

# SPECIAL PROJECT PROGRESS REPORT

All the following mandatory information needs to be provided. The length should *reflect the complexity and duration* of the project.

**Reporting year** 2020

**Project Title:** Land Management for Climate Mitigation and Adaptation (LAMA CLIMA)

**Computer Project Account:** .....

**Principal Investigator(s):** Dim Coumou  
.....

**Affiliation:** VU Amsterdam

**Name of ECMWF scientist(s) collaborating to the project** .....  
(if applicable) .....

**Start date of the project:** 1-09-2019

**Expected end date:** 1-09-2022

**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
<b>High Performance Computing Facility</b>	(units)			9.0 M	8.6 M
<b>Data storage capacity</b>	(Gbytes)			20000	0

## **Summary of project objectives** (10 lines max)

LAMACLIMA studies the coupled Land-Climate-Land-Management effects that are very relevant for future climate mitigation and adaptation efforts. LAMACLIMA will investigate the local and remote biogeophysical and biogeochemical effects of three key changes in LCLM (re/afforestation, irrigation and wood harvest) on climate and their implications for several sectors (agriculture, water availability, forestry and economic productivity). This will be achieved by comparing the results of coordinated sensitivity experiments with three Earth System Models (ESMs) including EC-Earth coupled to LPJ-GUESS. For the EC-Earth-LPJ-GUESS simulation runs we would like to request compute time at the ECMWF's HPC.

## **Summary of problems encountered** (10 lines max)

None

## **Summary of plans for the continuation of the project** (10 lines max)

The first control experiment has been completed successfully. Now we are starting with the sensitivity experiments (re/afforestation, irrigation, wood harvest) for which additional compute time is needed

## **List of publications/reports from the project with complete references**

None yet

## **Summary of results**

If submitted **during the first project year**, please summarise the results achieved during the period from the project start to June of the current year. A few paragraphs might be sufficient. If submitted **during the second project year**, this summary should be more detailed and cover the period from the project start. The length, at most 8 pages, should reflect the complexity of the project. Alternatively, it could be replaced by a short summary plus an existing scientific report on the project attached to this document. If submitted **during the third project year**, please summarise the results achieved during the period from July of the previous year to June of the current year. A few paragraphs might be sufficient.

The first control simulations has completed successfully (160 years of coupled model runs). Scientific outcomes will be analysed as soon as the sensitivity experiments have been completed.