

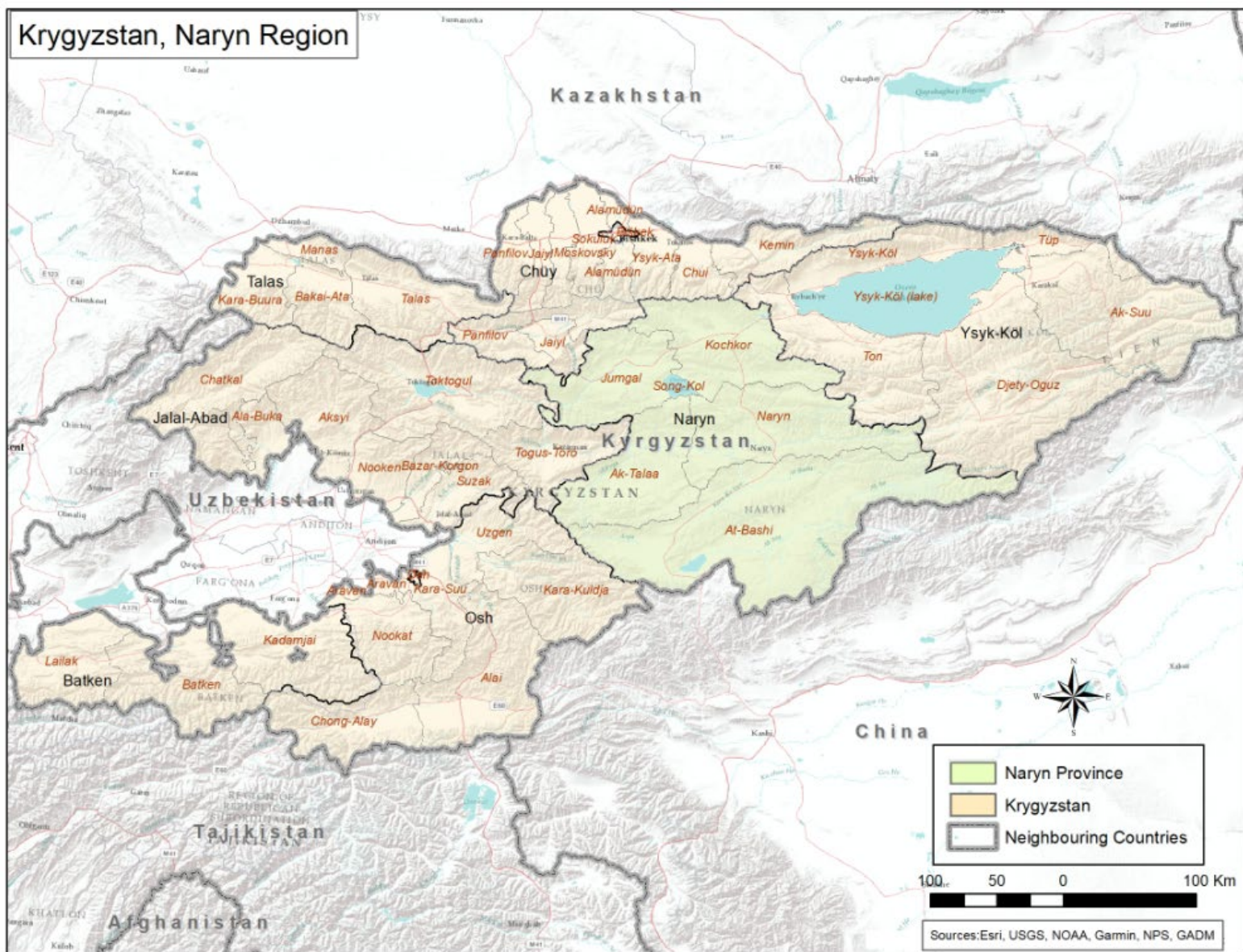


«Participatory assessment of land degradation and sustainable land management in grasslands and pastoral areas»

Usupbekov Azamat.

