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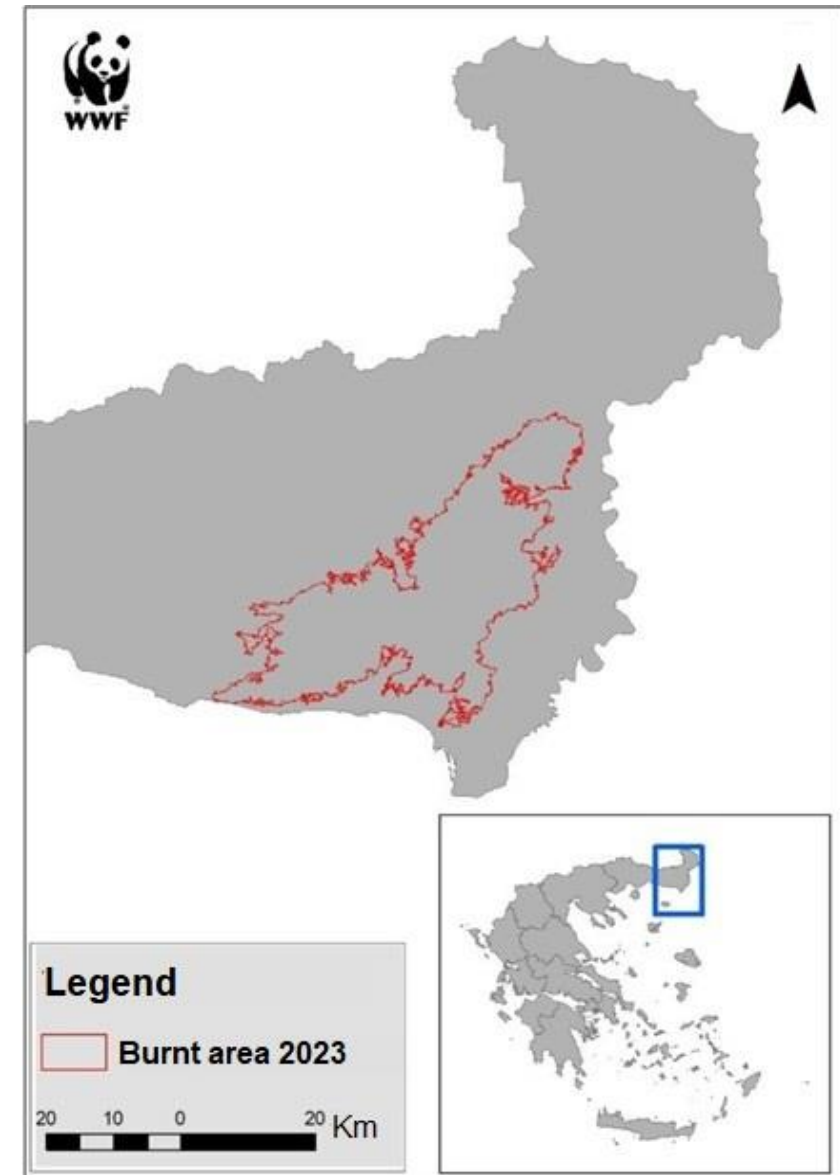
WWF GREECE STUDY: “MANAGEMENT GUIDELINES FOR THE RESTORATION OF FOREST ECOSYSTEMS IN THE EVROS REGION AFTER THE 2023 FIRE”

NOT A SIMPLE FIRE IN A SIMPLE AREA...



- The largest fire in Europe.
- 20 important areas of which 16 are designated as PAs.
- An area where WWF Greece has had a continuous presence and actions for over 30 years.

We asked to conduct (with own resources) a management guidelines study for the restoration of the area



OBJECTIVE OF THE STUDY



What this is all about?

General guidelines for the restoration of forest ecosystems after the great fire of Evros (addressing the problem holistically and in landscape level).



IN BRIEF



+700 pages

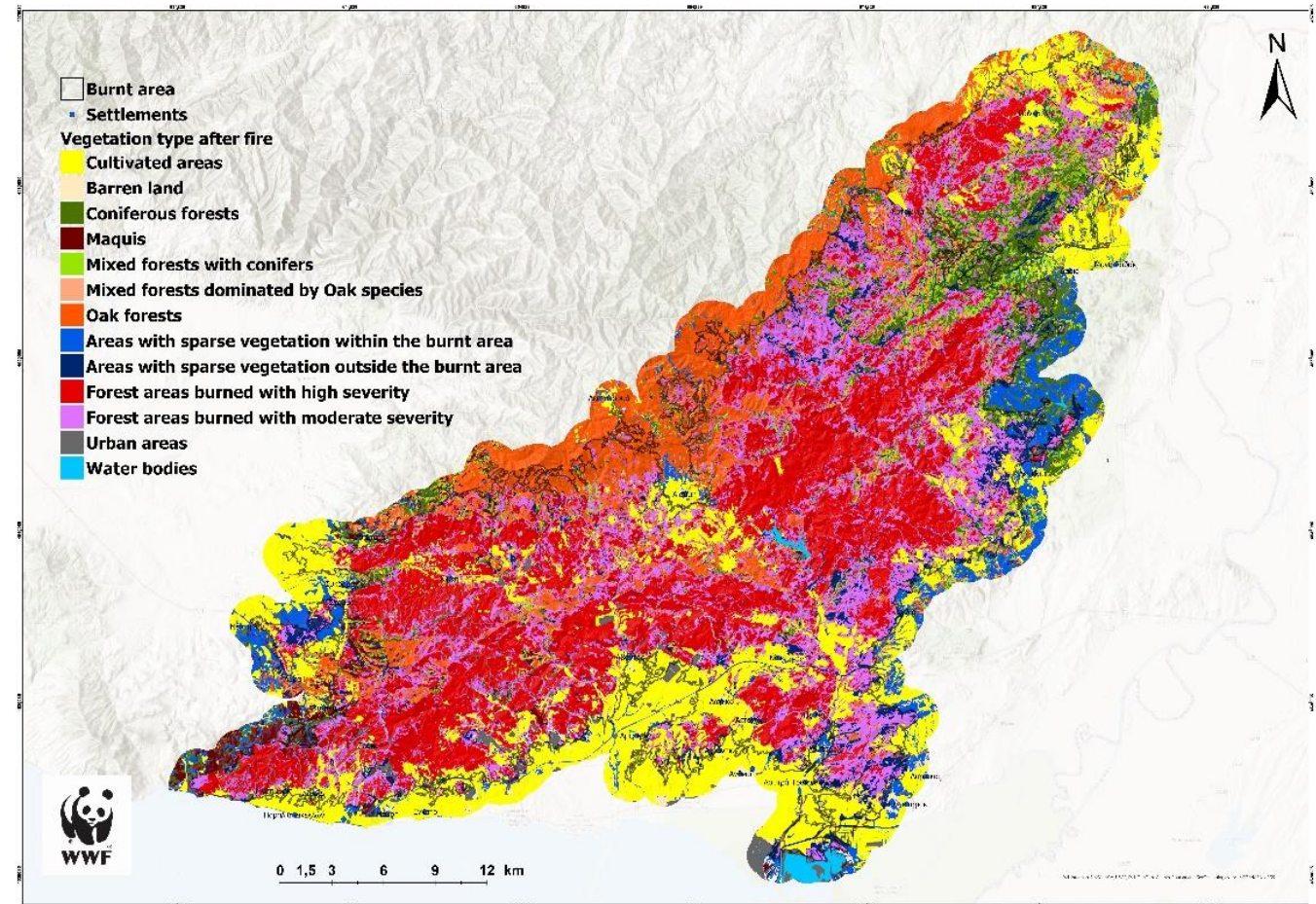
+100 new maps to be used by all those who are involved in the next steps.

