

# Annual report for SNS research projects

Submit the report before March 1<sup>st</sup> to: [sns@slu.se](mailto:sns@slu.se)  
 The report should not exceed 1500 words (including words in the template).

1. Project title:	<b>Improving simulation tools for assessing the long-term responses of forest carbon storage to forest management alternatives in Nordic countries</b>
2. Reporting year:	<b>2017</b>

3. Project coordinator:	Prof. Jari Hynynen
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## Activities during the reporting year:

4. Description of the activities during the reporting year:
<p>Data processing and modelling:</p> <p>During the second year of the project, 2017, datasets collected by the project partners (Norway (NIBIO), Sweden (SLU), Finland (Luke)) were analysed and harmonized, and were included in a common database so that they can be used as a pooled data for modelling. Lots of efforts were used to harmonize calculation principles (e.g. temperature sums) and classifications (e.g. forest site types).</p> <p>In modelling, models predicting natural mortality were elaborated. A set of models include Models for predicting a) occurrence of mortality in a stand, b) amount of stand-level mortality, and c) allocation of stand-level mortality to trees. The contributions for most of the data processing and modelling were done by the Finnish partners (at Luke) partly with the help of external funding from Luke.</p> <p>Meetings:</p> <p>The second workshop of the project was arranged in Norway at September 12-13, 2017. Workshop II addressed mortality modelling efforts within focusing modelling data, modelling approach, and methodology. In addition, time schedule for the work, next project group meetings and workshop were on the agenda. The presentations concerned both the data and mortality modelling in this project. Some voluntary presentations were also given. In order to complete the the modelling stage in time, efforts were focused solely on research activities. It was agreed that in the last year of the project (2018) focus of the seminar and workshop will be in involving young researchers and PhD students into the activities.</p> <p>In 2017, four online-meetings and a few smaller group-discussions were arranged during the year.</p>

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### Place and date for the activities:

5. Activity	Place (country) for the activity	Duration (date)
Workshop II	Norway	12. - 13.9.2017
Online-meetings	Online (Finland, Sweden, Norway)	29.9.2017 27.11.2017 3.11.2017 (1.12.2017)
Other meetings	Finland	9.3.2017, 5.9.2017, 28.9.2017
Data processing	Finland, Sweden, Norway	Jan.2017 - Dec.2017
Modelling	Finland	Aug.2017 - Dec.2017

### 6. Project status

- Does the project develop according to the research plan? Please elaborate.
- Does the project deviate from the plan? Please elaborate.

Focus of the activities in 2017 was on harmonization of data, completing the database, and development of mortality models using pooled data from the three countries. The activities during the second year of the project proceeded as estimated last year (slightly delayed when compared to the original project schedule). The modelling proceeded more slowly than expected, mainly due to the difficulties in harmonization of data. Some data variables were difficult to combine, and recalculations and re-classifications were needed. Very large dataset of the combined National Forest Inventory (NFI) data needed also a lot computer-time in model-processing.

Due to delayed data management and modelling efforts, project is ca 3 months behind the planned schedule. Mortality models will be completed by mid March 2018. Models were already incorporated into Finnish Motti system for during the model testing, and they will be programmed in Heureka during the spring 2018. Scenarios planned to be carried out during the winter and spring of 2018 will be started late spring, and completed by September 2018. Third workshop was agreed to be held in Sweden in September 11-12.

**Results during the reporting year:**

7. List the published outputs during the reporting year (peer-reviewed articles, other publications):

No publications were completed in 2017. Writing of a manuscript concerning modelling was started. Workshop presentations and other material was delivered to all participants.

8. Other practical outputs during the reporting year (e.g. websites, policy recommendations, conferences, large-scale project applications etc.)

None.

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### 9. Economic overview for the reporting year

Received grant from SNS for the reporting year:	Specify currency:
125 000 SEK = 12 713,48 EUR (17.5.2017) and 125 000 SEK = 12 410,89 EUR (20.2.2018)	Total 250 000 SEK = 25 124,37 EUR

Costs. Please report costs without VAT.

	SNS funding	External funds	Total
Travel and hotel	15 621 SEK (1 569,88 EUR)		
Meeting costs			
Communication			
Consumables			
Salary	74 070 SEK (7 443,85 EUR)	503 000 SEK (50 625 €)	
(Other costs (specify below))			
<b>Total SUM</b>	<b>89 691 SEK</b> <b>9 013,73 (EUR)</b>	<b>503 000 SEK</b> <b>(50 625 EUR)</b>	<b>592 691 SEK</b> <b>(59 563 EUR)</b>

Transfer of SNS funds to project partners

Sum	Receiver of (partner) and reason for transfer

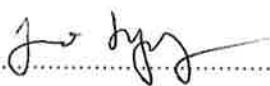
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### Comments to the economic overview:

Due to intensive research work on modelling, salaries were according to plan, but travelling and meeting budget was notably less than planned. Workshop in Norway was smaller than originally planned. The focus was on methodological data and modelling issues, and no young researchers were invited. Further online meeting with Skype were favoured. Therefore, actual budget for 2017 was notably less than planned. The saving from 2017 are planned to allocate on final workshop in 2018. We aim to arrange a seminar focusing on the results of our work, and invite young researchers and stakeholders to this event. In addition in 2018 another face-to-face project group meeting will be arranged in order to agree the details of scenarios to be carried out during the summer and early autumn of 2018.

**I hereby declare that the above statements are true to the best of my knowledge**

Signature of the project coordinator



(Signature)

Luke

(Institution)

28/02/2018

(Day / Month / Year)

Signature of head of research institution



(Signature)

Luonnonvarakeskus (Luke)

(Institution)

1.3.2018

(Day / Month / Year)

Mari Walls, President and CEO

(Printed name, function)