



webinarios RedBosques_Clima

Forest adaptation to climate change
from a Mediterranean region perspective

Resilient landscape: mitigating fire risk

How to prepare and adapt the landscape to climate change.

João Cardoso de Melo
Cascais Ambiente | Cascais municipality

CASCAIS

CASCAIS MUNICIPIO
AMBIENTE
Cascais Ambiente | Cascais municipality

LIFE
RESLAND



Quinta do Pisão – Landscape mosaic

LIFE RESLAND

PROJECT SUMMARY

IMPLEMENTATION AREA:

Sintra-Cascais Natural Park in Cascais municipality (SCNP-C) (2600 ha)

BUDGET:

Total: €3,898,228.28

% Co-financing: 60%

DURATION:

Start: 10/01/2023 - End: 09/30/2029

Coordinating Entity: Cascais Ambiente, E.M., S.A.

Partners: Municipal Civil Protection Service (SMPC – CMC) and Institute for Nature and Forest Conservation (ICNF)

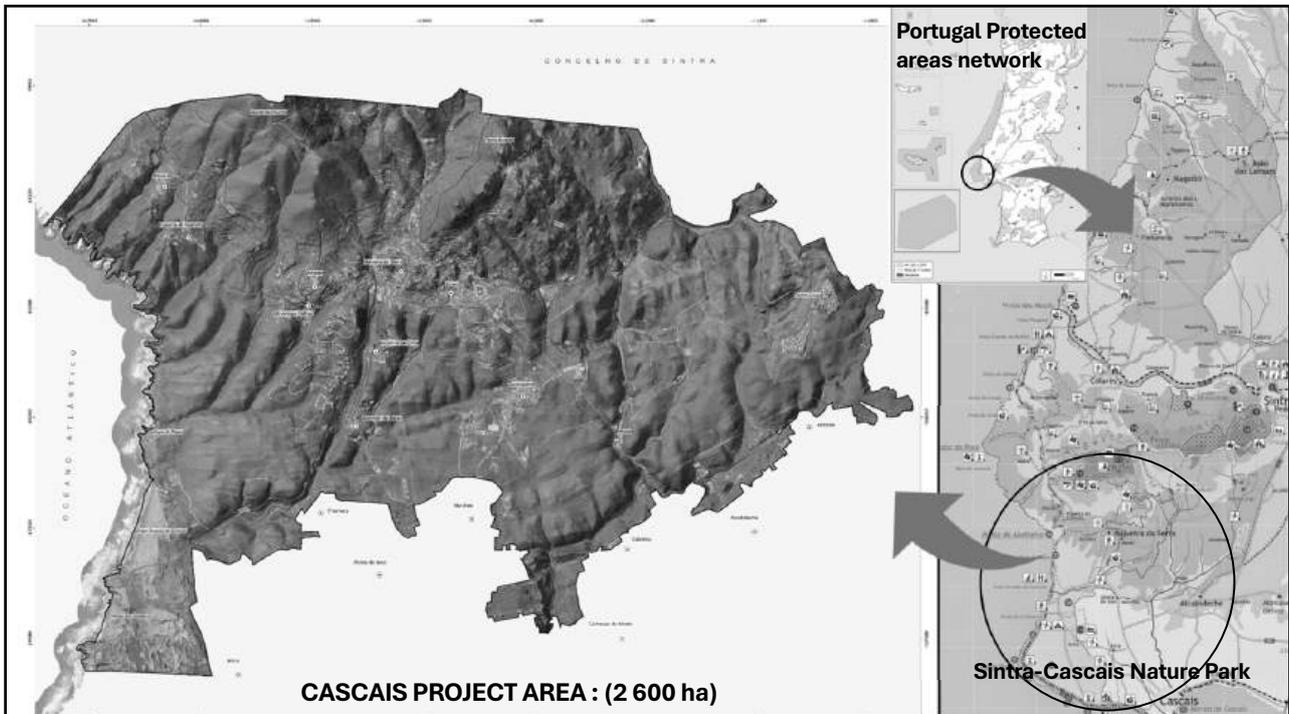
cascais.pt



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CASCAIS



LIFE RESLAND

- LAND USE EVOLUTION
- THE FIRE WE HAVE
- THE LANDSCAPE WE WANT
- HOW WE WILL DO IT : MANAGEMENT MODELS

Peninha – Garranos wildhorses

LIFE RESLAND

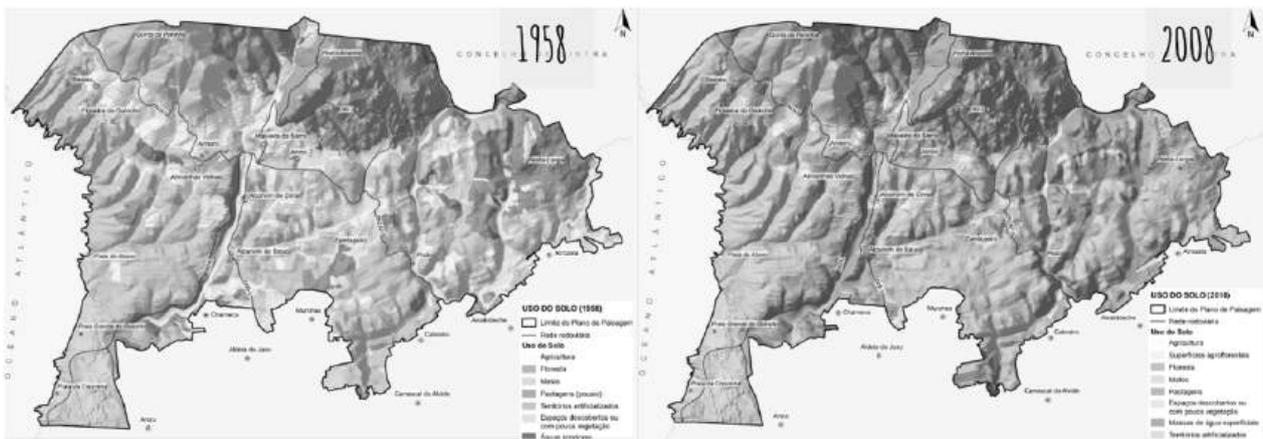
THE EVOLUTION LAND USE

Quinta do Pisão – grazing in the 50's

LIFE RESLAND

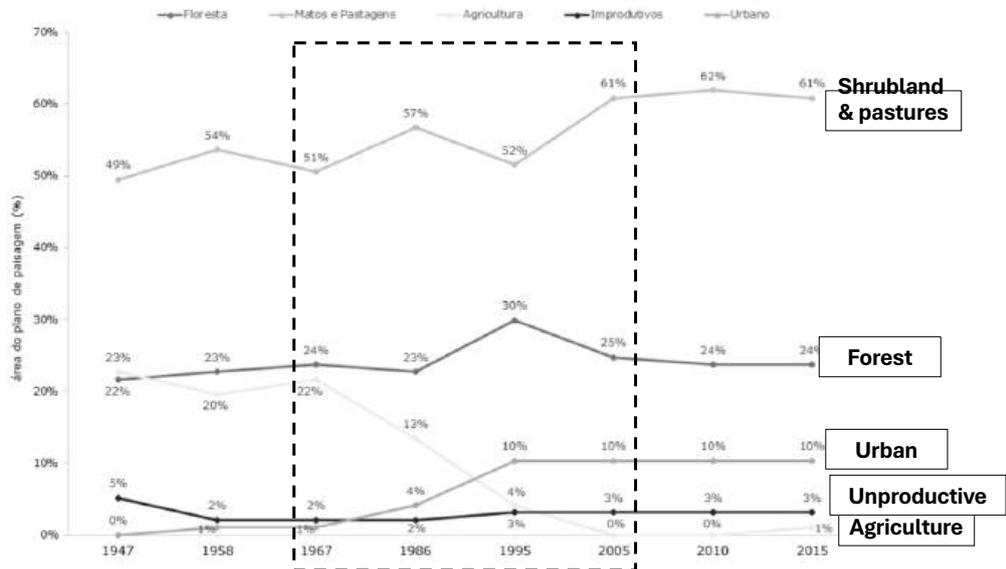


LIFE RESLAND



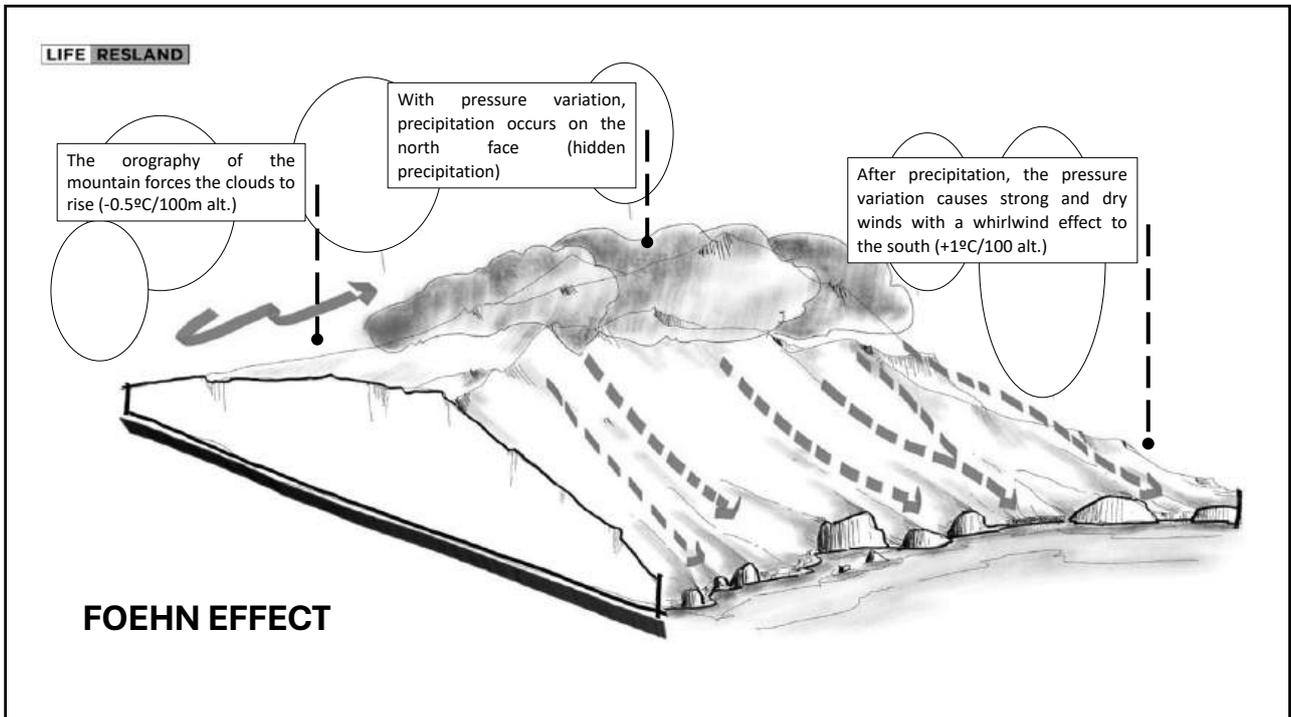
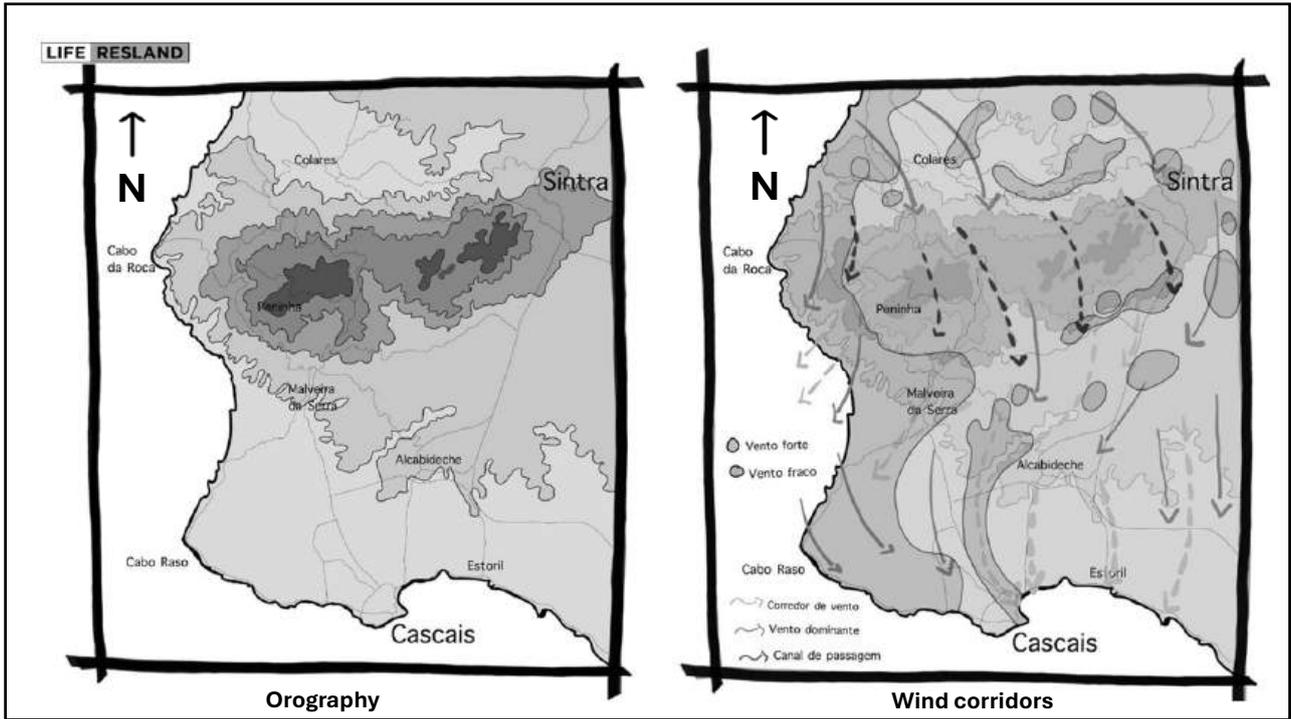
LAND USE EVOLUTION

