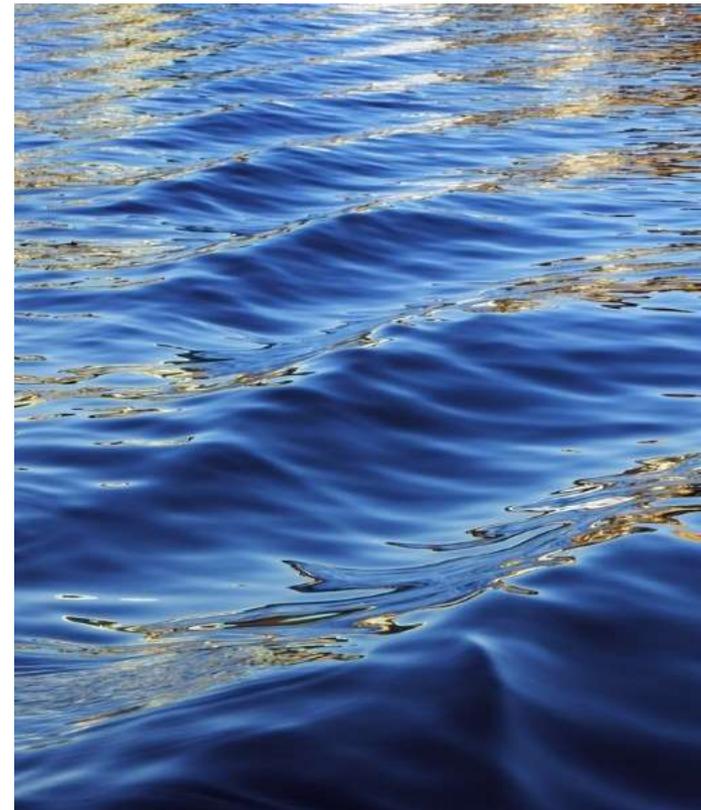# UNCCD activities in the Kyrgyz Republic

Kanat Sultanaliev,
American University of Central Asia

General information

- Every year on 17 June we observe the **World Day to Combat Desertification and Drought.** This day was proclaimed by the United Nations in 1995, after the day when [United Nations Convention to Combat Desertification](#) (UNCCD) is drafted.

- UNCCD is one the 3 UN Rio Conventions drafted in 1992 at the Earth Summit, along with Conventions on climate and biodiversity.   UNCCD is the sole legally binding international agreement linking environment and development to sustainable land management. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found. Today, UNCCD has 197 member-countries all over the world.

- Kyrgyzstan has ratified this Convention in 1997 and since then has been actively involved in all UNCCD activities in Central Asia. The major state institution working on UNCCD issues in the country is the **Ministry of Agriculture, Food Industry and Melioration of the Kyrgyz Republic.**

Desertification and Drought Day in 2020

- In 2020 the main theme of the DDD is "Food. Feed. Fibre." because all these critical resources originate from the land. Taking into account the growing global population it becomes very clear that we need to focus on changing public attitudes to the leading driver of desertification and land degradation: humanity's relentless production and consumption.

- This is especially true for countries like Kyrgyzstan, where the arable land naturally is rather scarce and not highly productive. There are only about 7% of the total land in the country that is suitable for crop agriculture. This further complicated by growing climatic changes which might lead to serious negative impacts on agricultural production in Kyrgyzstan.

Recent UNCCD projects in Kyrgyzstan

- Project on new UNCCD Land Degradation Neutrality approach. It was implemented in cooperation between UNCCD/UNDP and AUCA in 2016-2017;

- UNCCD Reporting Project. Implementation period – 2018-2019. AUCA was the main organization coordination the project.

- Regional project on Sand and Dust Storms and Drought in Central Asia. Main coordination in the region –CAREC/Almaty. Implementation agency in Kyrgyzstan – AUCA.

