

FORUM/22

Mediterranean Forest Research Agenda **2030** 



#1

Forest management addressing trade-offs and synergies between multiple ecosystem services

Davide Travaglini, University of Florence 3 Nov. **2022** 



### EUROPEAN FOREST INSTITUTE

Connecting Knowledge to Action

Mediterranean Facility

International Partnerships Facility Genetic Resources Facility



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#### Climate Smart Forestry Network

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#### Forest Policy Research Network

BOKU, Vienna

#### **Planted Forests Network**

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**Biocities Facility** 

We also have an Asia Regional Office in Malaysia

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Bonn
Resilience Programme
Governance Programme

Barcelona



## Mediterranean Forest Research Agenda **2030**

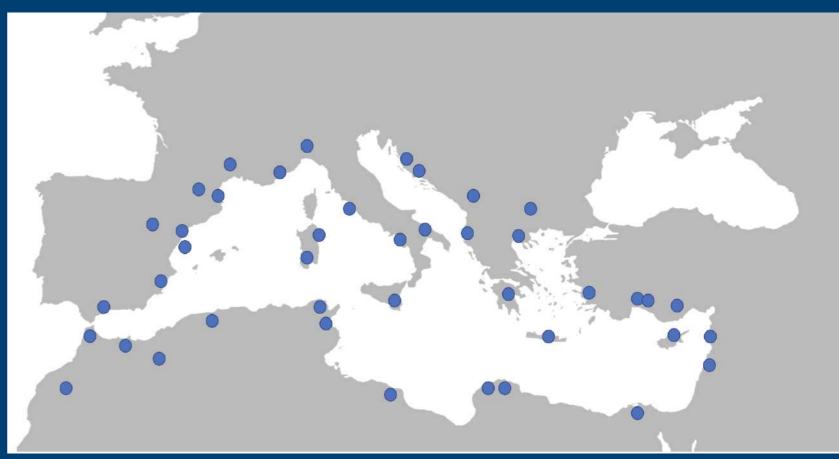








### 4 commissioned papers













FORUM/22

Mediterranean Forest Research Agenda **2030** 



#1

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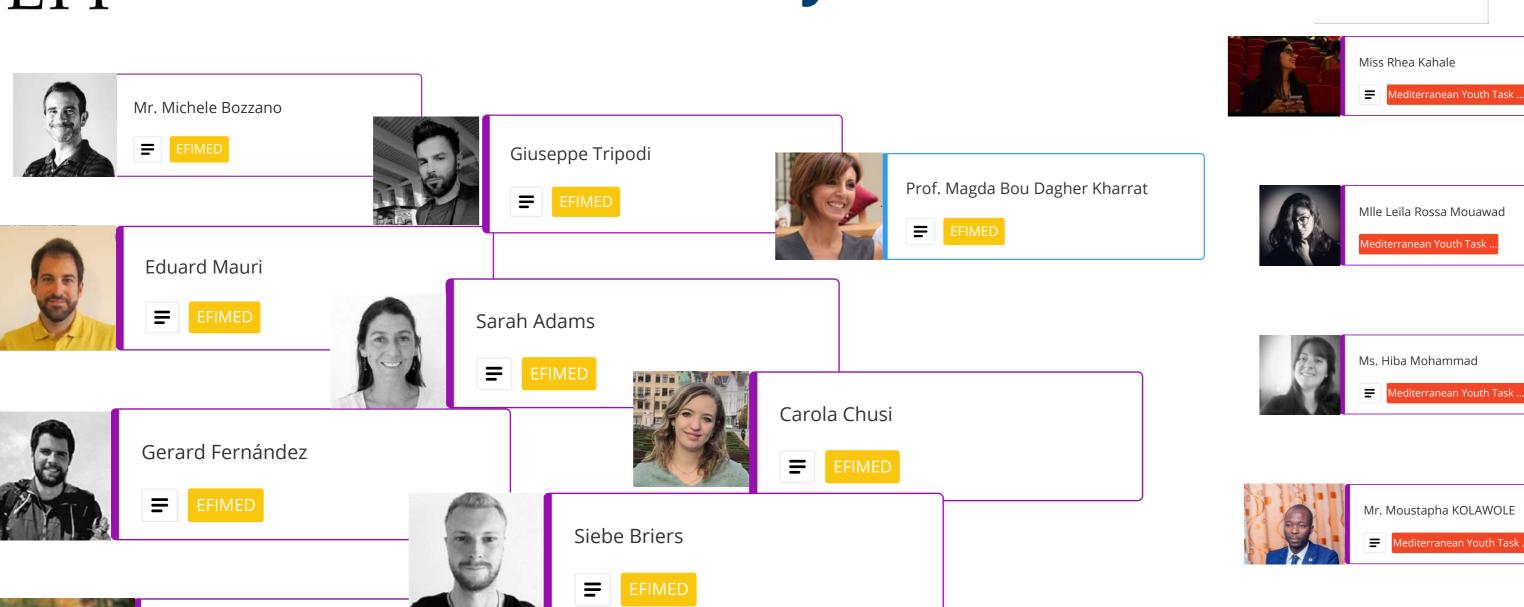
Davide Travaglini, University of Florence 3 Nov. **2022** 



