

Mediterranean Network for Reporting Emissions and Removals in Cropland and Grassland (MediNet) + (LIFE 15 PRE IT/732295)



Beneficiary Institutions:

- Department for Innovation in Biological, Agro-food and Forest systems (DIBAF), University of Tuscia, 01100 Viterbo, Italy;
- Agência Portuguesa do Ambiente (APA), Rua da Murgueira, 9/9ª, Zambujal, 2611-865 Amadora, Portugal;
- Instituto Superior Técnico (IST), Avenida Rovisco Pais, N1, 1049-001 Lisboa, Portugal.

Project focus

Improve the transparency, consistency, comparability, completeness and accuracy of cropland and grassland reporting of emissions and removals in Mediterranean Countries

Project objectives

1. Compilation and systematization of existing knowledge and data with relevance for reporting croplands and grasslands emissions in Mediterranean conditions, in particular for mineral soil and aboveground biomass of perennial crops.
2. Sharing experiences and approaches in reporting croplands and grasslands emissions in Mediterranean conditions.
3. Exploring the possible use of common methods and/or reference data and/or data sets for reporting purposes.
4. Identifying information and research gaps
5. Enhance the participation and involvement of agriculture stakeholders in climate change mitigation and adaptation

Actions and means involved

To accomplish its objectives, MediNet will involve Public Institutions and Universities from different countries in the Mediterranean basin working specifically on themes related to agriculture and emissions and removals reporting. Different Actions of the project will involve both the Institutions with the official responsibilities of reporting on cropland and grassland emissions and removals at National level, and the Institutions/Universities working in specific themes related to grassland and cropland management.

The establishment of the MediNet network, involving Italy and Portugal as beneficiaries of the project, and Spain, Greece, France, Malta, Cyprus, Slovenia as stakeholders, will allow identifying, sharing and maximising the potential of existing knowledge that can be used for reporting purposes. The identification of gaps in data at National level and the adoption of solution to fill these gaps coming from the experience gained by other Mediterranean counties is an aim of the MediNet project. The main objective of the MediNet network is to increase the knowledge on the effect that different management activities applied to croplands (e.g. conventional agriculture, biological, reduced tillage, other) and grasslands (e.g. grazed, mowed, sown, other) have on the soil organic carbon (SOC) and biomass carbon (C) stocks.

This represents a crucial and necessary point, needed to allow for an identification of new and more specific factors to be related to different management activities for cropland and grassland

management in the Mediterranean area. As a result, more accurate, complete and consistent estimates of C gain and losses due to emission and removal from cropland and grassland will be provided at National level. The sharing of reporting experiences and of specific solutions for reporting (i.e., methodologies, activity data and emission factors) will also allow for increased comparability across Mediterranean Countries.

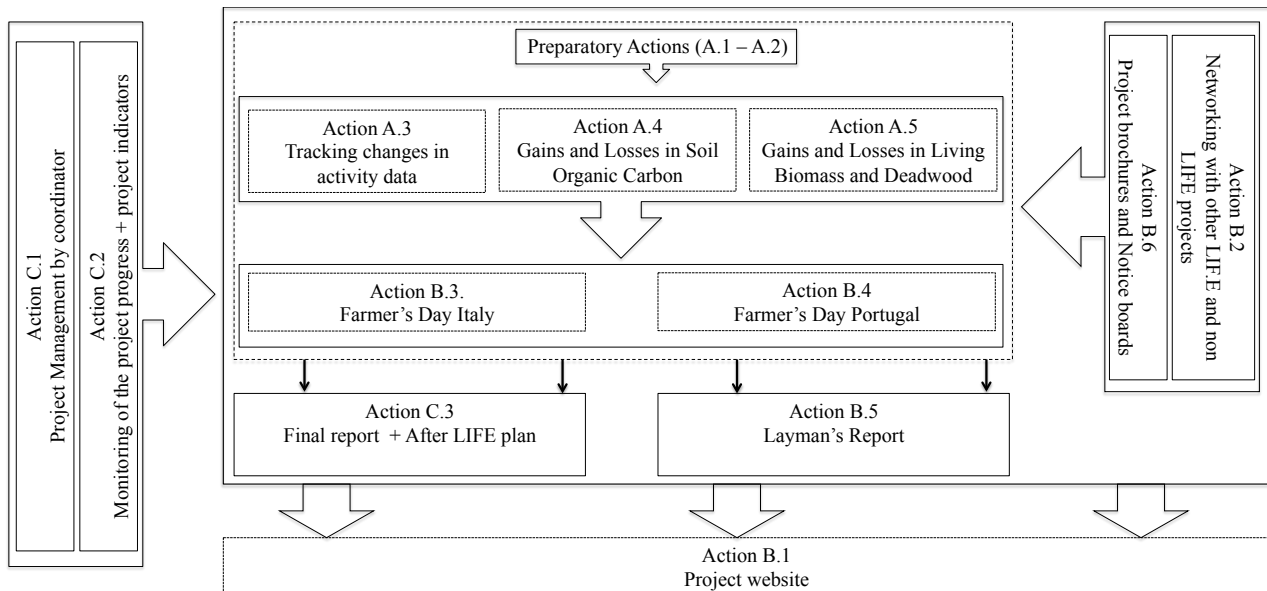


Figure 1 – Flow chart showing the connections between different Actions.