LIFE RESLAND

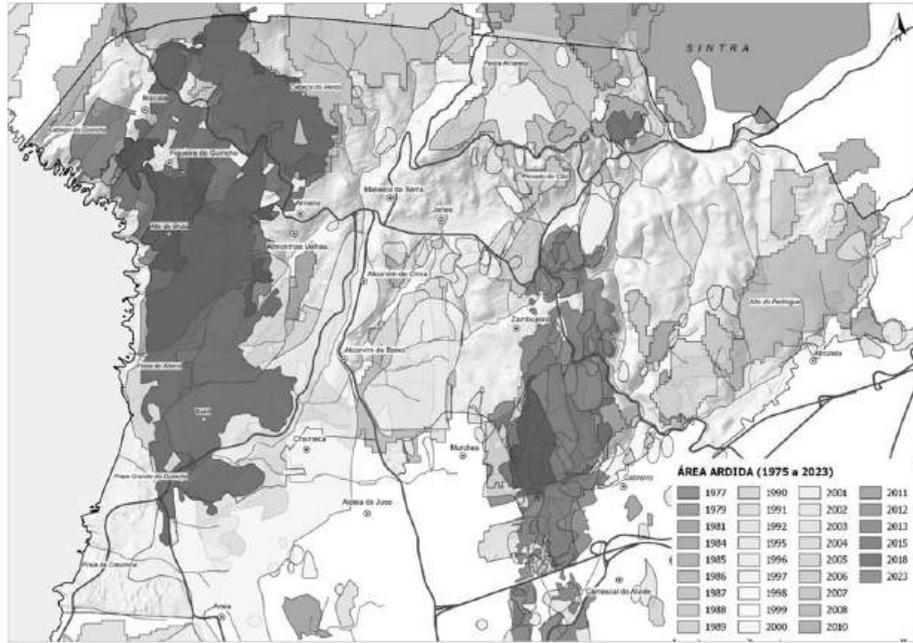


LIFE RESLAND

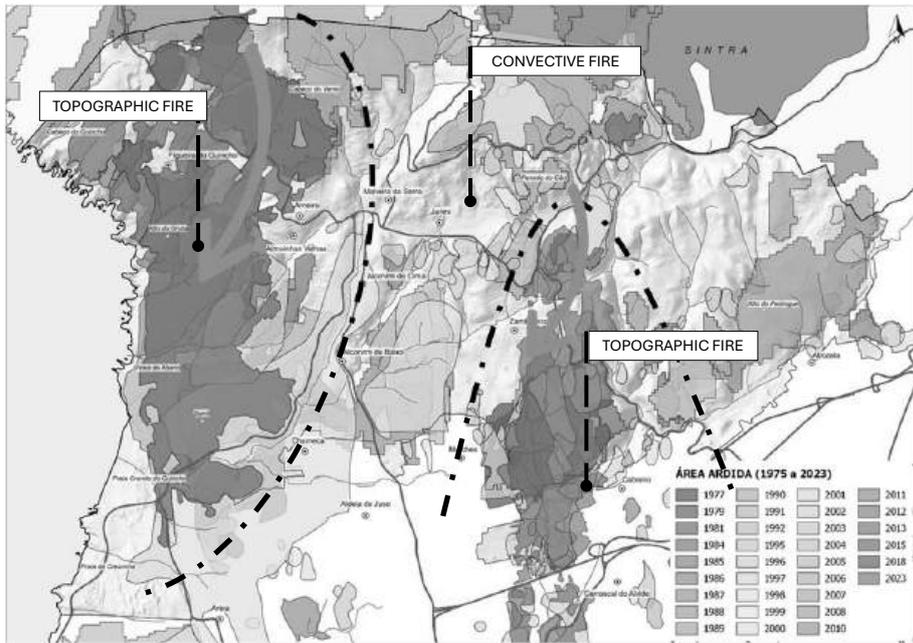
THE FIRE WE HAVE

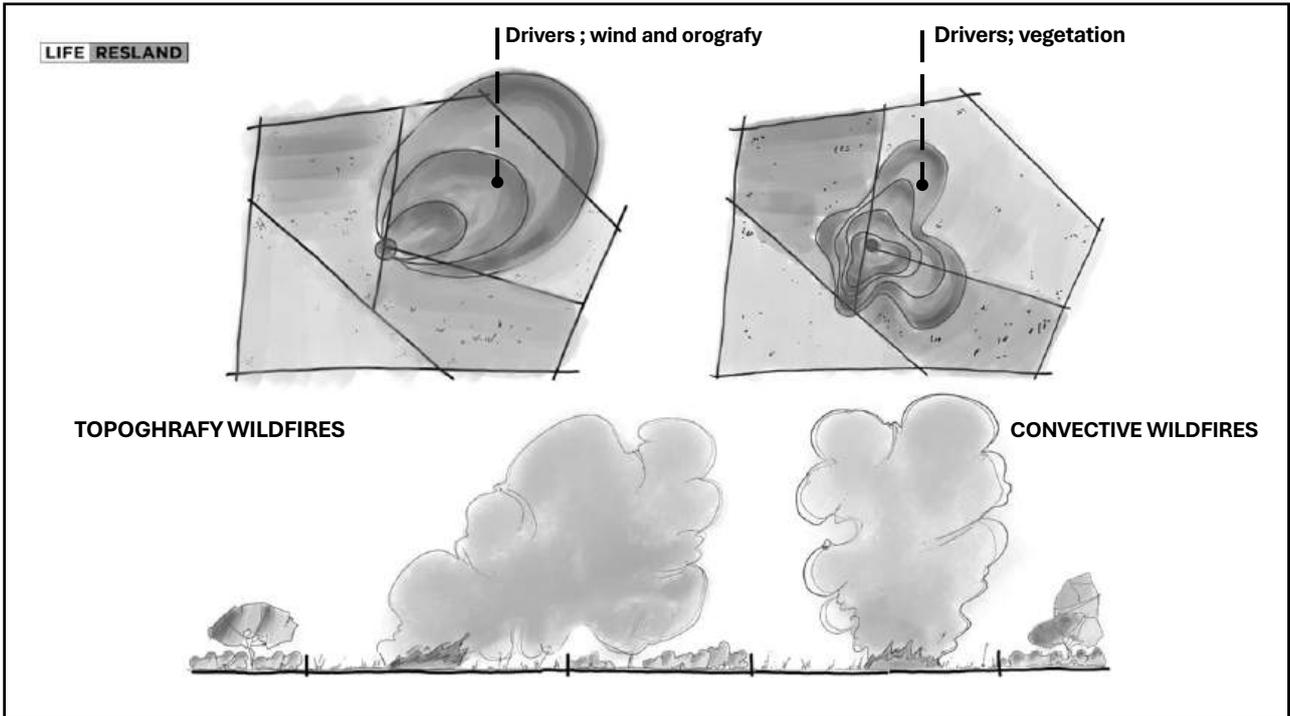


WILDFIRE EVENTS
(1977/2023)



WILDFIRE TIPOLOGY





LIFE RESLAND

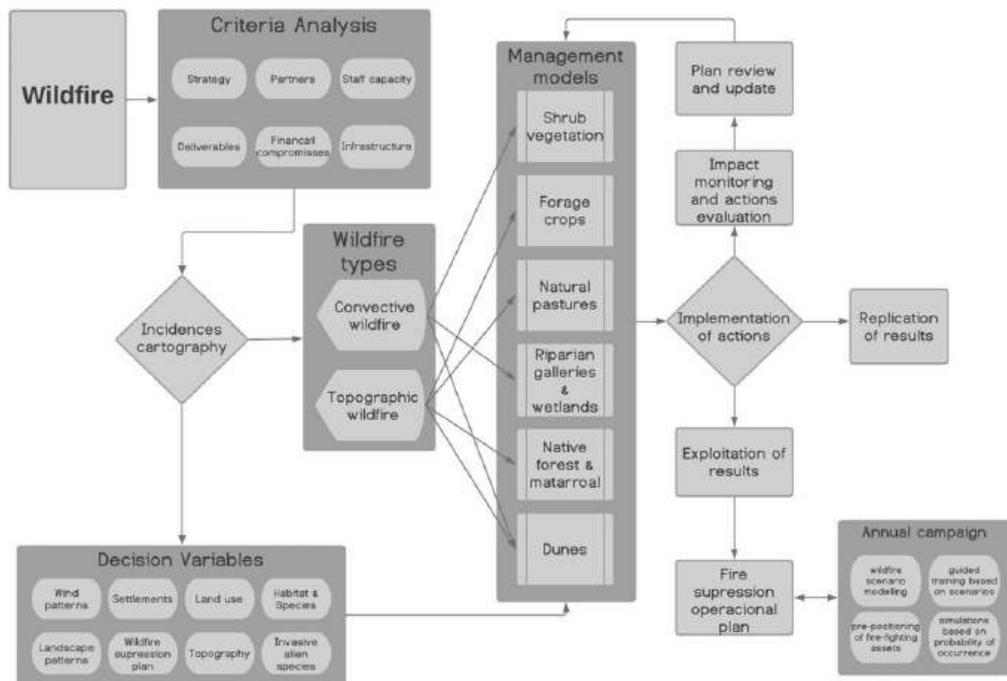
- Resilient to wildfires and biological invasion.
- With the values of nature and biodiversity protected and well preserved.
- Where recreational and leisure activities complement the preservation of the Nature.
- With integrated management involving the owners.



