



Climate change impact in the European ENSEMBLES project

A.P. Morse

Department of Geography, University of Liverpool, Liverpool, L69 7ZT, U.K.
(A.P.Morse@liv.ac.uk / Fax: +44 151 794 2879 / Phone: +44 151 794 2866)

The ENSEMBLES project is a EC FP6 5 year integrated project.

The project aims to

1. Develop an ensemble prediction system for climate change using global and regional Earth System models developed in Europe, to produce a probabilistic estimate of uncertainty in future climate at the seasonal to decadal and longer timescales.
2. Quantify and reduce the uncertainty in the representation of physical, chemical, biological and human-related feedbacks in the Earth System
2. Maximise the exploitation of the results by linking the outputs of the ensemble prediction system to a range of applications, including agriculture, health, food security, energy, water resources and insurance.

This paper will introduce the three ensemble modelling systems used to produce global climate change simulations, European regional climate change simulations and global seasonal to decadal predictions. The progress in producing these data sets will be discussed.

ENSEMBLES has a significant impacts modelling community working with the climate model inputs. Examples of the work undertaken by some of these groups will be presented. Issues that need to be addressed for the impacts community e.g. down-

scaling will be mentioned.

Future plans to use the same impacts models or methods between the climate model streams to allow the verification of application for climate change by running them with verifiable seasonal scale climate model data sets will be discussed.