

**One Health in Action:
Balancing Livelihoods,
Livestock, and Ecosystem
Health in Central Asia**

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WCS Temperate Asia Region



Founded in
1895



Conserves habitat for
~50%
of Earth's biodiversity



350+
protected areas WCS helped
create since our founding



WCS works in
50+
countries



4,000+
scientists, conservationists, animal
experts, and other dedicated staff



400+
peer-reviewed scientific
publications each year



205
Indigenous community partners



2,000+
local community partners



30X30
Partnering with governments,
communities, and others to protect
30% of the planet by 2030

Where we work



Mountains of Central Asia Biodiversity Hotspot



Threats on biodiversity in Central Asia

OVERHARVESTING AND ILLEGAL TRADE: wild ungulates, reptiles, birds, plants.

INFRASTRUCTURE DEVELOPMENT AND EXTRACTIVE INDUSTRIES: fences, roads, railways, powerlines.

HUMAN-WILDLIFE CONFLICT: Affects carnivores, scavengers, alien species or disease control.

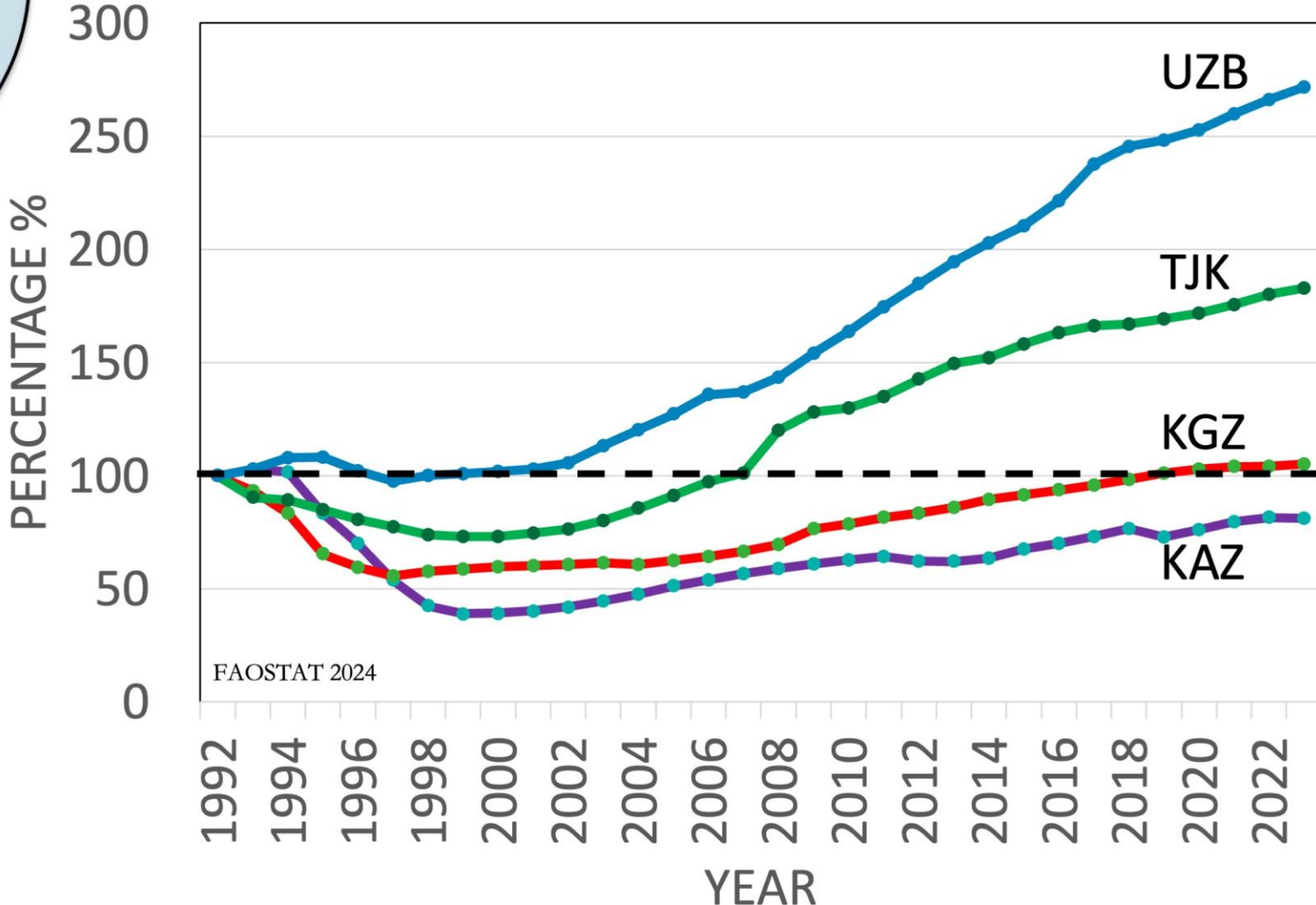
ANIMAL DISEASES: mass die off events, spillage from domestic animals, increase risk of extinction.