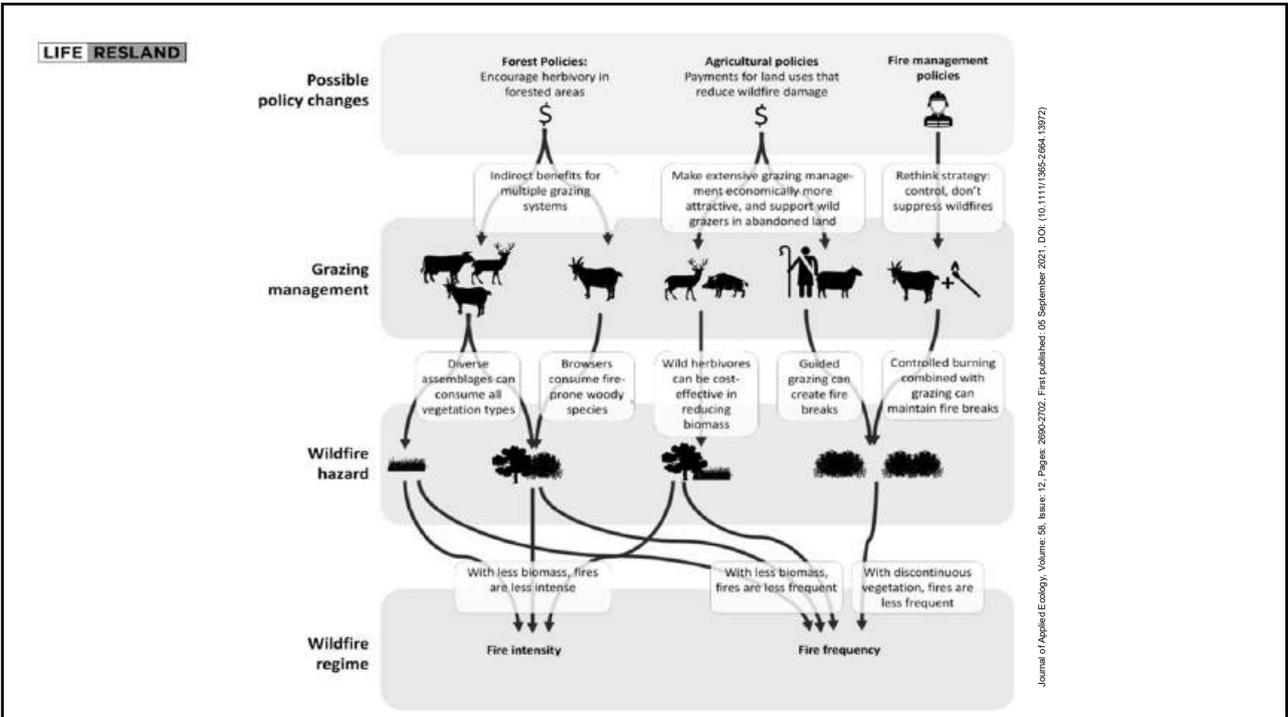
Quinta do Pisão Sorraia wildhorses

LIFE RESLAND

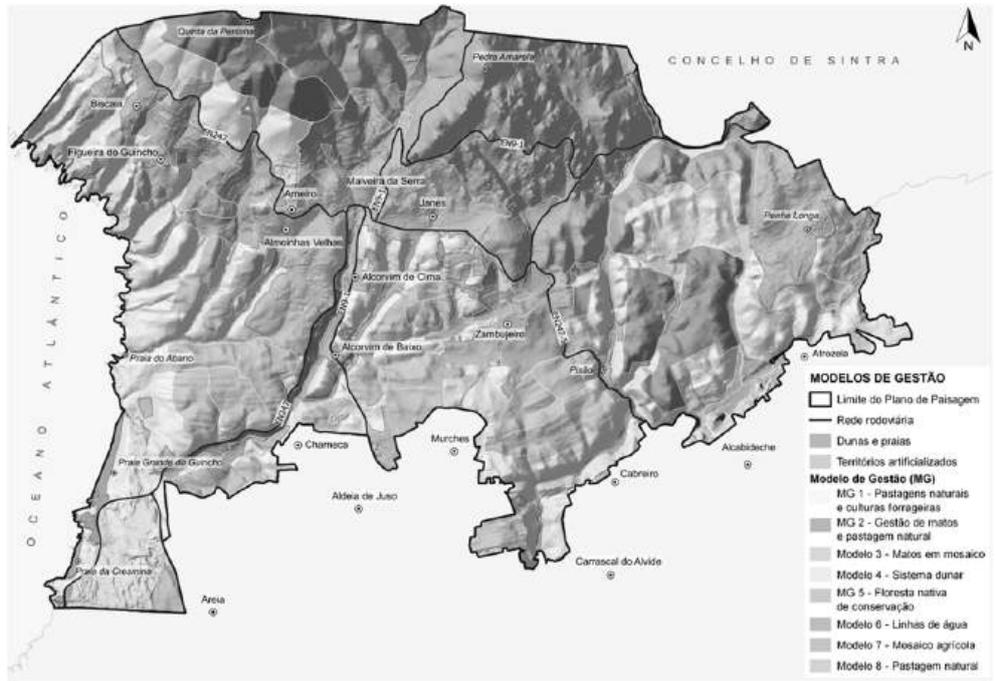
METHODOLOGY



HERBIVORY AS A LANDSCAPE MANAGEMENT AND MODELING TOOL



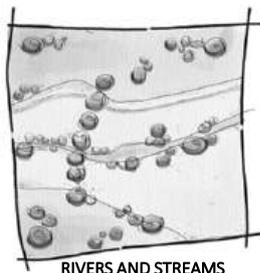
STRATEGIC AREAS OF INTERVENTION



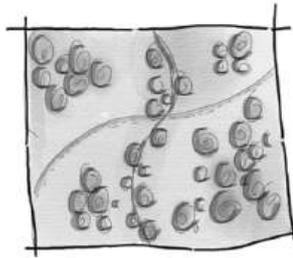
MANAGEMENT MODELS



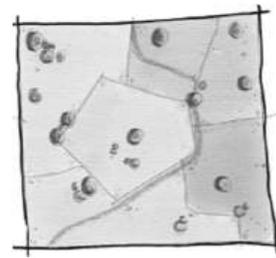
MANAGEMENT MODELS



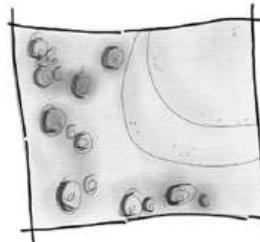
RIVERS AND STREAMS



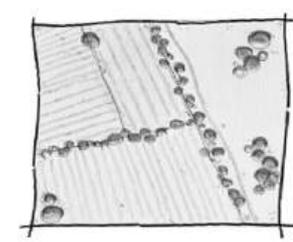
NATIVE FORETS



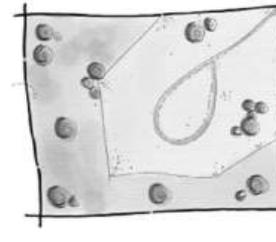
SCRUBLAND MOSAIC



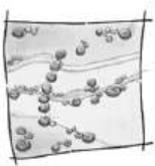
DUNE SYSTEMS



FORAGE CROPS AND NATURAL PASTURES



NATURAL PASTURES



RIVERS AND STREAMS

OBJECTIVES

- Ecological restoration of riparian galleries
- Control of exotic invasive species
- Increase soil moisture content and water retention.
- Retardant and firebreak effect in the case of rural fires.

