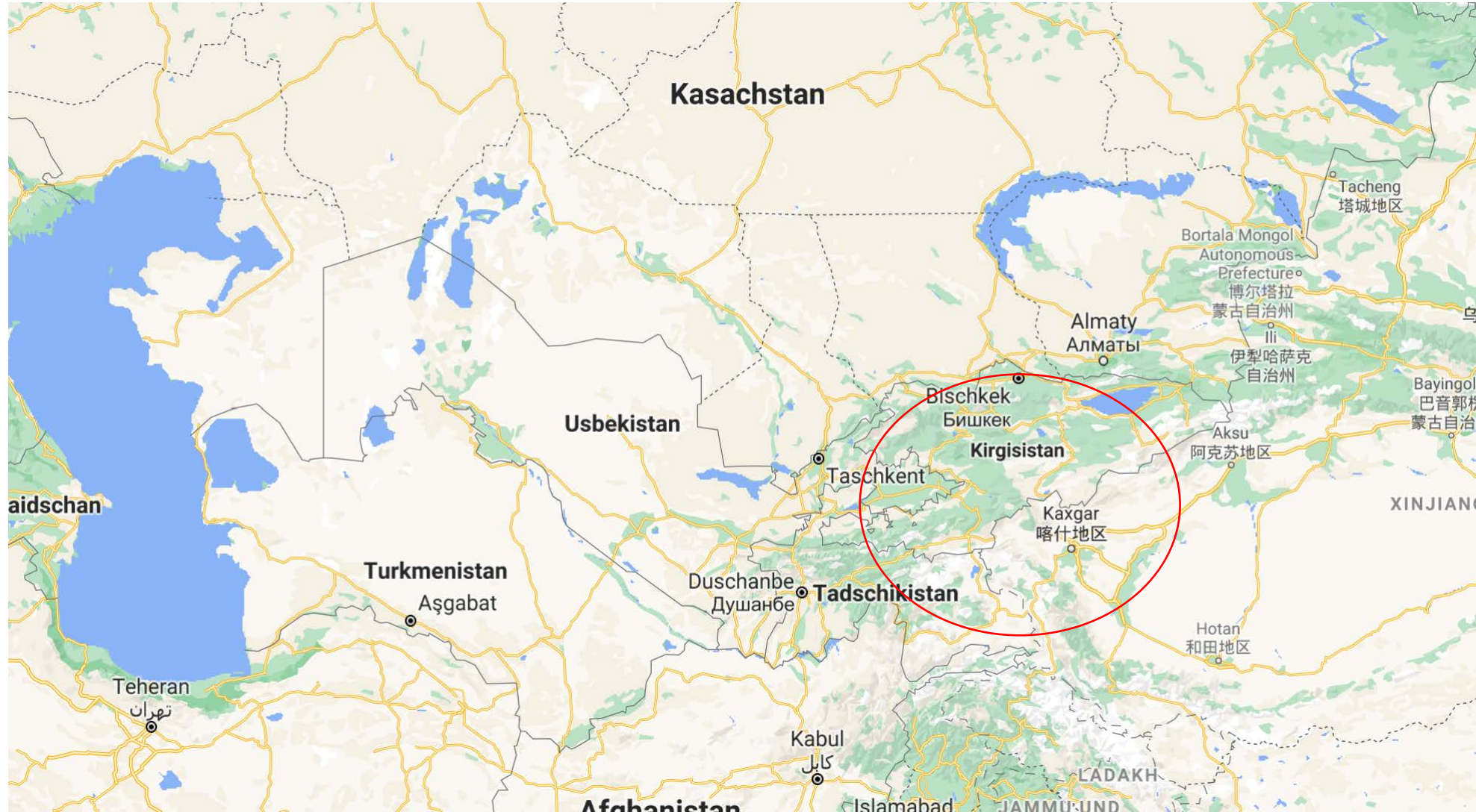


# Climate Change and human-wildlife interaction in Tajikistan + Kirgizstan

Marc Zebisch,  
Institute for Earth Observation  
Eurac Research, Bolzano, Italy



# The project region





*A herder's camp in Tajikistan. Credit: ANCOT 2020*



*Tajikistan mountainous landscape. Credit: tajwildlife/ANCOT*

# Human-Wildlife Interactions

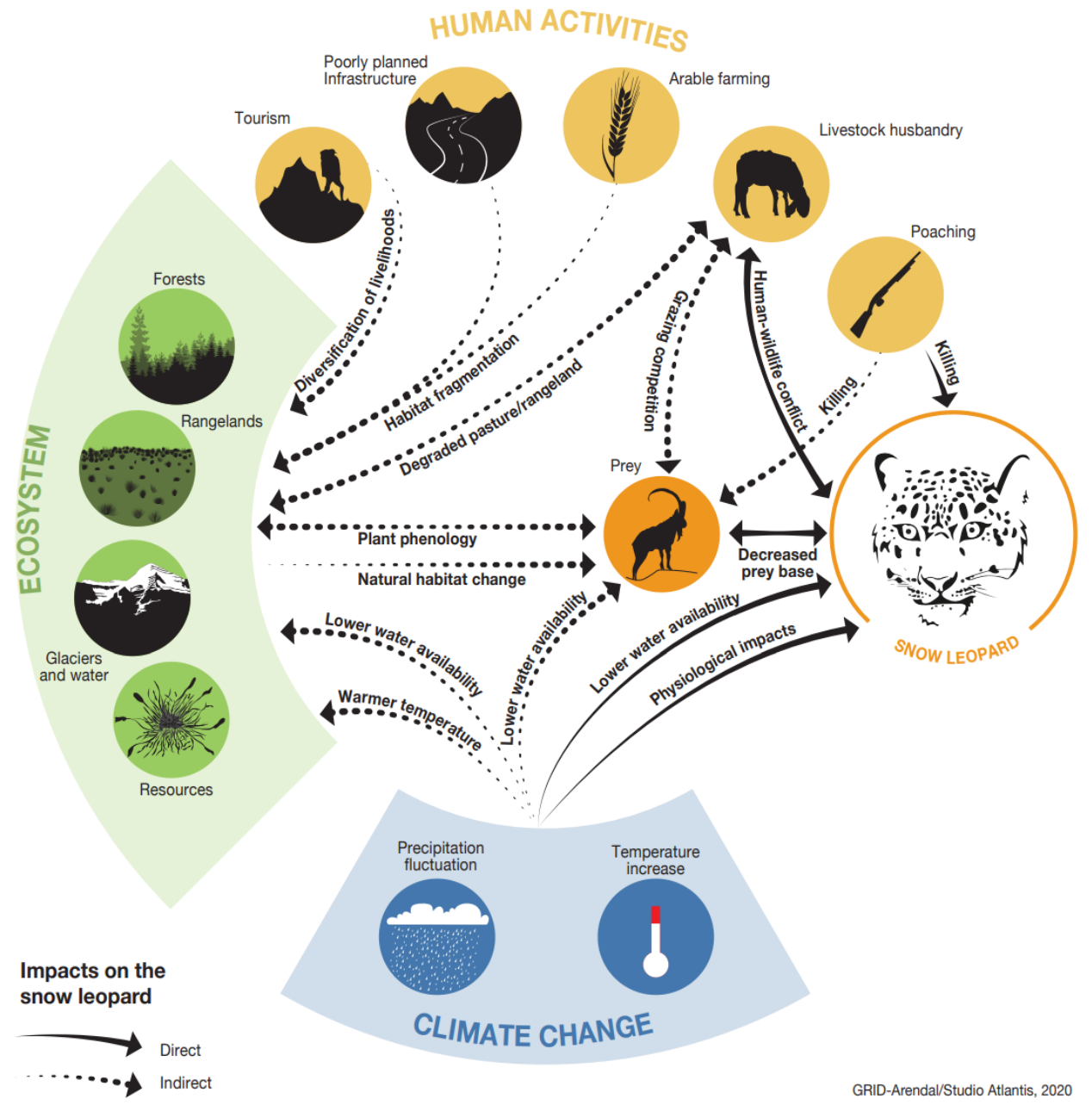


Figure 1: The impacts of climate change and human activities on the snow leopard in Central Asia

- Population development (Soviet + post-soviet)
- In Soviet Time: External supply with fodder (through KGZ)
- Dependencies on subsidies
- Dependencies on external aid
- Remittances (from migrant labour in Russia, Kyrgyzstan)
- Natural resources of the areas are used by external actors (
  - External livestock owners
  - Owners of hunting concessions)
- Meaning of region for transnational activities
  - Mining
  - Transport
- Transboundary situation TJK <-> KGZ (Trans-humance pastoralist, traditional trans-boundary markets)
- Energy supply → complex interaction with livestock
  - Region can not be completely self-sufficiency

