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Guardian of the Ice: Conserving the Snow Leopard in a Warming World

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Associate Programme Management Officer

Regional Dialogue 3
Ice-free mountains, futures in the making. Adaptation and life after glaciers.
Thursday, June 58

Climate change in Central Asia

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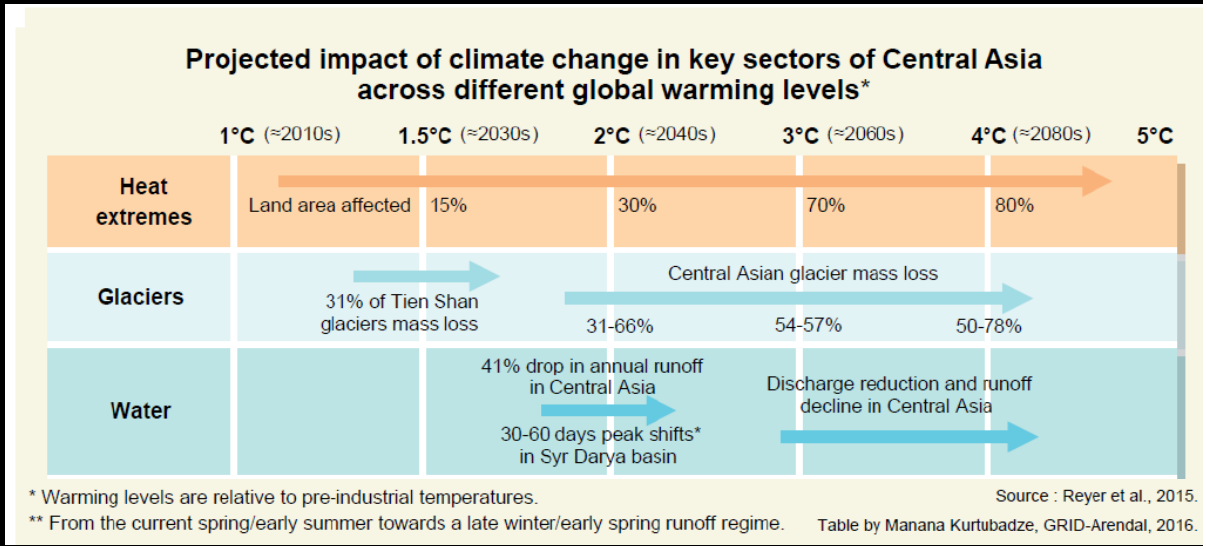
General trends in mountains

- High variability due to topographic effects on local climate
- Temperature increase of 1.5 - 3°C in the medium term/medium emission scenarios
- More frequent and longer periods of drought, especially at lower altitudes
- Higher winter precipitation (not necessarily snow), lower summer precipitation
- Higher frequency of high intensity precipitation
- Loss of glacier mass



