Report for annual networks

Submit the report to sns@slu.se by 24:00 CET, 1st of March the year after the network period.
The report should not exceed 2000 words.

Please adjust the size of the boxes to the length of your answer.

1. Title of the network:	Advancing the dialogue on pathways towards sustainable development for forest landscapes: research, monitoring and governance
2. Network number:	N2020-06

3. Main applicant:	Inge Stupak
Email:	ism@ign.ku.dk
Address:	Department of Geosciences and Natural Resources, Rolighedsvej 23, 1958 Frederiksberg C, Denmark

Activities

4. Place of the activities:	Online, Zoom
Duration of the activities (start date, end date):	12, 13, 26,and 27 October 2021, 14-18 EEST

5. Provide a short network summary, including:

a) The purpose of the network/main problems/background

Wood raw materials and products are being traded across continents with the sustainability of these raw materials being of global importance. The Nordic and Baltic countries and the United States and Canada are among largest wood exporting countries, including wood for energy, even if major sourcing potentials also exist in other European countries. The legality and sustainability of the European wood markets is governed by forest laws and forest certification, but the increasing use of wood for energy has given rise to an additional layer of governance via the energy sector. Such governance include national legislation, e.g. in Denmark, forest biomass certification systems, and requirements in the EU Renewable Energy Directive. In this environment, it is critical that a large diversity of actors communicate, build up networks and share experiences across landscapes and borders to avoid conflict and trade barriers. Hence, the aim of this network was to build community across borders through a dialogue on which structures, collaborations, monitoring and knowledge are needed to continue moving towards more sustainable development of the boreal and temperate forest landscapes in northern and eastern Europe and North America.

b) A description of the main activities of the network

A road-tour and a meeting in the Baltic states were converted to an online workshop with four separate sessions of each 4 hours, due to the pandemic. The four sessions took place on 12, 13, 26 and 27 October 2021. Additionally, the partners compiled a series of videos on forestry and the use of wood for energy in the participating countries, as information to underpin the workshop. A series of five videos with virtual field tours were created in Latvia specifically for this network, as a replacement of the field tour originally planned to take place in Estonia, Latvia and Lithuania.

Outcomes

6. Published outputs achieved as a consequence of the network (peer-reviewed articles, other publications)

Apart from the popular science piece under (9), the network produced a policy brief with conclusions from the online workshop sessions, which was based on a summary of key messages elaborated by the planning committee, see presentation, 27. October 2021. Additionally, SNS was provided with materials for social media posting.

7. Other practical outputs of the network (workshops, conferences, scientific meetings, policy recommendations, conferences, large-scale project applications, websites or databases etc.)

- Four four-hour long online workshop sessions taking place on 12, 13, 26 and 27 October 2021, each with 60-80 participants.
- Video recordings of the workshops.
- Presentation slides (12. October, 13. October, 26. October, 27. October).
- "Virtual field tour" compilation, including a tour in Latvia with a map and five new videos that are published on the SNS project websites.
- Project websites (KU IGN, SNS N2020-06, IEA Bioenergy).

8. How and within which areas was the network beneficial for the Nordic region (Denmark, Finland, Iceland, Norway, Sweden and the autonomous areas of the Faroe Islands, Greenland and Åland Islands)?

The network has benefitted the Nordic Region through creation of an online platform that was applied for dialogues on sustainable forestry and forest bioenergy among the Nordic and Baltic countries, Romania, Canada and the USA, and the wider global community. A range of materials were created, which can form a basis for continued Nordic and global dialogues on the topic, and as a basis for other joint Nordic and international activities, communication, teaching and creation of mutual understanding. The areas addressed include national level monitoring and initiatives to ensure sustainable forest management, and adequate forest protection and conservation (12 October); use of certification systems to document the sustainability of domestic and international forest bioenergy supply chains (13 October); methodology to model and assess the climate impact of forest-related activities, including production, harvesting and use of wood for energy (26 October); and the science to underpin on-the-ground best management practices for forest biomass harvesting (27 October).

9. Provide a popular science piece for dissemination in SNS' various channels (maximum 700 words) *with emphasis on application of results and benefits for the Nordic society.*

Provide pictures (size at least 500x500 pixels and resolution at least 72 pixels) as separate files (.jpg). Include caption to each picture, including the name of photographer.

