



# **General activities to combat desertification, land degradation and drought in the R. of North Macedonia**

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# agenda

Introduction

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Assessing drought and land degradation challenges

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Some achievements under past and current projects in N. Macedonia

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Sustainable land management practices to achieve LDN and drought risk mitigation

# Introduction

- Republic of North Macedonia ratified the United Nations Convention to Combat Desertification (UNCCD) on 3 June 2002, and since then it has taken several important steps towards the implementation of the Convention.
- In 2006, the Republic of N. Macedonia submitted its First National Report on the Convention (UNCCD), which was the result of the combined efforts of several state institutions. Further reports have been submitted within the reporting cycles of the Convention (UNCCD).
- Finalized and submitted its first technical report on the LDN target setting process.
- Currently, in the phase of revision and adoption of the National Action Plan to Combat Desertification.



# Soil erosion in North Macedonia

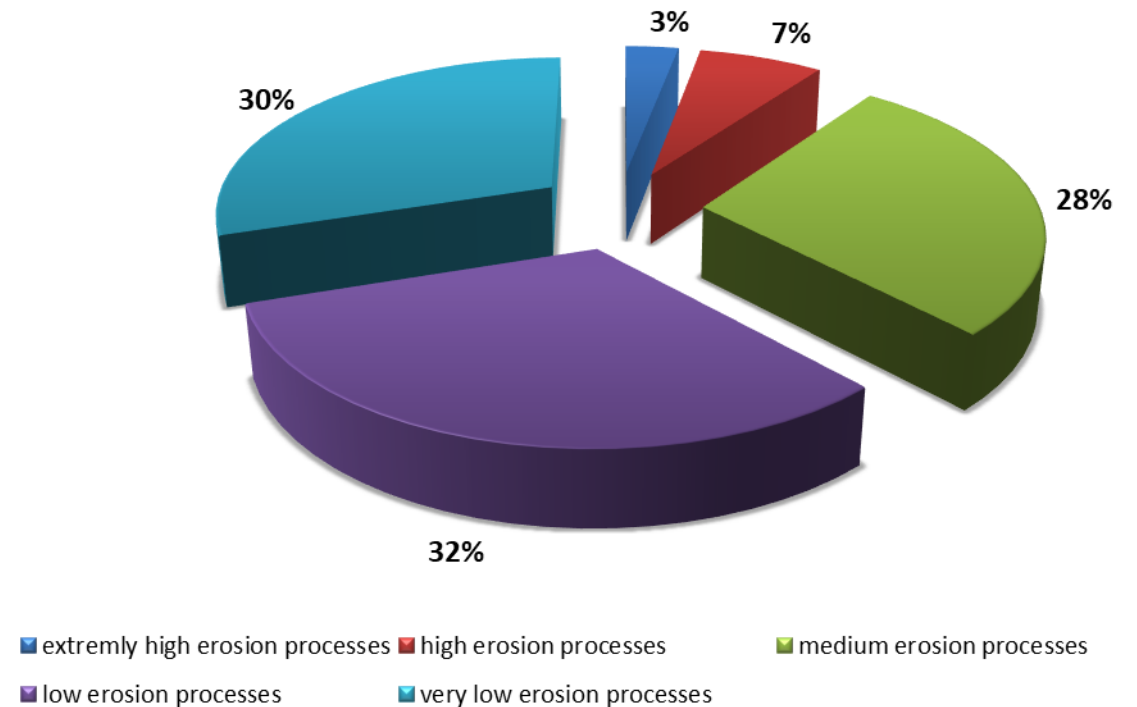
Erosion is the most dominant land degradation type, affecting up to 97% of all territory of the country.

Of these, an area of 9 423 km<sup>2</sup> or 38% of the total state area is in the highest categories (I–III) of erosion, with 8% being bare land.

The predominant form of soil erosion is water erosion.