Cecilia Fraccoroli

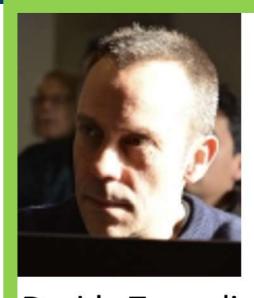
EFIMED Governance

# European Forest Institute Mediterranean Facility









Davide Travaglin



**Bart Muys** 

Current Forestry Reports https://doi.org/10.1007/s40725-022-00167-w

FOREST MANAGEMENT (M WATT, SECTION EDITOR)



# Managing Mediterranean Forests for Multiple Ecosystem Services: Research Progress and Knowledge Gaps

Susanna Nocentini<sup>1</sup> • Davide Travaglini<sup>1</sup> • Bart Muys<sup>2</sup>

Nocentini, S., Travaglini, D. & Muys, B. Managing Mediterranean Forests for Multiple

Accepted: 21 March 2022 Ecosystem Services: Research Progress and Knowledge Gaps. Curr Forestry Rep 8, 229–256

(2022).

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### Key research questions identified:

- 1- What risks and opportunities will large-scale **Mediterranean landscape transformations** present, and how can multifunctional forest management (MFM) adapt to respond to them?
- 2- What new MFM approaches are required to **support multiple ecosystem services** as an alternative to narrower approaches commonly used for wood production?
- 3- How can previously **understudied ecosystem services**, such as cultural and hydrological forest functions, best be identified, **quantified, and valued**?
- 4- Which **Decision-Support System** (DSS) will be most relevant to MFM in the Mediterranean? And how can we best integrate various aspects of the climate-change issues (mitigation and adaptation) in its design?
- 5- How can current advances in the availability of accurate, high-resolution spatial data help in estimating more precisely the **provision of multiple ecosystem services**?
- 6- How can **land abandonment** both positively and negatively impact biodiversity, ecosystems and local communities and the services that forests provide?
- 7- What approach of **vegetation management** can help spare human related activities and human lives in case of **wildfires**.
- 8- How might bioeconomy-related policies and strategies influence the design and implementation of MFM planning processes?



# Go to menti.com

The voting code 2837 6745



### **Menti Results**

Q#1: Are the research questions relevant to your country?

Q#2: Is there any missing research question?

