

State of Mediterranean Forests – 2nd edition

Terms of references for the chapters

Central question to be addressed by the 2nd edition of the *State of Mediterranean Forests* and to be used as a guideline to connect the different chapters: **How do Mediterranean forests contribute to reach the goals of international commitments on forests, in particular the Sustainable Development Goals (e.g. SDG 13 and 15) and the Rio Conventions?**

- The 2nd edition is expected to be 180 pages in length, i.e. about 10-15 pages per chapter, figures and references included (guidelines for authors will be provided)
- Two versions in English and French will be prepared.
- Copyright will be shared between FAO and Plan Bleu, based on a co-publishing agreement
- A balance between North and South in terms of examples but also in terms of authorship will be sought
- The report will be composed by three main parts: each part will have an executive summary as introduction referring to chapters (example: book "Ecosystem Services from Agriculture and Agroforestry"
<https://books.google.it/books?id=UaceBAAAQBAJ>)
- Each chapter will have a chapter coordinator. The chapter coordinator will be responsible of:
 - Identify the authors (do not forget gender and geographical balance)
 - Draw the outline of the chapter with the authors
 - Assist the writing of the chapter by the authors
 - Ensure that the guidelines for the authors are respected
 - Find the reviewer of the chapter
 - Ensure that the language (English or French) has a minimum level of fluency
- Liaise with FAO and Plan Bleu
- **Scientific board.** One or two senior forestry experts will be responsible for assisting in the preparation of the report and review the final publication (possible candidates to be contacted are: Giuseppe Scarascia, Eduardo Rojas, Yves Birot, Youssef Saadani, Margarita Tomé, Di Castro, Gilles Mille)
- **Review committee.** A scientific reviewer will be assigned to each chapter by the chapter coordinator. The reviewer will revise the content of the chapter (not editorial review) and provide support to the authors. The reviewer can be selected also among the list of authors of other chapters of the SoMF.
- The preparation of the second edition of the SoMF is based on voluntary contributions.

Preface

As done for the first edition, the preface will be written by FAO Forestry Department's ADG and Plan Bleu Director.

General introduction

How the socio-economic context has evolved since the last SoMF, etc.

Part 1: The Mediterranean landscape: importance and threats

Chapter 1 – Introduction. Contribution of Mediterranean forests to the global agenda

This chapter will introduce the role that forests in general, and Mediterranean forests in particular, can play in contributing to reach the goals of international commitments: SDG 13 on climate, SDG 15 on forest management, SDG 11 on sustainable cities (related to urban and periurban forests), desertification and degradation, UNFCCC, CBD Aichi targets, UNCCD Land Degradation Neutrality, UNFF (IAF Strategic Plan, International arrangement on forests beyond 2015, <http://www.un.org/esa/forests/>), COFO 23rd, Durban Declaration, Forest Europe and other accepted and upcoming international initiatives with a special focus on the Mediterranean region.

The chapter will present an overview of the role of the forest sector in the Nationally Determined Contributions of the Mediterranean countries. National commitments on forest restoration could also be presented. The chapter will also draw the attention on the specificity of the Mediterranean region that is at the same a climate change hotspot, an ecoregion that is more vulnerable than others to climate change, and whose ecosystems present a great potential for adaptation.

Keywords: SDGs, UNFCCC, CBD, UNCCD, NDCs, climate change hotspot, vulnerability hotspot, biodiversity hotspot.

Chapter 2. Importance of Mediterranean forests

This chapter will focus on forests where they are the predominant element of the landscape and will present updated statistics on forest cover, biodiversity, forest carbon, forest land use and land use change in the Mediterranean, based on recent data available for the Mediterranean (FRA2015 whenever significantly different from FRA2010, FAO Global Dryland Assessment, etc.). This chapter will also address the questions of:

- definition of the Mediterranean ecoregion (using which limits? Using a geographic and/or a bioclimatic approach¹?)
- definition of forest (as it differs between countries)
- definition of the Mediterranean forest type.

