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	2023…………………………………………….……
Project Title:	The role of forest management and land-use changes for anthropogenic climate forcing…………………….……
Computer Project Account:	sre……………………………………………….……
Principal Investigator(s):	Wilhelm May……………………………………….……
Affiliation:	Centre for Environmental and Climate Science, Lund University……………………………………….……
Name of ECMWF scientist(s) collaborating to the project (if applicable)	Not applicable……………………………….…… ……………………………………………….……
Start date of the project:	1.1.2023……………………………………….……
Expected end date:	31.12.2025……………………………………….……

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)	0	0	2,000,000	0
Data storage capacity	(Gbytes)	70,000	49,000	100,000	51,000

Summary of project objectives

The purpose of the project is to assess the role that forest management and land use change play for anthropogenic climate forcing by considering both the terrestrial carbon balance that affects the atmospheric concentration of CO_2 (biogeochemical effects) and the state of the vegetation that affects albedo, roughness length and evapotranspiration (biophysical effects). This will be done by means of the LPJ-GUESS terrestrial ecosystem model and the EC-Earth earth system model, which incorporates LPJ-GUESS to simulate the terrestrial ecosystems.

Summary of problems encountered

Due to time constraints, I have not been able to start with the modelling work yet. Also, I am hesitant about technical difficulties with installing the LPJ-GUESS model on the hpc.

Summary of plans for the continuation of the project

After the summer the work with the LPJ-GUESS model start: First the installation of the model (which might require some support from ECMWF with the software needed), then some tests of different configurations and eventually some first experiments. The work with a new version of the EC-Earth model (that is under development) will not start before mid-2024.

List of publications/reports from the project with complete references

Not applicable, as the work with installing the LPJ-GUESS model and the simulations has not started yet.

Summary of results

There haven't been any results obtained during the first half of this year, as the work with the LPJ-GUESS model (installing as well as setting up experiments and performing simulations) has not started yet.