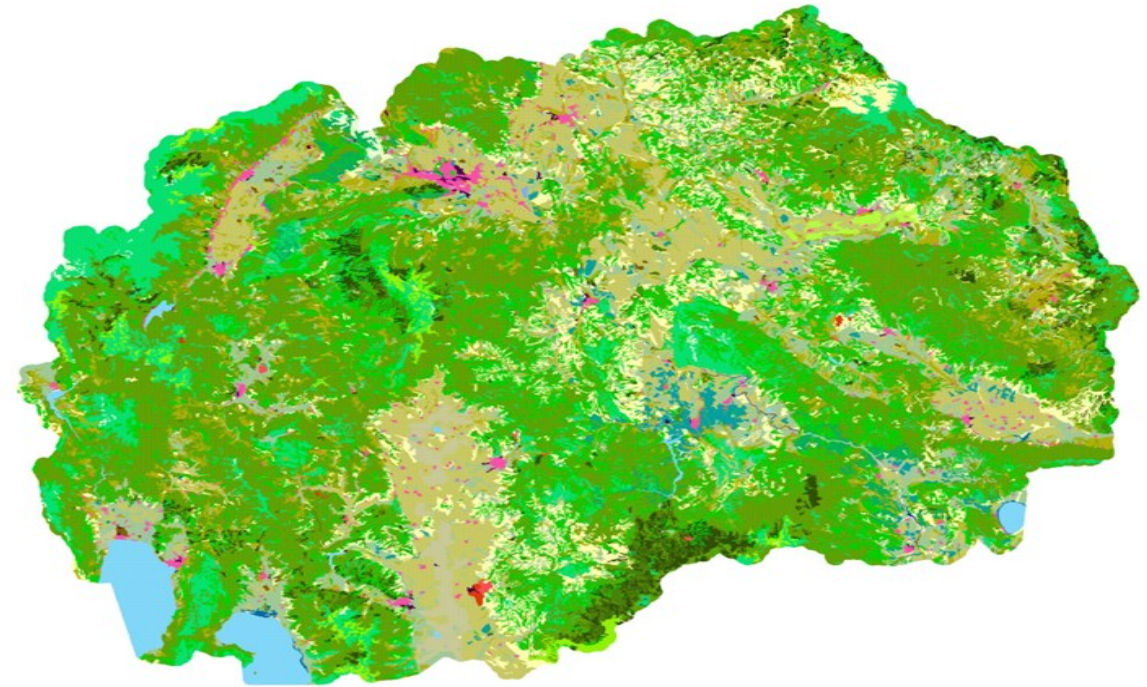
Currently an estimated 28% of the country experiences medium to severe erosion processes, with an annual total soil loss of about 17.1 million cubic meters.

