Ongoing national activities on land/ecosystem restoration and national priorities within regional frameworks, including status of national LDN targets and implementation: case study Uzbekistan

(good practices and lessons to share, current gaps and needs)

Presenter
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Short Background about Uzbekistan

Climate and Drought in Uzbekistan:

•Uzbekistan experiences a continental climate, characterized by hot summers and cold winters.

•Drought is a recurrent challenge, exacerbated by climate change and water mismanagement.

•Irregular rainfall patterns and high evaporation rates contribute to water scarcity, affecting agriculture and livelihoods.

Aral Sea Tragedy:

•The Aral Sea, once the world's fourth-largest inland sea, has suffered a catastrophic decline.

•Decades of Soviet-era irrigation projects diverted water from its two main tributaries, the Amu Darya and the Syr Darya rivers, leading to the sea's desiccation.

•The shrinking of the Aral Sea has caused ecological disaster, including the exposure of toxic chemicals and the loss of fisheries, devastating local communities.

Forest Restoration Process:

•Uzbekistan has initiated ambitious reforestation efforts to combat desertification and mitigate the impacts of climate change.

•Afforestation projects aim to stabilize soil, conserve water, and enhance biodiversity.

•Techniques such as afforestation of degraded land, water conservation, and community involvement are being implemented.

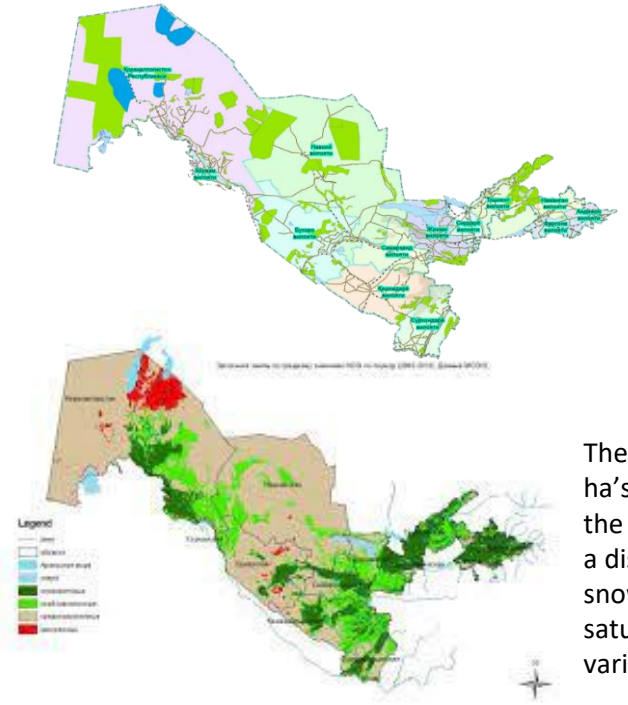
•Collaboration with international organizations and investment in sustainable forestry practices are key components of the restoration process.

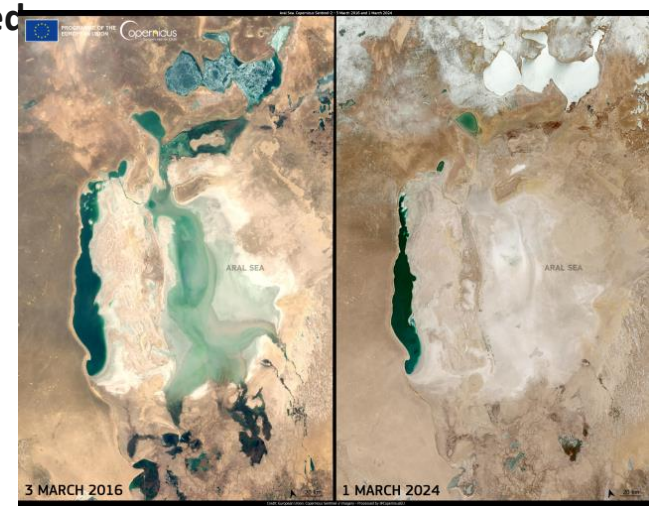
In September 2015, Uzbekistan, along with other United Nations (UN) member states, supported the adoption of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). The list of priority national SDG goals and targets includes target 15.3, which states that

"**By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world**".