- 2 UNCCD projects implemented by Camp Ala-Too. Duration 2018-2020. Topics –UNCCD information center in the country and development of NAP;

Land Degradation Neutrality Project

- Main aim of the Project was to introduce and attest the new UNCCD Land Degradation Neutrality concept in Kyrgyzstan;

- An inter-agency working group of experts was established on Land Degradation issues in 2016 via Ministry of Agriculture;

- A database on main Land Degradation indicators was received from UNCCD;

- This data were presented and discussed with the working group;

- LDN concept is based on main 3 indicators below:

1. Land cover;

2. Land productivity dynamics;

3. Soil organic carbon

Levels Classification	
1. Classes	2. Sub-classes
Forests	Trees prevailing geographical zones covering 15% and over. This class includes as well: - tessellated trees and bushes (>50%) / grass cover - trees, seasonally or permanently submerged with fresh water
Bushes, grasslands and areas with poor vegetation	Geographical zones with prevailing: - bushes; grass-like plants; or - poor natural vegetation covering 15% of area or less; This class includes as well: - tessellated vegetation (>50%) / cereal crops - tessellated grass cover (>50%) / trees and bushes
Areas purposed for cultivating (arable areas)	Geographical zones with prevailing: - greenery; or trees; or both combined; This class includes as well: tessellated cultures (50%) / natural vegetation
Swamp areas and reservoirs	Geographical zones with prevailing: - Bushes or aquatic vegetation or occasionally flooded grasses; or mangroves or reservoirs (natural / artificial, stagnant / streaming, terrestrial / marine)
Artificial territories	Geographical zones with prevailing artificial surfaces, including urban and alike territories (for instance, city parks), transport infrastructure, industrial zones, burnt over areas, dumps, mining deposits.
Deserted areas and other territories	Geographical zones with prevailing: - territories with deserted lands or - snow-capped or glaciated areas.

Level Classification	
1. Classes	2. Sub - classes
1. Agricultural lands	- agricultural lands are the lands provided for agricultural needs or purposed for these goals.
2. Lands of inhabited places	- inhabited places are the lands allocated within the community area.
3. Industrial lands, transport, communication and defense areas, and other.	- industrial, transport and communication areas, areas for electric – power industry - are the lands provided duly as per the present Code to physical and legal individuals for correspondent designation.
4. Lands of specially secured natural territories	- these are the lands: State conservation areas, natural national parks, wildlife sanctuaries (excluding hunting grounds), nature monuments, botanic gardens, dendroid and zoological gardens, natural areas specified for health-recreational purposes.
5. Forest lands	- forest lands are the lands covered with forests and the lands not covered with forests but purposed for forest management needs.
6. Lands of inventory of water resources	- lands of water inventory are the lands occupied with reservoirs (rivers, lakes, water storage reservoirs, channels), glaciers, swamps, hydrotechnical, hydropower and other water management facilities, and lands allocated for right-of-ways.
7. Reserved lands	- reserved lands are the lands not provided for ownership or use. These lands are of state property.
8. State reserved lands – mineral deposits (this category was eliminated in 2019)	- state reserved lands of mineral deposits are the lands where the mineral deposits have been prospected and which reserves and resources were accounted by the State balance of mineral reserves of the Kyrgyz Republic.

Land Degradation Neutrality Project's outcomes

- A new approach to land cover categorization was developed to adapt the international land cover classes to the national context of the Kyrgyz Republic;

- LDN approach was discussed and principally validated by relevant national stakeholders. However, it was recommended to conduct further field activities to evaluate the suitability of the global UNCCD dataset on land degradation to the national circumstances;

- Based on the research findings an article on LDN indicator on land cover was prepared and submitted to the Journal "Arid Ecosystems"

=== SYSTEMATIC STUDY OF ARID TERRITORIES ===

Evaluation and Adaptation of the Land Degradtion Neutrality Approach to Land Classification Resources in the Kyrgyz Republic

T. S. Bobushev[a, *] and K. E. Sultanaliev[b, **]

[a] Kyrgyz Economic University, Bishkek, 720033 Kyrgyz Republic
[b] Institute for Central Asian Studies, American University of Central Asia, Bishkek, 720060 Kyrgyz Republic
*e-mail: t.bobushev@gmail.com
**e-mail: kanat.sultanaliev@gmail.com

23.06.2020

UNCCD Reporting Project

- Project has 2 main goals:

A. To assist the Kyrgyz Republic to prepare

B. and submit National Reports on UNCCD implementation and Land Degradation Neutrality;

C. To conduct a research on land degradation in the country.

- Project utilized the mechanism of the UNCCD expert working group;

- Both project reports were prepared and submitted to UNCCD in

КЫРГЫЗСКАЯ РЕСПУБЛИКА

НАЦИОНАЛЬНЫЙ ОТЧЁТ ПО НЕЙТРАЛЬНОМУ БАЛАНСУ ДЕГРАДАЦИИ ЗЕМЛИ

Research in Suusamyr

Why Suusamyr?

