

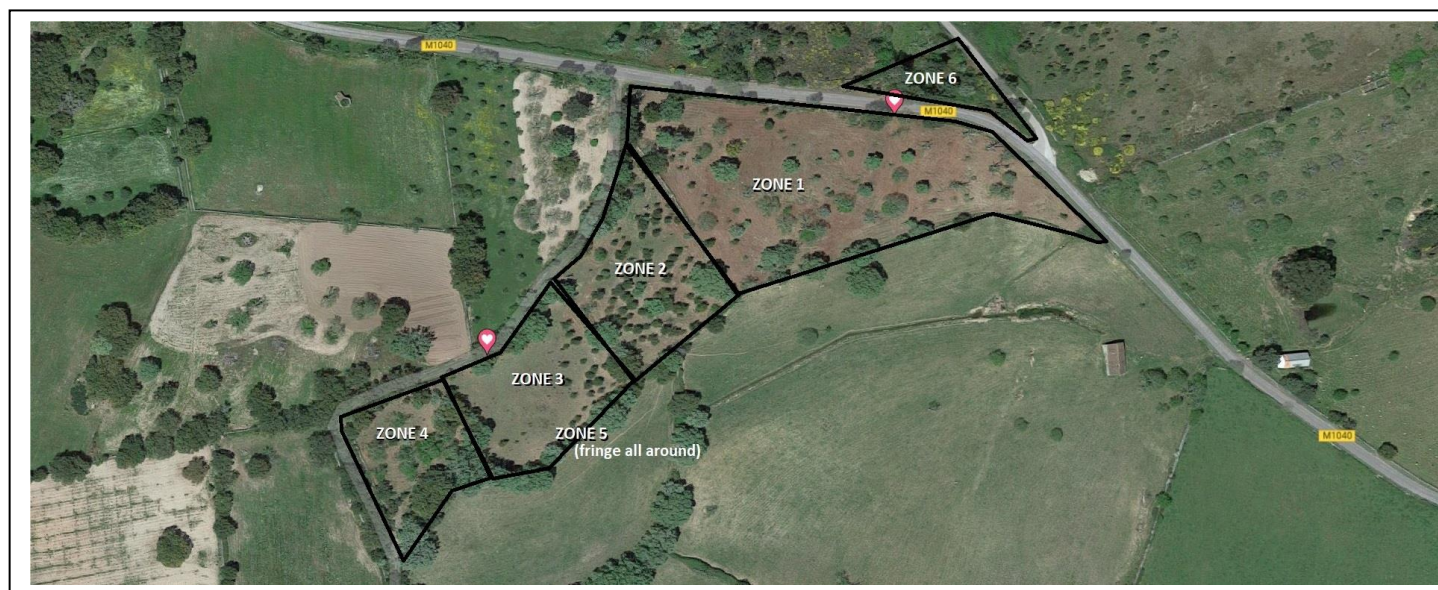
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Location: **Reveladas, Portalegre, Alentejo, Portugal**
Description: **Overview of the Ecosystem Recovery Programme**

Explanation

1. Introduction to Tapada do Castelo

Tapada do Castelo is a 2,7ha farming land located in Serra São Mamede Natural Parc, Marvão, Portalegre, Portugal. It is a part of a mountain range with elevation up to 1025m. The land is on a 700m+ plateau with a smooth North to South slope, and a small hill on both sides East and West. The parc is known for its many different micro-climates and ecosystems. Its climate is influenced both by the Ocean humidity/clouds creating a higher amount of precipitation than the surrounding areas, and by some Mediterranean influence. There are 2 main seasons, summers (May to October) are very hot and generally dry, and winters (November to April) are cold and quite rainy, with occasional light frost and even snow. Although over the recent years, there has been variations in climate such as a dryer winter in 2021/2022.

Historically, the land has been farmed, mainly for animal grazing. In zone 1 (see photo below), there has been sheeps on the land until 2021. We have no detailed information about the recent use of other zones. The land has been subjected to a large fire in 2003 and only the older trees survived to it (Chestnut, cork oak and oak trees). All grasses, shrubs and young trees died. The land is in natural recovery, early recovery with shrubs, ferns and blackberries, nitrogen fixing plants and a few trees here and there (chestnuts, oaks, cork oak and pine trees) in zone 1, and a young forest recovering in zone 2 and the South part of zone 3. The North part of zone 3 is still quite damaged, very compacted dry meadow soil. Zone 4 is mainly a large older chestnut trees forests with some oaks and cork oaks on the South/East fringe and nitrogen fixing plants.



2. Ecosystem recovery research under the premise of Love

Areas of research include Environmental Recovery and Food Production. The project implementation needs to be:

- Simple (as easy as possible to plan and implement)
- Accessible (for everybody, no matter their resource or localization)
- Reproducible (scientifically documented and shared publicly)

3. Overview of the projects

We have divided the land in 6 defined geographical zones, each will include different forms of environmental recovery experiments. Focus can be on Environmental Recovery only or Food Production and recovery depending on the zone.

3.1. Zone I –Pristine Forest

Exclusively native plants will be added to existing ones. [Single focus is on Environmental Recovery].

- Direct seeding experiment, planting experiment, untouched area experiment (environment learning project), swale/fertility hole project if required



3.2. Zone II – High Diversity Forest

Bringing it as much diversity as possible in recreating a healthy ecosystem. [Primary Focus Environmental Recovery, Secondary Focus Food Production]

- Nest seeding (productive or native tree with support plants) and planting native and fruit trees project



3.3. Zone III – Fruit Tree lines

Food Production in a Forest-like state. Plant association, multi-story tree lines mostly from seed. [Focus on Food Production as well as Environmental Recovery]

- Food production experiment, seeding fruit experiment, native support plants experiment (10:1 productive plant), fertility trenches/swales experiment, planting North/South and on keylines/swales experiment and temporary chop-and-drop experiment. Additional loving principles:
 - Economical (low resources in time & machinery, no irrigation, perennial plants mainly)
 - Low/No maintenance projects



3.4. Zone IV – Nut trees Forest

Extensive nut trees accompanied by nitrogen-fixing shrubs and trees. [Focus on Food Production as well as Environmental Recovery]

- Nut seeding experiment, nest seeding experiment (nut tree with support plants)



3.5. Zone V – Windbreak Hedges

Windbreak and berries/hardy fruit along the stone walls bordering and within the property (between zones 1, 2 and 3). [Focus on Food Production as well as Environmental Recovery]

- Shade fringe experiment and full-sun fringe experiment (Different associations of plants)



3.6. Zone VI Untouched Area

Small triangular zone across the street with no dedicated project yet. Young chestnuts, bushes, herbs, ferns and blackberries. Was abandoned for years and used just to throw scraps and dead animals away.