CLIMATE CHANGE: A multiplier on all other threats, glacier melting, water shortage, wildfires.

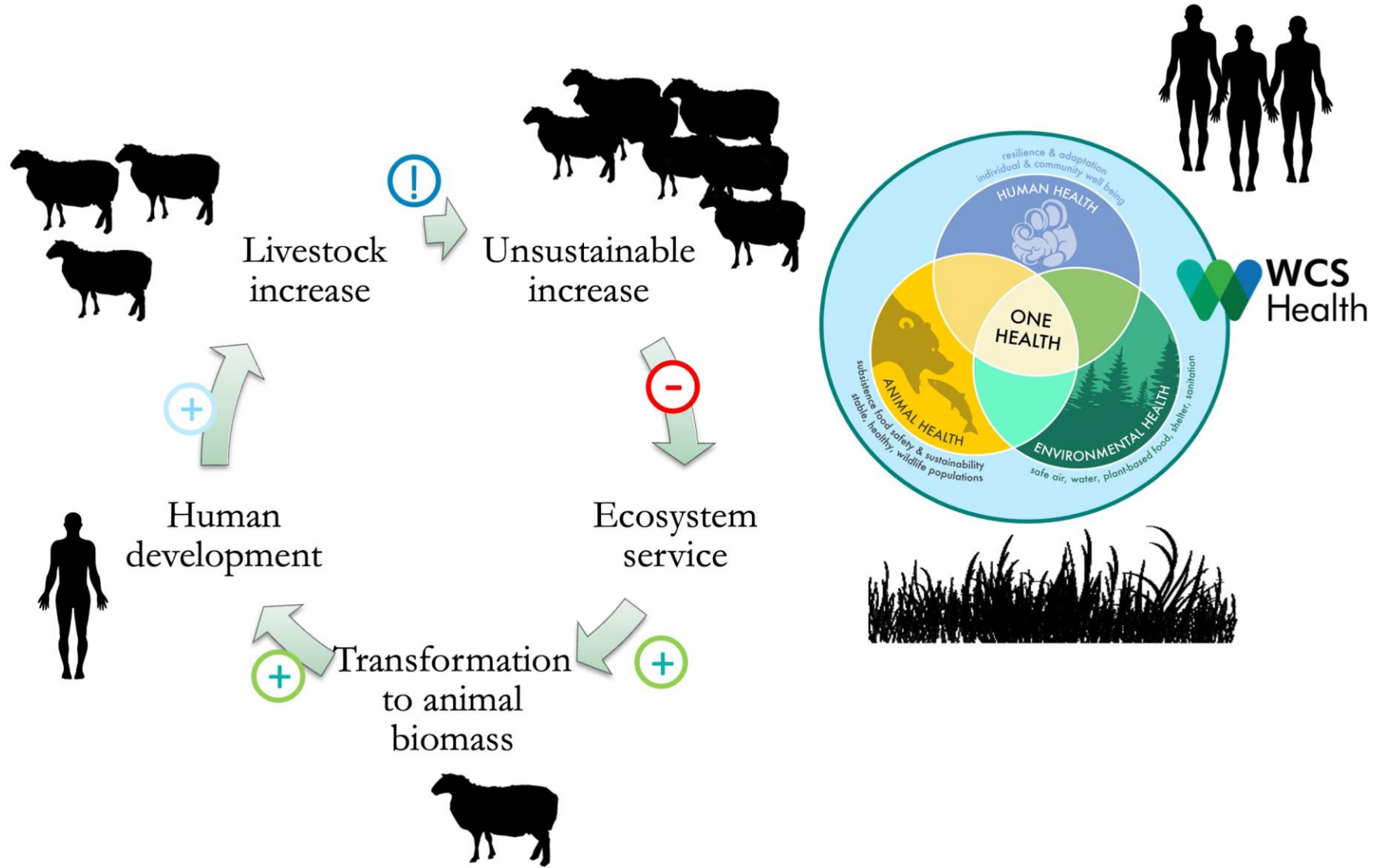


+90M LU

Livestock increase in Central Asia (1992-2023)



Livestock, development, and One Health



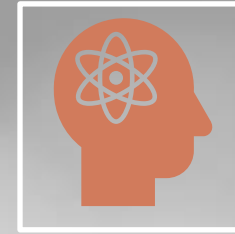
Constraints on One Health (OH) development in Central Asia



Capacity: Low attractiveness, trainer's gap, rigid systems, no curriculum in OH, no centralized formal training systems.



Policy, legislation, and governance: Existing legislation but lack of implementation. Limited institutionalization of OH across health sectors. Governance to be strengthened.



Knowledge and awareness: Lack of solid cross-sectoral data sharing, no baseline, sometimes apathy or opposition between health agencies.



Motivation: Affects mainly public health sector, resulting from low salaries, indifferent management, erratic decision making, low transparency.

Context

Response

1

Biodiversity:

- May increase hazard of EID.
- May decrease the risk of zoonotic pathogen spillover.



