Matching policy and academic practices – the case of the Montado results-based payments

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The MONTADO: Mediterranean silvo-pastoral system

open forest (10-100 trees/ha), extensive land use, several layers, spatial and functional complexity, high spatial fuzzyness

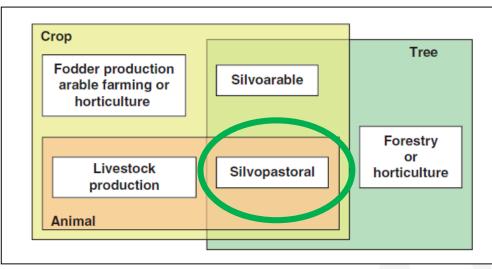
Spatial and functional complexity

Multiple uses and externalities

High Nature Value

Increased societal demand











As other silvo-pastoral systems,

Montados are over-mature and suffer recruitment failure showing a significant shrinking and decline:







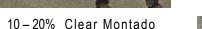
>50% Dense Montado





C 20 – 50% Open Montado







Between 1990 e 2014 and continuing.... »» 5625 ha/year have been lost

eventhough its multiple values are ackowledged

Godinho, S., Guiomar, N., Machado, R., Santos, P., S´a-Sousa, P., Fernandes, J.P., Neves, N., Pinto-Correia, T., 2016. Assessment of environment, land management, and spatial variables on recent changes in Montado Land Cover in Southern Portugal. Agrofor. Syst. 90 (1), 177–192.

Godinho, S., Guiomar, N., Gil, A., 2018. Estimating tree canopy cover percentage in a mediterranean silvopastoral systems using Sentinel-2A imagery and the stochastic gradient boosting algorithm. Int. J. Remote Sens. 39 (14), 4640–4662

Major Threats affecting the extensive and non specialised production where different dimensions need to be articulated

»» hardly competitive in global markets

»» requiring special skills to be preserved

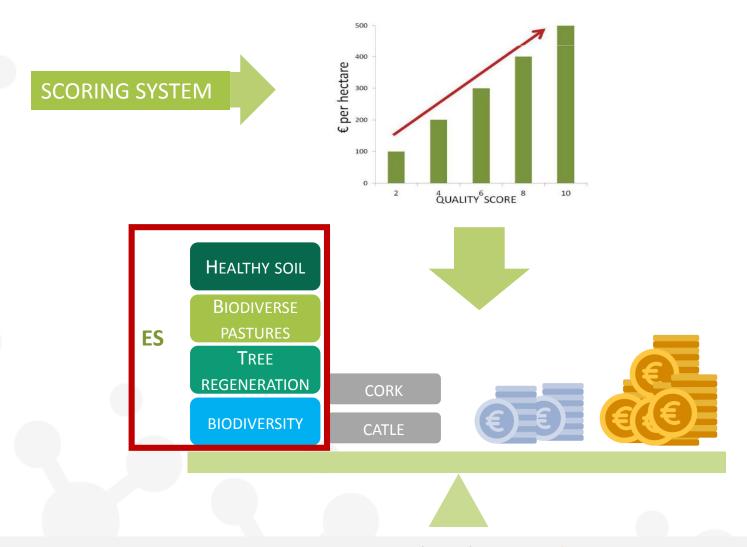
»» highly vulnerable to policy changes



farmers are pushed towards



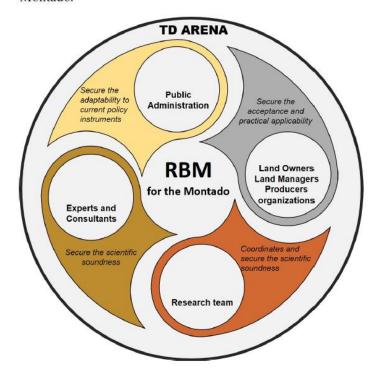
The case of the results-based model in the Montado





The case of the results-based model in the Montado

Fig. 4. The design of the transdisciplinary (TD) arena around the development of a Result-Based Model (RBM) for the Montado.



Different steps in a step-wise approach Different stakeholders Different skills



Pinto-Correia, T., I. Ferraz-de-Oliveira, M. Guimarães, E. Sales-Baptista, C. Pinto-Cruz, C. Godinho, and R. Vieira Santos. 2022. Result-based payments as a tool to preserve the High Nature Value of complex silvo-pastoral systems: progress toward farm-based indicators. Ecology and Society 27(1):39. https://doi.org/10.5751/ES-12973-270139

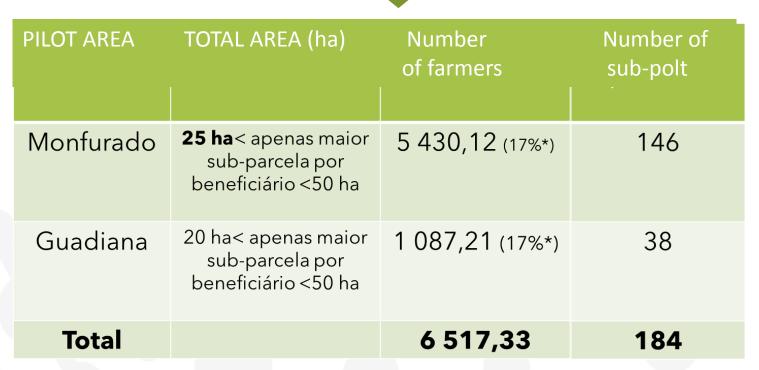
INTERVENÇÃO AGRO-AMBIENTAL DO PEPAC (2023-2027) GESTÃO DO MONTADO POR RESULTADOS