An online workshop was held autumn 2021 to engage stakeholders in discussions of benefits and challenges to governing sustainability of forest management and production, harvesting and use of wood for energy. Presentations from research, consultancy, ministries, businesses, certifications and associations formed the basis for discussions on the following topics:

- 12 October: Sustainable forest management and bioenergy in the Baltic states
- 13 October: Verification of compliance with sustainability requirements for forest bioenergy
- 26 October: How to calculate and model where and when forest bioenergy can help to save carbon emissions?
- 27 October: Research to underpin future policies related to sustainable forest management and wood end-uses

Video recordings are available from the SNS project website. Key messages included the following:

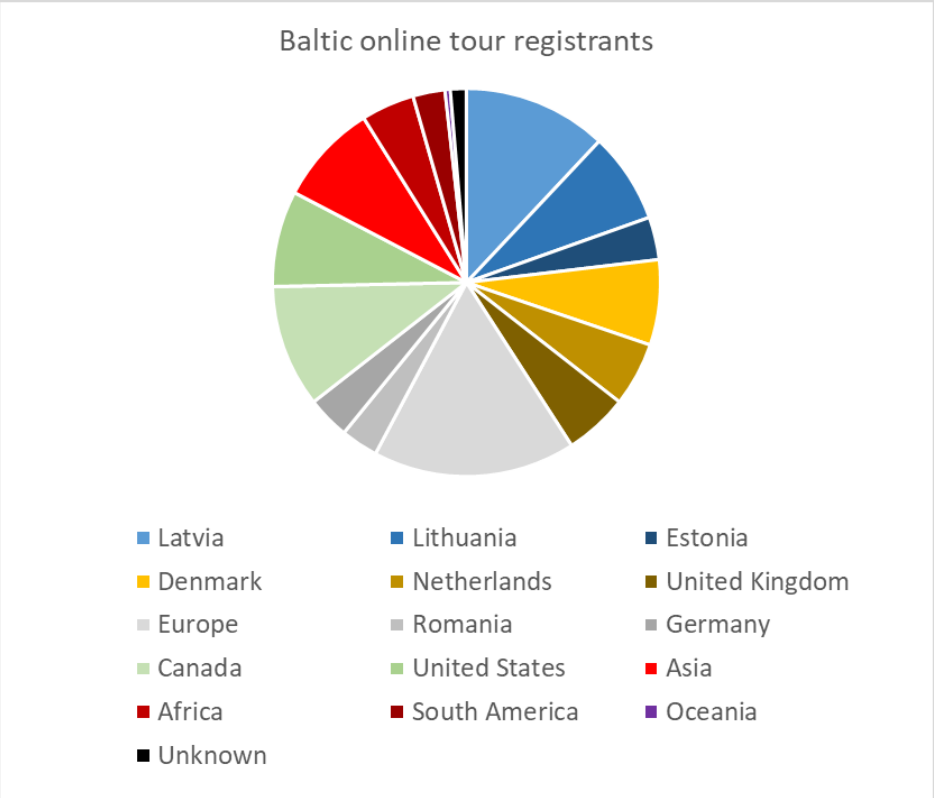
1. **Policy decisions should be based on science and practical experiences** to ensure that the intended impacts are achieved in a timely manner without unnecessary costs and administrative burdens (less opportunism, less opinions without data, less emotionally based decisions).