1

Biodiversity:

- Target key biodiversity areas.
- Prioritize nature integrity.

2

Economic development:

- Environment and especially biodiversity conservation are seldom prioritized.



2

Economic development:

- Integrate conservation and development.
- Support alternative options.

3

Health system governance:

- Weak strategic policy framework.
- Ineffective oversight.
- Weak accountability.

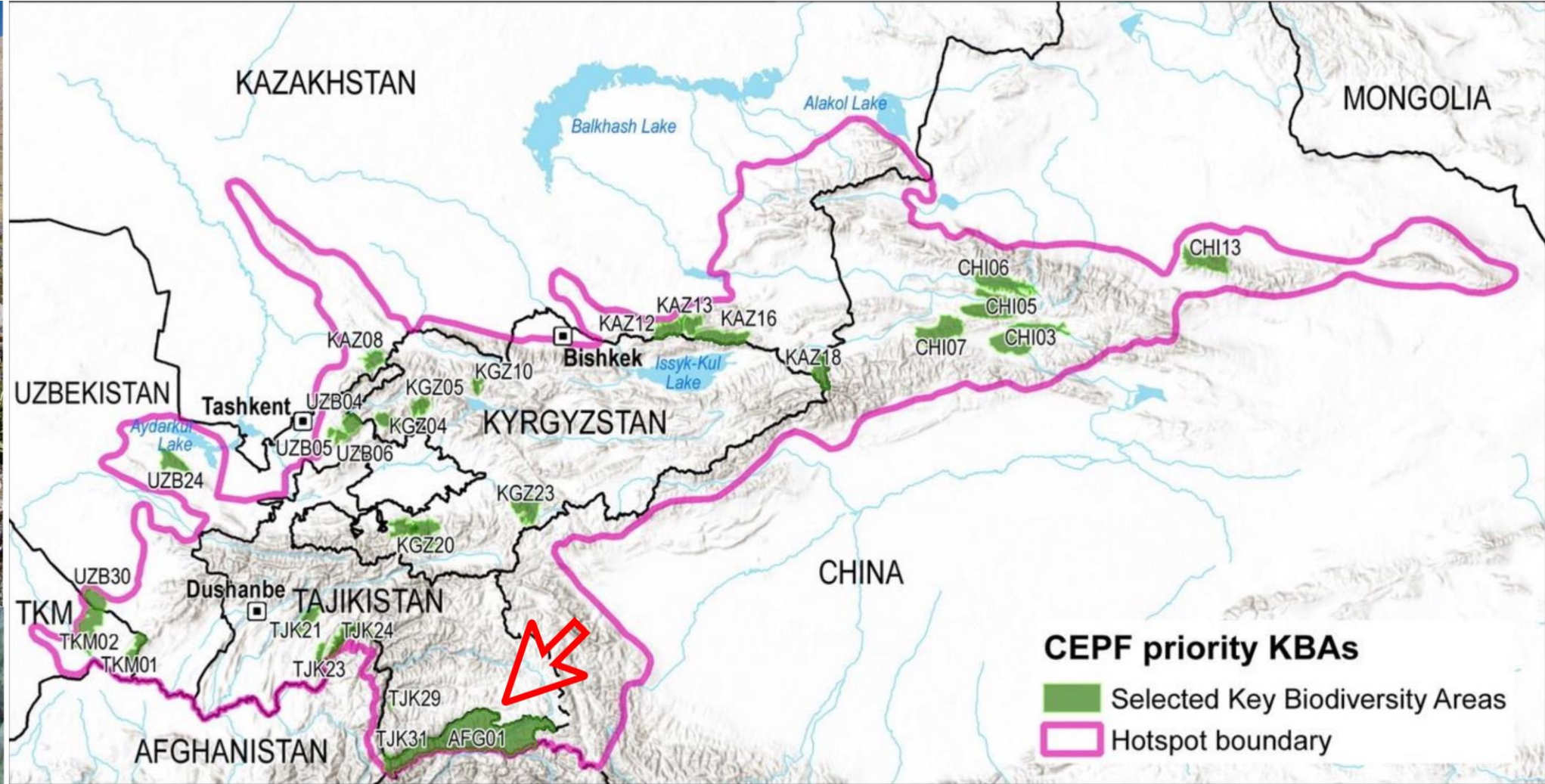


3

Health system governance:

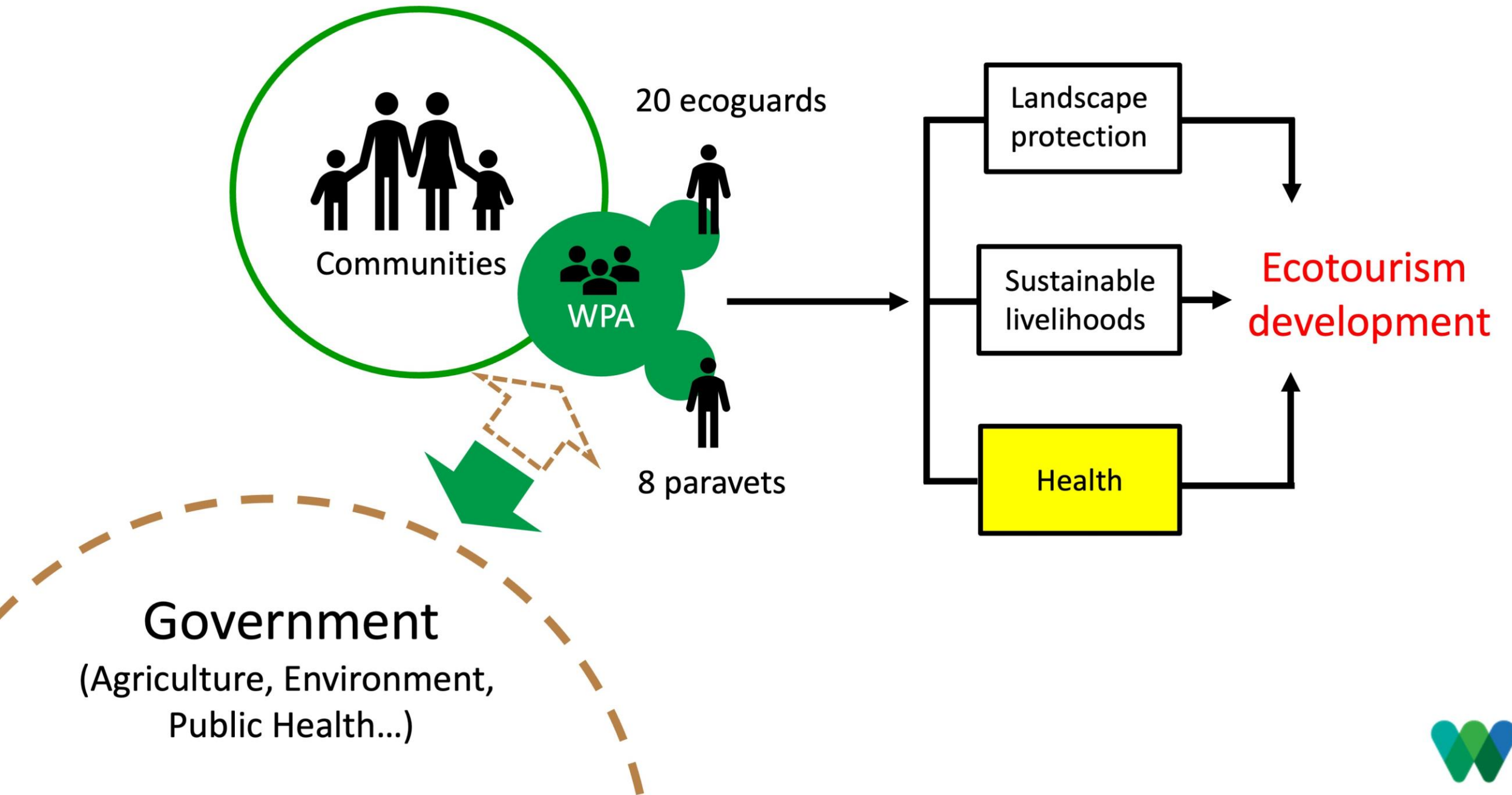
- Work « bottom-up ».
- Support local governance systems.



