Università
Ca'Foscari
Venezia

PROJECT ACRONYM AND TITLE: **WATER DROP - Droughts and Water Scarcity in the EU: Economic Impact, Adaptation, Policy Implications and Integrated Assessment Modelling**

FUNDING PROGRAMME: **HORIZON 2020**

CALL: **H2020-MSCA-IF-2015-EF – Marie Skłodowska-Curie Individual Fellowships – European Fellowship**

SCIENTIFIC FIELDS: Macroeconomics, Environmental regulations and climate negotiations, Natural resources and environmental economics, Econometrics, statistical methods

HOST DEPARTMENT: **DAIS - Department of Environmental Sciences, Informatics and Statistics**

FELLOW: **David Garcia-Leon**

SCIENTIFIC RESPONSIBLE: **Antonio Marcomini**

FINANCIAL DATA:

Project total costs	Overall funding assigned to UNIVE
€ 168.277,20	€ 33.369,30

ABSTRACT:
Drought risks and water scarcity are expected to intensify as a result of human-induced climate change. Some areas in Europe, notably the Mediterranean countries are more prone to prolonged drought spells than others. Understanding and properly measuring the overall and sector-wide economic impact of those episodes at the geographically most disaggregated level is of crucial importance for the design of disaster risk management instruments and other policyrelated issues. At the same time, it becomes necessary to assess whether this response varies over time. In other words, we need to know whether we are somehow adapting to climate change. Adaptation in the context of climate change is a concept that raises many questions: empirical estimates are scarce and highly desired by scientists and institutions like the IPCC; how this adaptation mechanism can be embedded into economic models of climate change is also an unresolved issue. I will try to address both in this project. The objective of my research is twofold: on the one hand, obtain quantitative measures of the economic impact of droughts and test for the existence of adapting behavior and, on the other hand, respond the demands of the IPCC that urge for progress in the integration and modelling of adaptation into climate-economy models. To do so, in a first stage I will apply econometric techniques envisaged by the new climate-economy literature to regional, European-wide data to obtain estimates of the economic consequences of droughts and unveil potential adapting behaviour. Then, I will resort to sophisticated climate-economy models, like CGE and IAM models, to shed light into the modelling of adapting behaviour under deterministic and stochastic scenarios.

Planned Start date	Planned End date
1st May 2018	30th April 2019

CURRENT BENEFICIARY:

1	Università Ca' Foscari, Venezia	Italy	Beneficiary

FORMER HOST INSTITUTION:

2	Fondazione ENI Enrico Mattei	Italy	Former Beneficiary
3	Joint Research Centre	Italy	Hosting Secondment