

January 2024

# FOREST PLANTATIONS AS A SOLUTION TO CLIMATE CHANGE ADAPTATION

– *Nishcani, Republic of Moldova*



## In a nutshell

Nishcani is a town in the district of Calarasi, located in the centre of the Republic of Moldova. Being situated on a complicated terrain with slopes of varying gradient and hillocks, the village has several environmental problems, which are worsening with the increase in climate change: decreasing groundwater reserves, drying of rivers, land degradation, etc. A problem is also the lack of protection strips around the village and agricultural land. In 2020 the people of Nishcani started planting the first 7 ha of forest on a 20 ha plot. Valuable species such as Turkistan elm, Tatar maple, linden, ash were planted. In 2023, the village of Nishcani joined the Covenant of Mayors for Energy and Climate, motivated by the desire to contribute to climate resilience through sustainable local action.

## Background

The Republic of Moldova is extremely vulnerable to climate change and is among the most disadvantaged countries in Europe. Natural phenomena in Moldova include droughts, wind and heavy rainfall, which together create erosion and destroy soils.

The area of eroded land increases by almost one percent annually, and 26 million tonnes of fertile soil are lost from agricultural land. Expressed in money terms, the annual damage to the national economy exceeds three billion lei (app. 157M EUR).

To stop this process, one solution would be to create protective forest stands.

## Description of the action

The project on creating the protective forest plantation was financed with the grant provided by the IFAD Consolidated Unit for Programme Implementation, contributions from the National Ecological Fund and the administration of the village of Nishcani. All inhabitants of the village were involved in the planting process. Several steps are mandatory to successfully create a forest belt: 01 - Preparation of the land and soil for planting forestry curtains; 02 - Afforestation activities - planting - according to the schemes and assortment established in the project, with the participation of the local population; 03 - Maintenance and completion/repair of forest crops. This action lasted for 5-7 years and was carried out 3-6 times a year, depending on the composition of the forest crops, afforested area, quality of soil preparation, climatic conditions, etc.

## Focus on forest plantations as a solution to mitigate climate change impacts

At present, the forested area in the Republic of Moldova occupies 11% of the territory - a very low indicator compared to the average level of forested territory in EU countries, which is 37,7%.

In order to increase the forested area and cope with the consequences of climate change, in February 2023, the National Plan for the Expansion and Rehabilitation of Forests was approved in Moldova.

The plan foresees that over the next 10 years the area of woodland will be expanded by about 150.000 hectares - on new land, but also on severely degraded forest areas in public ownership or, for the first time, on privately owned land. Riparian and agricultural buffer strips are also to be planted.

## Photo



Planting a forest strip

## Nishcani, Republic of Moldova



### Population:

1 950

### Surface:

2,16 km<sup>2</sup>

### Signatory of the Covenant of Mayors of:

24.02.2023

### CO<sub>2</sub> reduction target value:

35%

## Targeted sector, climatic hazards and vulnerable population group addressed by the buffer strip planting measure

Climate change affects all areas of development and is not limited to one sector. In particular, the measure targets the areas of soil protection, erosion prevention and desertification. Protective forest plantation will provide important ecosystem services such as: clean air, water flow regulation, carbon sequestration, soil protection against hydrological and wind erosion, habitats for animals and plants, restoration of degraded land and resilience to disasters and climate change. The socio-economic impact is manifested in the stimulation of beekeeping activities of citizens (stationary/pastoral), which will lead to the creation of new jobs.

The future forest will also be a place for recreation and leisure.

## Achievement and advice for replication

Planting forest buffer strips will help combat wind and rain erosion to increase the productivity of agricultural land. this land.



The forest shelterbelts have beneficial effects on the microclimate of neighbouring land, by reducing wind speed, they help to evenly distribute solid and liquid precipitation on this land.



It is important to choose the right species of trees and shrubs for planting, according to the soil, planting area, growing technologies, seedling patterns and location.



## USEFUL LINKS

<https://niscani.sat.md/planuri-strategii/>

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## Project funding

### • Sources of funding :

Grant offered by the Consolidated Unit for the Implementation of IFAD Programmes – 280.000 lei; National Ecological Fund – 400.650 lei; Nishcani Village Hall – 40.000 lei. = 720.650 MDL in total (aprox. 36.000 euro)

## Key data



7 ha of forest plantations



reducing the impact of the rubbish dump on the edge of the village



stopping soil degradation



reducing wind erosion



local development of beekeeping



creating a recreation area for the local population

## CONTACT

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