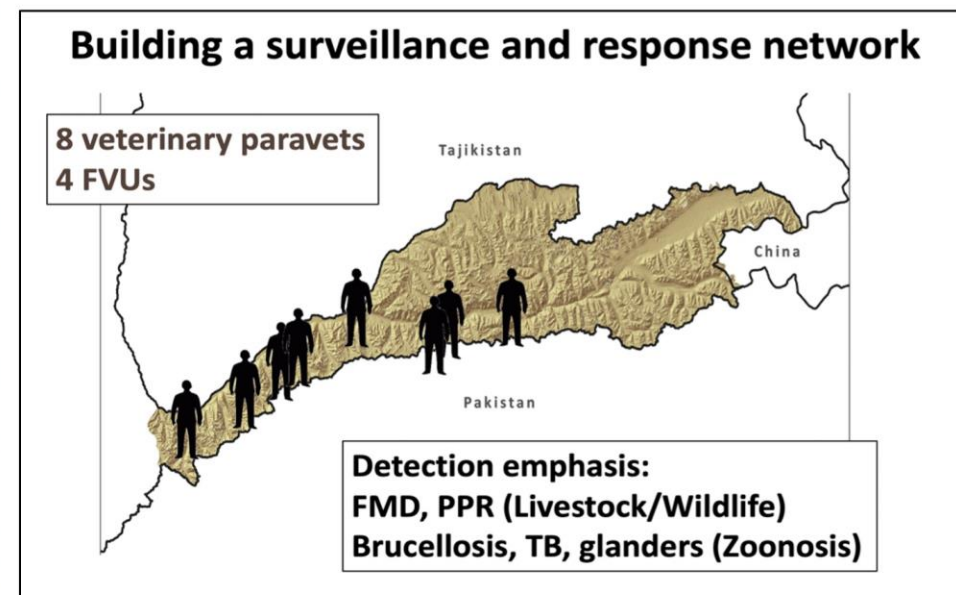
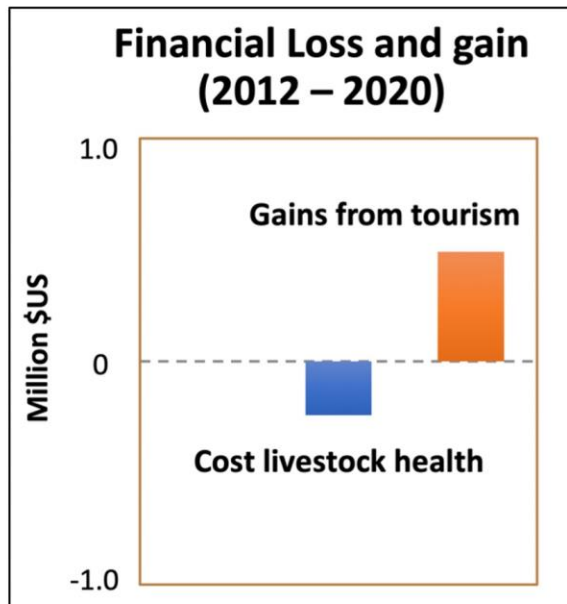
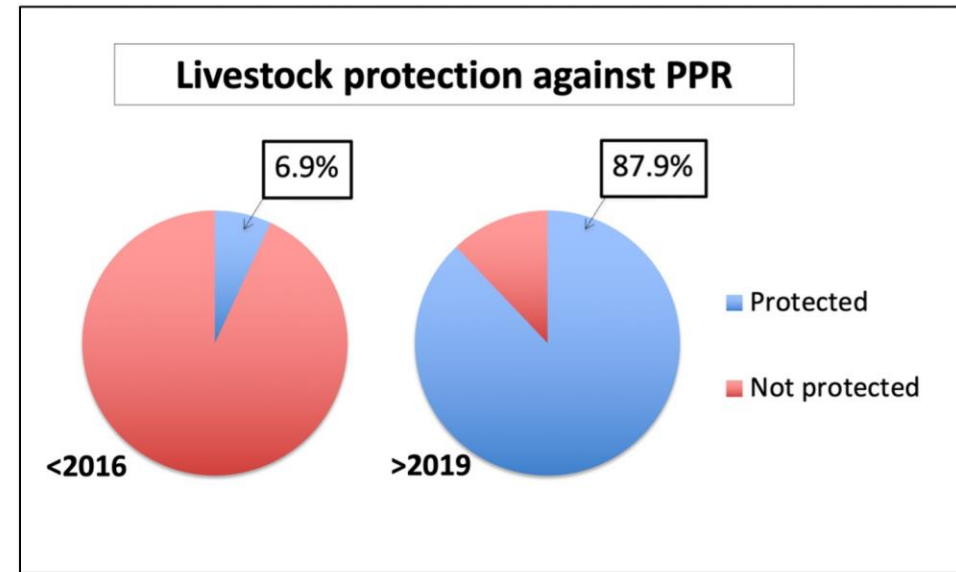
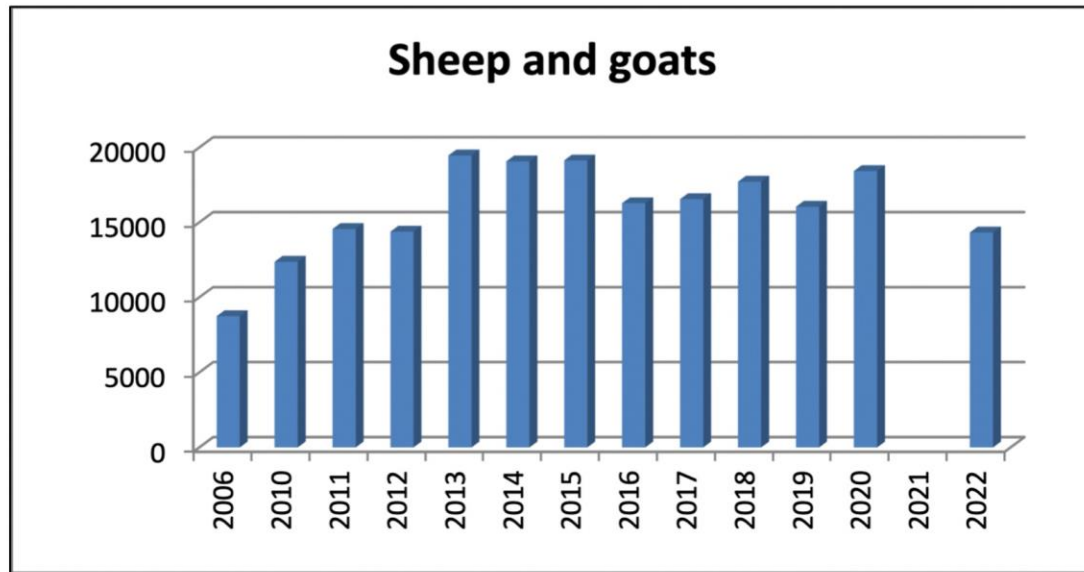