The main axes, on the basis of which management should move forward and individual studies should be proposed and carried out.

Immediate management measures that are needed and all the areas need to be closely monitored because they may need human assistance in their restoration.

Presentation in a separate issue of the exceptional loggings that can be made in the burnt areas.

3 Sub-Studies for areas in immediate need of reforestation.



STUDY CONTENTS



A. INTRODUCTION - GENERAL DESCRIPTION OF THE AREA

B. RECORDING OF THE STUDY AREA AFTER THE FIRE

C. BASIC MANAGEMENT GUIDELINES

D. ASSESSMENT OF THE LOSSES OF PRODUCTIVE ACTIVITIES IN THE REGION AND PROPOSALS FOR MANAGEMENT MEASURES

E. OVERALL PROPOSALS

F. PROPOSALS FOR FURTHER NECESSARY STUDIES AND RESEARCH

PRODUCTION OF CARTOGRAPHIC MATERIAL

Annex: 3 Reforestation Studies

MAIN RESULTS

IMPORTANT STUDY POINTS

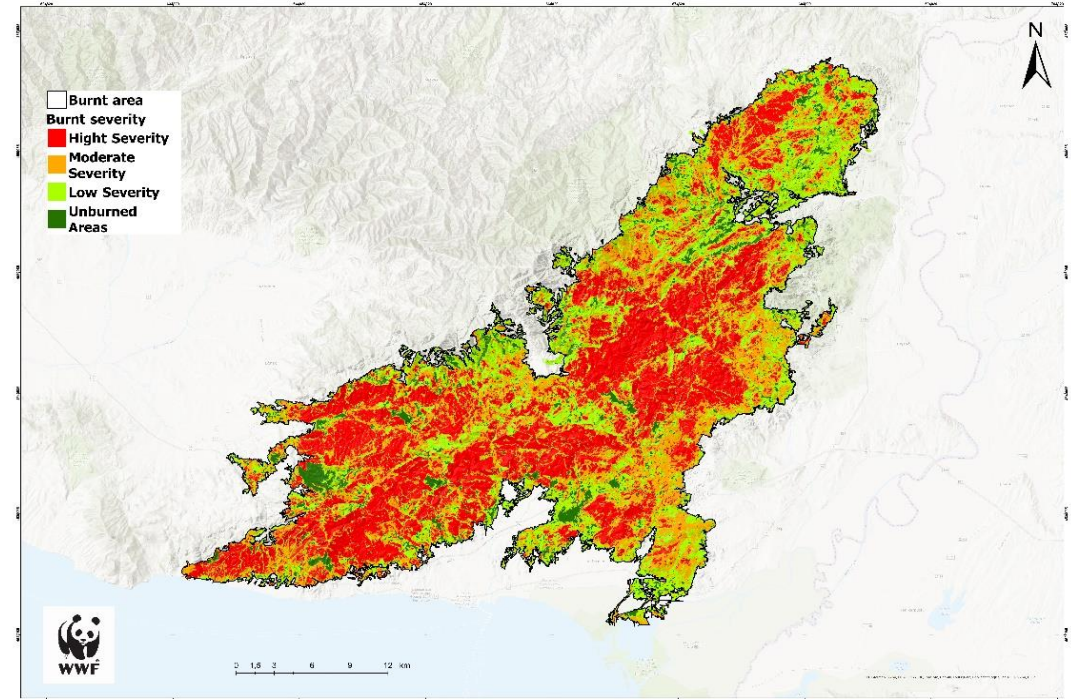


BURNT AREA & SEVERITY OF FIRE



- The fire burned 94.250 Ha
- More than 81.000 relate to forests and woodlands
- The majority of the burnt forests includes species with natural regeneration mechanisms
- More than 1/3 of the area was burnt with high severity

What does this mean? Quite simply that there may be difficulties in natural regeneration in some of these areas.



Severity class	Area (Ha)	Percentage (%)
High	34.570,29	36,68
Medium	27.534,05	29,21
Low	26.555,03	28,18
Cautery	5.590,66	5,93
Total	94.250,04	100
Forests	81.180,00	86