This chapter will also raise the issue of reporting on Mediterranean forests within countries that are only partly Mediterranean, thus requiring to disaggregate national data to the ecoregion level (a focus can be made on some countries – *e.g.* Italy, France – where data from the National Forest Inventory are available).

Keywords: forest cover, land use, carbon, Mediterranean ecoregion, Mediterranean forest type.

¹ *E.g.* Olson, D.M., E. Dinerstein, E.D. Wikramanayake, N.D. Burgess, G.V.N. Powell, E.C. Underwood, J.A. D'Amico, I. Itoua, H.E. Strand, J.C. Morrison, C.J. Loucks, T.F. Allnutt, T.H. Ricketts, Y. Kura, J.F. Lamoreux, W.W. Wettengel, P. Hedao, and K.R. Kassem. 2001. Terrestrial ecoregions of the world: New map of life on earth. *Bioscience* 51(11):933-938.

Chapter 3. Forests and trees outside forest (urban forest, agroforest, etc.)

This chapter will present the importance of trees in the Mediterranean landscapes even when outside forests (*sensu* FAO definition or IPCC land-use category), i.e. when tree is not the main element of the landscape and depends on its interaction with other human activities. Traditional Mediterranean agroforestry system combining low-density trees and agricultural or pastoral activities (like *dehesa* in Spain, *montado* in Portugal, olive and argan systems in Morocco, etc.) will be presented: importance, diversity of systems, management, history, recent changes, etc. Urban and peri-urban forests will also be presented in this chapter: importance for the resilience of cities and for human well-being, key examples of green infrastructure and urban forests in the Mediterranean, UPF for protection of natural resources, provision of ecosystems services, etc.

Keywords: agroforests, silvopastoralism, urban and peri-urban forests, green infrastructure.

Chapter 4. Drivers of degradation and threats

This chapter will present the different threats on the Mediterranean forest landscapes by structuring them according to indirect (global changes: climate change, social change, demographic change...) and direct threats (as follows from the former at a local scale: emergence of pests and diseases, dieback, forest fires, overgrazing, unsustainable fuelwood collection, conversion to agriculture, urbanization, land abandonment, genetic erosion...). A distinction will be made between deforestation and degradation, and between agents and factors. The analysis should highlight the geographical heterogeneity of the drivers and threats, with different prevailing processes in the North (land abandonment, forest fires, etc.) and in the South/East Mediterranean (overgrazing, overexploitation of fuelwood, migration etc.). Consequences of forest degradation will also be addressed in this chapter (soil erosion, water quality degradation, biodiversity loss, loss of forest functionality, etc.)

Keywords: vulnerability, forest fires, pests and diseases, dieback, overgrazing, unsustainable management, land abandonment, urbanization, genetic erosion, biodiversity loss, migration, water scarcity.

Part 2: Mediterranean forest-based solutions

Chapter 5 – Human needs and ecosystem services

This chapter will present how ecosystem services provided by Mediterranean forests address human needs. The chapter will present the connections between Mediterranean forests and agriculture, and the role that forests play for food security and energy. Other social roles that Mediterranean forests can play include job provision (particularly for young people), people's wellbeing (including green care), and the integration of minorities (e.g. migrants) in the society. A description of which ecosystems services answer to human needs will be detailed.

Keywords: forest and food security, forest and energy, forest and water, social integration.

Chapter 6. Forest and landscape restoration

This chapter will present the role that Mediterranean forests can play in forest and landscape restoration to address regional or global commitments related to restoration or reduction of land degradation (Bonn Challenge, Aichi target 15, SDG 15.3, etc.) The state of the art in restoration in the Mediterranean will be presented to define the current baseline on restoration in the region. Success stories on restoration in the Mediterranean, and future restoration opportunities (including forest genetic resources) in the Mediterranean will be presented. Cost-benefit of restoration in the Mediterranean, monitoring of restoration and impact assessment, post-fire restoration will be addressed as well.