2024

Krygyzstan, Naryn Region



Goal

Building the capacity of local and national stakeholders in pasture areas, including pastures and meadows, to assess land degradation and make informed decisions to promote sustainable land management, with the aim of preserving the diverse ecosystem goods and services provided by pastures and meadows.



PHASES	STEPS
Phase 1. Preparatory Phase	Step 1. Partnership Development
	Step 2. Defining the Landscape for Assessment
Phase 2. Baseline Determination	Step 3. Baseline Review
	Step 4. Broad-scale Assessment and Remote Sensing
Phase 3. Participation Phase	Step 5. Joint Landscape Mapping
	Step 6. Joint Selection of Indicators
Phase 4. Evaluation Phase	Step 7. Composition and Selection of the Evaluation Team
	Step 8. Field Evaluation
Phase 5. Analysis and Interpretation	Step 9. Data Processing Post-Evaluation and Data Validation



Conducting introductory workshops



Selection of pilot sites



Mapping of pastures



Community indicators for pasture assessment

Soil indicators

- Percentage of bare soil
- Types of soil erosion
- Cattle trails
- Ground stones
- Presence of groundhog dens

Water indicators

- Increased runoff in rivers and streams
- Water quality and clarity
- Disappearing streams

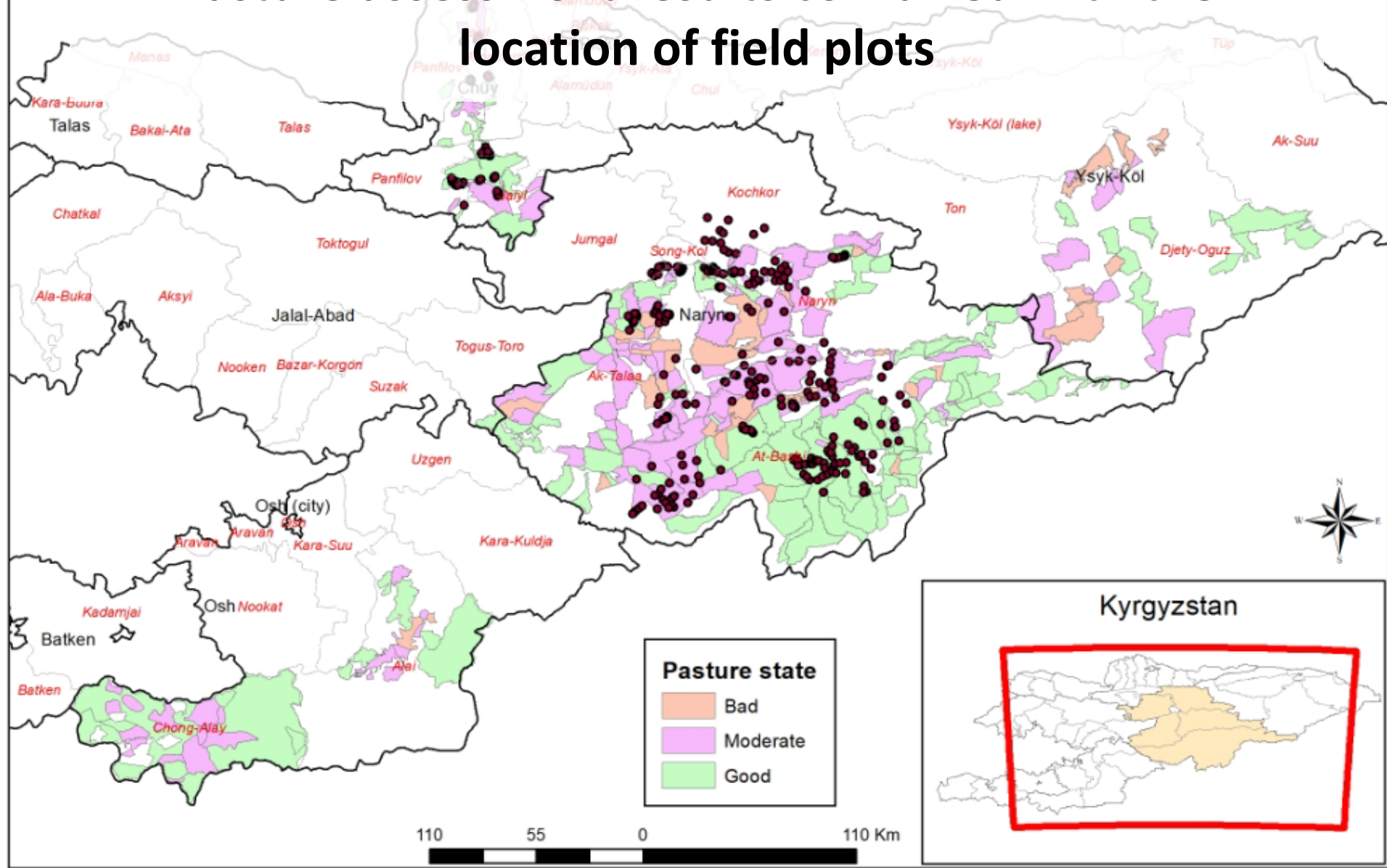
Vegetation indicators

- Percentage of vegetation cover
- Distribution of major grasses
- Increase in the number of weeds
- Percentage of edible and non-edible vegetation
- Height of grass cover
- Herd condition
- Plant germination
- Increase in the number of pests

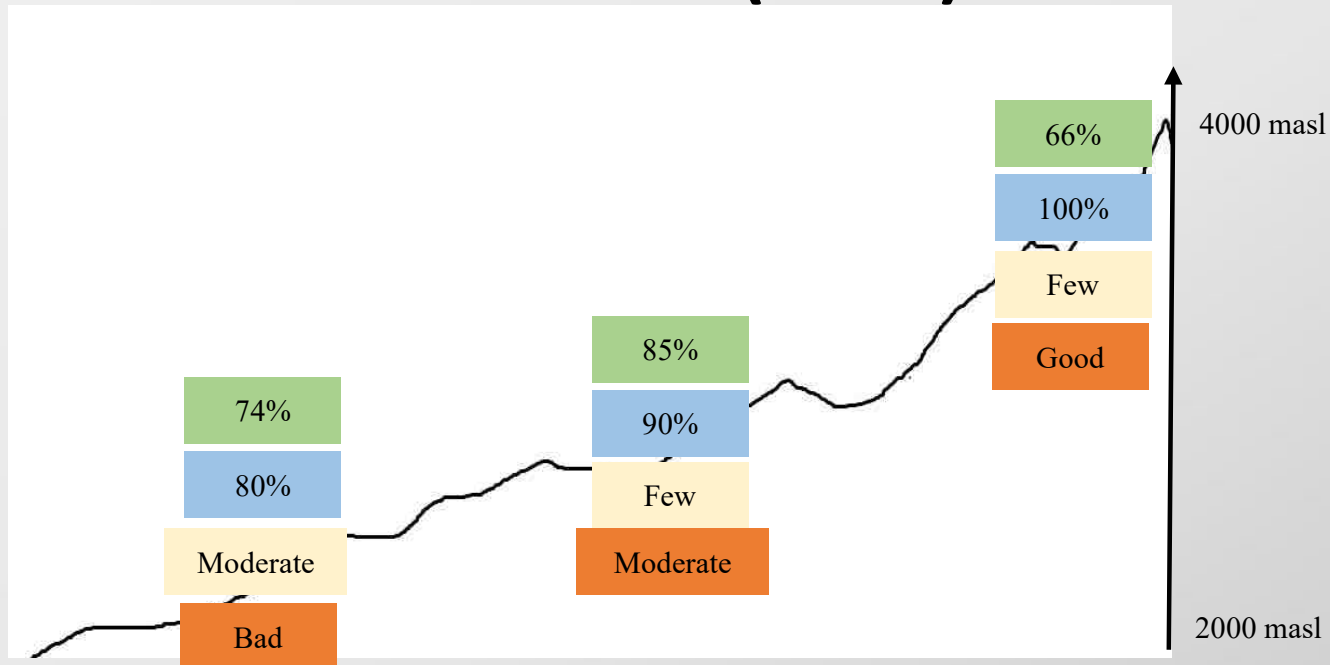
Field data collection


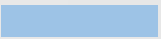
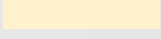