The indicator for this task is formulated as follows: "**Proportion of land that is degraded(irrigated and non-irrigated) over total land area**".

Uzbeksitan, as a signatory of the UNCCD, is committed to set and implement measures that meet the global commitments of LDN, and in this way, contribute to goal 15.3 of the SDGs to achieve LDN by 2030.





The dried bottom of the Aral Sea occupies an area of about 6 million ha's. Every year, about 150 million tons of salt, dust and sand rise into the air from this territory, mixing with clouds, all this is carried away to a distance of up to 1000 km and falls there in the form of salty rain and snow. This causes land degradation, reduced crop yields, and the air saturated with finely dispersed salt dust, which people breathe, causes various diseases.

Status of National LDN Targets and Implementation:

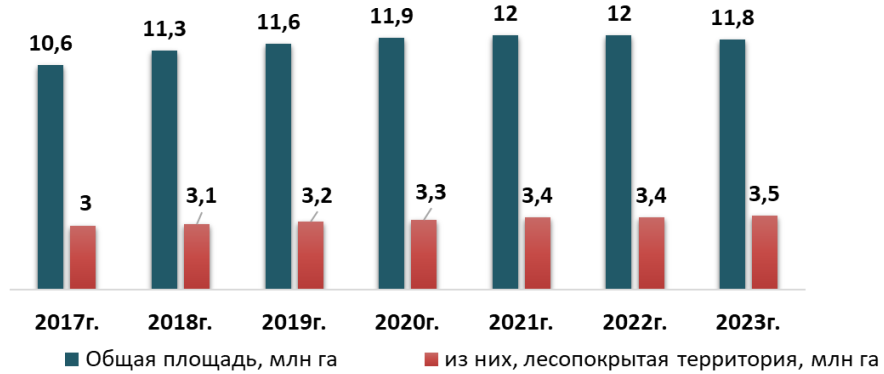
In accordance with the Decree of the Cabinet of Ministers "**On Measures for Implementation of National Sustainable Development Goals and Targets for the Period up to 2030**", a Coordination Council on the implementation of national goals and targets in the field of sustainable development was created, ensuring inter-sectoral coordination and an integrated approach to achieving the SDGs.

Subsequently, a Road Map was adopted to work out annual action plans, the system of indicators, and monitoring and reporting for each SDG. In addition to the three suggested UNCCD indicators, a number of national indices were considered, concluding that while the methods and data are able to provide preliminary estimates, further analyses were needed.

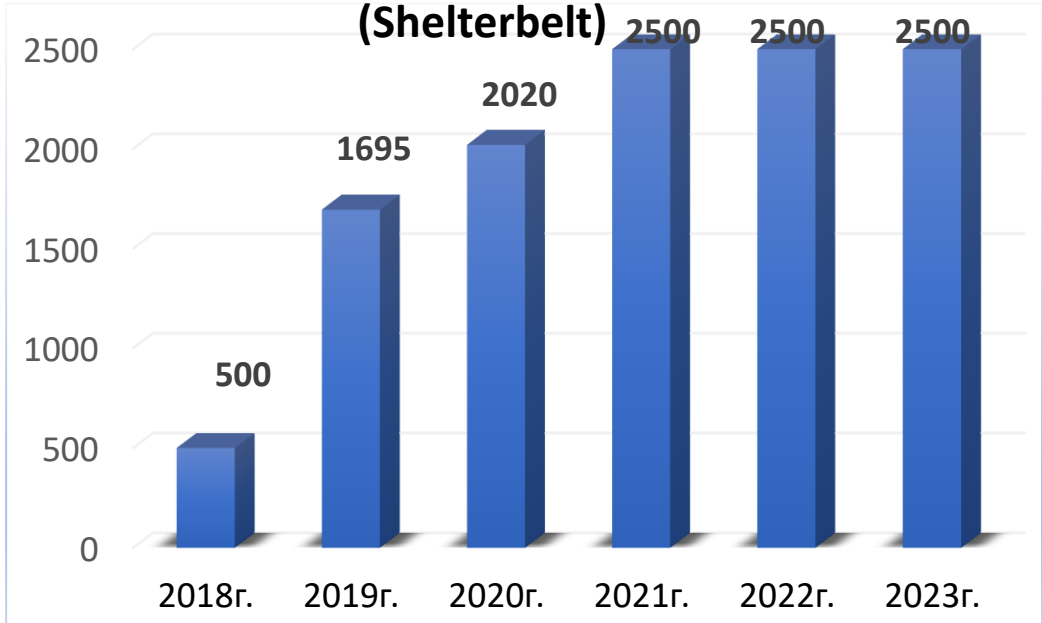
Challenges faced in implementing LDN strategies and potential solutions:

The highest proportion of degraded land (26.1 per cent) in the Central Asia region, it also saw the largest decrease—from 30 per cent to 26 per cent—compared to 2015. A total of 3 million hectares of land in Uzbekistan have been degraded due to the drying of the Aral Sea. Between 2018-2023, Uzbekistan carried out saxaul planting on an area of 1.8 million ha to eliminate salt and dust emissions from the dried bottom of the Aral Sea.

The dynamics of changes in the total area of the forest fund for the years 2017-2023.



Creation of protective forest plantations on the lands of agricultural enterprises in Uzbekistan (Shelterbelt)

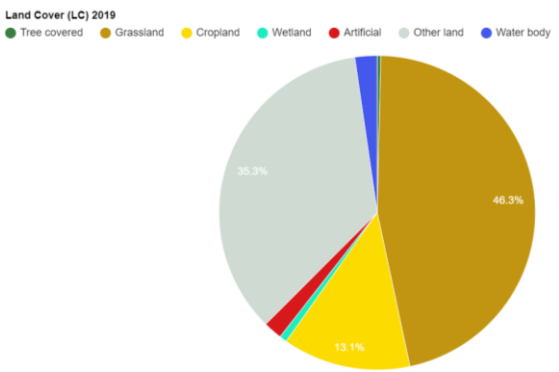


National Activities on Land/Ecosystem Restoration in Uzbekistan

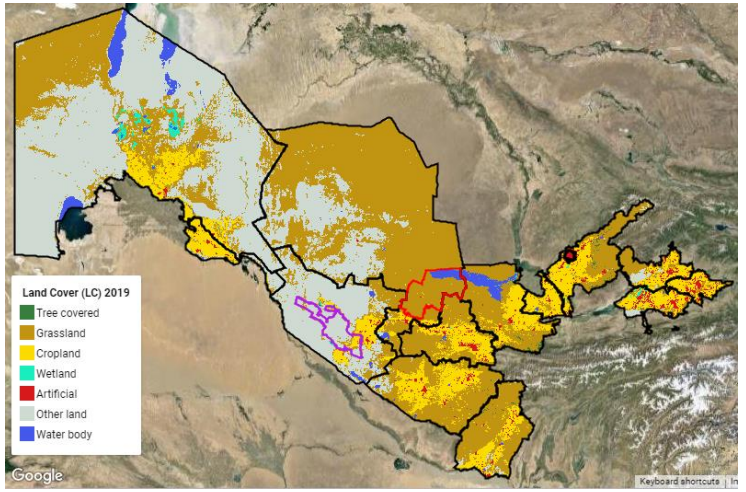
Overview of Uzbekistan's national initiatives and policies aimed at land and ecosystem restoration:

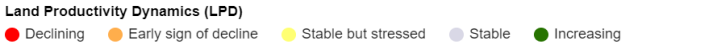
The voluntary LDN target adopted by Uzbekistan is to “By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world”.

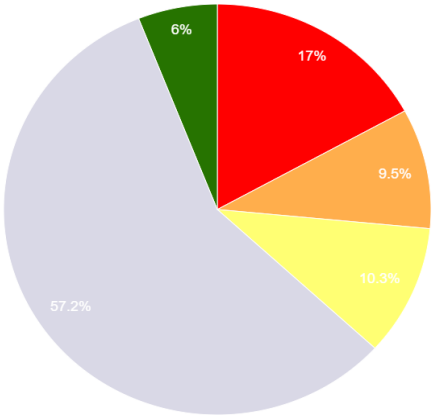
FAO/GEF “To promote SLM/SFM and landscapes restoration for achieving LDN commitments of Uzbekistan”



