EU project helps make degraded land in Georgia ready for planting forests

EU-funded experts supported Georgian ministries and agencies to assess emissions reduction by afforestation of degraded lands.

Abstract:

Georgia is facing the problem of land degradation due to climate change. Rehabilitation of degraded lands as an adaptation measure implies various approaches all of them having a greenhouse gas mitigation effect. The afforestation of degraded lands is one of the best solutions due to both the importance of and their role in absorbing greenhouse gases.

The Dedoplistskaro district in east Georgia was chosen as an afforestation pilot because it is one of the most vulnerable areas in Georgia. It is economically significant, but has suffered significant land degradation from wind and water-base erosion as well as from salinisation.

Two Austrian experts, Dirk Gaul and Alexander Horst were selected to study the district land degradation and identify optimal species for afforestation.

The experts conducted a field visit, meeting with local authorities and taking soil samples from the degraded land. Analysing the information and material obtained, and taking in consideration the climatic conditions of the area, the experts identified the optimal species for planting and calculated the projected annual greenhouse gas emission reductions.

These findings can be used for planning adaptation and mitigation actions in Georgia. If implemented, these measures may both increase resilience of the land to climate change and reduce greenhouse gas emissions, thereby contributing to meeting Georgia's commitments under the Paris Agreement.

Context:

Georgia is a mountainous country with a wide variety of ecosystems each if which is impacted in different ways by climate change. Different degrees of vulnerability require a holistic approach to climate change adaptation, including ensuring economic development.

Adaptation to climate change is critical for reducing damage caused by climate change as well as for ensuring economic growth. As an agricultural country, Georgia needs to make particular focus on this area in its adaptation policy. Afforestation is one of the priority directions in Georgia's climate change adaptation policy. This is because of the need to rehabilitate of soils degraded by climate change, the need to reduce the increased frequency of floods and the need to address the intensified felling of trees.

The Clima East policy project is an EU-funded project with the aim of supporting Eastern Europe partner countries' policies in the areas of Climate Change mitigation and adaptation. As part of this project, through its 'Expert Facility'[1], international experts are commissioned to provide technical support to governmental agencies and/or relevant organisations in specific areas related to climate change mitigation and adaptation policy-making and implementation.

1 For more information on Clima East's Expert Facility please visit: **climaeast.eu/expert-facility**

This project is funded by the European Union

Objectives:

The overall objective of the assignment was **to increase capacity in assessing the potential of afforestation of degraded lands in Georgia for both adaptation to climate change and mitigation of greenhouse gas emissions.**

In this case, the Clima East project responded to the request for support from the National Forestry Agency (NFA) at the Ministry of Environment and Natural Resources Protection of Georgia. The request was for help exploring the adaptation and mitigation potential of degraded lands and recommending optimal species for their afforestation in the areas of Dedoplistskaro district under the NFA ownership. One of the purposes of this assignment was to quantitatively estimate greenhouse gas emissions from the land before (baseline) and after afforestation, and explore the potential for new forests to absorb greenhouse gases.

Impact:

The assignment produced a baseline of greenhouse gas emissions, made recommendations for the most relevant species of tree to be planted and projected the amount of greenhouse gases which could be absorbed by the new forests. The assignment also produced recommendations for managing and maintaining the plantations as well as advice on policy planning in land rehabilitation

The experts' conclusions were that that afforestation of afforestation of degraded lands has much more adaptation than mitigation potential due to the harsh climatic conditions. Based on these conclusions, afforestation should be accompanied with properly selected measures related to regulation (ownership, insurance, financing), land management (irrigation, drainage) and maintenance (re-plantation, fencing, protection from grazing, awareness raising among local population) to ensure full rehabilitation of the area and increase its resilience and mitigation potential.

Figures and Facts:

Figures

- Clima East is an €8 million 4-year EU funded project.
- The Expert Facility is a €2.6 million component of the overall Clima East budget.
- This individual assignment was completed at a cost of just €10,563 for the provision of two International and two local Experts.

Facts

- The rehabilitation of degraded lands is one of the priority directions of climate change adaptation policy in Georgia.
- Afforestation was considered the most optimal means for rehabilitating degraded lands.
- International expertise was required to explore individual plots of lands and identify optimal species for their afforestation based on their specific types of degradation and climatic conditions.
- The assignment was conducted in the period May-September 2015.
- The experience and outcomes of the assignment may be replicated to other degraded land areas in Georgia and the neighbouring countries in the region with similar problems.

This project is funded by the European Union