Snow leopard vulnerability

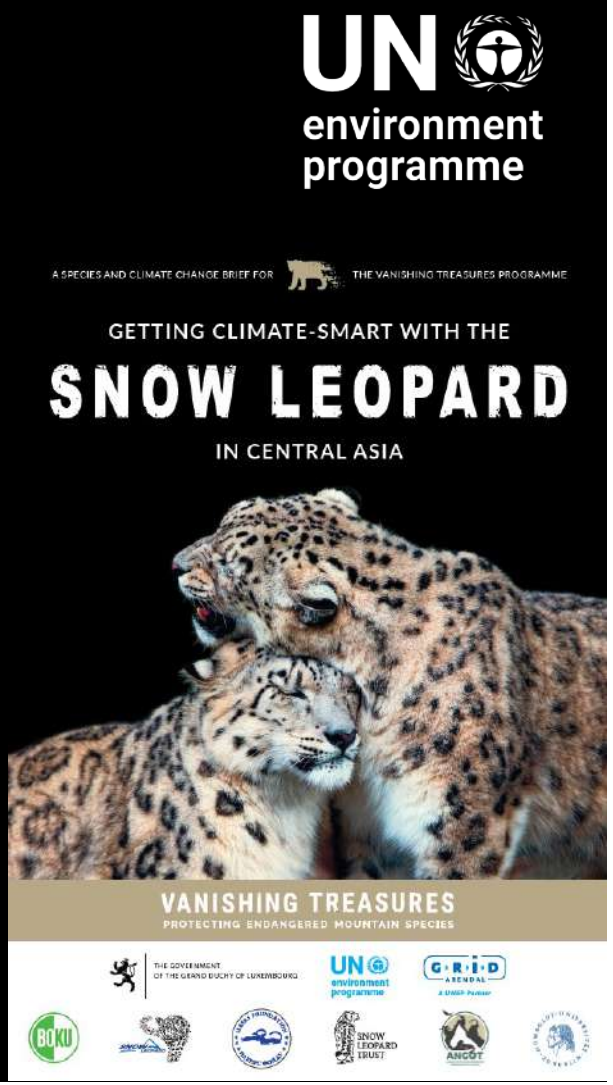
Existing threats

- Poaching for illegal trade
- Preventive/Retaliatory killing
- Loss of prey base
  - poaching,
  - grazing competition,
  - habitat loss/fragmentation,
  - Disease
  - Feral dogs
- Habitat loss/fragmentation (urbanization, resource extraction, transport infrastructure, unregulated tourism)

Climate threats

Direct
- increased temperature
- Disease exposure

Indirect
- Upwards shift of mountain pastures -> increased livestock predation risk & retaliation
- Increased disease risk to prey
- Change in prey movements (hampered by linear infrastructure)
- Upwards shift of treeline – habitat fragmentation



Climate risks to communities

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Water availability

- Highly variable
- Initial increase, long term decrease
- Poor water infrastructure

Crop agriculture

- Prolonged growing seasons (depending on precipitation)
- Increased heat stress/droughts

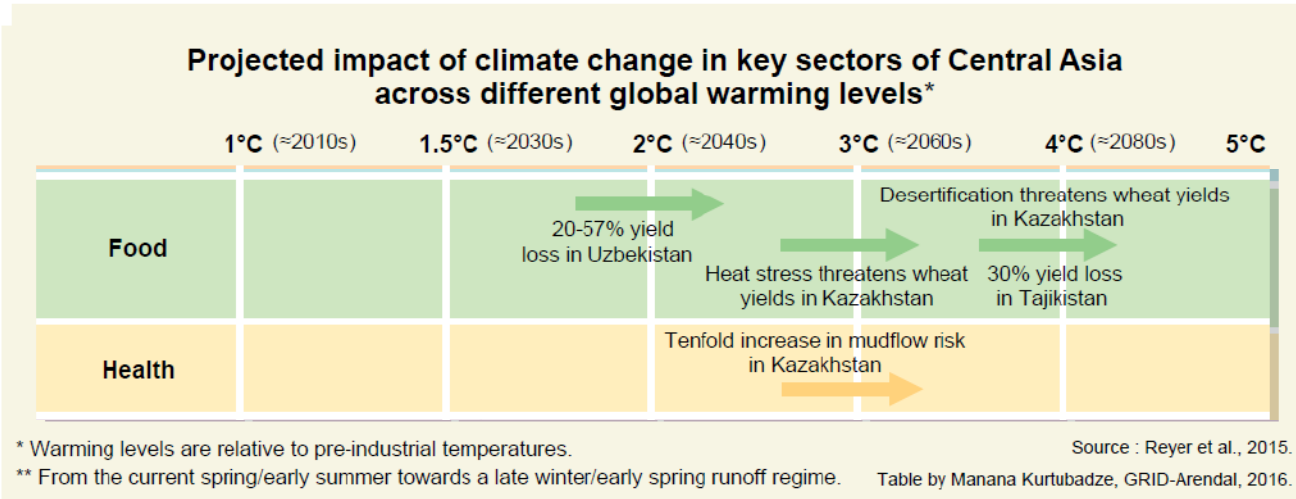
Low livelihood diversity – mainly livestock

Livestock losses

- Reduced winter/summer pasture quality
- Reduced winter fodder production
- Increased disease prevalence
- Increased depredation risk

Extreme weather events

- More frequent and longer drought spells
- Increased chance for intense rainfall events
- Increased flood/land slide risk



Addressing risks synergistically

Climate-smart conservation

Use climate predictions to inform
- wildlife corridors
- PA management
- Prevention of negative interactions with wildlife

Ecosystem restoration

- Restoring mountain pastures to avoid desertification
- Restoring mountain forests to increase water retention capacity

Increase livelihood diversity

- Risk spreading by adopting alternative livelihoods
- Ensure that these livelihoods are
  - climate-smart (adaptive),
  - Profitable
  - ecosystem-based
  - Supporting conservation

Improve resource management

- Grazing management
- Water management
- Forest management
- Wildlife interactions

CAMCA

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www.camcaproject.org

Central Asian Mammals and Climate Adaptation

Enhancing the conservation of flagship migratory mammal species of Central Asia through climate-informed management and decision making