# Q#1: Where are you from? (Country)





# Q#2: Are the research questions relevant to your country?

Multifunctional Forest Management - MFM

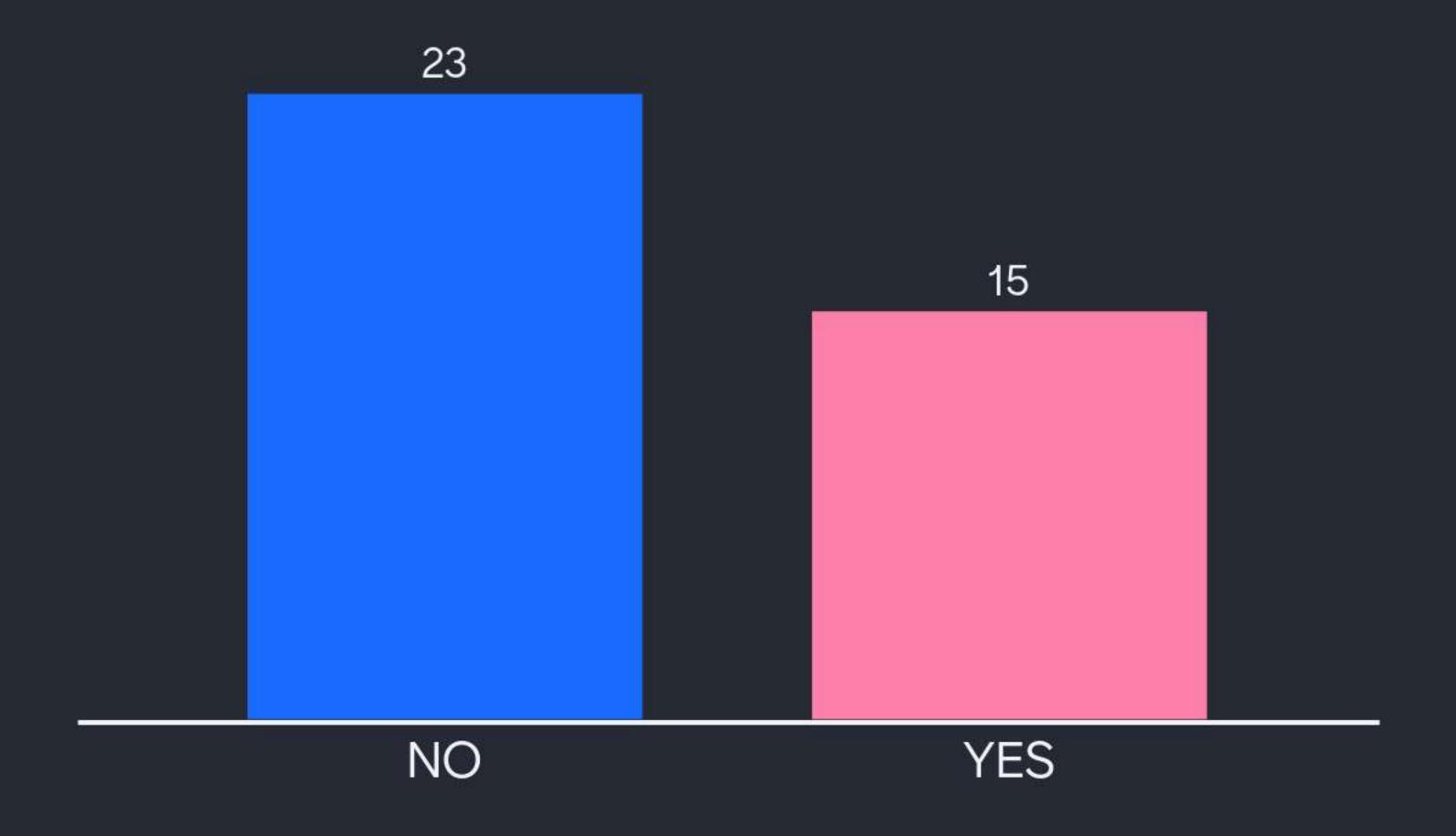
Itifunctional Forest Management - MFM

Multiple Ecosystem Services - MES

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	approaches are required t for wood production?	o support MES as an al	ternative to narrower approa	aches
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			M in the Med? And how can and adaptation) in its design.	
How can curren precisely the pr		ty of accurate, high-res	olution spatial data help in (	estimating mor
	anagement both positively d the services the forests p		t biodiversity, ecosystem an	d local
What approach of wildfires.	of vegetation managemer	nt can help spare humo	n related activities and hum	an lives in cas
How might bioe		d strategies influence t	he design and implementat	on of MFM



# Q#3: Is there any missing research question? If yes, go to the next slide





# What research question is missing?

12 questions 90 upvotes

#### What research question is missing?

Questions raised by the audience and classified according to the number of upvotes:

- Q1: How can we integrate multiple data sources (quantitative data, qualitative data and participatory tools) to fully understand and estimate the value of the whole array of Mediterranean ES? 24 upvotes
- Q2: How to reward landholders and land managers for sustainable management practices leading to the conservation of biodiversity and ecosystem services in the Mediterranean? 22 upvotes
- Q3: What role can wood-production forests play in the provision of ES? 8 upvotes
- Q4: How can we accelerate species adaptation to drought (e.g genetic, phenotypic diversity, migration)? 7 upvotes
- Q5: What kind of ES (cultural, regulating, provisioning etc.) forest genetic units (ex situ, in situ, circa situ) in Mediterranean region can provide, both for human beings and nature? 7 upvotes
- Q6: Are there existing forest management plans, and how integrated the ES to these plans? 7 upvotes
- Q7: What are the mismatch between ecosystem services provision and demand? 6 upvotes
- Q8: How can multifunctional forest management for the provisioning of multiple ES can be integrated and respond to the application of all international/regional policies to achieve GreenDeal? 4 upvotes
- Q9: Currently which instruments allow to capture the economic value of forest ecosystem services ? 4 upvotes
- Q10: What are the more relevant time scales for understanding and managing IFM and planning and evaluating relevant policies? 3