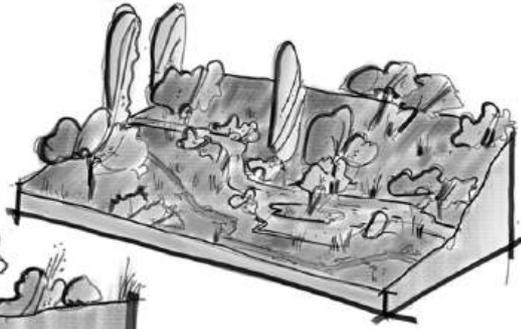
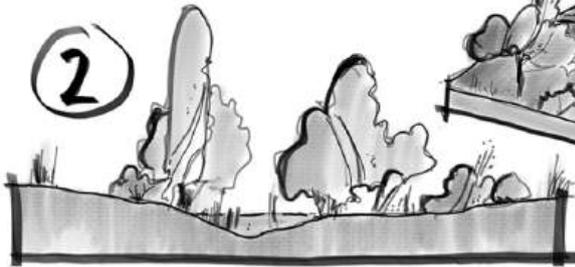


LIFE RESLAND

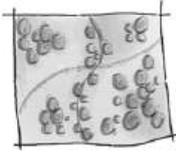
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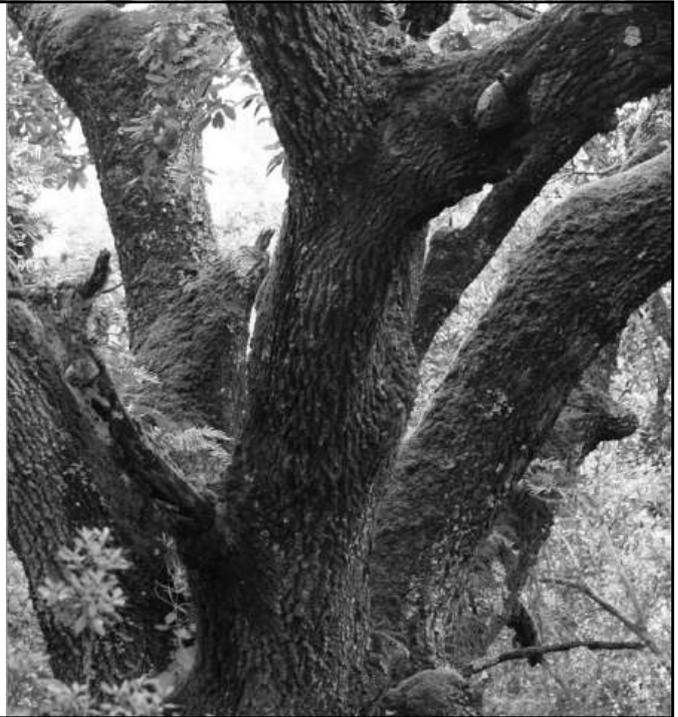
LIFE RESLAND



NATIVE FORESTS

OBJECTIVES

- Restoration of native deciduous forest
- Control of exotic invasive species
- Promote natural regeneration, water retention in the soil, and its infiltration.
- Increase the resilience of native forests in the face of climate change in response to rural fires.

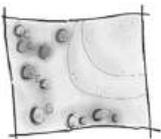


LIFE RESLAND





LIFE RESLAND



DUNE SYSTEMS

OBJECTIVES

- Ecological restoration of the dune system
- Control of invasive exotic species, particularly woody ones.
- Recover the habitat of the gray dune, provide natural horizontal discontinuity.
- Retardant effect in the case of rural fire. Protection of endemic flora



LIFE RESLAND

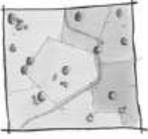
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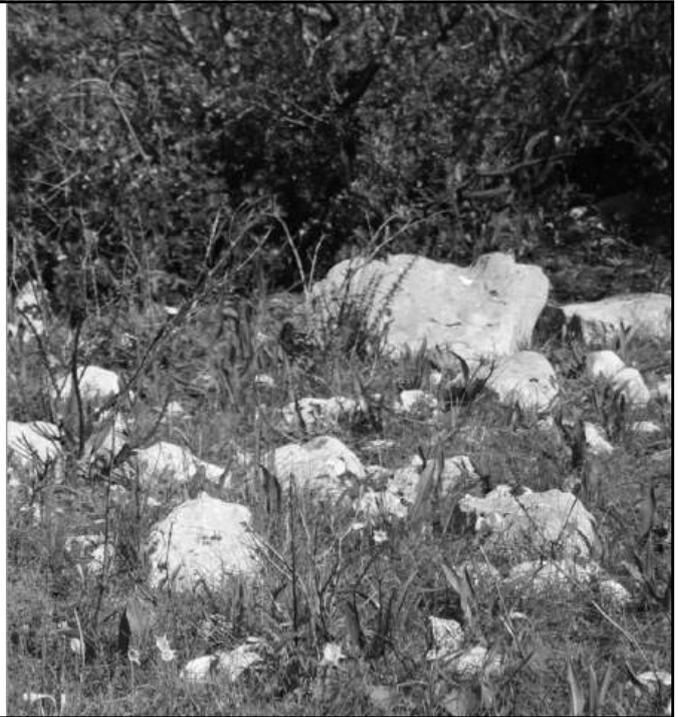
LIFE RESLAND