Pasture degradation poses a serious threat to food security and the well-being of rural residents in the Kyrgyz Republic. Suusamyr is one of the biggest and productive pastures in the country with total area around 500,000 Ha.

Due to it's highly nutritious and healthy mountain grasses and huge capacity it is attended by herders from several neighboring provinces who come here every summer.


Sentinel 2 Image

NDVI

| | 0.015 |
	0.166
	0.317
	0.468
	0.62
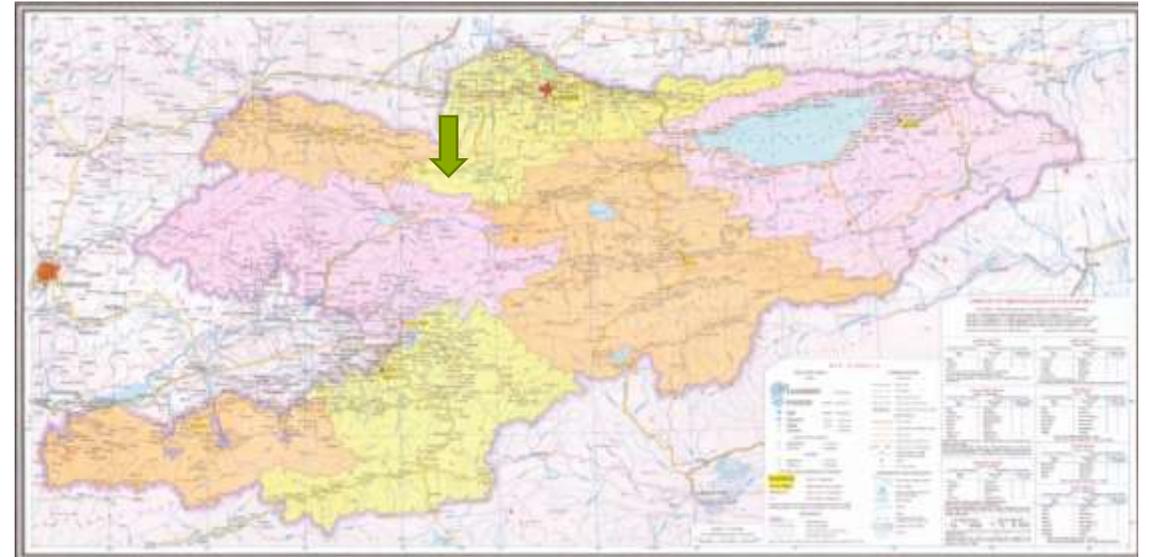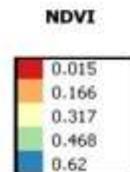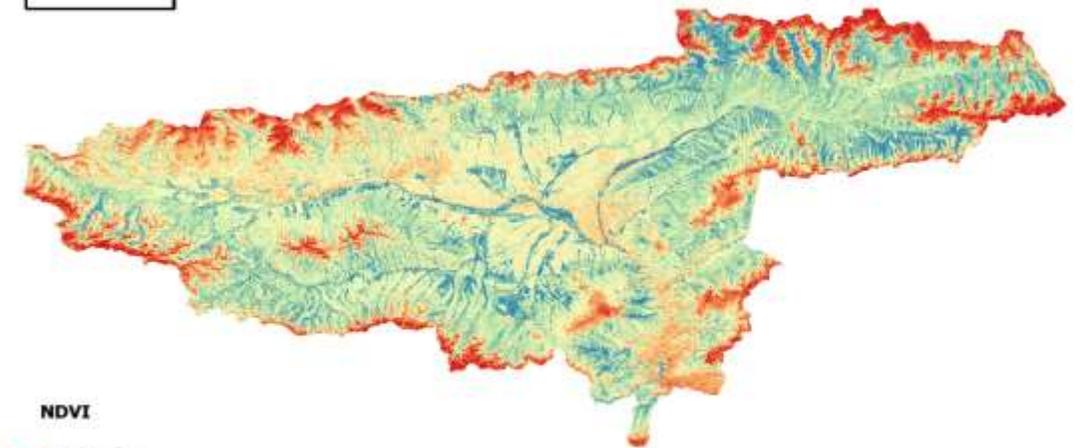
September 1, 2018

Research goals

Main research issues were the following:

- Using satellite imagery to assess NDVI dynamics in Suusamyr for the last 15-20 years.