SPECIES LACKING NATURAL REGENERATION

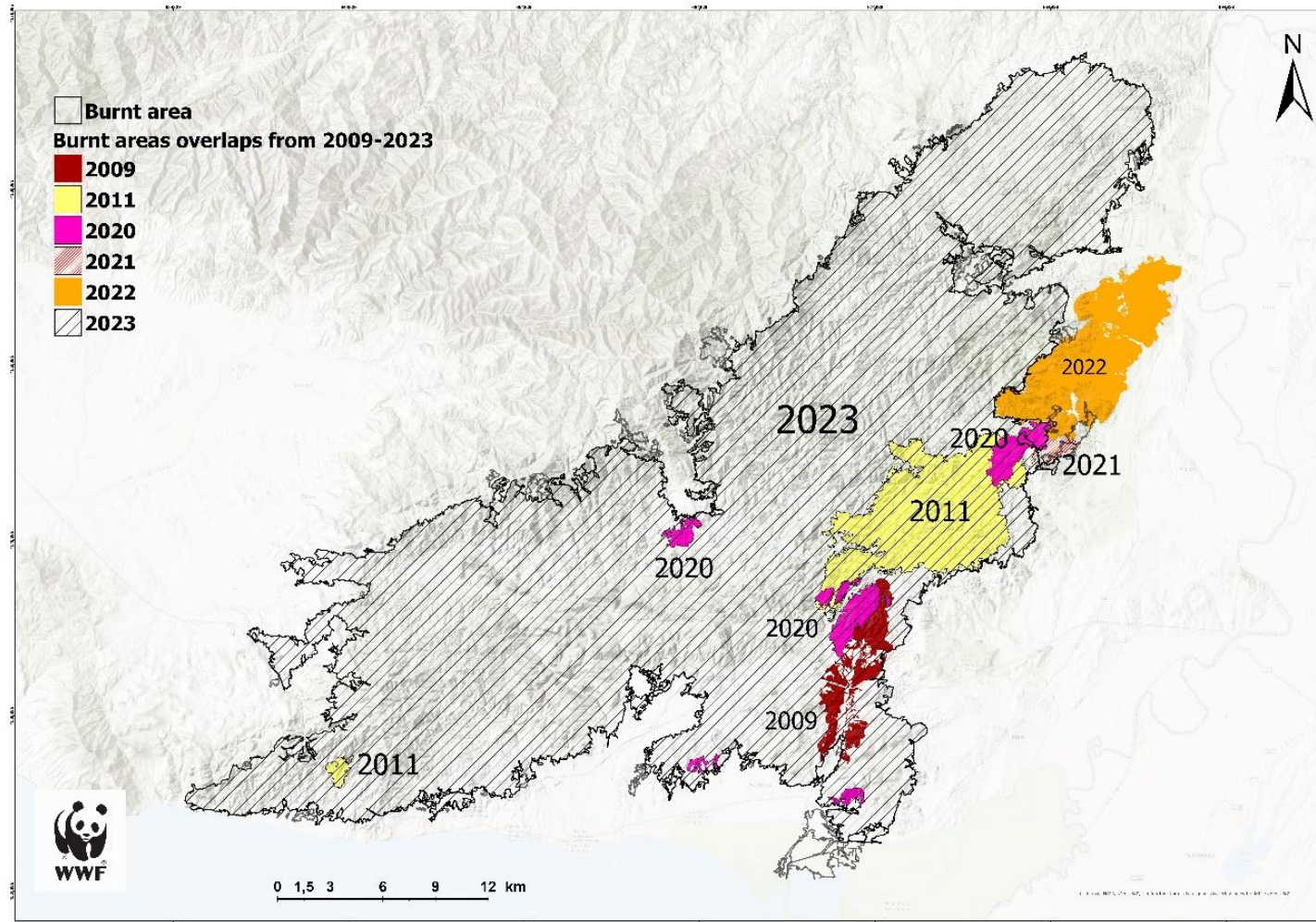


Spreading of black pine in the
Southern Forest Complex

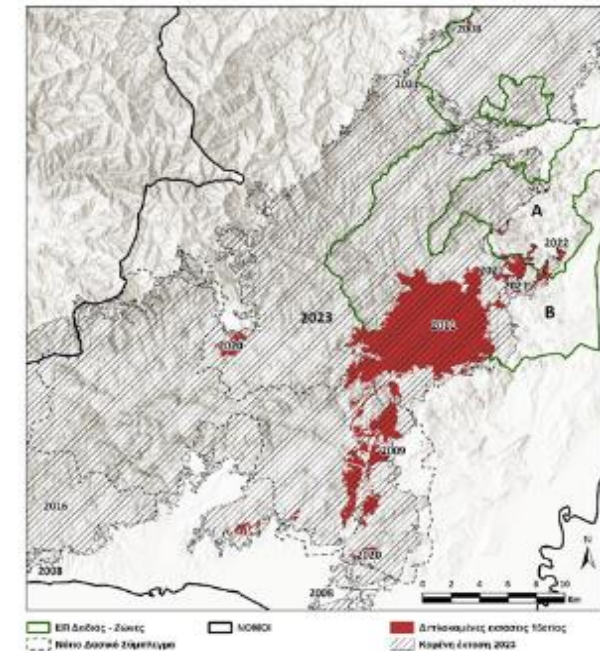
Spreading of black pine in the
Dadia NP

Featured
seed collection areas

DOUBLED BURNED AREAS



- Many fires in the last 15 years.
- Significant overlap between these and the fire of 2023.
- Significant for the difficulties that natural regeneration can face.



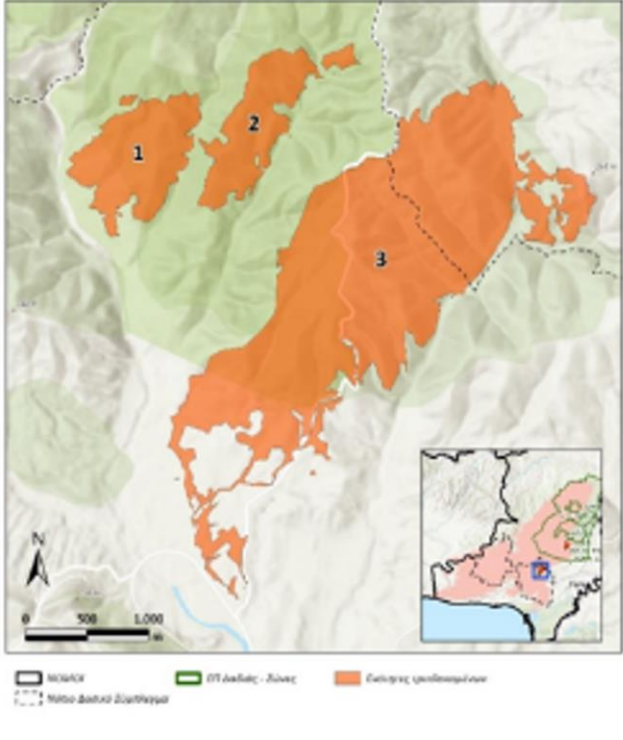
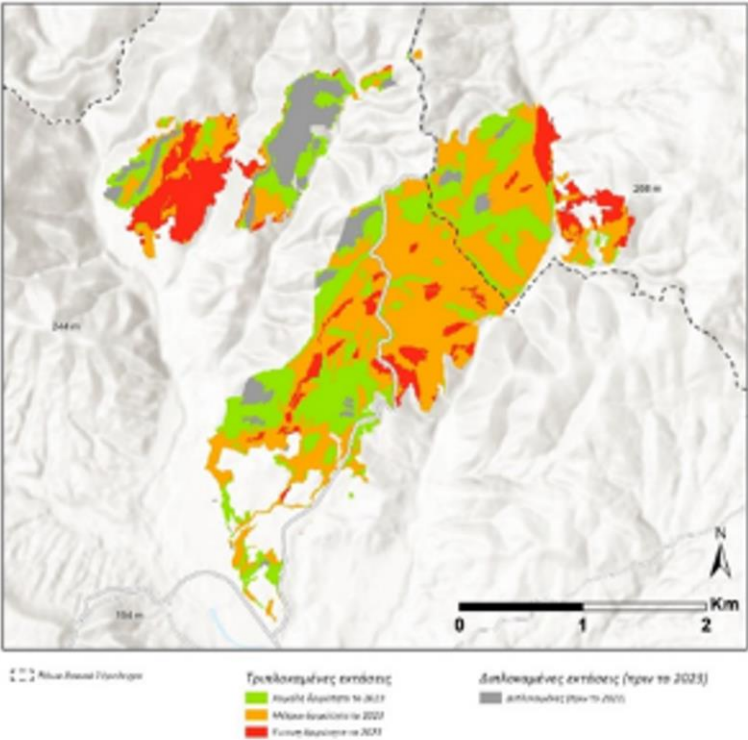
TRIPLE-BURNED AREAS