To select national LDN indicators in accordance with the neutral balance for international reporting purposes;
Restores land area (hectares) - 13,000 ha;
Improved landscape area (excluding areas to be protected) (Hectares) - 225,000 ha;
Reduced emissions from heating plants (metric tonnes CO2e) - 5.1 tonnes CO2 equivalent;
The number of direct beneficiaries of GEF investment as an additional benefit by gender is 1,200 (30% women)







Selected area of interest

Name: Jondor
Area: 504,269 ha.
Declining productivity: 109,491 ha. (21.7%)
Increasing productivity: 22,302 ha. (4.4%)
SOC Mean: 11.99 tonnes/ha.
SOC Stock: 6,051,473 tonnes
Protected Area: 14,367 ha. (2.8%)
Key Biodiversity Area: 14,989 ha. (3.0%)
Mountain Coverage: 0 ha. (0.0%)
Forest gain: 0 ha. (0.0%)
Forest loss: 158 ha. (0.0%)

Selected area of interest

Name: Nurota
Area: 769,926 ha.
Declining productivity: 492,164 ha. (63.9%)
Increasing productivity: 17,544 ha. (2.3%)
SOC Mean: 18.32 tonnes/ha.
SOC Stock: 12,457,595 tonnes
Protected Area: 15,389 ha. (2.0%)
Key Biodiversity Area: 31,612 ha. (4.1%)
Mountain Coverage: 357,833 ha. (46.5%)
Forest gain: 0 ha. (0.0%)
Forest loss: 162 ha. (0.0%)

National Priorities within Regional Frameworks:

The National Project Yashil Makon (“Green Land”)

Within the national project "Green Space/Yashil Makon".

347.1 hectares in 134 districts and cities of our Republic,

110 hectares in the lands of the Zomin state forest fund

457.1 hectares of "Green Gardens" have been established

Within the framework of the "Zamin" international community fund and the "Green Land/Yashil Zamin" project

4,659 tree saplings distributed in the spring season in Yangihayot and Chilonzor districts of Tashkent city (in 3 regions)

2,550 tree saplings in the autumn season in Almazor and Yangihayot districts of Tashkent city (in 4 regions)

More than **334,000 tree** and shrub seedlings were planted in the mountainous and sub-mountainous areas of Bostanliq district and "green gardens" were established on 639 hectares of land.

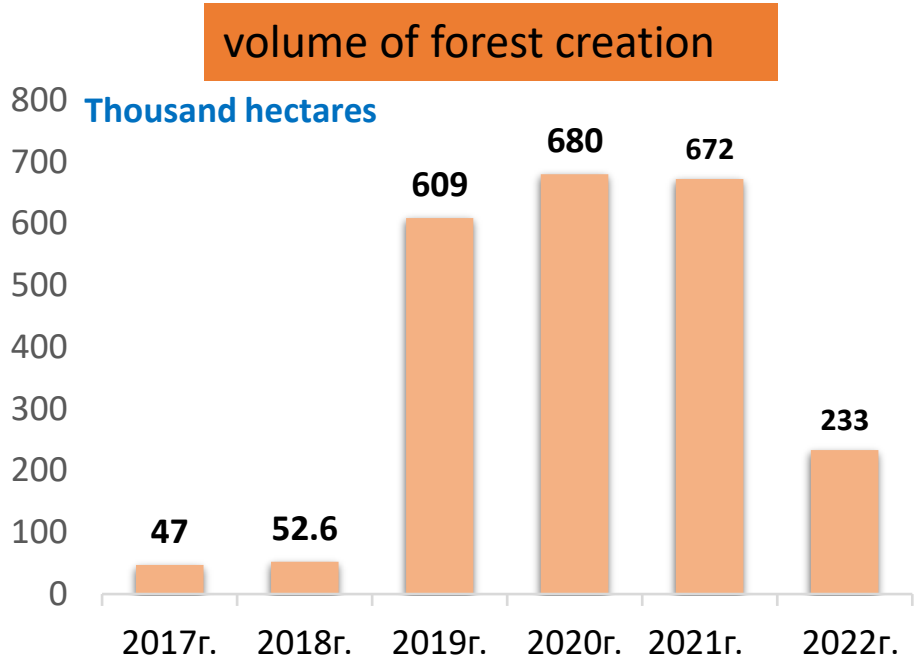
5 million saplings were planted on the edges as shelterbelt for 2.5 thousand hectares of irrigated agricultural land

As part of a systematic approach toward developing green areas, over 219.7 million trees and shrubs were planted in 2023 alone. Additionally, around 189 industrial enterprises that have a high environmental impact planted 2.83 million seedlings, while green belts consisting of 220,000 tree seedlings were created alongside roads.