**Distribution of soil erosion in RM**



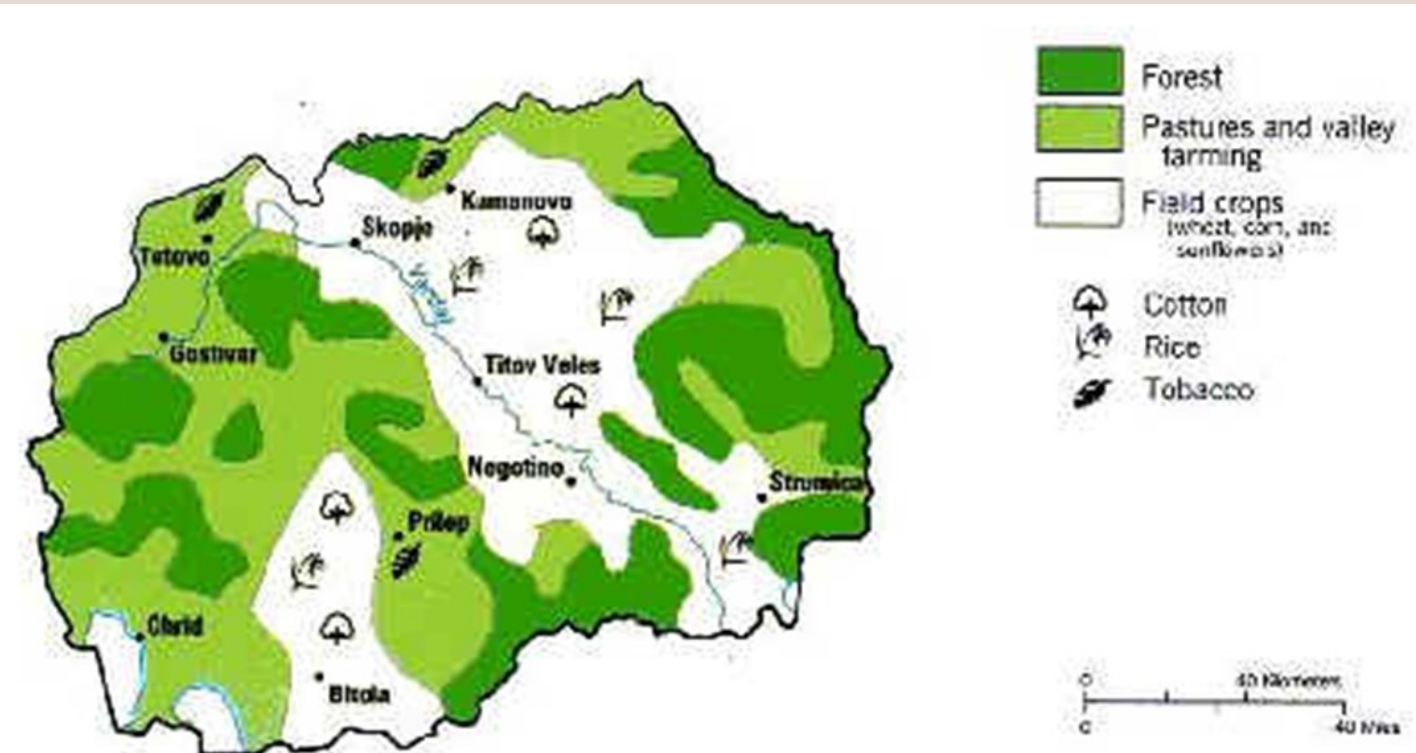
# Land cover of North Macedonia and vulnerability

- About 52% from the country is moderately vulnerable to drought, whereas vulnerable areas cover 22% and are distributed mainly in central and northern region.