Keywords: restoration baseline, ecological restoration, restoration opportunity, restoration cost-benefit.

Chapter 7. Adaptation and mitigation

This chapter will present the potential of Mediterranean for mitigation and adaptation to climate change. Mitigation will include the potential of Mediterranean for the REDD+ and NAMA mechanisms (including cost-benefit analyses). Adaptation will include the management of forest genetic resources (including seed banks) and of forest reproductive material, the maintenance of forest health and vitality to reduce vulnerability, the improvement of fire prevention, suppression and control (e.g. by promoting fire-resistant species like *Quercus faginea*), the adjustment of forest management practices and adaptation for communities.

Keywords: adaptation, resilience, mitigation, REDD+, forest genetic resources, fire control.

Chapter 8. Biodiversity conservation/protected areas

This chapter will show the diversity of biota associated to the Mediterranean forests, their knowledge, conservation status, current conservation actions and their role in forest management. Direct threats (presented in chapter 4) affecting different taxonomic groups will be ranked and discussed from the taxonomic groups perspective. The level of representativeness of forest ecosystems in protected areas and Key Biodiversity Areas and examples of conservation programmes (active protection of species, reinforcement and reintroduction of populations, models of sustainable forest management) will be presented.

Keywords: management of emblematic areas, protection, conservation, biodiversity-functionality relationship, productivity-functionality relationship, multifunctionality.

Part 3: Enabling environment to scale up solutions

Chapter 9 – Introduction. Contribution of Mediterranean forests to the green economy

This chapter will show how Mediterranean forests can contribute to the green economy to solve the paradox that they are a valuable green infrastructure whose value remains unrecognized by our societies. Innovation in forest-based green economy and emerging markets like bioenergy, biomaterial or ecotourism (including ecoparks) will also be addressed in this chapter, presenting data and study cases².

² Mediterranean Growth Initiative: <http://www.litus.eu/mgireport/>

Keywords: forest and employment, green economy, education, research, innovation, value chain, bioenergy, biomaterial, ecotourism, green job.

Chapter 10. Policy frameworks and governance styles" or "International policies"

This chapter will address rural rights, land tenure, legal framework, forest policies and governance related to the forest sector in the Mediterranean countries. The chapter will include a comparison of forest legislations (regarding protected areas, fire, forest reproductive material, etc.) and a review of international agreements on forests for the Mediterranean. The chapter will focus also on international cooperation and will reserve a box on forest certification (FSC).

Keywords: governance, rural rights, land tenure, forest policies

Chapter 11. "Local approaches to community engagement" or "Governance and community engagement"

This chapter will present local and participatory approaches to forest management in the Mediterranean to include local populations as active managers of the forest. An overview of the region regarding multi-stakeholder and multi-sector governance will be presented, including the issues to be addressed regarding shared visions of rural territorial development. Outlooks regarding possible co-management of Mediterranean forests will be presented.

Keywords: participatory management, multi-stakeholder governance, co-management, communication, perception

Chapter 12. "Valuing the ecosystem services for the decision-maker agenda" or "New value chains from Mediterranean forests"

This chapter will present the different goods and services provided by Mediterranean forests, structuring them according to provisioning, regulating, cultural, and supporting services. It will also present an assessment of the economic value of these goods and services, and discuss the different possible options for valorizing these goods and services. The chapter will also deal with the ecosystem disservices that can be brought by Mediterranean forest ecosystems.

[This chapter will include all topics on value chains previously mentioned in chapter 9]

Keywords: provisioning services, regulating services, cultural services, forest and culture, supporting services, economic value, disservices

Chapter 13. Financial incentives and tools

This chapter will present the different financial options for valorizing the Mediterranean forests, addressing both the mechanisms (e.g., in relation to the carbon finance, the REDD+ or NAMA mechanism, or Payments for Ecosystem Services) and the funds at the international (e.g. Green Climate Fund, Land Degradation Neutrality Fund) and national (e.g. National Forest Fund) levels. Outlooks from private funding (e.g. in the context of restoration or of reforestation) will also be presented. A review of financial mobilization for the forest

sector in the Mediterranean could be presented, as well as prospects on innovative or emerging financial options.