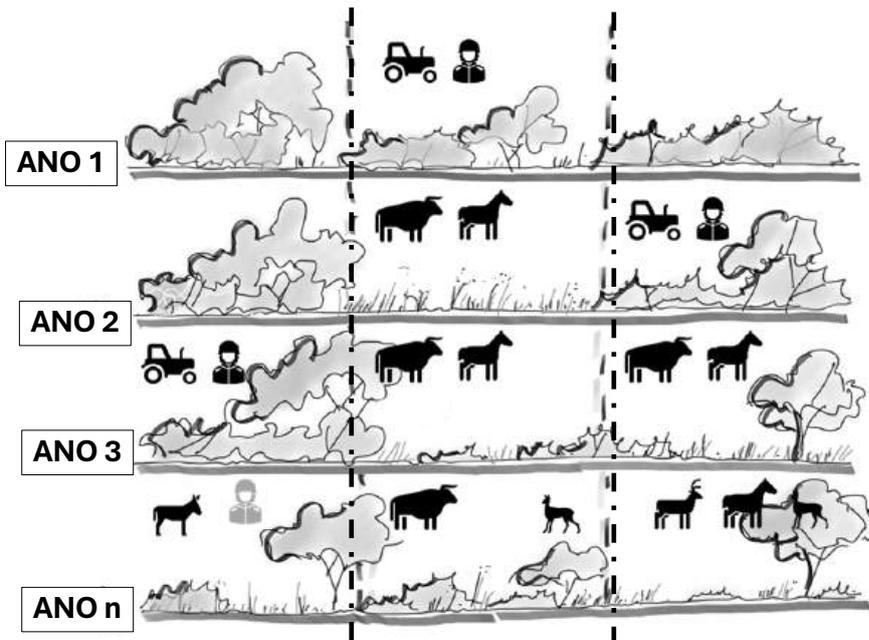
SCRUBLAND MOSAIC

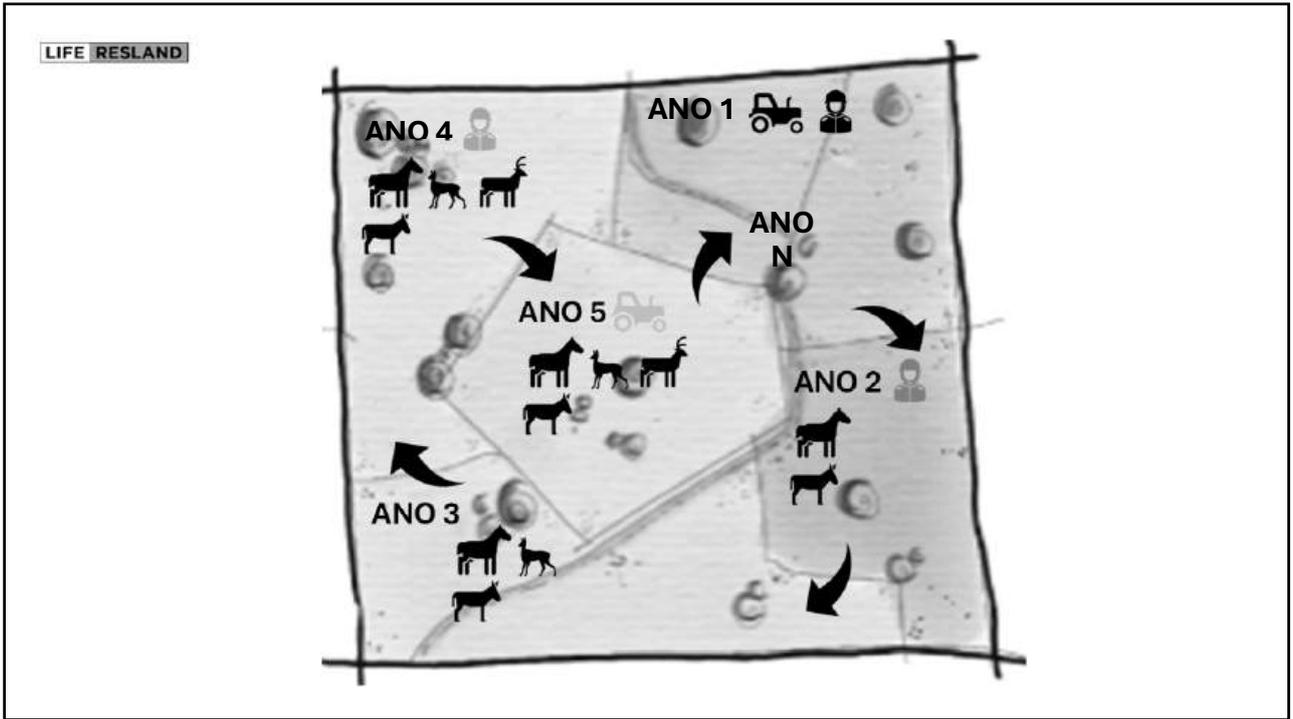
OBJECTIVES

- Promote alternating mosaic horizontal discontinuity
- Increase the complexity of the ecosystem and value biodiversity
- Retarding effect on the progression of rural fires
- Opportunity for positioning combat assets
- Manual motor action and short-term controlled fire with medium and long-term herbivory support



LIFE RESLAND







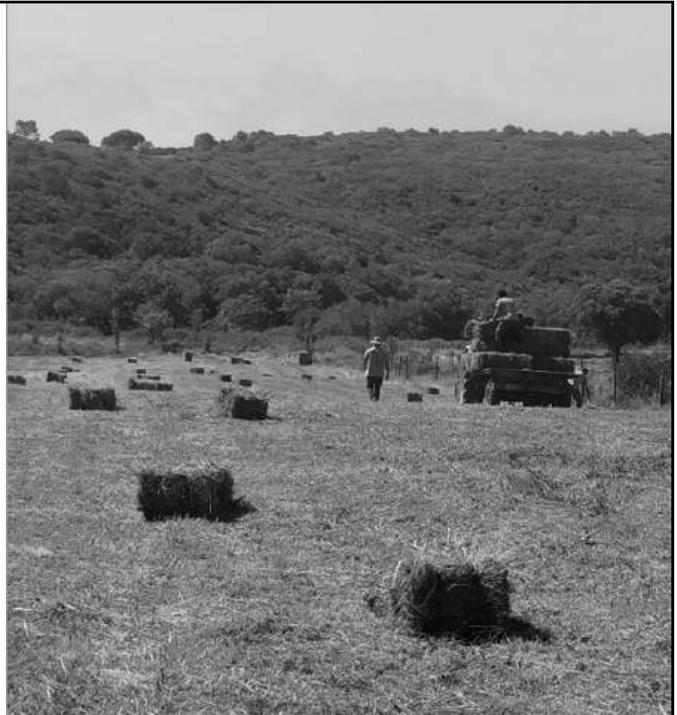
LIFE RESLAND

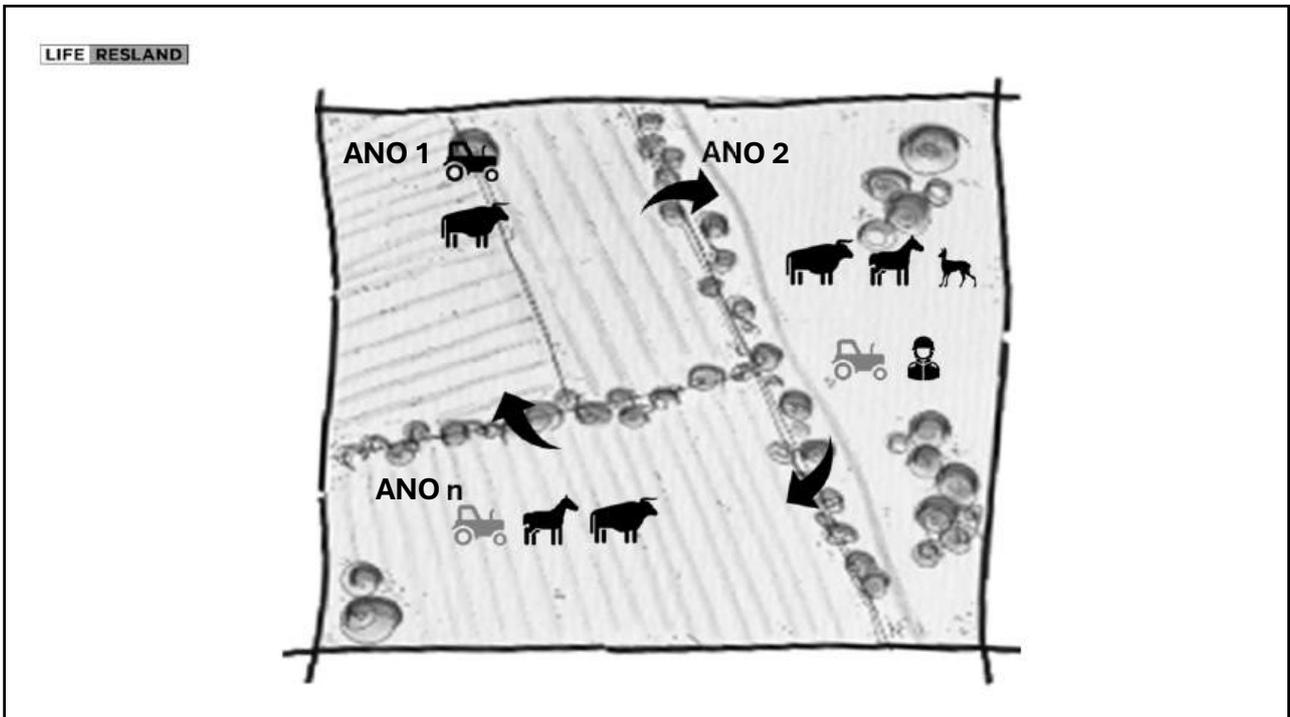
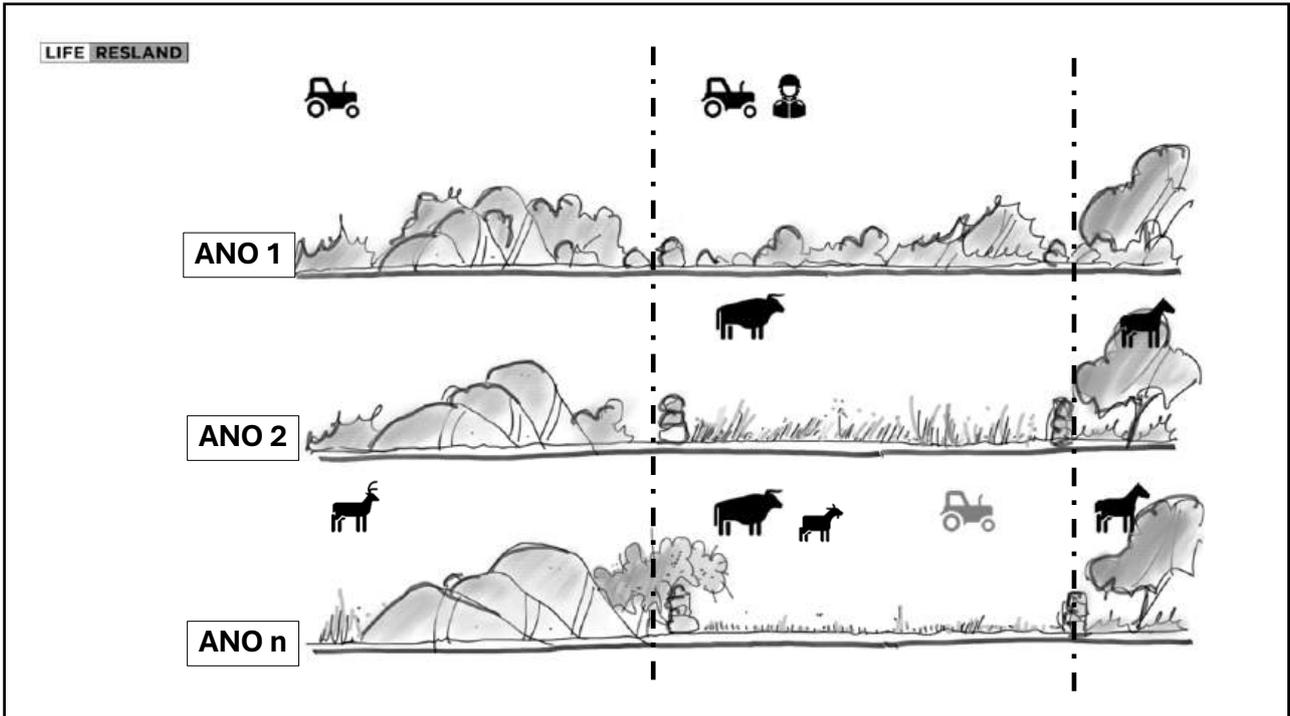