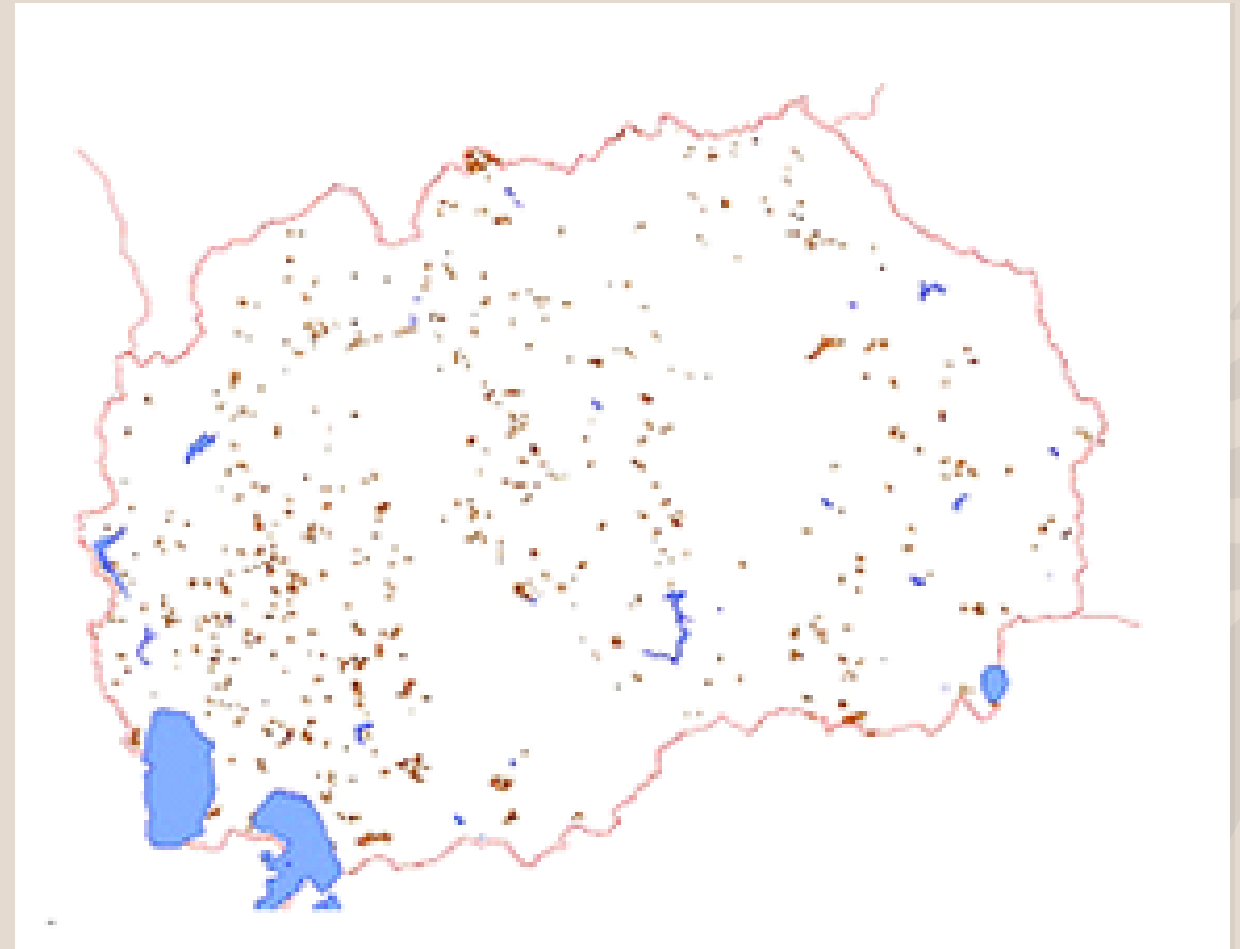
# Land use and threads



- There are high losses of topsoil, humus and nutrients from the agriculture land located on slopes. Approx. 17 million m<sup>3</sup> of arable soil is lost every year.
- Intensification of agriculture is posing a severe threat to the biological diversity of the country.
- Contamination from local sources
- Diffuse contamination
- Hydro-geological risks
- Reduction of organic matters
- Land use change