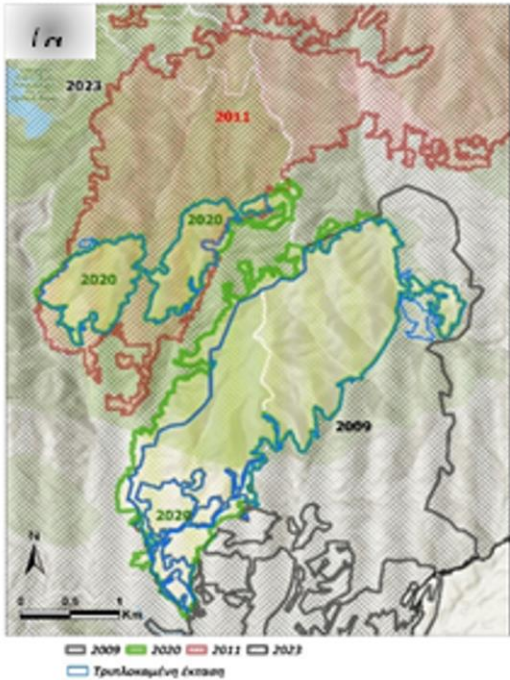
Fire 2023	Area (ha)	Percentage
Unburnt island	42,11	12%
Low severity	187,02	53%
Moderate severity	118,75	34%
High severity	4,34	1%
Total	352,22	

Triple-burned areas in Lefkimi

TRIPLE-BURNED AREAS



Fire 2023	Area (ha)	Percentage
Unburnt island	52,75	9%
Low severity	164,08	30%
Moderate severity	260,52	47%
High severity	78,20	14%
Total	555,55	



Triple-burned areas in Melia

TRIPLE-BURNED AREAS



Illustration of subunit 1 (Melia), based on Google Earth, before the fire of 2023 (photos from April 2024)



Illustration of subunit 2 (Melia), based on Google Earth, before the fire of 2023. The image has been rotated by 45° (photos from April 2024)