Keywords: financial mechanisms, payment for ecosystem services, carbon finance, restoration finance, funds

Conclusion

Chapter	Chapter coordinator	Chapter author
General introduction	Plan Bleu	
Part 1: The Mediterranean landscape: importance and threats		
Chapter 1 – Introduction. Contribution of Mediterranean forests to the global agenda	Ismail Belen	FAO (FLRM + Silva Med + Drylands), Fulvio Ducci, DGF Algeria
Chapter 2. Importance of Mediterranean forests	Univ. Madrid	FAO (Silva Med + Drylands), Univ. Madrid, Eray Özdemir, FSC, Marco Marchetti (Univ. Molise)
Chapter 3. Forests and trees outside forest (urban forest, agroforest, etc.)	WG UPF (person to be selected)	Fabio Salbitano, FAO UPF, Fulvio Ducci, Christine Farcy, Mr. Dursun Baş
Chapter 4. Drivers of degradation and threats	José Ramon Gonzalez (CTFC) <i>(proposed, to be contacted) or</i> FAO Silva Mediterranea	FAO (FLRM + Drylands + Silva Med), Ludwig Liagre, Elsa Enriquez, Fabio Attorre (Univ. Rome)
Part 2: Mediterranean forest-based solutions		
Chapter 5. Human needs and ecosystem services	EFIMED <i>(proposed, to be confirmed)</i>	EFIMED <i>(proposed, to be contacted)</i> , DGF Algeria
Chapter 6. Forest and landscape restoration	FLRM (C. Gallo Granizo, FAO)	Fulvio Ducci, FAO (Drylands), DGF Algeria, Özlem Yavuz + colleagues, Jordi Cortina <i>(proposed, to be contacted)</i>

Chapter 7. Adaptation and mitigation		FAO (FLRM + Drylands), Fulvio Ducci, Bruno Fady
Chapter 8. Biodiversity conservation/protected areas	IUCN Malaga (to be confirmed)	DGF Algeria, Fabio Attorre (Univ. Rome), Bart Muys
Part 3: Enabling environment to scale up solutions	Inazio intro (proposed, to be contacted)	
Chapter 9 – Introduction. Contribution of Mediterranean forests to the green economy	Inazio Martinez de Arano (EFIMED)	Sven Mutke, Nicolas Robert, Startree project (EFIMED), MMFN, Laura Secco (proposed, to be contacted), Nuno Calado (Portugal) (proposed, to be contacted), Marco Marchetti (Univ. Molise)
Chapter 10. Local approaches to community engagement <i>or</i> Governance and community engagement	Magali Maire (FAO) and/or Plan Bleu	FSC, Nicolas Robert, Mohamed Qarro, MMFN, Mr. Dursun Baş, Mr. Cemil Ün and Ahmet Şendağlı
Chapter 11. Policy frameworks and governance styles <i>or</i> "International policies	Irina Buttoud (FAO)	AIFM, Ismail Belen and colleagues, MMFN, FSC Portugal and Spain, Mauro Masiero (Univ. Padua) (proposed, to be contacted), Paolo Manzini (Univ. Padua) (proposed, to be contacted)
Chapter 12. Valuing the ecosystem services for the decision-maker agenda <i>or</i> New value chains from Mediterranean forests	Plan Bleu/Mohamed Daly Hassan (proposed, to be contacted)	Nicolas Robert, Hamed Daly-Hassen, DGF Algeria, FSC, Alessandro Leonardi (Univ, Padua) (proposed, to be contacted)
Chapter 13. Financial incentives and tools	Ludwig Liagre (GM) or Elena Gorritz	FAO (FLRM), Ludwig Liagre, Rao Matta (FAO), Valérie Merckx (EFIMED), FSC-Italy+Portugal+Spain

Conclusions	FAO/Plan Bleu	
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