# CORINE LAND COVER CHANGES

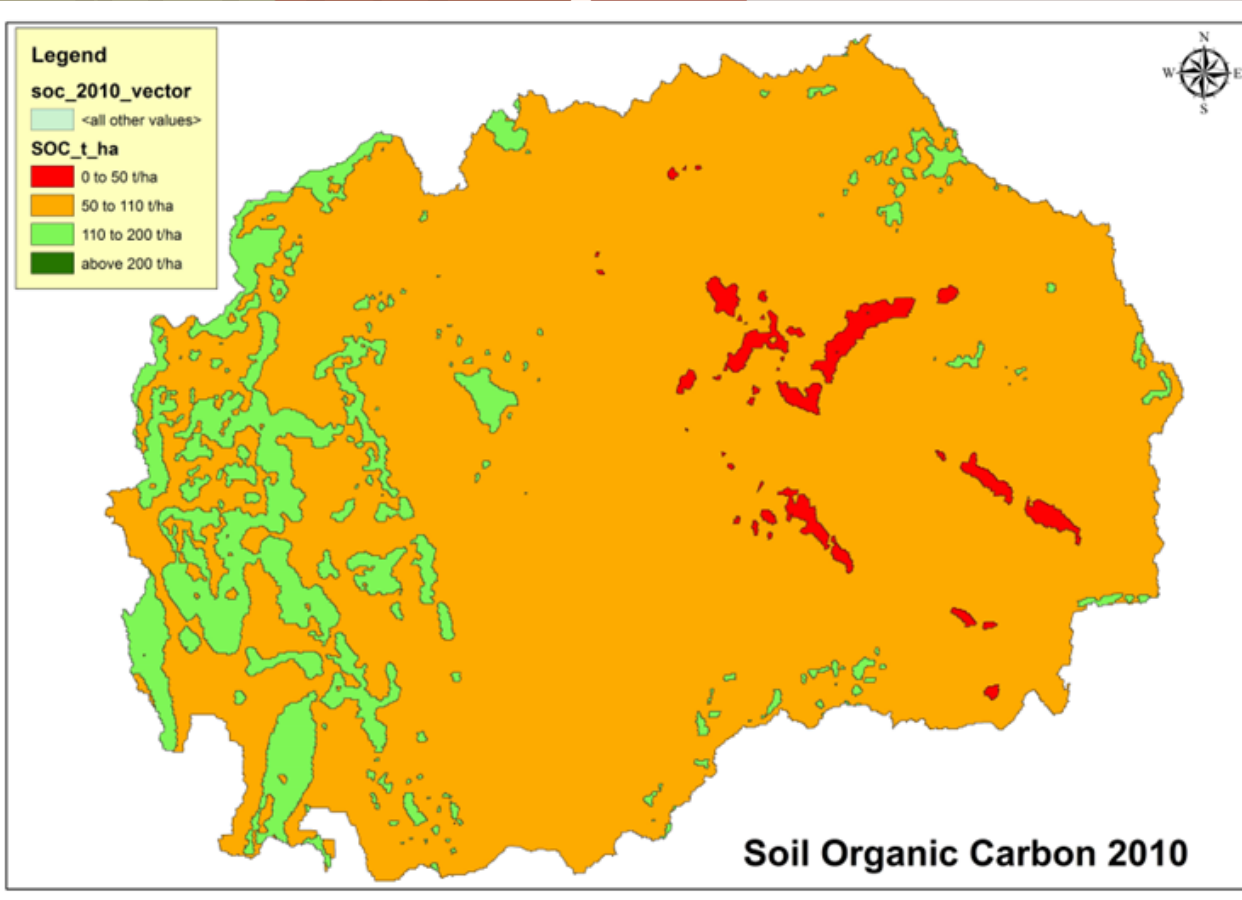
CLC categories	CORINE Land cover, in sq km		
	2000	2012	Net area change
Forest	8608,50	8242,66	-365,83
Shrubs, grassland and sparsely veg. areas	4388,61	4722,81	334,20
Cropland	11256,61	11228,94	-27,67
Wetland and water bodies	723,11	698,30	-24,82
Artificial areas	387,18	428,44	41,25
Bare land and other areas	74,26	113,54	39,28
Total	25.438,27	25.434,69	





# LAND PRODUCTIVITY DYNAMICS ACCORDING TO LAND USE/COVER

## SOC change for the period 2000/2010



Soil Organic Carbon distribution in the country

Changing Land Use/Cover Category	Net area change (2000-2010) sq km	Soil organic carbon 0 - 30 cm (2000-2010)				
		2000 t/ha	2010 t/ha	2000 total (t)	2010 total (t)	2000/10 loss (t)
Forest to Cropland	2,6	86,6	71,4	22590	18639	-3951
Forest to Shrubs, grasslands and sparsely vegetated areas	3,9	89,2	89,2	34524	34524	0
<b>Total</b>				57114	53163	
Percent loss total SOC stock (country)						-3951

# Some achievements under past and current projects in N. Macedonia

- Within the **STAR GEF5 Project** , with UNEP support, the following has been achieved:
- Shar Mountain proclaimed for national park and developed management plan
- Support for revalorization of Ohrid Lake and draft management plan
- First National Red Lists and Book of reptiles and amphibians, based on IUCN criteria
- Updated national soil erosion map
- Developed forest vegetation maps for three pilot areas
- Developed soil sealing rate database for three selected pilots
- Numerous capacity building activities for PAs management, rangers, environmental inspectors, MOEPP, municipalities, mountaineering associations

Achieving Biodiversity Conservation through Creation and Effective Management of Protected Areas and Mainstreaming Biodiversity into Land Use Planning