#### upvotes

Q11: What research question is missing?comment estimer la quantité d'eau dans les bassins versant forestiers?

### **Breakout rooms**

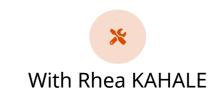
Breakout rooms results

Room 1

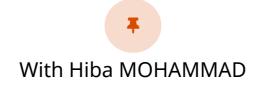
Room 2

Room 3

Room 4









### Room 5

With Eduard MAURI



Q1: Where are you from? (Country name)

**Q2: You are ...** 

Q 3: The main challenges in my country to implement the research proposed are?

Q 4: What are the challenges to implement this work?

The voting code 2990 4681



# Q1: Where are you from? (Country name)





#### Mentimeter

# Q 2: You are ...

1 NGO representative

0 Policy maker



3 Student

0 Forest manager 0 Forest owner 1
Government representative

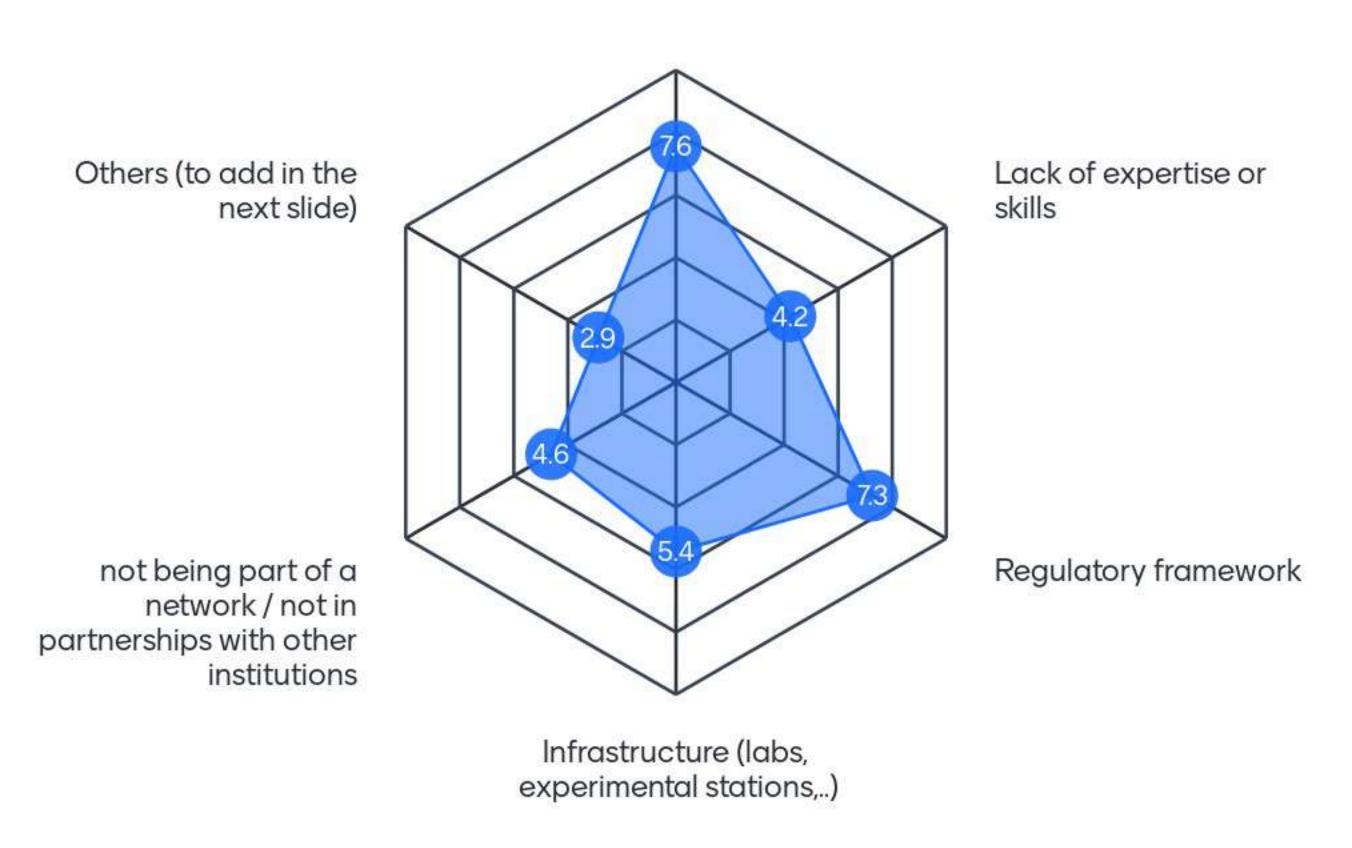




#### Mentimeter

# Q 3: The main challenges in your country to implement the research proposed are?

#### Insufficient funding





# Q 4: What are the additional challenges to implement this work?

```
civil society engagement
                                                          no structural dialogue
                            new forest activities
                                                         stakeholder participation
                           policy besides short time
                                                         differences between rural
                           violation of human rights
                          bad governance
                                                 long-term studies needed
communic across countries
                                                          production targets
                                 msc too theoretical
             bottom-up policies
                                                          stakeholders renew after the fire
                                   offical frameworks
                                        lack of interdisciplinari
                          corruption
                                                                 finnancing
 private owned forests
                                                                                operative networking
                                                              industry targets
                                        lack of inst collab
                   la persévérance
                                           clear vision and goals
                                                                          no co-management
                            cooperation
   international network
                                     ces poorly studied
                                                                         pasturing in the mf
                 nwfp productivity
                                                 misuse of power