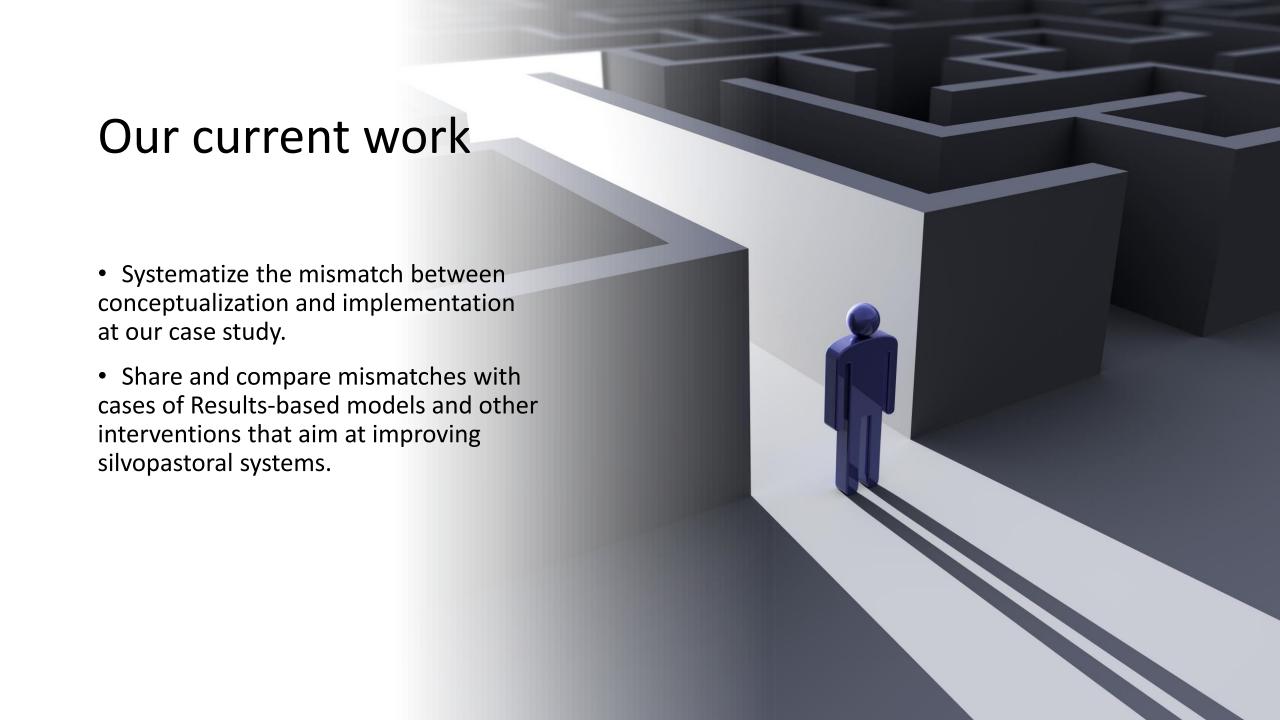
PILOT AREA	TOTAL AREA (ha)	Number of farmers	Number of sub-polt
Monfurado	30 743,47	233	2 359
Guadiana	6 229,51	81	798
Total	36 976,98	314	3 157





Enthusiasm
 mixed with a
 nervous meltdown





What have we encountered so far, an example:

- Payments are made at the sub-plot level
- Within a paddock you can have several sub-plots allocated for payment in different subsidies schemes
- One sub-plot can include several paddocks and be under different management strategies
- Open areas cannot be included in this results payment scheme



Conceptualization was done at the management scale i.e., at the paddock level

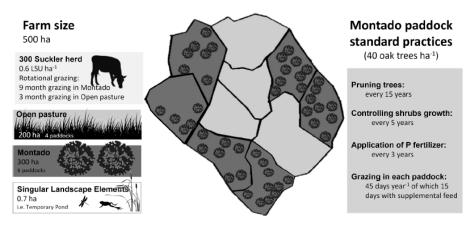


Fig. 3. How the virtual Montado farm was used to calculate costs.

Guimarães, M.H., Pinto-Correia, T. Ferraz-de Oliveira, I., et al. (2023) Farming for nature in the Montado: the application of ecosystem services in a results-based model. Ecosystem Services (61) 101524



Pinto-Correia, T., I. Ferraz-de-Oliveira, M. Guimarães, etl al (2023). Result-based payments as a tool to preserve the High Nature Value of complex silvo-pastoral systems: progress toward farm-based indicators. Ecology and Society 27(1):39. https://doi.org/10.5751/ES-12973-270139

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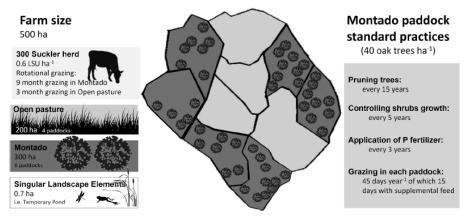


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