# Where are we now?

- **STAR GEF6 Project** “Promoting Sustainable Land Management (SLM) Through Strengthening Legal and Institutional Framework, Capacity Building and Restoration of Most Vulnerable Mountain Landscapes”
- Reduce the effects of land degradation and land use pressures on natural resources in the mountain landscapes
- Law on Soil Protection
- National Strategy for Soil Protection
- Guidelines for Establishing Soil Quality Monitoring Programme
- Land utilization and ecosystems services valuation for forest and grasslands ecosystems
- Implementation of sustainable land and forest management practices for reducing the effects of land degradation in three pilot sites in the most vulnerable mountainous region
- Assessment of the impact, lessons learned and potential for replication of the various approaches and mechanisms tested

# Further activities

- Several different projects in the area of environment, climate changes, biodiversity conservation, agriculture, hydrology, forestry etc., which are directly and/or indirectly interconnected with activities for implementation of the UNCCD Convention.
- Projects are developed, coordinated and implemented by different responsible national institutions or ministries and international programs and society.
- Developed National Action Plan Aligned with the UNCCD 10 Year Strategy and Reporting Process under UNCCD (currently under revision for adoption) + Upcoming reporting process



- Among other aspects, Establishment of a National Biodiversity and Land Degradation (Neutrality) Monitoring and Reporting System will be developed under the upcoming national project funded with the GEF STAR 7 allocation, for multi focal areas, biodiversity conservation and sustainable land management.
- The project has been launched on 10 July 2023.

# STAR GEF7 Project



- Biodiversity conservation, sustainable land management and sustainable tourism development in North Macedonia
- Support national and local efforts for achieving LDN and Biodiversity Targets in the Republic of North Macedonia through the application of an integrated landscape approach in the Shar Mountains
- Support the capacity for natural capital accounting, and a functional integrated LDN/BD monitoring and reporting system
- Participatory ILM (integrated landscape management) planning for the Shar Mountains target area
- Practical know-how for applying NCA (natural capital accounting)
- Replication of lessons learned in other parts of the country (LDN/BD monitoring and reporting, natural capital accounting, adapted forest and pasture management systems, diversified rural incomes and energy options, etc.)

Specific project target area in the Shar Mountains

# areas of focus

## SETTING OF A POLICY FRAMEWORK FOR DLDD, IN LINE WITH THE EU ACQUIS AND UN CONVENTION

- Further harmonization of the legislation (primary and secondary) with the EU Acquis, UN Conventions and other relevant international documents.
- Updating existing relevant strategies and action plans treating issues for land degradation, desertification and drought issues with the EU acquis.
- Development of National strategy for integrated approach to land degradation, desertification, and drought, including linkages with socio-economic and other relevant aspects.
- Identification of regions vulnerable to desertification and assessment of the status of desertification.
- Development of local action plans for land degradation, desertification, and drought.
- Creation of the mechanism for effective vertical and horizontal coordination of the institutions in planning and undertaking DLDD activities.

# areas of focus

## INSTITUTIONAL AND CAPACITY-BUILDING FOR DLDD ISSUES

- Strengthening of administrative and operational capacities for DLDD issues of MOEPP, MAFWE and other respective institutions in this field.
- Strengthening supervision of land degradation and protection through enforcing capacities of inspection service.
- Development of organizational structure to support UNCCD reporting process (gathering information, validation and reporting).
- Establishment of comprehensive DLD monitoring (Soil, Soil degradation, desertification, landcover changes, vegetation changes, etc.) through direct surveys and modern geomatic techniques.
- Implementation of Digital Soil Mapping in elaboration of thematic maps related to various types of land degradation (soil sealing, soil salinization, soil compaction, loss of organic matters etc.).

# areas of focus

## AWARENESS RISING OF THE PUBLIC FOR ISSUES RELATED TO DLDD

- Elaboration of Communication Strategy for DLDD issues.
- Organization of trainings and workshops for DLDD issues for the stakeholders on central and local governmental level.
- Design and realization of media campaign for DLDD.
- Establishment of National Training and Technology Transfer centre in the area of DLDD.



# thank you

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