

CLIMA

Designing CLimate smart farming systems for the Mediterranean Area

ABSTRACT

a) This proposal entails the following objectives for the Senior Fellowship request as three components:

- Research: to examine the nature of the relationships and trade-offs between resource use-efficiency and ecosystem services in the Mediterranean-basin agriculture, including the provision of food quantity and quality for an increasing population under climate change. Supplementary questions would be: what are the trade-offs between ES provision and resource use-efficiencies; and how crop diversity, especially incorporating legumes, can shift the relation towards improved efficiencies for nutrients and water use.
- Capacity building: to support CIHEAM-IAMM and Montpellier SupAgro to set the scene for further implementation of a MSc-PhD curriculum on Integrated Modelling of Agricultural Systems for the Design of Climate Smart agriculture in the Mediterranean basin. This would represent a contribution to the strategic plan of the Labex and MUSE to develop in Montpellier an excellence center on climate smart agriculture, which would increase international networking with CGIAR centers, ICAF, IPCC and EU.
- Assistance in the formulation of the project One Planet Fellowships, based on the collaboration between the French government, The Bill and Melinda Gates Foundation and BNP Paribas.

b) Three main actions are proposed:

- Develop a conceptual and methodological framework to analyse the trade-off between resource use efficiency (RUE) and ecosystem services (ES) in Mediterranean-basin agriculture both at field and at farm level and to apply with existing data and a crop model in order to demonstrate its potential for assisting the design of climate smart farming systems.
- Participate in elaborating, through several meetings involving researchers from different institutions (CIHEAM-IAMM, Montpellier SupAgro, ICARDA, etc.) and disciplines (Agronomy, Economy, etc.), a report describing the curriculum for the courses content in climate smart farming in the Mediterranean basin.
- Assist in the development of One Planet Fellowships in collaboration with Agropolis and other French and international actors in this initiative.

Year : 2018

Project number : 1502-602

Type of funding : AAP

Project type : AAP MOBILITE

Research units in the network : MOISA LEPSE

Start date : 2018-05-02

End date : 2019-03-31

Flagship project : no

Project leader : BELHOUCETTE Hatem

Project leader's institution : CIHEAM-IAMM

Project leader's RU : SYSTEM

Budget allocated : 20000 €

Total budget allocated (including co-financing) : 20000 €

Funding : Labex