In 2021, the President of the Republic of Uzbekistan launched the Yashil Makon nationwide program. This program aims to plant 200 million trees and bushes annually until 2030. The goal is to increase the area of green spaces in cities from the current 8% to 30% and to raise the forest cover of the state forest fund from 7.5% to 15%.

Since the launch of the Yashil Makon initiative, **500 hectares of green parks**, **935 hectares of green zones**, and **6,179.2 hectares of green public parks** have been established.
In addition, 40 kilometres of green belts around the cities of Bukhara, Nukus, Khiva, and Urgench have been created.

Total volume of forest establishment, including walnut plantations on forest lands by year



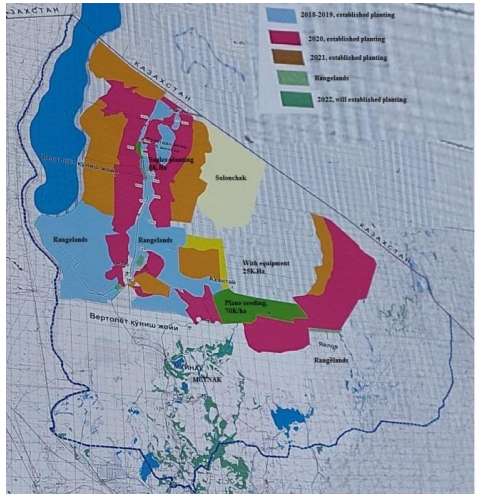
Additionally: For the **One Million Fruit Trees initiative**, CACILM-2 has donated 2,000 grape seedlings as well as 10,000 apple tree rootstocks to the branch of the Academician Mahmud Mirzaev Scientific Research Institute of Horticulture, Viticulture and Winemaking in the Kegeili district of Karakalpakstan. CACILM-2 also supports farmers by providing seeds of drought- and salt-tolerant crops. In the past, 2,000 kg of chickpea seeds, 6,900 kg of safflower seeds, 5,800 kg of flax seeds and grape seedlings of Sogdiana (2,000), Rizamat ota (2,000), Toifi (2,500), and Kishmish (5,000) were distributed to farmers in the Kamashin district of Kashkadarya region. A Regional Training and Outreach Centre at Kitab Forestry has been opened, providing training sessions with forestry experts for farmers and other stakeholders from the southern regions of Uzbekistan.

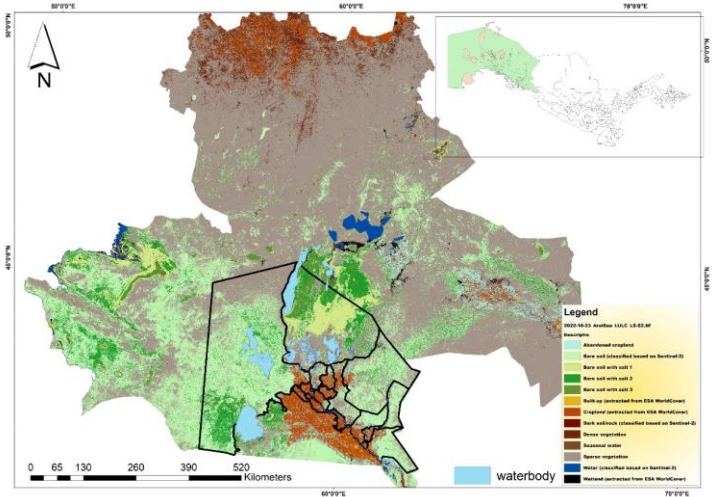
Case Study: Reforestation Initiative in Uzbekistan's Aral Sea Region (National Initiative)

Background: The Aral Sea region in Uzbekistan has faced severe environmental degradation due to unsustainable water management practices, leading to the shrinking of the sea and desertification of surrounding areas. In response to these challenges, Uzbekistan initiated a large-scale reforestation project aimed at restoring degraded lands and mitigating desertification.