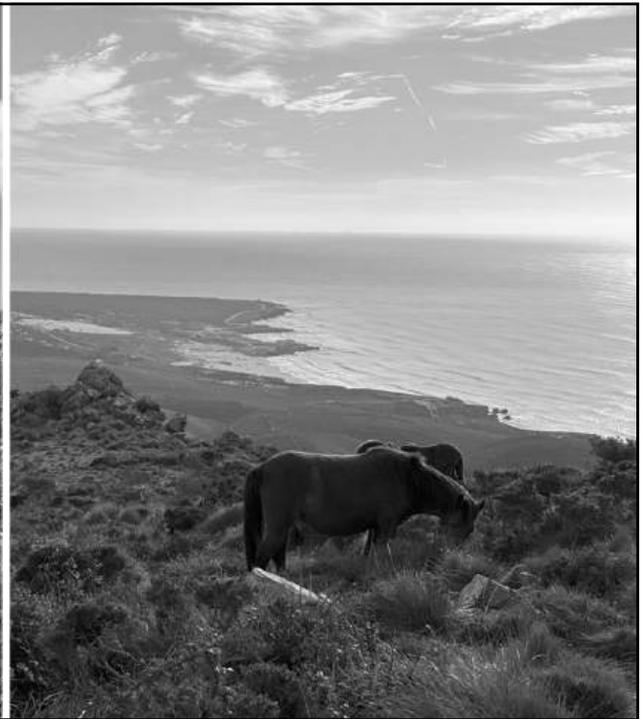
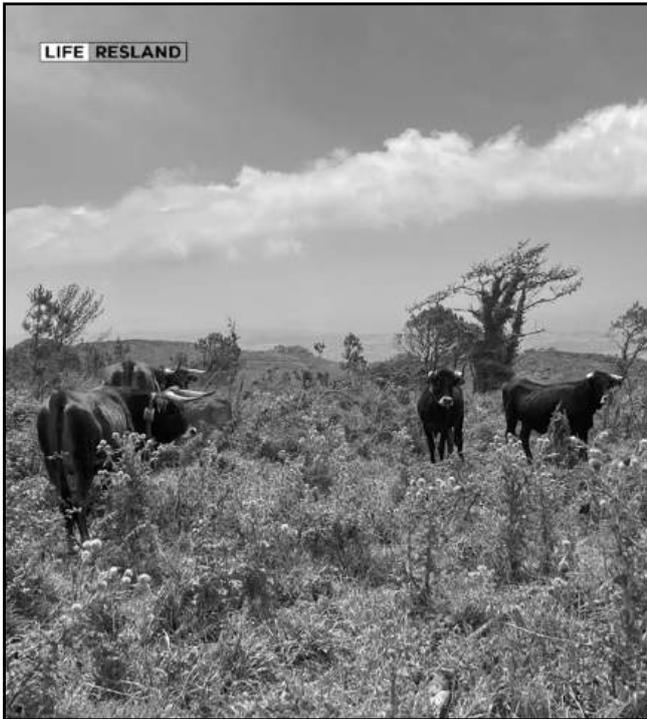
**FORAGE CROPS AND
NATURAL PASTURES**

OBJECTIVES

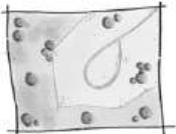
- Promote horizontal discontinuity
- Increase the complexity of the ecosystem and value biodiversity
- Control of invasive alien species
- Retarding effect on rural fire progression
- Opportunity for positioning combat assets
- Manual motor action and short-term controlled fire with medium and long-term herbivory support







