



This project is co-financed by the European Union and the Republic of Turkey

Development of a common protocol to assess the impact of forest management practices on climate change



IMPACT FOREST MANAGEMENT & CLIMATE CHANGE



The Action



Forest functions traditionally included wood production, protection and forest recreation. However, a fourth category was added concerning environmental impacts, after realizing the magnitude of environmental issues worldwide in relation to climate change. The twofold role of forests as both sources and sinks of greenhouse gases (GHG) makes their influence on the climate extremely significant.

This fact has led to climate change adaptation and mitigation being set as a current priority in forest management.

Under this perspective the Action, through a transnational cooperation, sets a bottom up approach to establish reference levels and monitor inter-annual fluctuation of net carbon storage. Focusing on CO₂ and forest management practices in planted forest, by monitoring inter-annual fluctuation of net carbon storage and CO₂ emissions from forest works, aims to the development of a common Protocol for the assessment of CO₂ sequestration in artificially established forests through afforestation/reforestation projects. This common Protocol will also assess and validate forest management practices and measures in these types of areas, aiming to improve the CO₂ removal/sequestration balance by reducing the emissions of forest logging and management treatments.

Objectives

1

Estimation of the carbon stock and carbon balance of planted forests in the Trabzon wider region

2

Identification of the origins of carbon balance fluctuations in the Trabzon wider region

3

Examination of sustainable forest management practices to optimise carbon balance and counter-steer climate change impacts

4

Development of a common frame work to describe, assess and monitor carbon stock, emissions and removals of planted forests in line with the respective EU policies

5

Harmonisation of forest management policies and measures taken for climate change mitigation in the EU regarding planted forests

6

Monitoring forest parameters that can be used as indices of climate change impacts

Forest Management and Carbon Sequestration

In Turkey, the first management plan was prepared in 1918 by Turkish and Austrian foresters.

Currently, the implementation of forest plans in Turkey faces new challenges, including Climate Change.

Forest management has the potential to increase the terrestrial carbon pool.

The present **common Protocol** aims to assess and validate forest management practices and measures to improve the carbon removal/sequestration balance by reducing the emissions of forest logging and management treatments.

Forest management practices for conserving and sequestering carbon can be grouped as:

I. Maintenance of existing carbon pools (slow deforestation and forest degradation)

II. Expansion of existing carbon sinks and pools through forest management

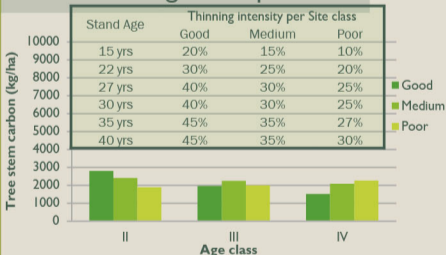
III. Creation of new carbon sinks and pools by expanding tree and forest cover

IV. Substitution of fossil fuels and fossil fuel based product with renewable wood-based fuels and products.

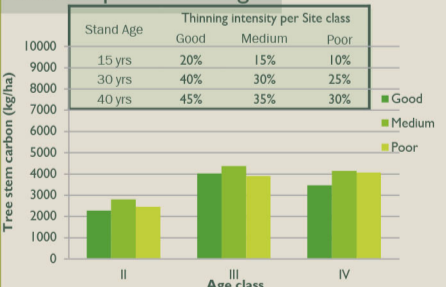


Management future scenarios

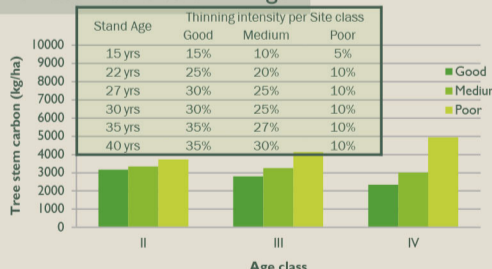
I. Current management practice



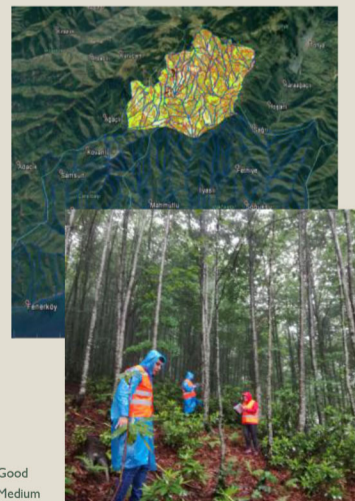
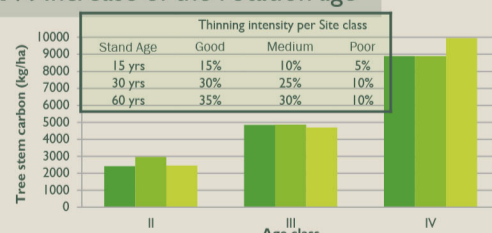
II. Less frequent thinnings



III. Less intensive thinnings



IV. Increase of the rotation age



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