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Project acronym: ENSEMBLES

Project title: ENSEMBLE-based Predictions of Climate Changes and their Impacts

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Thematic Priority: Global Change and Ecosystems

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Preliminary assessment of the Asian Summer Monsoon simulation

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Organisation name of lead contractor for this deliverable: INGV

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Dissemination Level		
PU	Public	x
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the Consortium (including the Commission Services)	

Preliminary assessment of the Asian Summer Monsoon simulation

The Asian summer monsoon is a complex phenomenon and despite all the studies focused on it, it is still not completely understood. A very important step in the analysis of the Asian monsoon and its characteristics has been the Atmospheric Model Intercomparison Project (Gates, 1992) where a set of experiments forced with observed SST from 1979 to 1994 has been built with different AGCMs. The analysis of those experiments revealed that the simulation of the basic aspects of the monsoon needs further improvements, and that only few models are able to capture the fluctuations between good and poor monsoon seasons in a realistic way (Sperber and Palmer, 1996).

In the framework of the ENSEMBLES FP6 project a preliminary assessment of the Asian summer monsoon simulation has been done focusing on: the sensitivity of the simulation to the horizontal resolution of the atmospheric model, the comparison between AMIP-type experiments and coupled model simulations, the evaluation of the use of time-slice experiments.

Publications related to those topics are listed below:

Cherchi, A and A. Navarra, 2007: Sensitivity of the Asian summer monsoon to the horizontal resolution: Differences between AMIP-type and coupled model experiments, *Climate Dynamics*, 28, 273-290.

Douville, H, 2005: Limitations of time-slice experiments for predicting regional climate change over South Asia; *Climate Dynamics*, 24(4), 373-391.