LIFE RESLAND

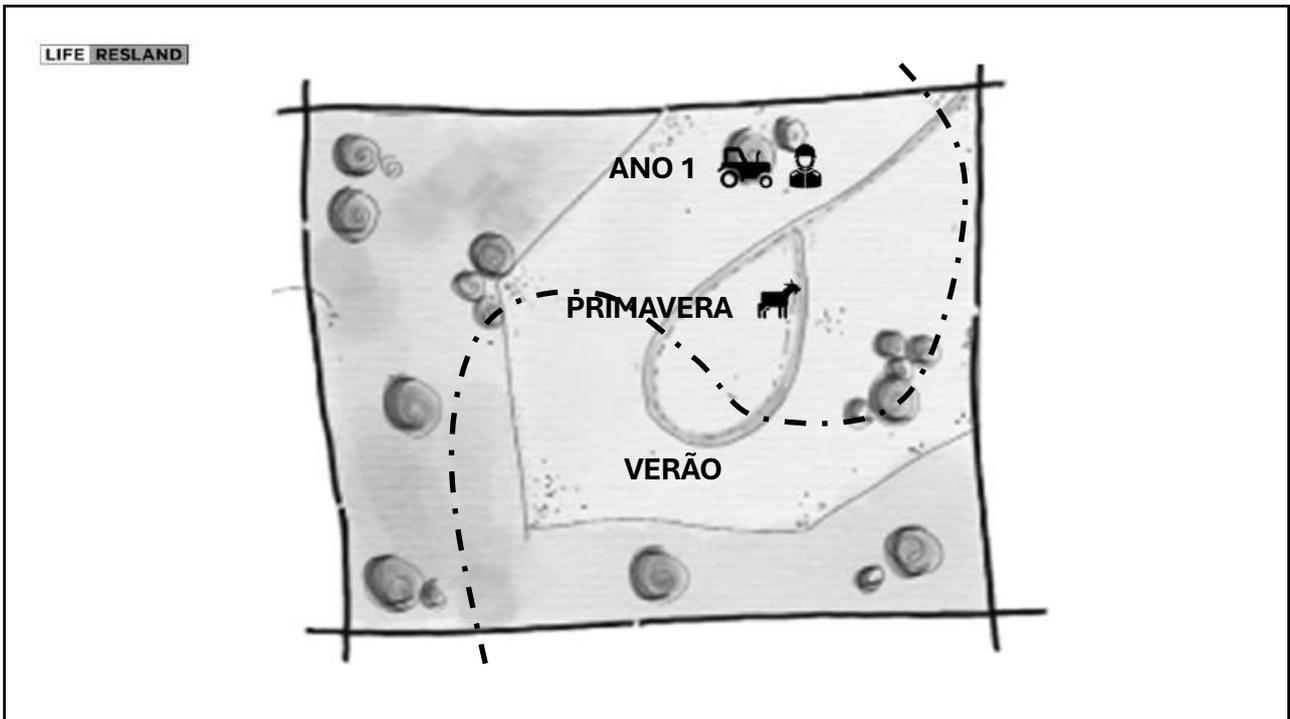
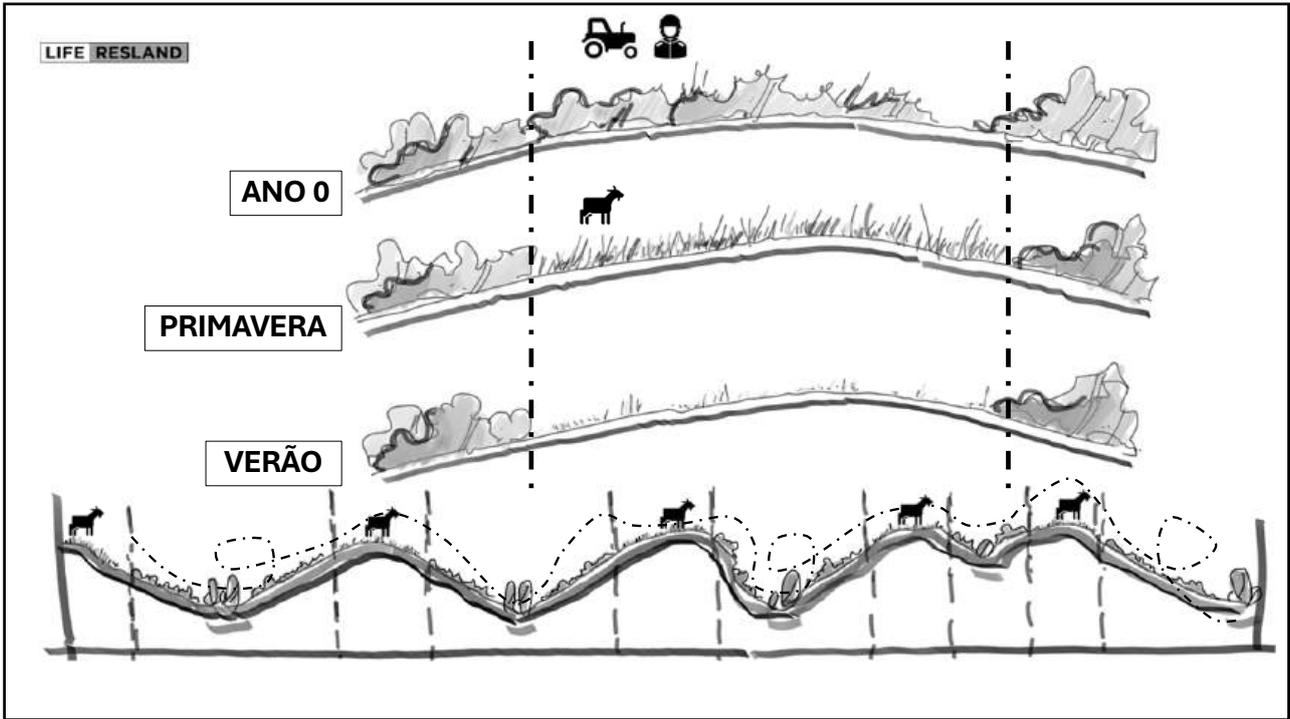


NATURAL PASTURES

OBJECTIVES

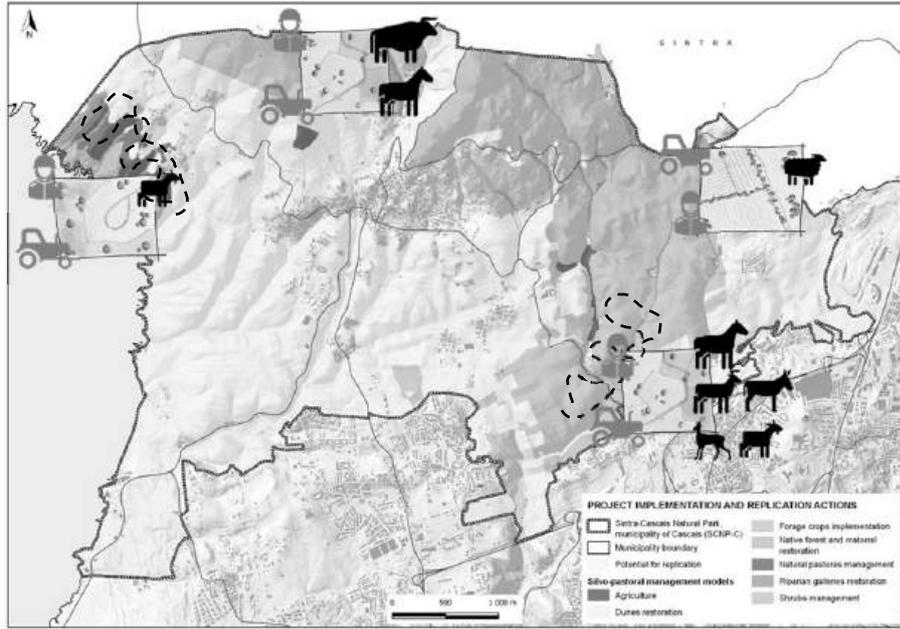
- Promote horizontal discontinuity at strategic points
- Increase the complexity of the ecosystem and value biodiversity
- Control of invasive alien species
- Retarding effect on the progression of rural fire and opportunity for positioning combat assets
- Manual motor action and short-term controlled fire with medium and long-term herbivory support



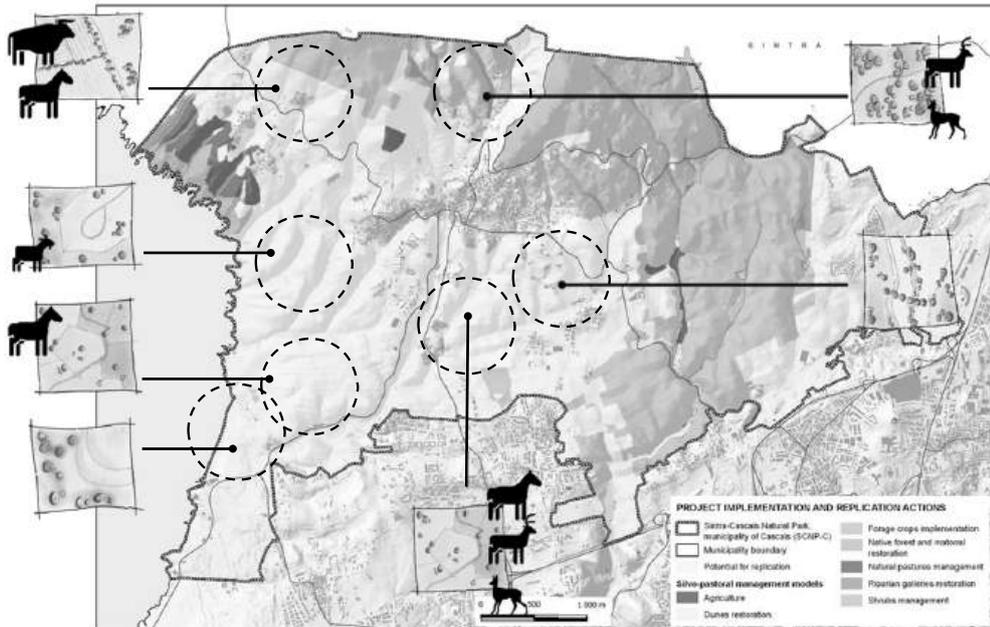




IMPLEMENTATION AREA



REPLICATION AREA





**Thank you...
Muchas gracias....**

email: joao.melo@cascaisambiente.pt

Quinta do Pisão

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