АСБК

CAMPalatoo NGO for sustainable mountain development

CAMPtabiat Public Foundation for sustainable mountain development

CMS

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From Global Range to Local Action: Case of Kyrgyzstan

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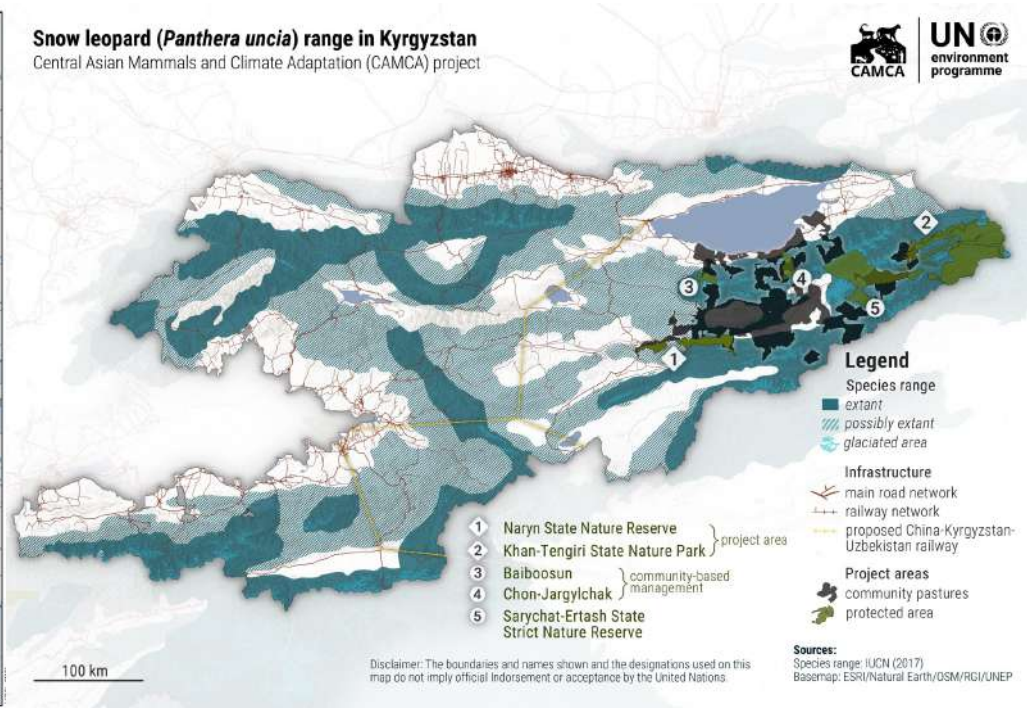
Global snow leopard range