TRIPLE-BURNED AREAS

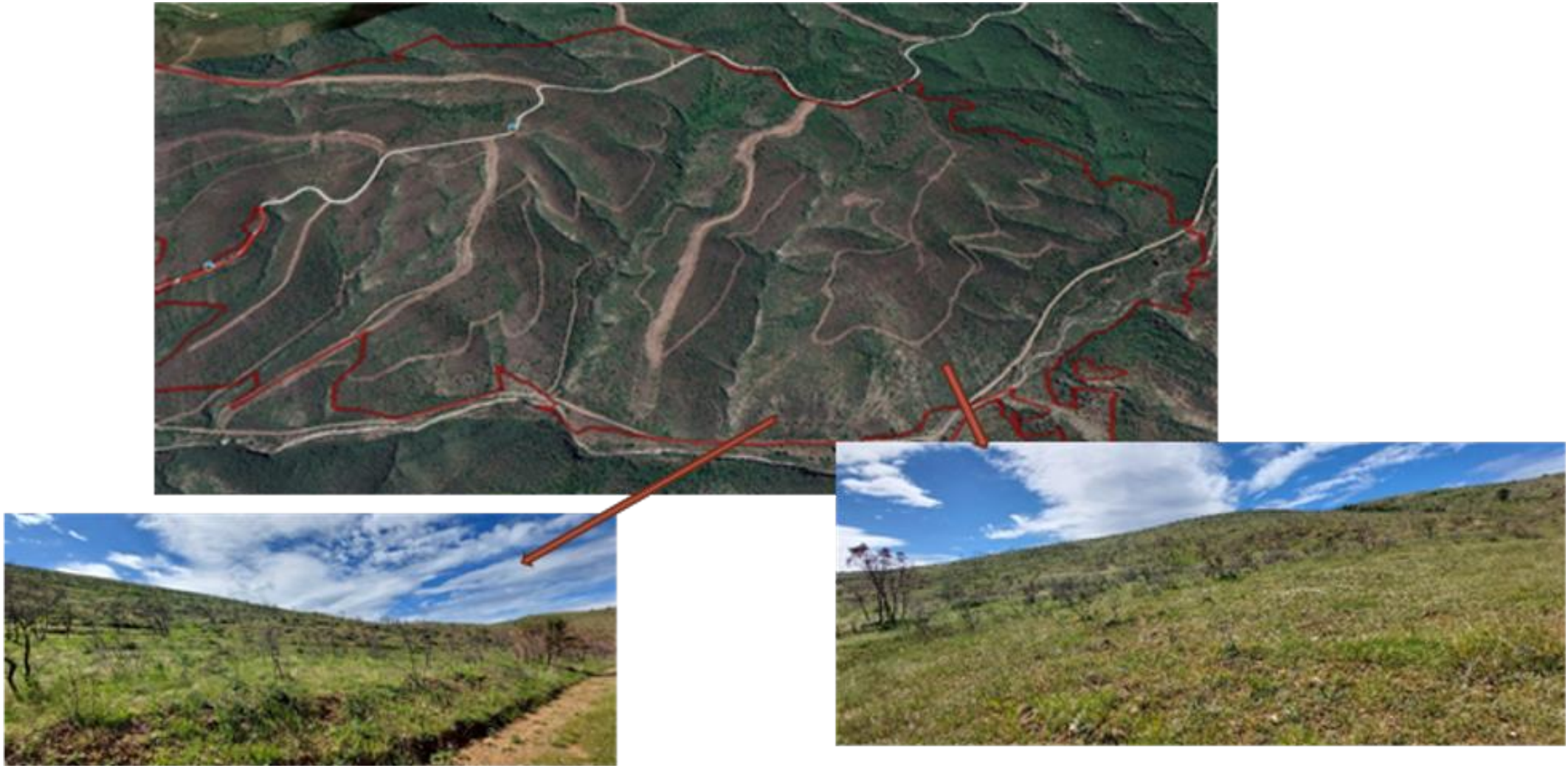
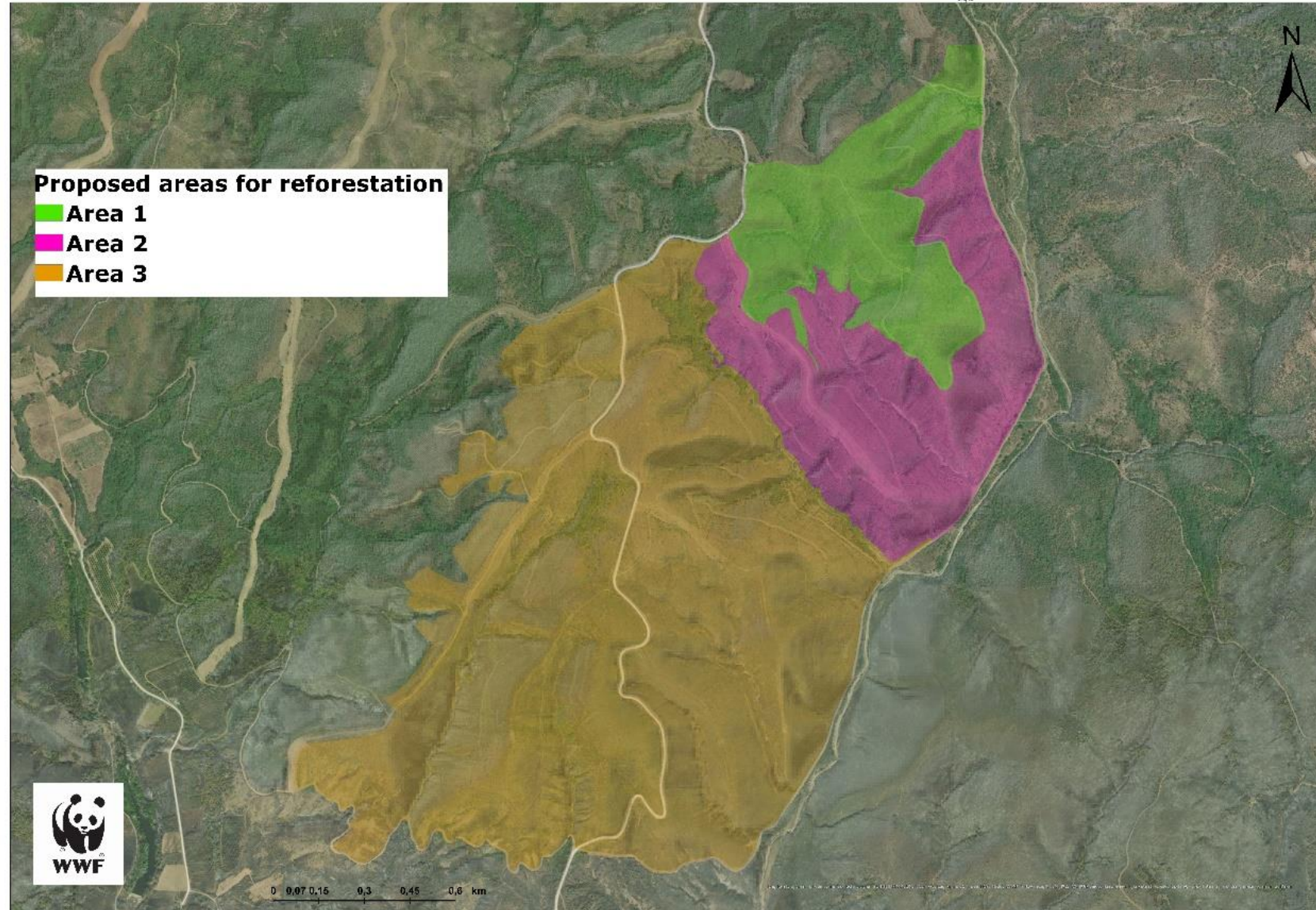
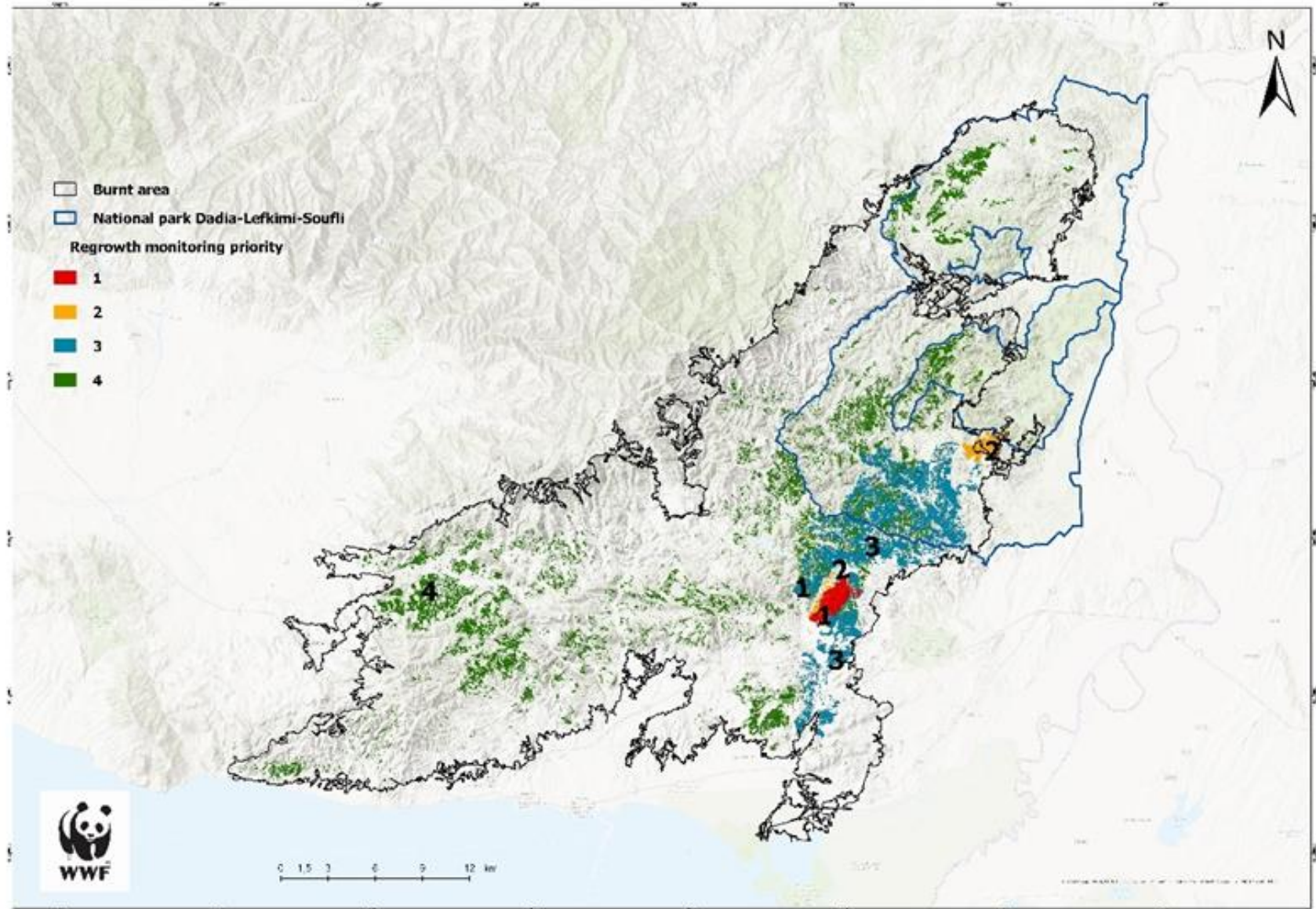


Illustration of subunit 3 (Melia), based on Google Earth, before the fire of 2023. The image has been rotated by 45° (photos from April 2024)