Objectives:

1. To rehabilitate degraded lands in the Aral Sea region through afforestation and reforestation.
2. To mitigate desertification and soil erosion in the area. Reduce the wind erosion in the area
3. To improve local ecosystems and biodiversity.
4. To provide socio-economic benefits to local communities through job creation and sustainable land use practices.





Case Study: Reforestation Initiative in Uzbekistan's Aral Sea Region (National Initiative) II

Established forests on the dried bottom of the Aral Sea

A resolution of the Cabinet of Ministers "*On additional measures to create a "green cover" – protective forests on the dried bottom of the Aral Sea and the Aral Sea region*" was adopted.

The document was developed in accordance with the development concept of the forestry system of the Republic of Uzbekistan until 2030,

The followings have been approved:

•areas of protective forests being created to cover the bottom of the Aral Sea and the territory of the Aral Sea region in 2022-2026;

•volumes of preparation of seeds of desert plants for the creation of protective forests to cover the bottom of the Aral Sea and the territory of the Aral Sea in 2022-2026.

The sources of funding for activities to create a "green cover" are defined as:

•funds allocated from the budget of Karakalpakstan, local budgets of khokimiyats of Bukhara, Navoi and Khorezm regions in excess of the forecast;

•sponsorship funds of legal entities and individuals;

•other sources not prohibited by law.

Reforestation Initiative in Uzbekistan's Aral Sea Region (National Initiative)

Sand accumulation furrows were cut in spring to a depth of 40 cm using a furrow cutter with a slotter

Lessons Learned:

1. **Community involvement** is crucial for the success and sustainability of reforestation projects, as local knowledge and participation contribute to project effectiveness.
2. **Adaptive management approaches** are essential for addressing unforeseen challenges and adjusting project strategies based on monitoring and evaluation.
3. Collaboration between government agencies, NGOs, and local communities enhances project outcomes by leveraging diverse expertise and resources.
4. Long-term commitment and funding are necessary for the continued success of large-scale reforestation initiatives, as ecological restoration is a gradual process requiring sustained efforts.

Results

- Over the past 6 years (since 2018), **million** of hectares of degraded lands have been planted by salt and drought tolerant tree and bush species, and restored through afforestation and reforestation efforts (around ~ 2 mln.ha)
- The project has successfully mitigated desertification and soil erosion, leading to improved soil fertility and water retention.
- Socio-economic benefits have been realized through the creation of jobs in nurseries and plantation sites, as well as the development of eco-tourism opportunities.
- Biodiversity in the area has increased, with the return of native plant and animal species.

Technologies 1

Almond planting on shallow terraces to increase the efficiency of rainfed lands and to prevent erosion

The proposed technology includes the development of small terraces on the slopes with almonds planting and other local drought-resistant tree species on the terraces.