A preliminary action characterizes the Institutional arrangements (Institution and data provision) for each country involved in MediNet (Actions A.1). Subsequently, the preliminary Action A.2 will select the types of Management Systems for Cropland and Grassland to be used in subsequent Actions. The core of MediNet will be expressed through Actions A.3, A.4 and A.5, which will specifically identify the type of data and methodologies present in the different Institutions/Universities necessary to report emissions and covering three main topic areas:

- Activity data for cropland and grassland under different management types and the area that is annually subject to a land use/management change.
- Assessment of the contribution of the above and belowground biomass of perennial crops to annual carbon gains and losses.
- Soil organic carbon stock and variations in mineral soils under different management options for cropland and grassland.

Specific workshops will be held during the course of the MediNet project involving both the Institutions doing the emission and removal estimations and the Institutions/Universities working on cropland and grassland related themes. People from other LIFE and non-LIFE projects will be also invited so to possibly increase the exchange of data and of experiences. The workshops will follow the specific themes treated in Actions A.3, A.4 and A.5, and will be focused on:

- a) Cropland and grassland areas that are subject to a change in management;
- b) Contribution of above ground biomass and deadwood from perennial crops;
- c) SOC data for the different types of management used in cropland and grassland.

The workshops are included in the implementation Actions rather than in the communication Actions since they aim specifically at allowing for a wider exchange of data, rather than on communicating project results.

An important part of the project is devoted to increase project visibility and in sharing of information among partners and stakeholders. A project website (Action B1) will be used to specifically widespread information useful for stakeholders (e.g. Institutions) and the general public (www.lifemedinet.com). A Facebook page will be also used for the same purpose (Action B1).

Brochures reporting the results/decisions of the specific workshops will be made available soon after their conclusion on the project website. Networking with other projects will also represent an important part of the project (Action B2) allowing collecting information useful for the project.

A Farmer's day (Action B3 and B4) will be organized in each of the two countries (Italy and Portugal) to involve farmers and provide capacity building on agriculture and climate change, the opportunities for improved climate management practices in each of the Rural Development Programmes and share information on specific themes such as the effectiveness of the application of good managements practices (e.g. reduce tillage; organic fertilizers) aimed at soil conservation and to increase soil fertility. Questionnaires will be spread among farmers so to evaluate the uptake and quality of implementation of these practices. The involvement of stakeholders in those workshops, particularly farmers and/or their representative organisations, represents a crucial and fundamental part of the project. All the outputs of the farmer's day will be available on the website of the project. A Layman's report (Action B5) and Board Notices (Action B6) will be also performed so to allow for a wider visibility of the project structure and its results, particularly among the general public.

Expected results

The results expected at the end of the project are the following:

- a) Increased knowledge on the SOC data for at least the top 30 cm (if possible 50 or 100 cm depth) of mineral soil for different crops/grassland management types from each Mediterranean country involved in MediNet. A database will be created to collect all the information correlating the average SOC content and stock to the different management activities applied for cropland and grassland.
- b) Improved default emission factors in SOC as a result of land management change in cropland and grassland for use in Mediterranean conditions, to replace the IPCC tier 1 default factors and to increase the number of management practices that are currently used for reporting purposes at National level.
- c) Increased knowledge on the contribution from the above ground biomass of perennial crops and from deadwood to annual emissions and removals. A database will be created to collect all the information and to relate the carbon in the aboveground biomass of perennial crops to the different management activities applied for Cropland and Grassland.
- d) Creation of a network of stakeholders to be used for monitoring the agriculture contribution to climate change in the Mediterranean area.

List of Actions

A - Implementation actions

Action number	Name of the action
A1 -	Characterisation and comparison of institutional arrangements for cropland and grazing land management reporting
A2 -	Selection of Cropland and Grassland Types and Management Systems
A3 -	Tracking changes in activity data
A4 -	Gains and Losses in Living Biomass and Deadwood
A5 -	Gains and Losses in Soil Organic Carbon

B - Actions for communication and for dissemination of project lessons

Action number	Name of the action:
B1 -	Project Website and other multimedia tools
B2 -	Networking with other LIFE and/or non-LIFE projects
B3 -	Farmer's Day Italy
B4 -	Farmer's Day Portugal
B5 -	Layman's report
B6 -	Project brochures and Notice Boards

Milestone	Associated action	Deadline
• Kick-off meeting	C.1	06/09/2016
• Workshop on Activity data	A.3	15/06/2017
• Workshop on Living biomass and deadwood	A.4	15/09/2017
• Workshop on Soil organic carbon	A.5	15/12/2017
• Farmers day Italy	B.3	15/04/2018
• Farmers day Portugal	B.4	15/06/2018
• Final Report	C.3	30/08/2018

For information:

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