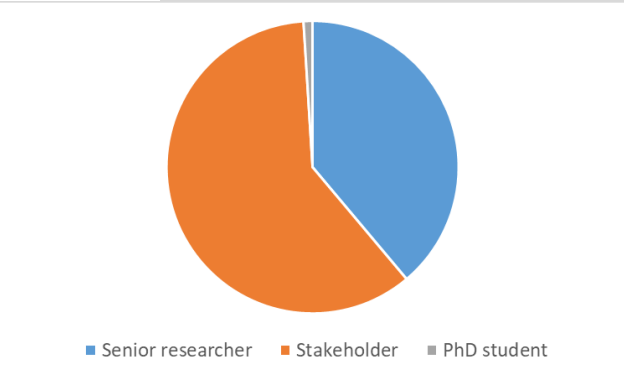
2. **Forest protection strategies and implementation should be improved** to find a balance between protected and non-protected areas and clarify what it means that an area is protected. There is currently confusion among forest owners with what they can and need to do.
3. **Forest protection terminology should be context specific,** for example for "old-growth", "residues", and "stem wood". There is no one-size fits it all. Stem wood as a category include many assortments depending on species, size and quality.
4. **Be aware that protected forests were often created for wood production.** There is lack of knowledge on how to convert managed forest into multi-layered, natural, resilient stands and it will take time. Some experiences may be available from forest agencies.
5. **More knowledge is needed on continuous-cover forestry**. There are challenges with regeneration and root rot and lack of knowledge on implications for carbon stocks and biodiversity.
6. **Previous and current management may already allow for the desired biodiversity**, sometimes including drainage and fertilization. It may even be necessary to ensure the long-term existence of desirable ecosystem features and habitats.
7. **Do not forget social and economic implications for local people in the attempt to solve global problems** with climate and biodiversity. Their management and commitment is more likely a part of the solution than a hindrance.
8. **Top down prescriptive legislation may not be the best tool to achieve various sustainability goals.** Enforcement can be a challenge in specific local conditions and unintended consequences may occur without local judgement. Forest owners are usually closest to the forests and their multiple values.
9. **Desired changes in management practices should be financially incentivized** if they lead to loss of income. Consider use of market instruments such as payment for ecosystem services. Start by working with the most interested forest owners.
10. **It is hard to imagine transition to renewables in the near future without significant use of forest-based bioenergy,** as it plays a significant role in many countries' renewables energy portfolio.
11. **Unutilised potential wood resources are available,** for example broadleaf stands in Lithuania of low wood quality and low biodiversity value, or logging residues in Latvia, but there are limits to how much the harvesting can be increased.
12. **Local end-use of forest biomass provide good opportunity to check the sustainability of the supply base**. Sourcing takes place within a distance of about 100 km.
13. **Forest carbon modelling is critical to formulation of effective forest and climate policies.** It is critical to understand possible trade-offs between carbon storage and substitution effects, and impacts of conversion to continuous-cover and set-aside forests. More work is needed for models to better simulate developments in different conditions.
14. **Policy–science dialogues** are important to keep regulatory frameworks relevant in complex and dynamic realities, integrate regulatory frameworks of different sectors, and bridge the gap between specific scientific knowledge and policy needs to generalize.
15. **Develop Best Management Practices** to help make high-level more stable sustainability criteria relevant in local conditions.
16. **Ensure a high quality of the information basis**. Continue to correct misconceptions and use anecdotal evidence. Apply responsible conduct of research, systematic review, and monitoring and evaluation system.

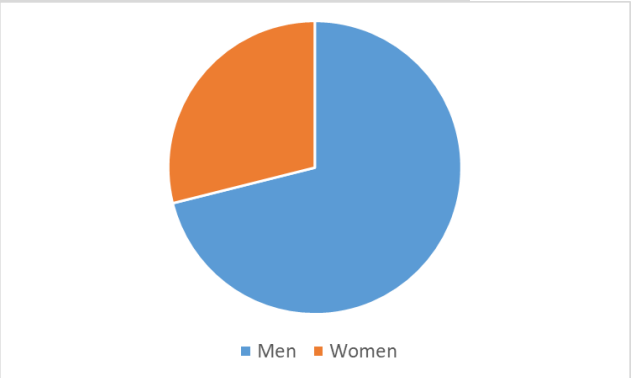
Participation and inclusion in the network activities

10. Participants								
Country	PhD students & Post-docs	Other researchers	Stakeholders	Communication officers	Gender			Total
					Women	Men	Other	
Total	3	87	135	-	60	160	-	225

In total, 225 people registered for the workshop, with 149, 160, 183, and 162 people having registered for sessions on 12, 13, 26, and 27. October 2021, respectively. The approximate geographical, category and gender breakdown of the registrants is shown in the graphs below. At the day of the event, each of the four sessions had about 60-80 participants. We do not know how many that might have streamed the workshop videos afterwards.







Economic report

11. Received grant from SNS (SEK):
135,000 SEK

12. Costs	SNS funding	Co-financing	Total
Travel and hotel	-	-	-
Meeting costs	-	-	-
Salary	Not allowed	315,000	315,000
Communication	135,675	67,500	203,175
Other costs	-	-	-
Total SUM (SEK)	**135,000**	**382,500**	**518,175**

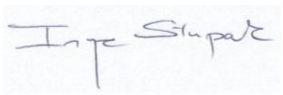
13. Allocation of SNS funding		
Country	**Partner organization**	**% of total**
Denmark	University of Copenhagen	74.1%
Latvia	Latvian State Forest Research Institute "Silava"	25.7%
Total SUM		**100%**

14. Economic result (deficit or surplus)
-

Optional: Comments to the economic reporting
This annual network was originally meant to arrange a tour with field excursions and meetings through the three Baltic countries in May 2020, with the aim to discuss sustainable forest management and production, harvest and use of wood for bioenergy, including methodology to assess the carbon and climate impacts. Due to the pandemic the workshop was changed to online workshop which took place in the autumn 2021. It meant that the funding originally intended for travel, hotel and meeting costs of partner organisations and speakers were used at University of Copenhagen and Latvian State Forest Research Institute "Silava" for communication activities, including recording of videos with "virtual field tours" in Latvia. The co-funding is salary for the time spent by all partners to arrange, and participate in and contribute to the scientific work around the workshop, as well as additional non-scientific work by the network coordinator.