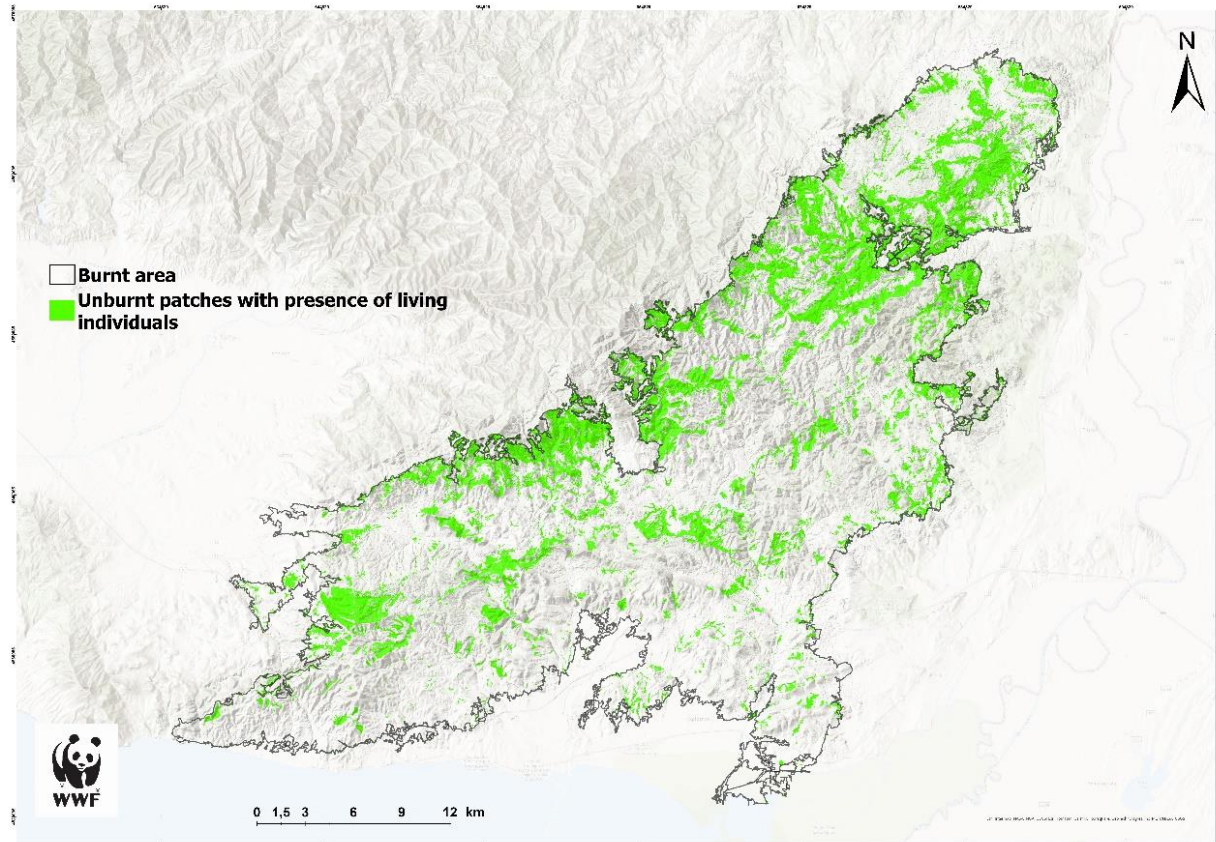
AREAS IN NEED FOR IMMEDIATE ARTIFICIAL REFORESTATION



