models (LPJ-GUESS, LPJmL, ORCHIDEE and DSSAT), climate datasets, GCM output and bias correction/downscaling techniques.

"Methods of management with processes and resources in organizations and the economy" ,"Application of water saving irrigation and fertigation systems in plants cultivation"

Waldemar Bojar (University of Technology and Life Sciences); *Jacek Zarski (University of Technology and Life Sciences)*

The first research project concerns methods of management with processes and resources in organizations and the economy. In order to address socio-economic problems, methods for evaluating the way in which natural resources are globally utilised in the face of the adverse effects of climate change must be developed. Previous findings of the project MACSUR allow to formulate the hypothesis that the method developed in UTP integrated with models of MACSUR partners is useful to assess the impact of climate change on food security in the context of growing economic risks in agricultural production. Verified hypothesis allows us to expect a common understanding on the assessment of the impact of climate change on food security in the light of the growing threat of food production. The second research project is to assess the feasibility and effectiveness of the system of drip irrigation in the cultivation of selected crops in the area of particularly large water shortages . Field studies are carried out in parallel on two soil types in the Research Centre of the University of Technology and Life Sciences near Bydgoszcz. The results confirm the possibility of a significant increase in productivity of irrigated plants on very light and light soils. The most important result of the synergistic relationship of this project to MACSUR project can be economic evaluation of the cost-effectiveness of surveyed plants under conditions of increasing drought probability. The results will be presented to stakeholders - agricultural producers , which will confront their usefulness in the management of farms.

A computable general equilibrium assessment of Spain's greenhouse gas emissions policies and abatement options

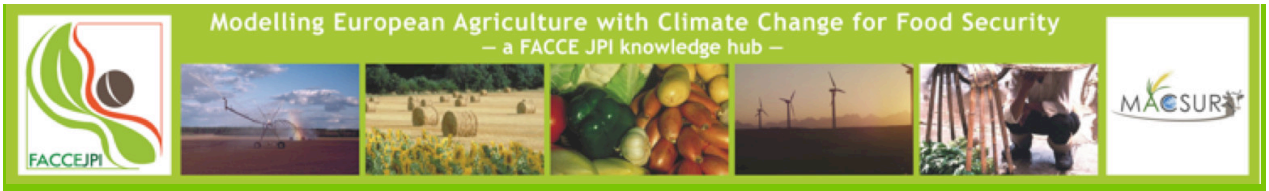
Michael Bourne (Centro de Investigación y Tecnología Agroalimentaria (CITA), Zaragoza, Spain.); *George Philippidis (European Comission Joint Research Centre, Seville, Spain.)*

Employing a recursive dynamic computable general equilibrium (CGE) model of the Spanish economy, this study aims to characterise the potential impact of Kyoto and European Union environmental policy targets on the Spanish economy up to 2020, with a focus on the agricultural sector. The model code is modified to characterise the emissions trading scheme (ETS), emissions quotas and carbon taxes, whilst emissions reductions are applied to all six registered greenhouse gases (GHGs). As extensions to this work, the study attempts to integrate the use of 'Marginal Abatement Cost' (MAC) curves for emissions reductions within the agricultural sector, and econometric estimates of the effects of global warming on land productivity in Spain.

TradeM planning session of pilot studies

Floor Brouwer (Wageningen UR); *Franz Sinabell (WIFO)*

TradeM will organise a session to plan for the three regional pilot studies. Focus will be on the expected outcomes until early 2015 (e.g. progress in farm modelling, andother scientific advancements – uncertainty, model integration). In addition to the planning of the regional pilot studies for the remaining year in MACSUR, we will also elaborate proposals for the years 2015-2017. Moreover, the session will enable research groups to present and discuss their plans for cross-theme investigations.



FACCE MACSUR Mid-Term Scientific Conference

'Achievements, Activities, Advancement'

April 1-3(+4), 2014

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