- Collect opinions and perceptions of the local community members and pasture users on land degradation in the valley.

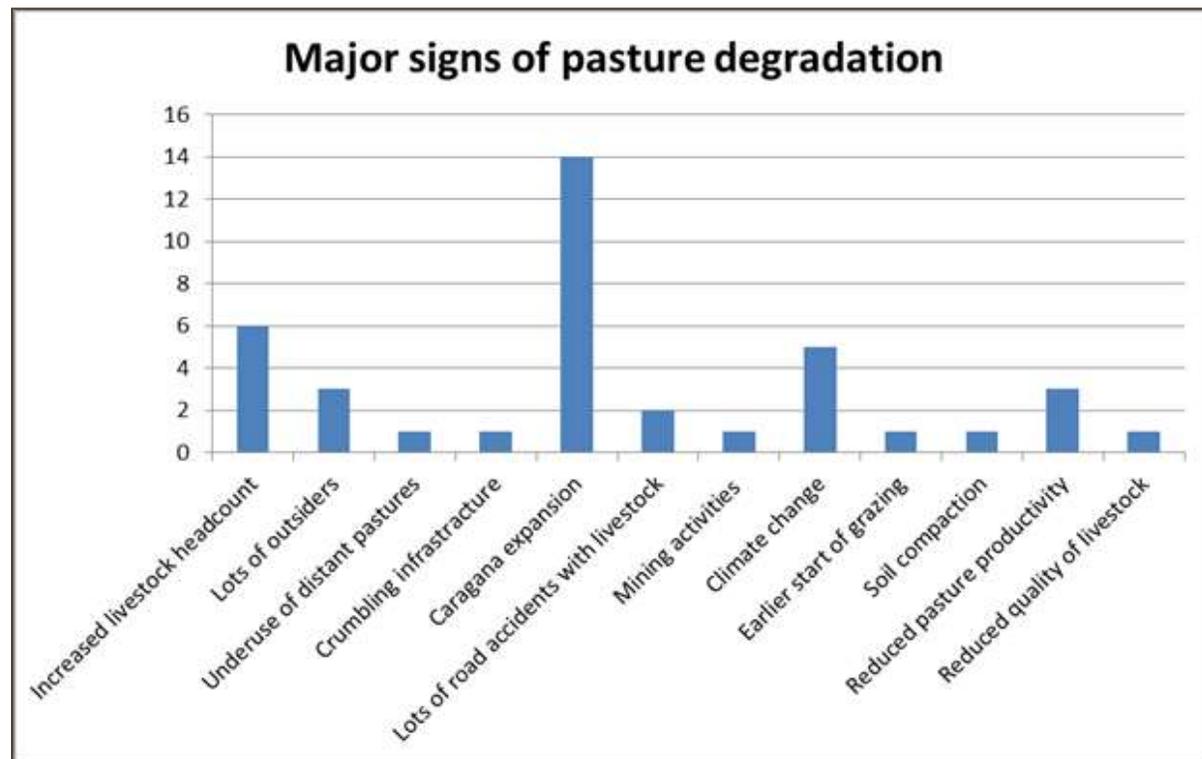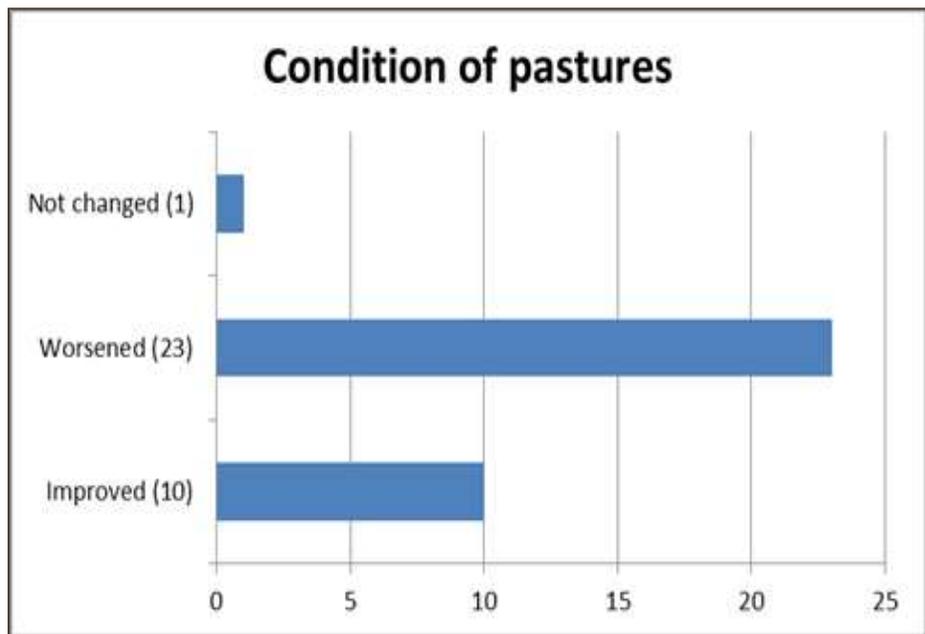- Study changes in dynamics of specific weedy shrubs (Caragana aurantiaca Kochne).
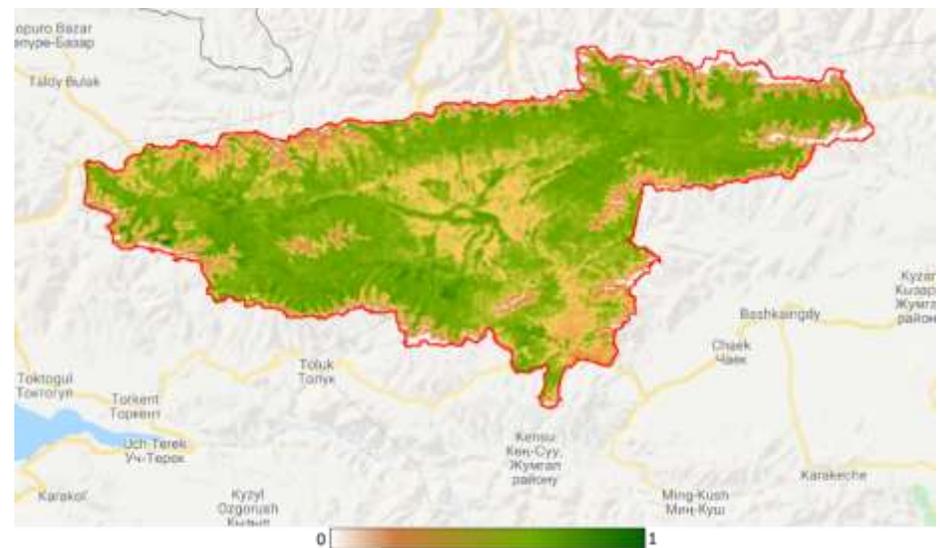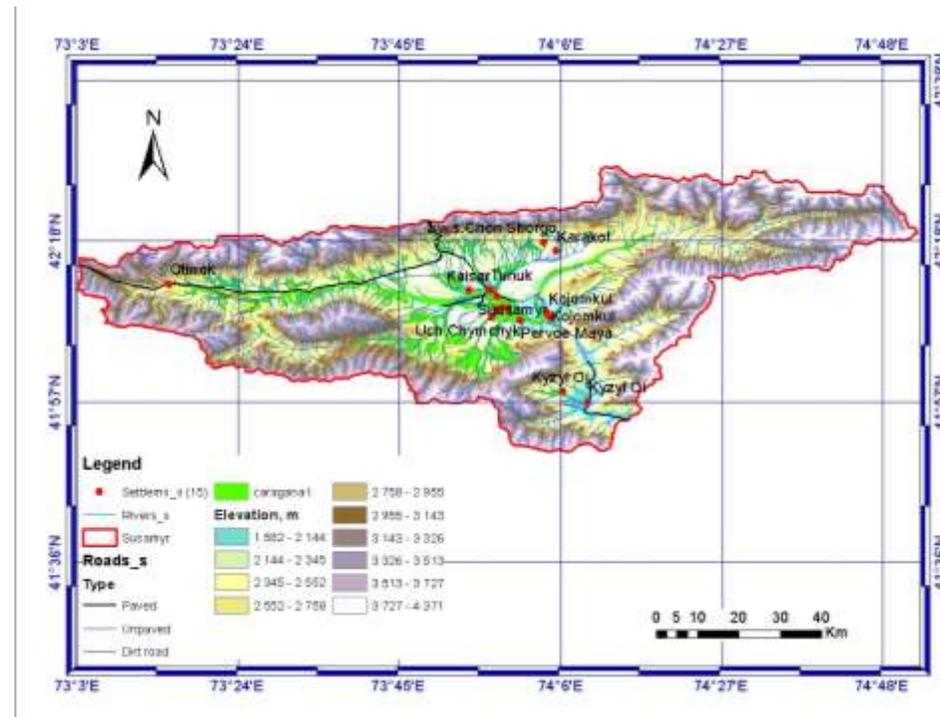
Research outcomes
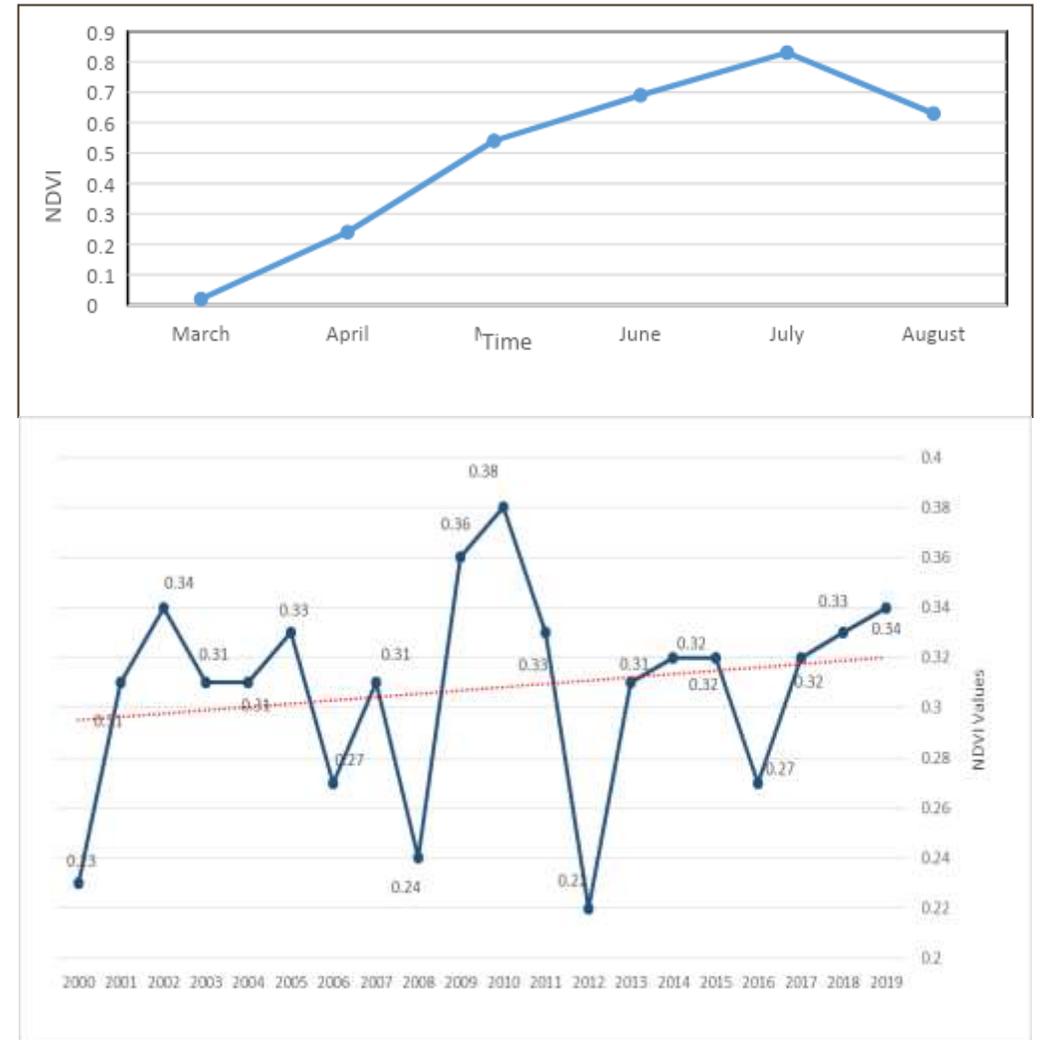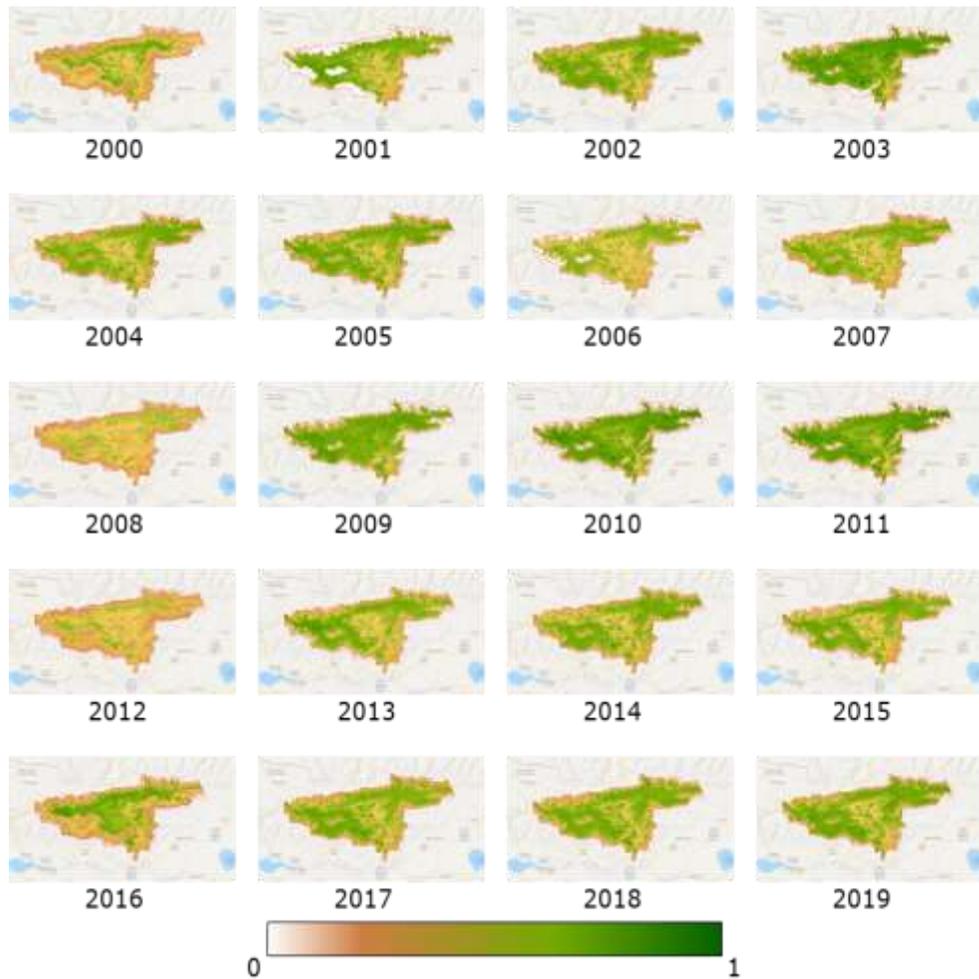