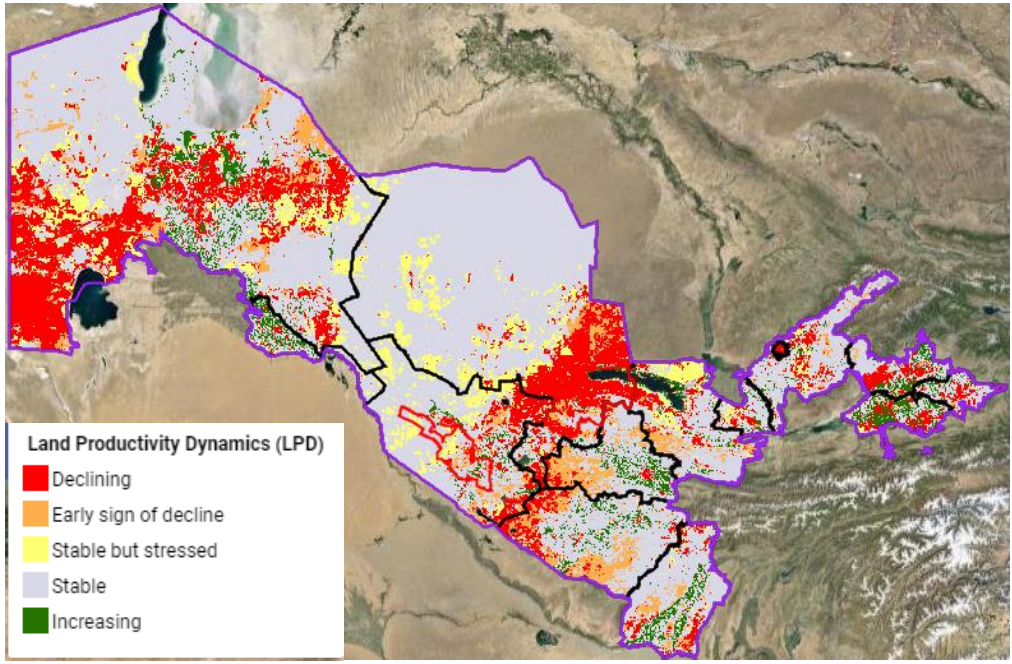
Technologies 2

Improvement of land under arid conditions through the creation of pistachio plantations

The purpose of this technology is the restoration of landscapes in the foothill and arid hill zone, adaptation to climate change and an increase in agricultural productivity and income.

Challenges and Future Directions:

- Despite significant progress, challenges such as **limited water availability** and **climate/salt variability** persist, requiring continued innovation and adaptation technologies and salt tolerant tree species.
- Scaling up reforestation efforts to cover larger areas and replicate successful models in other regions of Uzbekistan remains a priority (e.g. *Pistachio plantations in mountainous areas*).
- Strengthening **policy frameworks** and **institutional capacities** for sustainable land management and ecosystem restoration is essential for long-term success.



Projects which will be implemented soon:

RESILAND CA+

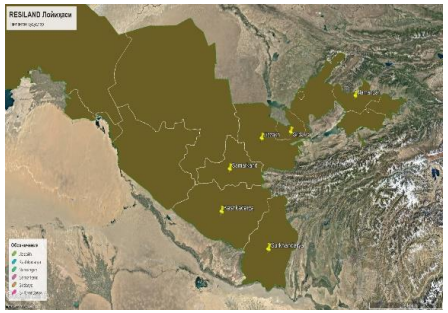
15 минг гектар
тоғ ўрмонларини тиклаш
0.15% умумий ўрмонлар тикланади

38,5 минг гектар
Яйлов ерлари тикланади
0.33% умумий ўрмонлар тикланади

Ўрмон АКТ платформаси яратилади

39,5 млн долларлик
Техникалар олинади.

63 км эко-йўлак ва **4 та**
ташриф маркази ташкил этилади



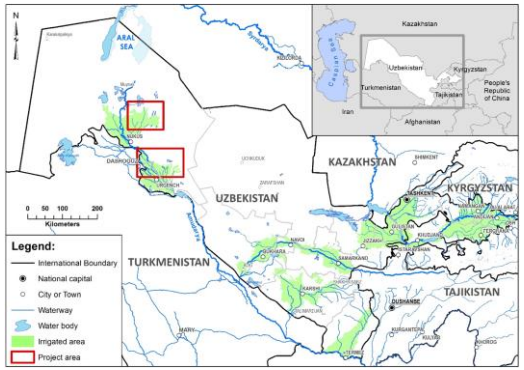
10 минг гектар
саноат плантациялар

1,7 млн киши
лойиҳа манфаатдорлари

2024 йил
ўзлаштири-ладиган маблағ

йилига 2 млн 800 тонна кислород
Ишлаб чиқарилган кислороднинг умумий миқдори

- ✓ *Жиззах вилояти*
- ✓ *Наманган вилояти*
- ✓ *Самарқанд вилояти*
- ✓ *Сирдарё вилояти*
- ✓ *Сурхондарё вилояти*
- ✓ *Қашқадарё вилояти*



GREEN BELT

20 минг гектар
ҳимоя ўрмонлари

5 минг гектар
агроўрмончилик

2 минг иш ўринлари
яратилади

- Орол денгизи билан кесишган зонада яшил ҳимоя белбоғи яратиш. (42,0 млн)
- Агроўрмончиликни ривожлантиришни қўллаб қувватлаш. (15,0 млн)
- Лойиҳа бошқаруви ва институтционал сиёсат ҳамда ходимлар малакасини ошириш. (3,0 млн)

Компонент 1

Компонент 2

THANK YOU FOR YOUR ATTENTION!