                              discrimination of groups
                            need legal framework es
                                 knowledge transfer
                                                            out of the box approach
                            no participatory approach
```



## Discussion

problem with regulation in Spain and Portugal Networking challenges

Difficulties for the southern and eastern rim of the Med

more funding possibilities from the European side ex: HE, COST, ... more difficult to the other Med side to join

forest fire desertification

integration of the ecosystem services in the management system

General education is not oriented to this sector

This is why there are a lack of expertise in this domain

second one is lack of governance in non EU countries Updating curricula to align the current challenges with their content!

knowledge transfer between researchers, politics, forest owners, society... That is, how scientific knowledge about MFM and ES provisioning can be better communicated so the regional and or local politics can help or support that so owners and society contribute to it

Consider Mediterranean heterogeneity at different levels by considering the whole biodiversity in ecosystems and not only trees

## RESOURCES - Featured scientific papers

SP1 #1: Unravelling opportunities, synergies, and barriers for enhancing silvopastoralism in the Mediterranean

SP #2: Habitat Suitability for Small Mammals in Mediterranean Landscapes: How and Why Shrubs Matter

**SP #3:** From concepts to practice: combining different approaches to understand drivers of landscape change

**SP #4:** Sustainable Forest, Beautiful Forest, Well-Managed Forest: Attitudes towards Land Management and Their Influence on the Perception of a Mediterranean Agroforestry Landscape

SP #5: Governing Europe's forests for multiple ecosystem services: Opportunities, challenges, and policy options

**SP #6:** <u>Depopulation impacts on ecosystem services in Mediterranean rural areas</u>

## RESOURCES - Videos

V #1: Ecosystem services: <a href="https://youtu.be/wMIUglBligl">https://youtu.be/wMIUglBligl</a>

V #2 Ecosystem services and Biodiversity - Science for Environment Policy <a href="https://youtu.be/D6luBElfi3s">https://youtu.be/D6luBElfi3s</a>

V #3: FAO Policy Series: Ecosystem Services and Biodiversity<a href="https://youtu.be/nMfRRkUhNOY">https://youtu.be/nMfRRkUhNOY</a>Y

## RESOURCES - Projects

SINCERE <a href="https://sincereforests.eu/">https://sincereforests.eu/</a>



# RESOURCES - Report

Non-wood forest products for people, nature and the green economy. Recommendations for policy priorities in Europe



Non-wood forest products for people, nature and the green economy

Participants from around the World