REGION	PASTURE	NUMBER OF PLOTS
Osh	Alai, Chon alai	177
Chuy	Suusamyр	166
Issyk-Kul	Syrt	137
Naryn	Aksay, Arpa & Son Kul	302

Pasture assessment results combined with the location of field plots

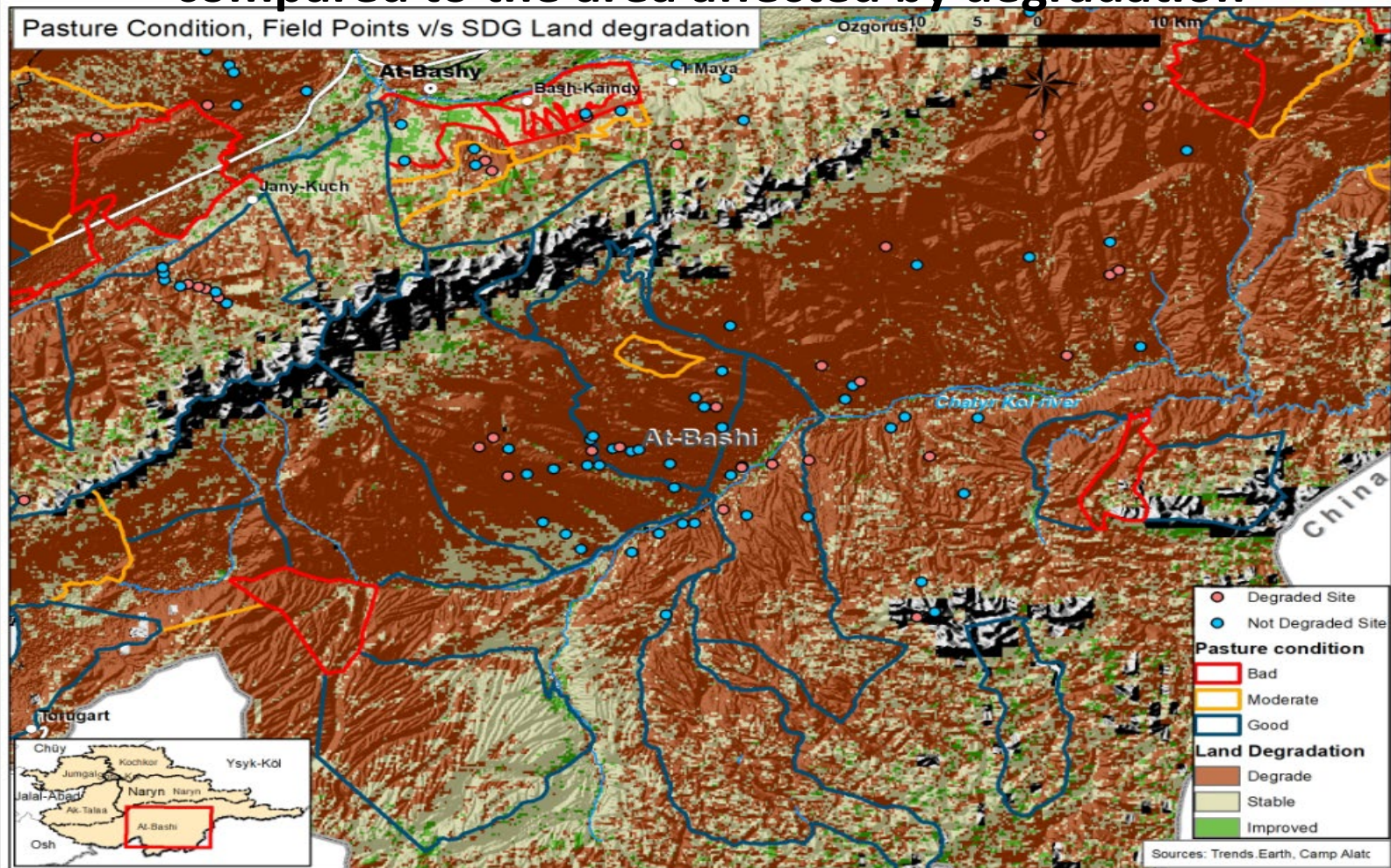


Field results and participatory indicators and altitude (2019).



