SPECIAL PROJECT PROGRESS REPORT

Progress Reports should be 2 to 10 pages in length, depending on importance of the project. All the following mandatory information needs to be provided.

Reporting year	2016/2017………………………………………….……
Project Title:	Coupling and feedbacks between soil moisture and two dominant monsoon systems for present and future climates…………………………………………….……
Computer Project Account:	spsemay……………………………………………….……
Principal Investigator(s):	Wilhelm May…………………………………………….……
	…………………………………………………………….……
Affiliation:	Centre for Environmental and Climate Research, Lund University……………………………………………….……
Name of ECMWF scientist(s) collaborating to the project (if applicable)	…………………………………………………………….…… …………………………………………………………….……
Start date of the project:	1.1.2017…………………………………………….……
Expected end date:	31.12.2019…………………………………………….……

Computer resources allocated/used for the current year and the previous one
(if applicable)
Please answer for all project resources

		Previous year		Current year	
		Allocated	Used	Allocated	Used
High Performance Computing Facility	(units)			6,000,000	85,000
Data storage capacity	(Gbytes)			15,000	48

Summary of project objectives

(10 lines max)

The overall objective of the project is to investigate the role of soil moisture for the variability of two of the most dominant monsoon systems, i.e., the West African Monsoon (WAM) and the Indian Summer Monsoon (ISM), for present-day and future climate conditions. In particular, the project will investigate the physical processes governing the coupling and feedbacks between soil moisture and the two monsoons and assess the contributions of the future changes in soil moisture to the overall future changes in the variability and the mean state of these monsoons in response to the projected increases in the anthropogenic climate forcing.

Summary of problems encountered (if any)

(20 lines max)

The finalization of the new version (v3.n) of the EC-Earth climate model, in particular the coupling to the LPJ-Guess dynamical vegetation model, has been delayed. Furthermore, the work with implementing a nudging of the land surface variables in EC-Earth has turned to be cumbersome due to the complexity of the model code.

Summary of results of the current year (from July of previous year to June of current year)

The code of the EC-Earth (v3.2) climate model has been installed on cca and short test runs have been undertaken, both with the uncoupled version (AGCM) and the AGCM coupled to LPJ-Guess (AGCM-Veg). Furthermore, the implementation of a nudging procedure for the land surface variables in EC-Earth has been started.

List of publications/reports from the project with complete references

Not yet.

Summary of plans for the continuation of the project

(10 lines max)

EC-Earth (v3.n) will be updated, when the new version is finalized. Furthermore, the implementation of a nudging procedure for the land surface variables in EC-Earth will be finalized and first runs with the special model version including the nudging of the land surface variables will be undertaken.