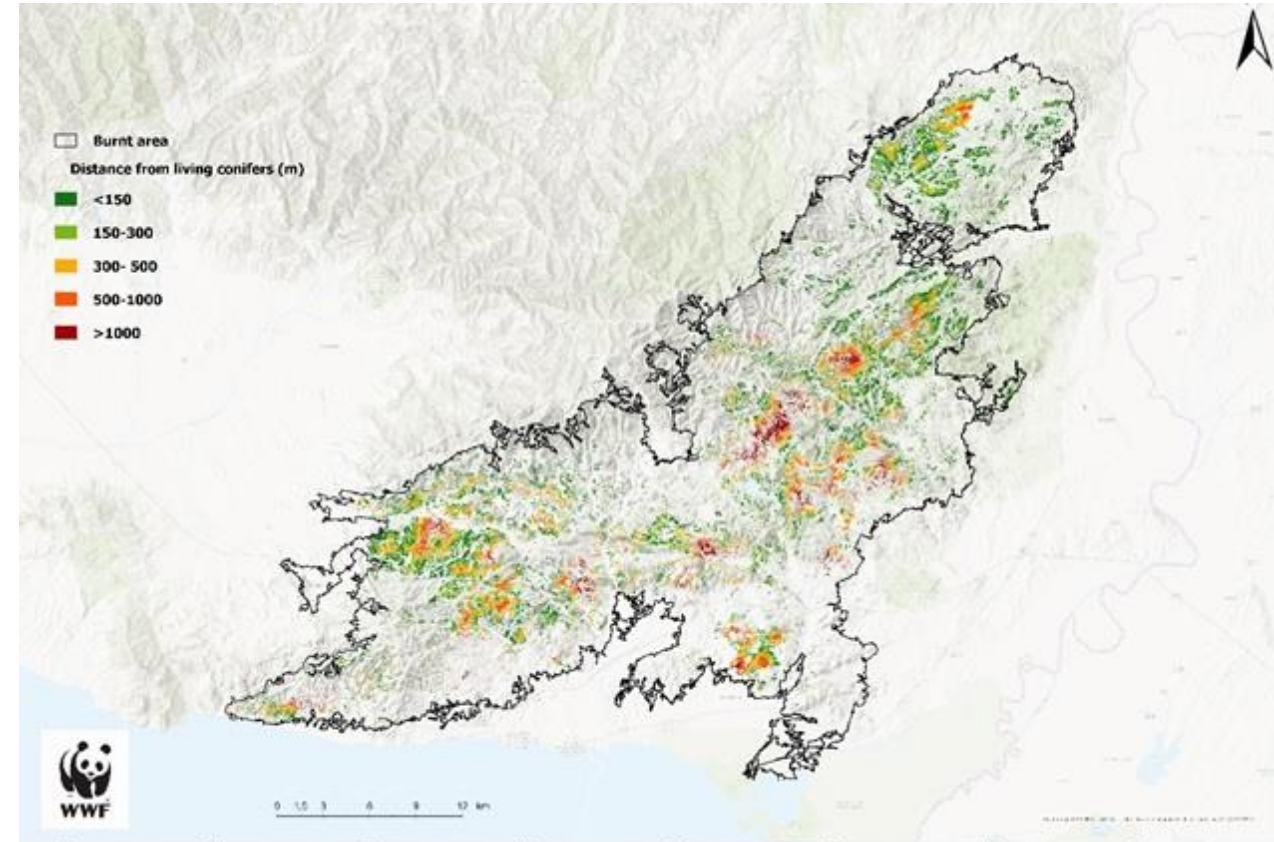
AREAS TO MONITOR



REGENERATION MONITORING

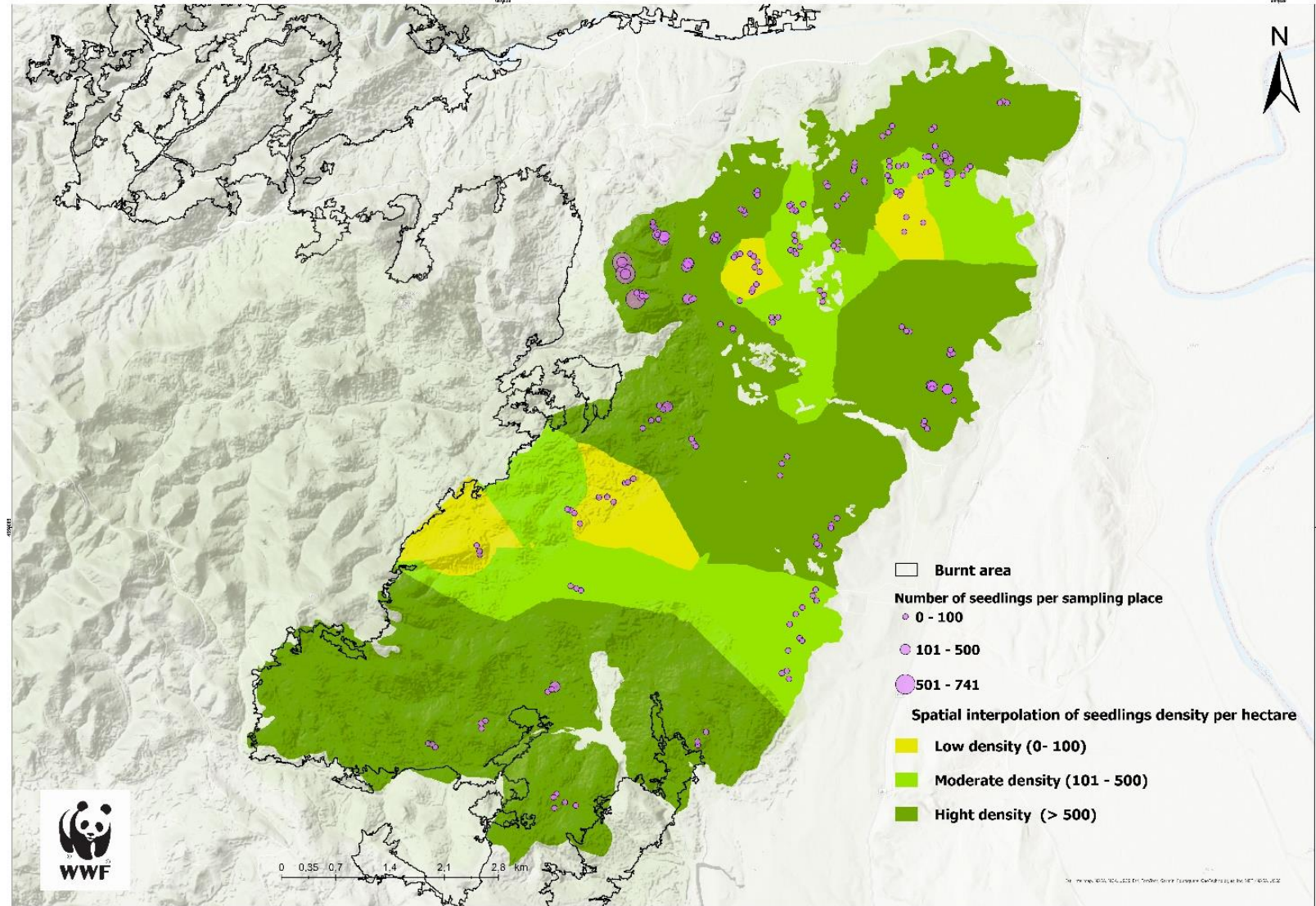


Mapping of unburnt islands

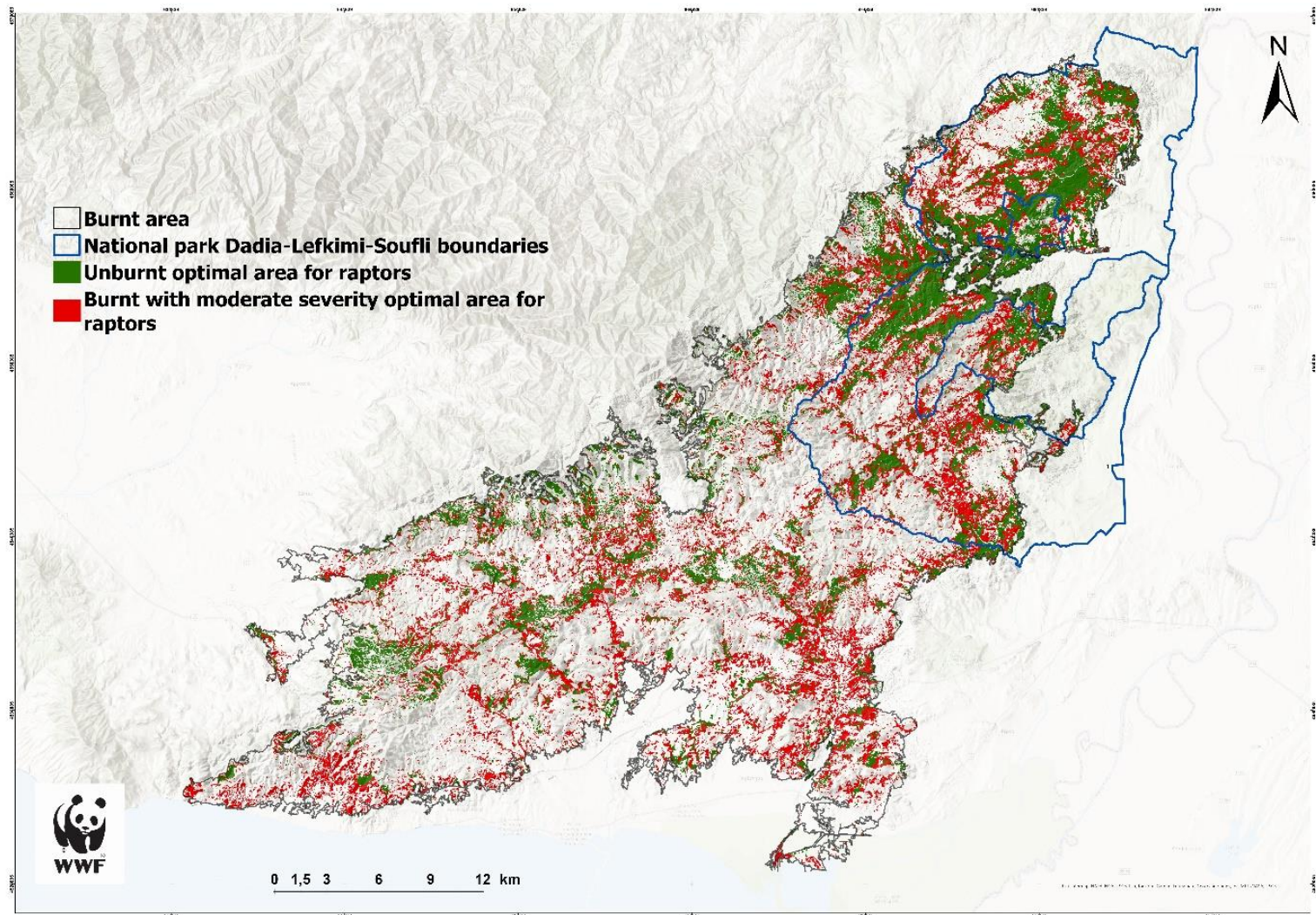


Distance between conifer stands burnt with high severity and unburned islands with live conifer

