WorkBlock 5: Feedbacks between Hydrology and Climate

Major Milestones for the full project duration

Work package	Mile-stone	Date* month	Description	Relevance to policy makers
WP5.1	M5.1-1	6	Obtain data on soil moisture and fluxes for process studies	Gather available data on soil moisture and soil fluxes to be used in this study.
WP5.3	M5.3.1	6	Agree areas to be studied for impact of irrigation	Select a region in the world that relies on irrigation and would be impacted by changes in irrigation practices. The Indian subcontinent has been selected for this investigation
WP5.1	M5.1-2	12	Initial maps of evaporation from combined GSWP, ERA-40 and NCEP	Gather available maps developed from other projects, notably GSWP, ERA-40 and NCEP
WP5.1	M5.1-3	12	Obtain new data (from satellites, catchment data etc.) to constrain evaporation maps	Gather available and new data from a variety of sources (e.g. satellite data, observational data) to define maps of global evaporation.
WP5.1	M5.1-4	12	Obtain ERA-40 data for atmospheric analysis.	Acquire data from the global reanalysis project (ERA-40) to use in evaporation analysis
WP5.1	M5.1-5	12	Initial 'strawman' correction map available	Develop a simple map to identify areas of weakness in the map on evaporation, and where to focus the work effort
WP5.2	M5.2-1	12	Link up different representations of plants to the land surface schemes and existing 20th century analysis system.	Include different plants by differing key parameters into the models to assess whether the affect is statistically significant using historical data.
WP5.2	M5.2-2	18	Define process-representation experiments for modelling Northern Europe	The model MOSES (EU BALACE project)will be used to explore feedbacks from snow, vegetation and soil processes and their impacts on the water cycle components of the Boreal Zone
WP5.3	M5.3.2	18	Representation of land-use change obtained from AMMA studies	Quantify the impact of land cover change on the water cycle in the Sahel.
WP5.3	M5.3.3	18	Methods to include irrigation in land surface schemes is agreed	A new irrigation model is to be developed to be run with and without irrigation and the method for this will be decided.
WP5.1	M5.1-6	24	Final map of evaporation available	Produce a final detailed map of global surface evaporation
WP5.2	M5.2-3	24	Run global 20th century analysis system with new land surface schemes and compare the results.	Plant functioning and improved global meteorological driving data (20th Century) will be used to run the model and assess overall feedbacks of the

* Project started 02/2007 all months are counted from this starting date

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				Climate system and water cycle
WP5.2	M5.2-4	24	Run present day climate for Northern Europe with different process representations.	The model MOSES (EU BALACE project)will be run with different orientations such as snow, soil freezing, wetlands, peat soils
WP5.1	M5.1-7	36	Map of feedback hotspots	To build a picture of the location and strength of global feedback hotspots across the globe. Creating a new correction map to allow feedbacks to be supplied into the water resources analysis of WorkBlock 6.
WP5.2	M5.2-5	36	Collate feedback of ecosystems on the global water cycle	Interactions between ecosystem processes and the climate and how these affect the water resources.
WP5.3	M5.3.4	36	Collate feedbacks from land cover change on the global water cycle	The impact of feedbacks in the global water cycle of changes in the land-cover (irrigated land and increases in cultivated land in sensitive areas).
WP5.1	M5.1-8	39	Final map of correction factors available	A map of the adjustment factors for assessing feedbacks