KBA Wakhan,
Afghanistan





Main results:

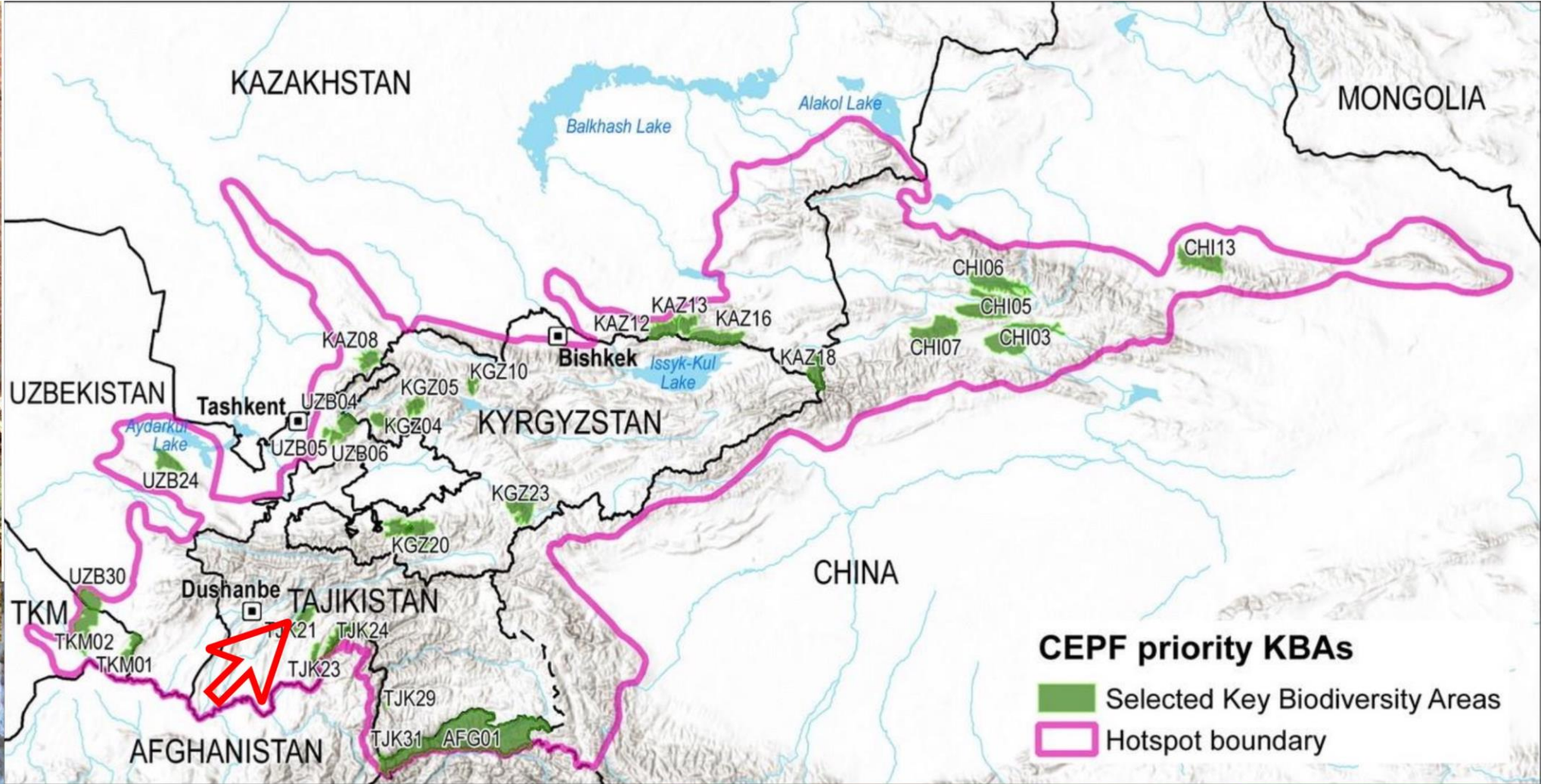




TNF/Tajikistan

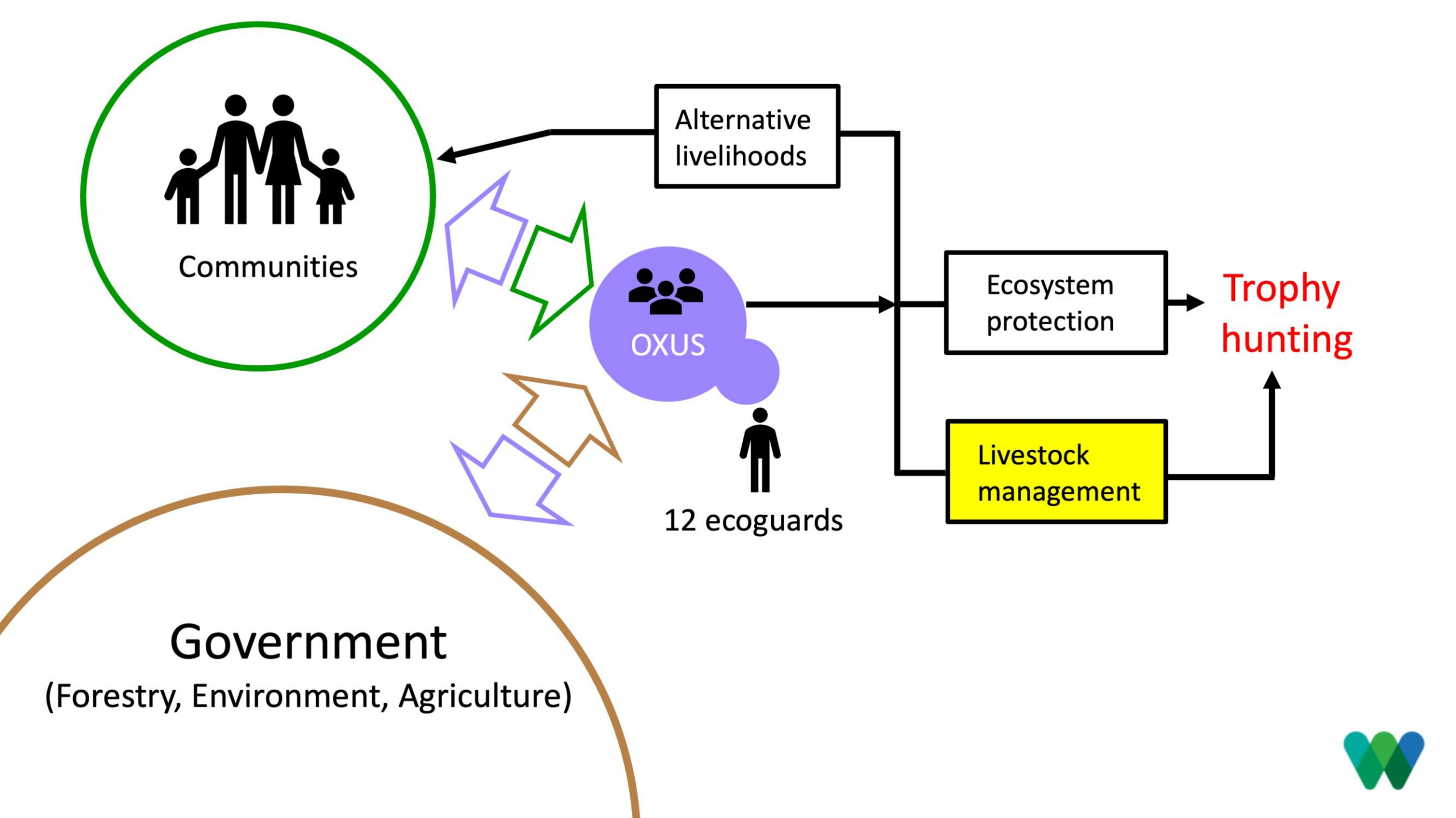


TNF/Tajikistan



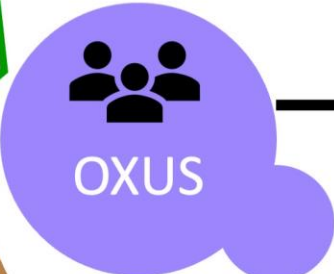
KBA Baljuvon,
Tajikistan





Communities

Alternative livelihoods



OXUS



12 ecoguards

Ecosystem protection

Livestock management

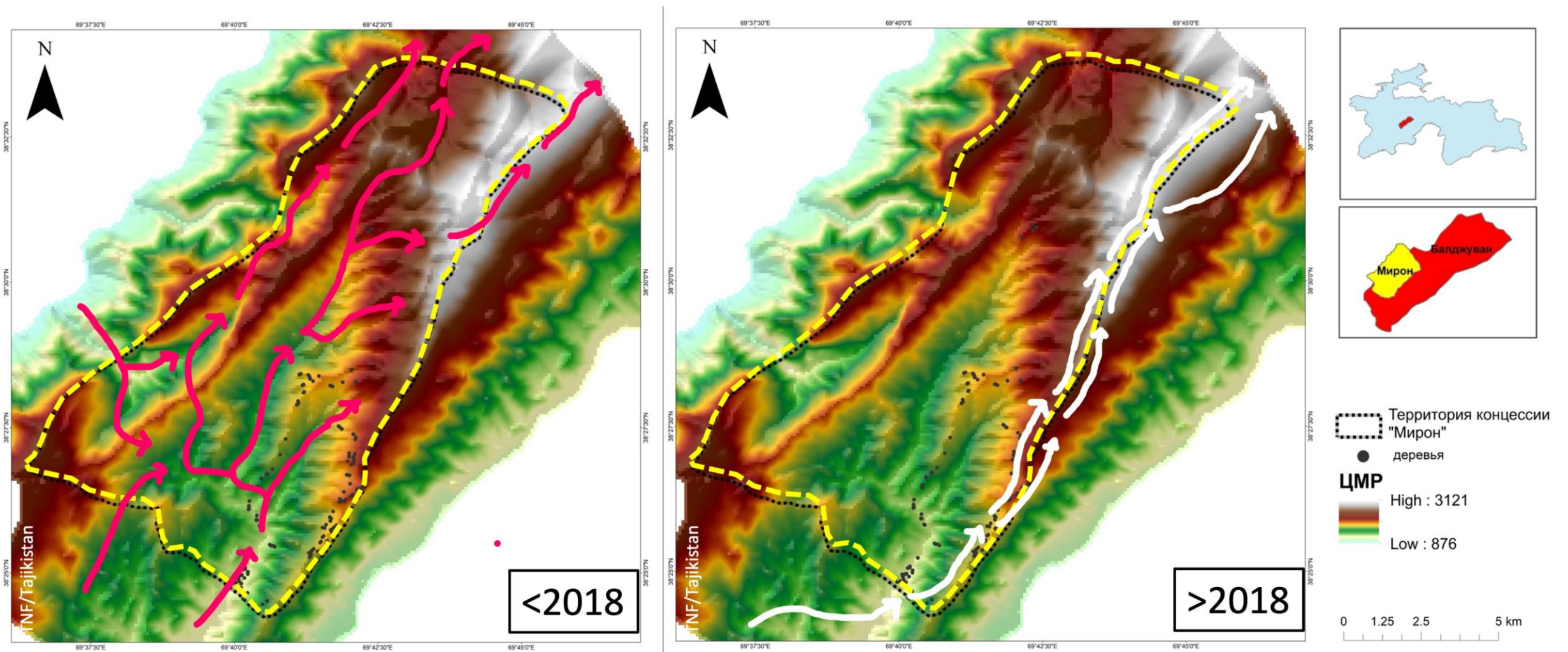
Trophy hunting

Government