Snow leopard range in the Kyrgyz Republic



Ecological Corridor

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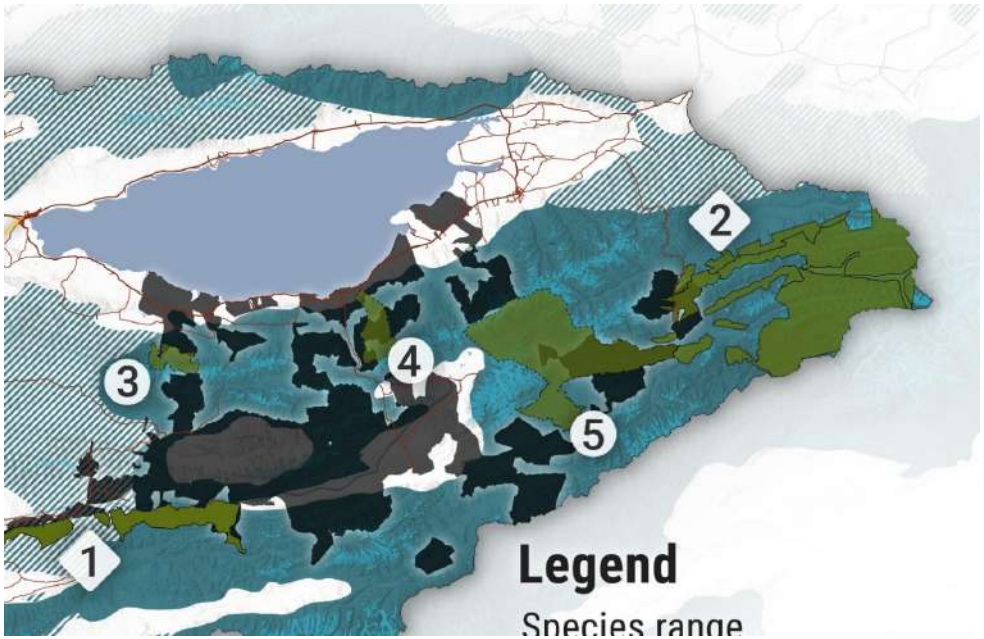
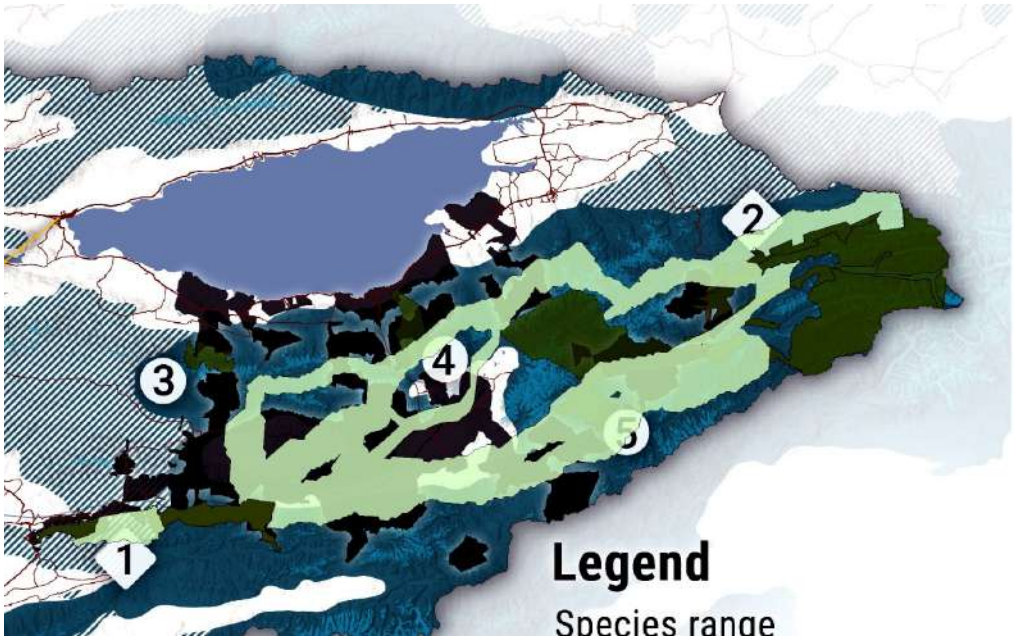
Range map



Range map + Ecological Corridor

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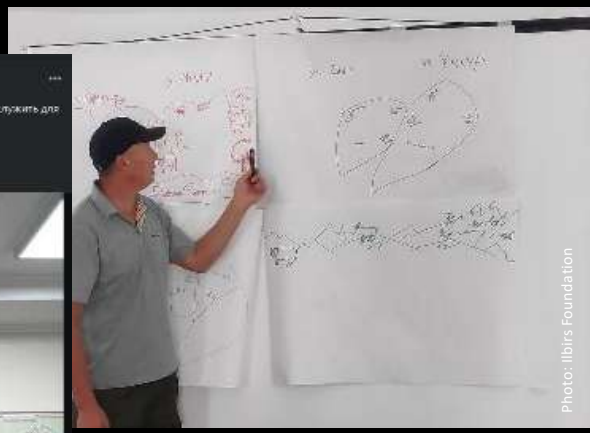
Central Asia

Climate-smart conservation

- Increased population monitoring efforts (+ equipment)
- Establishment of new Community-based Conservancy across several neighbouring communities (> 4500 km2)
- Construction of predator-proof corral to avoid retaliatory killings of snow leopard



Ecosystem-based adaptation

- One Health: livestock vaccination/tagging funnels
- Livelihood diversification (incl. equipment, training, mentoring, peer-to-peer learning, market development) through
  - Beekeeping
  - Small scale fruit plantations. Some run by women's groups.
  - Eco-tourism development, tours, homestays and a visitor center
- Community conservation funds
  - 10-50% of profit
  - Towards environmental activities

Central Asia

Policy adoption

Central Asia

Local level:
- Community-based conservancy in Toktogul

Landscape level:
- Climate-smart landscape management plan for the Kyrgyz Alatoo range

National level:
- NSLEP snow leopard action plan revisions in Tajikistan)

Regional level:
- Inclusion of climate-smart conservation and EbA in GSLEP and CMS' CAMI strategic and background documents

Global level
- Integration of climate change and mountain biodiversity monitoring in Post-2020 framework

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PROTECTING ENDANGERED MOUNTAIN SPECIES

THANK YOU

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