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

Signature of the main applicant



Department of Geosciences and Natural Resource Management, University of Copenhagen	23.03.22
Organization	*Date*

Signature

Inge Stupak

Printed name

Signature of the department head at the department of the main applicant

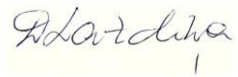
Department of Geosciences and Natural Resource Management, University of Copenhagen	23.03.22
Organization	*Date*

Signature

Vivian Kvist-Johannsen

Printed name

Second applicant's signature, place and date		
	Norwegian Institute of Bioeconomy Research	23.03.22
Signature	*Organisation*	*Date*
Nicholas Clarke ---------- Printed name		

Third applicant's signature, place and date		
	Latvian State Forest Research Institute "Silava"	23.03.22
Signature	*Organization*	*Date*
Dagnija Lazdina ---------- Printed name		

UNIVERSITY OF COPENHAGEN
DEPARTMENT OF GEOSCIENCES AND NATURAL RESOURCE MANAGEMENT

Nordic Forest Research (SNS) secretariat

18 MARCH 2022

ROLIGHEDSVEJ 23
DK-1958 FREDERIKSBERG C
DENMARK

DIR 45 35 33 16 99
MOB 45 20 30 09 69

vkj@ign.ku.dk
ign.ku.dk

Documentation of costs for communication and hosting the online workshop sessions under the annual SNS network N2020-06 "Advancing the dialogue on pathways towards sustainable development for forest landscapes: research, monitoring and governance"

The costs related to the hosting of the online workshop sessions are specified below, resulting in the overall accounts (SEK):

Costs of communication and hosting of online workshop	SNS funding	Co-financing	Total
Total	135.675	67.500	203.175

The specification of the costs of communication and hosting of the online seminars are given in the appendix.

Yours sincerely,

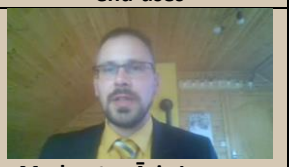
Vivian Kvist Johannsen
Senior researcher, Head of section

		SNS funding			Co-funding			Total	
Person/Institute	**Task**	**Hours**	**Hourly rate**	**Amount**	**Hours**	**Hourly rate**	**Amount**	**Hours**	**Amount**
SILAVA	Recording of new virtual field tours		-	34,675				-	34,675
Anette Bill-Jessen, IGN, KU	Setup of an event landing page, including upload and continuous updates of graphics, workshop information, including e.g. speaker profiles, agenda, and organization information, links to registration page, programs, recorded videos and virtual field tours.	50	500	25,000				50	25,000
Sebastian Nielsen, HUM, KU	Setup of unique registration form, to provide options to register in four non-overlapping sessions, including individualised landing sites. Organization and consultations on technical matters around registration and Zoom.	60	400	24,000				20	8,000
Ida Marie Juliane Raben-Levetzau, HUM, KU	Planning the Zoom parts of the event with the organizers, setup of 4 Zoom webinars/sessions (4 hours of max 500 participants) including dry runs in advance and technical assistance to speakers, panellists just before and during the event, and handling recording of the sessions, and transfer to the organisers.	40	300	12.,00				40	12,000
Inge Stupak, IGN, SCIENCE, KU	Project management of the technical part of the project, before, under and after the event, including elaboration of technical specifications for the whole project, and for the video editing.				120	500	60,000	120	60,000
Inge Stupak, IGN, SCIENCE, KU	Organization and execution of email and social media promotion, including compilation of databases with lists of relevant persons, processing of attendance statistics data.				15	500	7,500	15	7,500
Inge Stupak, IGN, SCIENCE, KU	Secretariat functions, such as layout and set up of programs, and handling power point and pre-recorded presentations before and after the event.	80	500	40,000				80	40,000
Total sum		230		135,675	135		67,500	365	203,175

Overview of links to links to video recording and other materials from SNS annual network N2020-06

Online workshop with virtual field tours in North and Eastern Europe and northeastern America