Caragana area assessment

Category	Period	Area (Accuracy)		
		2000 Landsat 7	**2010** Landsat 5	**2018** Landsat 8
Shrubs (incl. Altygana)	July	15377.58 ha (70.9%)	19438.74 ha (72.1%)	23272.92 ha (73.5%)
	August/September	13450.23 ha (62.3%)	18048.24 ha (65.5%)	23252.76 ha (77.8%)

Survey results

Condition of pastures

- Not changed (1)
- Worsened (23)
- Improved (10)

Major signs of pasture degradation

- Increased livestock headcount
- Lots of outsiders
- Underuse of distant pastures
- Crumbling infrastracture
- Caragana expansion
- Lots of road accidents with livestock
- Mining activities
- Climate change
- Earlier start of grazing
- Soil compaction
- Reduced pasture productivity
- Reduced quality of livestock

Ongoing AUCA project on Sand and Dust Storms

- AUCA leads a national component of the regional UNCCD project on Sand and Dust Storms in Central Asia in coordination with CAREC/Almaty.

- Global data on SDS sources were received from UNCCD;

- Methodology on identification of SDS sources was also received;

- Project has 2 main objectives – 1) Prepare a National Report on SDS; 2) Validate the methodology on SDS sources and related GIS information using the national data;

Thank you for your attention.