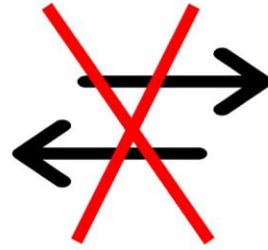
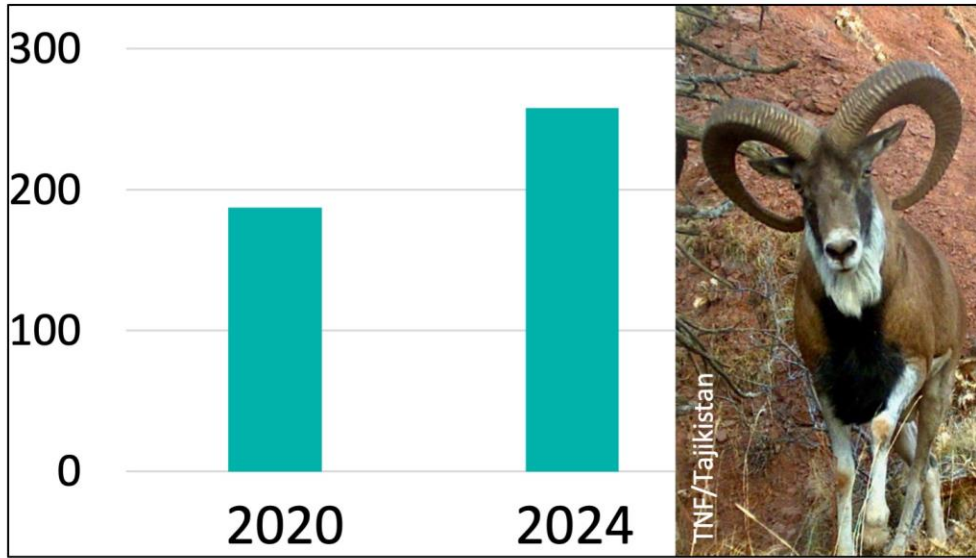
(Forestry, Environment, Agriculture)



Main results: Livestock transhumance patterns modified ➡ **rangeland restored + wildlife/livestock interface reduced** ➡ **enhanced sanitary control of livestock**



Main results



Lessons learned from Central Asia:

Bottom-up approaches enable One Health action when the public institution is failing.

One Health actions become more effective when linked to positive socio-economic development for people.

By gaining visibility, the One Health approach supports biodiversity conservation actions.



Conclusion: What does success look like?

When people in the most valuable natural areas proactively engage in **REDUCING BIODIVERSITY LOSS**, thereby directly or indirectly reducing the risk of the spread of pathogens.