-  Percentage of ground cover
-  Palatability of plants species
-  Plant seeds
-  Pasture state perception by herders

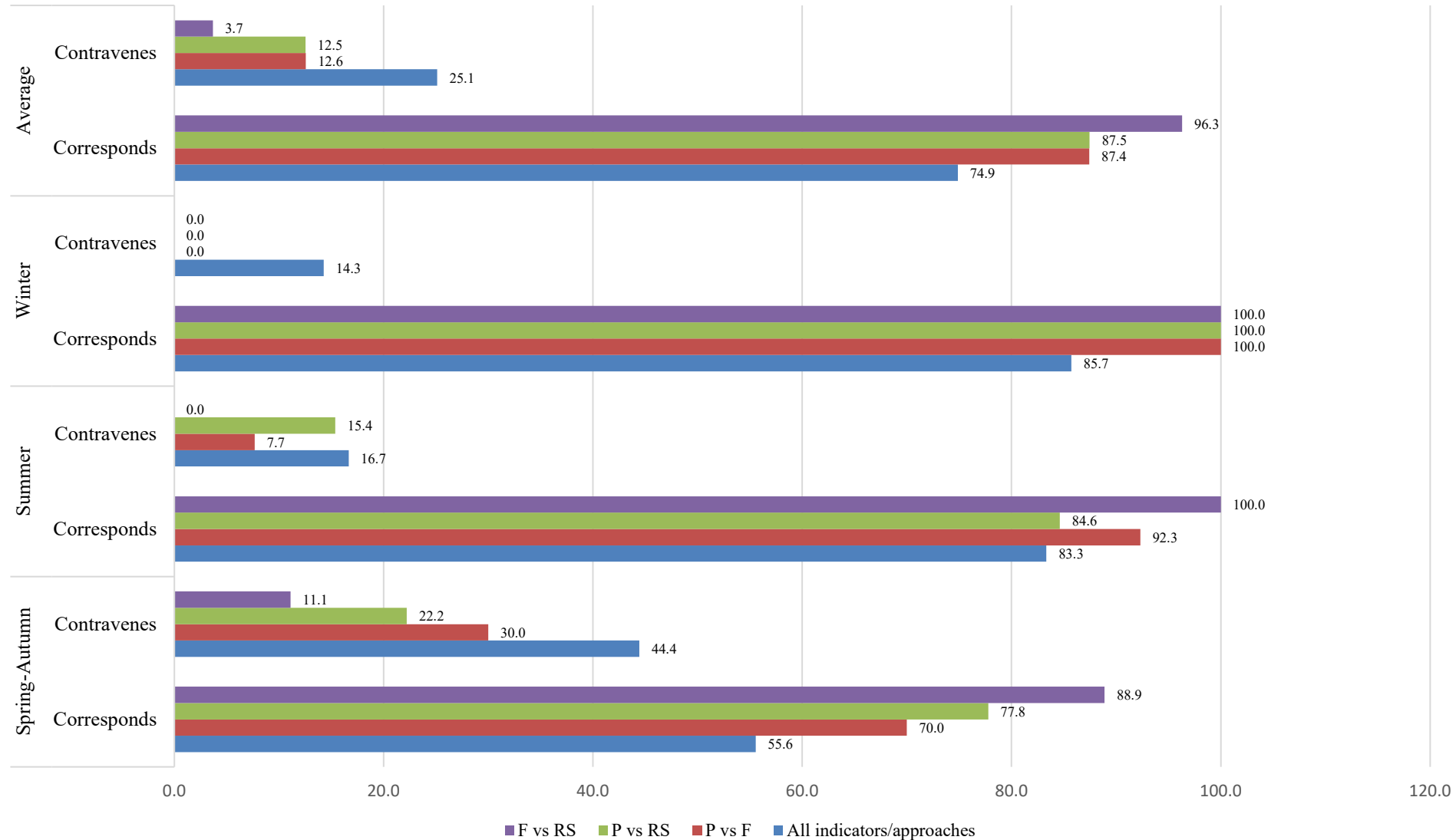
Field site data showing "degraded" and "non-degraded" areas compared to the area affected by degradation