**Hazard**

**Impact**

**Vulnerability**

physical

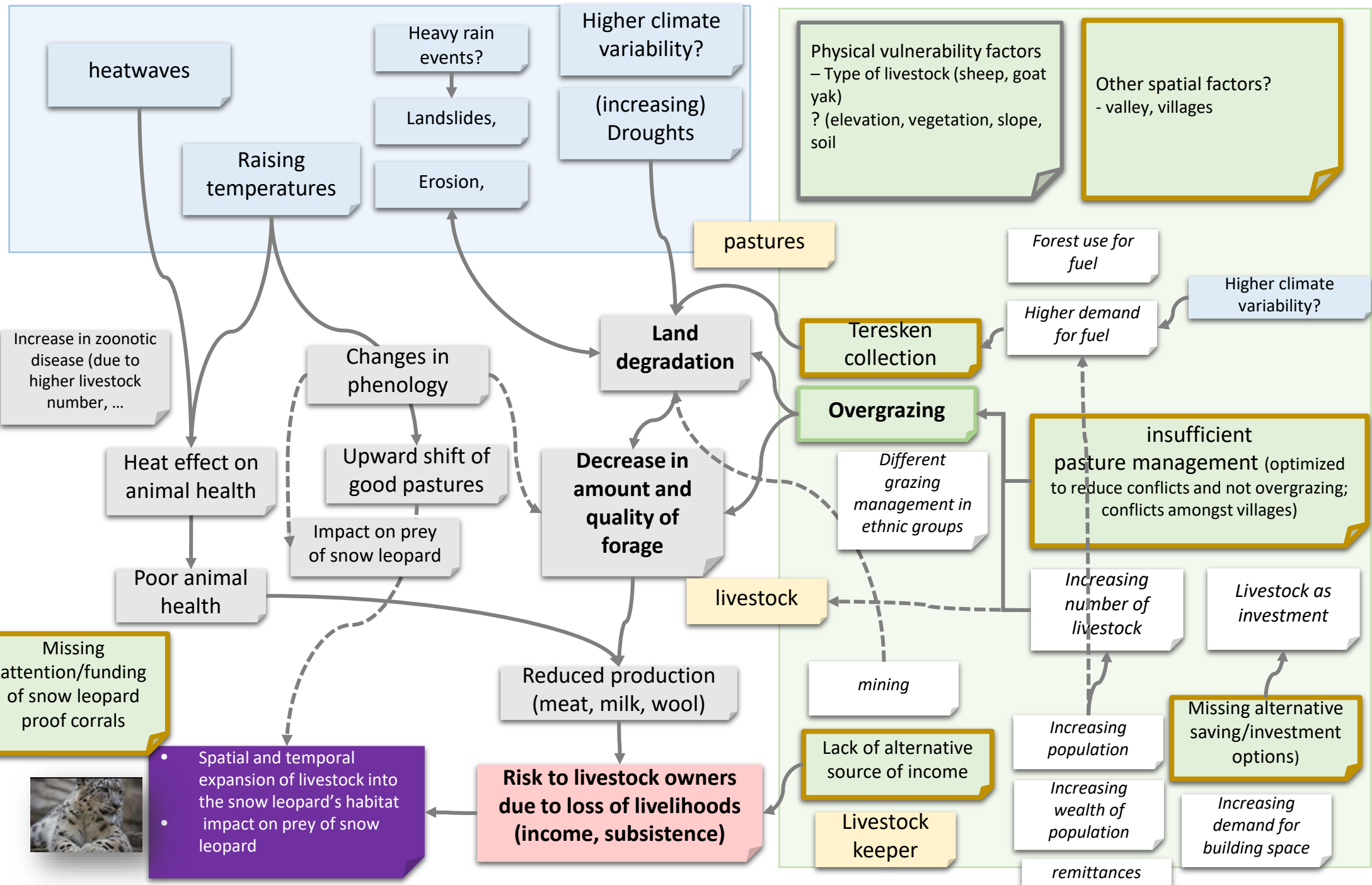
ecosystem

Socio-economic - lack of capacity

**Exposure**

underlying Risk driver

**Risk**

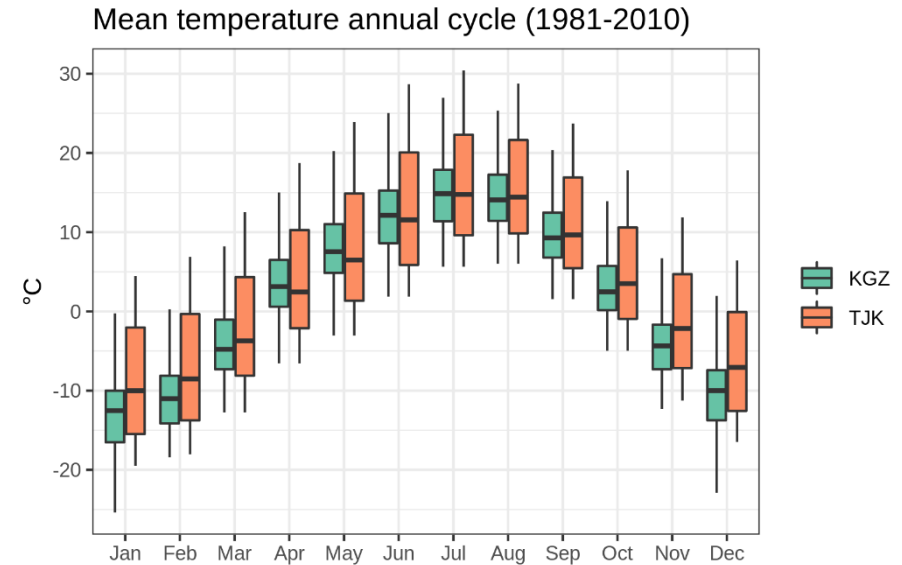
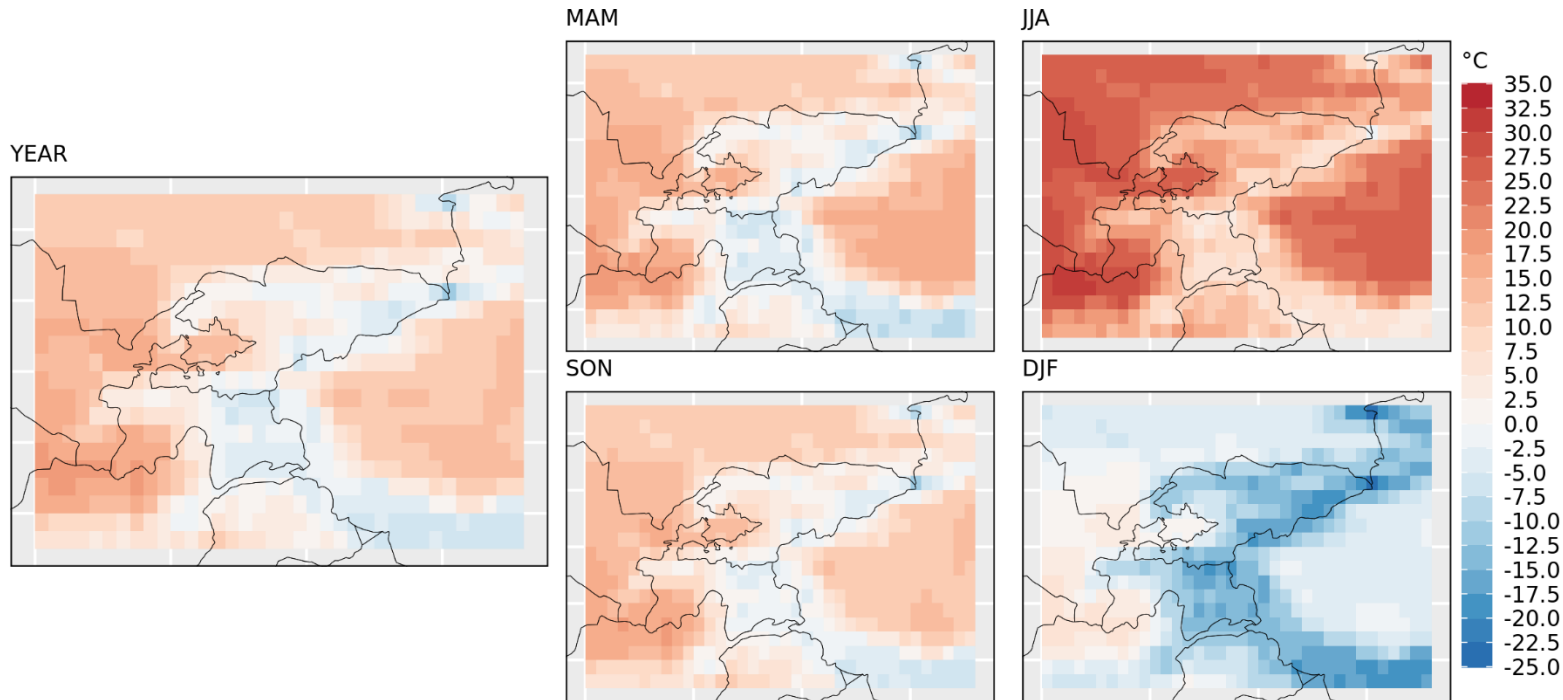


- Spatial and temporal expansion of livestock into the snow leopard's habitat
- impact on prey of snow leopard

# Climate Analysis: Current Climate

1981 – 2010 climatologies – mean temperature

Source: CRU TS4-04





# Change analysis

Total precipitation  
 All models  
 Regridded to 0.5°x0.5° grid  
 Changes from 1981 – 2010