REGENERATION MONITORING

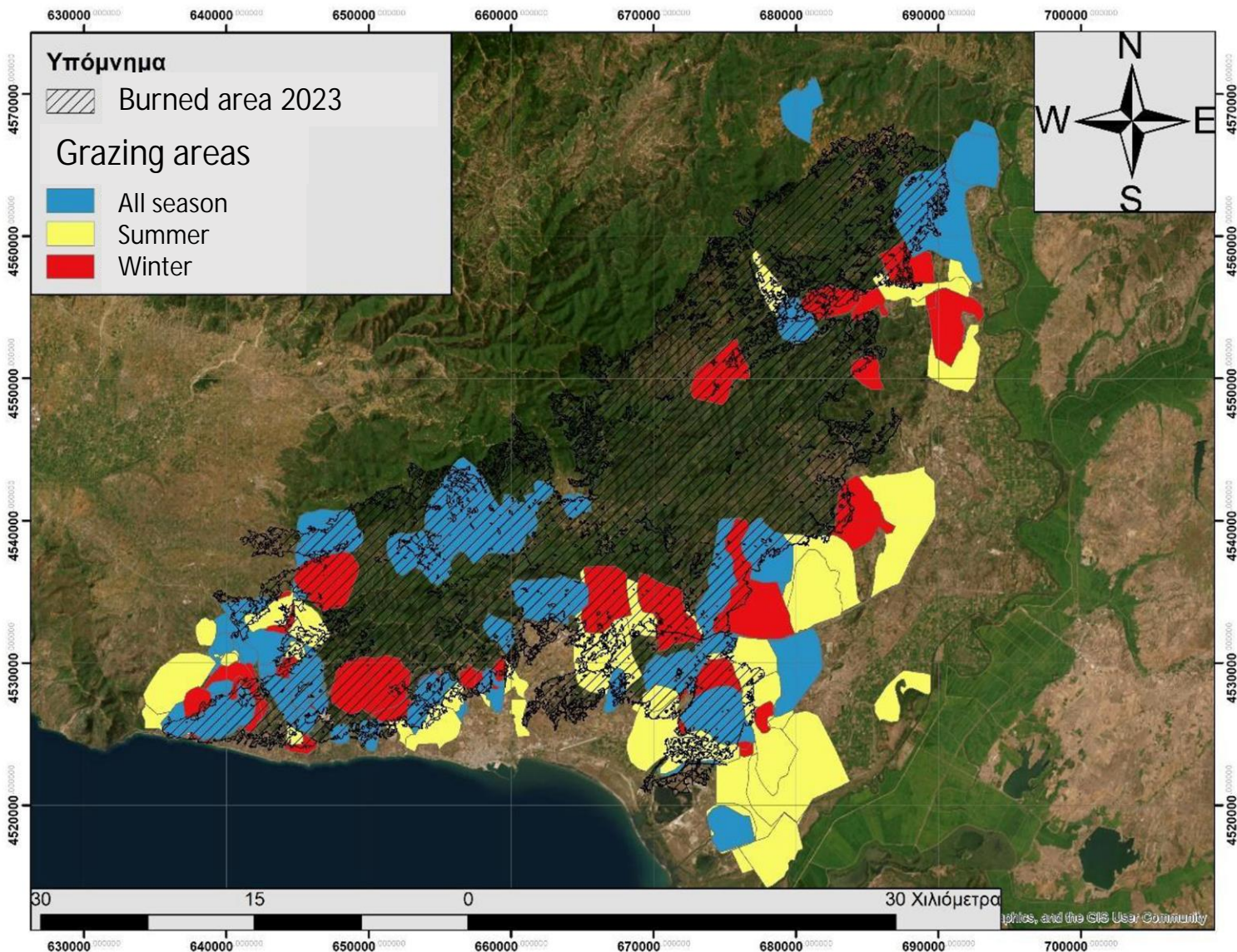


IMPORTANT AREAS FOR RAPTORS



A/N	English Name	Latin name
1	Lesser spotted eagle	<i>Clanga pomarina</i>
2	Booted eagle	<i>Aquila pennata</i>
3	Short-toed snake eagle	<i>Circaetus gallicus</i>
4	Common buzzard	<i>Buteo buteo</i>
5	European honey buzzard	<i>Pernis apivorus</i>
6	Northern goshawk	<i>Accipiter gentilis</i>
7	Eurasian sparrowhawk	<i>Accipiter nisus</i>
8	Black stork	<i>Ciconia nigra</i>

WOOD STOCK, LIVESTOCK & BEEKEEPING



	Wood stock (m³)	Percentage (%)	Value of timber stock according to 2021 pricing prices (€)
Timber stock from burnt stands	2,444,443		41,827,935
Timber stock from burnt stands for the construction of anti-corrosion works	96,413	4%	1,513,872
Timber stock of burnt stands left for biodiversity conservation	1,859,250	76%	32,377,182
Timber stock from burnt stands available for exceptional loggings	488,779	20%	7,936,880

Wider area	Number of beehives	Number of beehives after the fire
Southern Evros	22.000	19.500
North Evros	13.000	13.000

GROUPING OF FINAL PROPOSALS



1. Studies (revision-updating-development of new)
2. Restoration and protection of forest vegetation
3. Fauna
4. Loggings
5. Livestock
6. Beekeeping



Priority (starting date of proposals/activities)

- Short-term (2024)
- Medium-term (1-5 years)

GROUPING OF FINAL PROPOSALS



PRIORITY	RELEVANT CHAPTER	PROPOSAL
Studies (revision-updating-new studies)		
2- Medium term	Γ.4 Δ.2.3 Α.2	Review of the Forest Management Plans (MP) and the Special Environmental Study (SES)
1- Short-term	Γ.1.1.6 Γ.6.7 Δ.2.3	Study to assess the natural regeneration and recovery of black pine population

GROUPING OF FINAL PROPOSALS



PRIORITY	RELEVANT CHAPTER	PROPOSAL
Restoration and Protection of Forest Vegetation		
1- Short-term	Γ.1.1.6	Conservation and protection of natural regeneration with a recommendation to avoid management interventions for 5 years
2- Medium term	Γ.6.7	spot planting of black pine in areas where there is no proven regeneration
1- Short-term	Γ.6.7	Monitoring of all areas analysed in the prioritisation map
2- Medium term	Γ.1.1.6	Adoption of measures for the management of biomass/fuel.

GROUPING OF FINAL PROPOSALS



PRIORITY	RELEVANT CHAPTER	PROPOSAL
Fauna		
1- Short-term	Г.5.3	Suspension of management interventions in the UPB areas until the revision of the forest management plans
1- Short-term	Г.5.3	Preservation of mature trees
1- Short-term	Г.5.3	Habitat assessment

GROUPING OF FINAL PROPOSALS



PRIORITY	RELEVANT CHAPTER	PROPOSAL
Loggings		
1- Short-term	Γ.5.3	Suspension of intensive management interventions pending the review of the MP and SES
1- Short-term	Γ.5.3	Preservation of mature trees
Livestock		
1- Short-term 2- Medium term	Δ.3.4	Preservation and strengthening of extensive livestock farming Lifting of grazing restrictions
Beekeeping		
1- Short-term	Δ.4.4	Monitoring, protection and improvement of bee flora

QR code for the English Executive Summary





...will see it again soon like this

THANK YOU