Results of validation of pasture assessment

№	District	Municipality	Pasture type	P*	F**	NDVI	Discussion
1	Naryn	Kazan-kuigan	Spring Autumn	Medium	Bad	Increased	Remote sensing shows an increase in vegetation index (VI), but it comes entirely from cropland
2	Naryn	Jerge-tal	Spring Autumn	Medium	Medium	Increased	VI increases due to arable land used as pastures after harvesting fodder crops. Without taking this factor into account, the condition of pastures remains stable.
3	At-Bashy	Ak-jar	Spring Autumn	Medium	Medium	Increased	VI increases due to arable land used as pastures after harvesting fodder crops. Without taking this factor into account, the condition of pastures remains stable.

A summary of the relevance of the results of the different approaches.



Lessons learned from the PRAGA methodology:

- A key step in PRAGA implementation is data validation, ideally with pasture users involved in earlier stages.
- Remote sensing works well for high-altitude rangelands but needs to be combined with field assessments and local knowledge for lower altitudes. Some discrepancies were noted between remote sensing and field assessments of land degradation.

Lessons learned from the PRAGA methodology:

- In Kyrgyzstan, altitude and seasonality affect PRAGA results and may lead to misinterpretations. Therefore, the team should include specialists familiar with the region.
- NDVI, SOC, and vegetation cover showed little change, making productivity the key indicator of variability, affected by seasonal weather, grazing patterns, and land use impacts like fire.

Summary of the adaptation process of PRAGA in KGZ

- The correlation of three different approaches to assessing rangeland conditions showed a strong interdependence of over 74%. This high result allows us to consider the PRAGA methodology successfully adapted to the conditions of Kyrgyzstan.
- The PRAGA methodology can be applied to monitor indicators related to the country's commitments to LDN targets. It can also be institutionalized at the national level to unify existing methods for assessing rangeland conditions.

The PRAGA methodology informed the development of a guideline for monitoring and assessment of rangeland condition at the local level.



DEVELOPMENT OF A UNIFIED DATABASE

Вход CAMP ALA-TOO Grasslands

https://grs.slysoft.dev/monitoring?monitoring-pagination=[{"pageIndex":0,"pageSize":10}]&monitoring-row-count=23

Администратор Настройки

Мониторинг

Реестр пастбищ

Карта

Отчеты

Библиотека

Справочники

Растительность

География

Настройки

Сотрудники

Роли

Выйти из аккаунта

Developed by SlySoft Community

Мониторинг

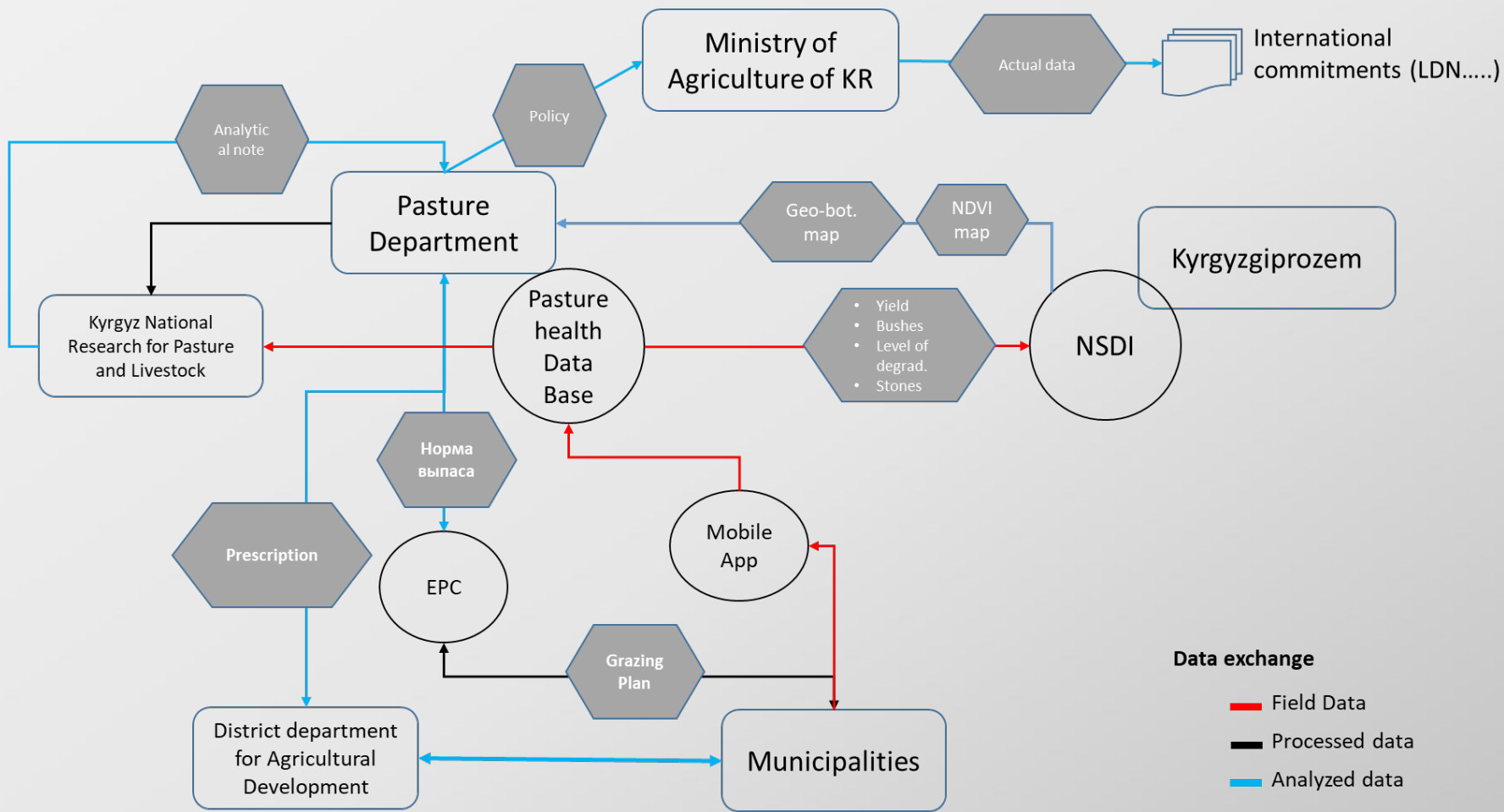
Экспорт Добавить

Поиск

	ДАТА ↑	ОБЛАСТЬ	РАЙОН	ПАСТБИЩЕ	УЧАСТОК	НАЗВАНИЕ	ПОЛЬЗОВАТЕЛЬ	ДЕЙСТВИЯ
	27.03.2024	Баткенская	Баткенский	Максат	Тор	point	Главный Администратор	👁️ ✎
	01.03.2024	Баткенская	Баткенский	Максат	Тор	терек	Главный Администратор	👁️ ✎
	21.02.2024	Баткенская	Баткенский	Максат	Боксо	склон	Максат Мийназаров	👁️ ✎
	01.01.2023	Иссык-Кульская	Иссык-Кульский	Пастбище 1	Участок 4	Мониторинг 17	Главный Администратор	👁️ ✎
	01.01.2023	Чуйская	Кеминский	Пастбище 3	Участок 8	Мониторинг 18	Главный Администратор	👁️ ✎
	01.01.2023	Иссык-Кульская	Иссык-Кульский	Пастбище 1	Участок 4	Мониторинг 19	Главный Администратор	👁️ ✎
	01.01.2023	Иссык-Кульская	Иссык-Кульский	Пастбище 1	Участок 7	Мониторинг 20	Главный Администратор	👁️ ✎
	01.01.2022	Чуйская	Жайылский	Пастбище 5	Участок 5	Мониторинг 13	Главный Администратор	👁️ ✎

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Thank you for
your attention!