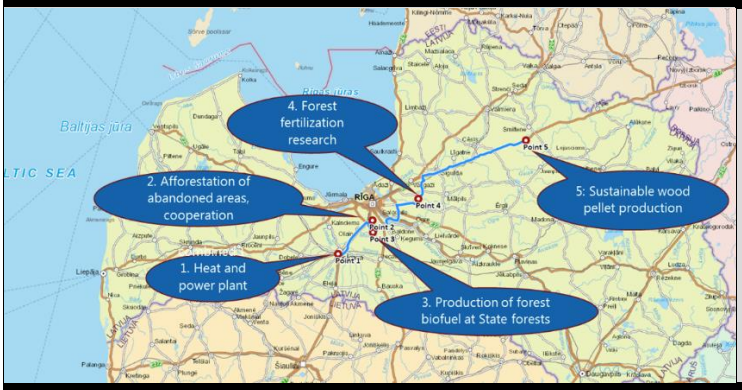
Dialogue on governance to develop sustainable forest landscapes for production of wood for energy and the bioeconomy

Session 1	Session 2	Session 3	Session 4
12 Oct. 2021, 14-18 EEST	13 Oct. 2021, 14-18 EEST	26 Oct. 2021, 14-18 EEST	27 Oct. 2021, 14-18 EEST
Sustainable forest management and bioenergy in the Baltic states	**Verification of compliance with sustainability requirements for forest bioenergy**	**How to calculate and model where and when forest bioenergy can help to save carbon emissions?**	**Research to underpin future policies related to sustainable forest management and wood end-uses**
			
Moderator Meelis Seedre Head of Forest Department, Ministry of the Environment of Estonia	**Moderator Algis Gaižutis, Chairman of the Forest and Land Owners Association of Lithuania**	**Moderator Niclas Scott Bentsen, Associate professor, University of Copenhagen, Denmark**	**Moderator Āris Jansons, Senior researcher, Latvian State Forest Research Institute SILAVA, Latvia**
Program session 1	Program session 2	Program session 3	Program session 4
Presenters' slides	Presenters' slides	Presenters' slides	Presenters' slides

Video recordings of session 1, 2, 3 and 4

Workshop website with further introduction of all moderators, speakers and panelists

Virtual field tour in Latvia



Stop 1. Combined heat and power plant in Jelgava city
Stop 2. Afforestation of abandoned areas and biomass for energy from private forest stands – the role of cooperation
Stop 3. Production of forest biofuel at Joint stock company "Latvia's state forests"
Stop 4. Forest fertilization research program - sustainable management of risks and increase of carbon stocks in forest lands
Stop 5. Sustainable pellet production at SIA Latgan

The virtual field tour videos are available **here**

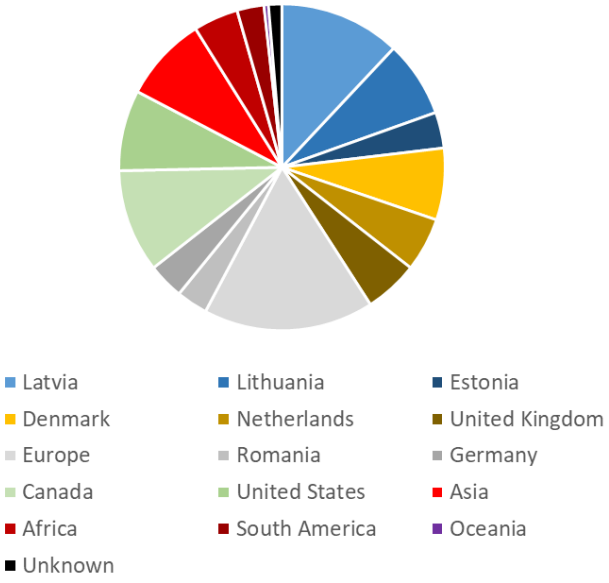
Other associated online materials

Collection of links to "virtual field tours" and other resources on forestry, sustainable forest management and bioenergy in Eastern Europe, Nordic countries and eastern North America **here** (bottom of the webpage).

IEA Bioenergy workshop website	SNS grant N2020-06 workshop website	University of Copenhagen workshop website

Goal: The goal of the network activity was to engage stakeholders and bring them together to discuss the benefits and challenges to governing sustainability within a forest management context, with particular emphasis on forest bioenergy, including calculation and modeling of forest carbon and climate change impacts. The geographic focus was on boreal and temperate forests in Northern and Eastern Europe, and North America.

The audience: The audience was cross-section of forest sector and society involved with and concerned about the governance and documentation of sustainable forest bioenergy and bioeconomy supply chains, for example, forest landowner and owner associations, wood pellet companies, wood chip producers, traders, investors, private, state and federal foresters, forest industry, bioenergy utilities, state conservation organizations, public and private providers of relevant data for verification, academia, NGOs, staff of forestry certification systems and certification bodies, consultants, policy makers, and the general public. The circle diagram shows a country break down of the people registered.



Planning committee: Inge Stupak (coordinator), University of Copenhagen, Denmark, ism@ign.ku.dk, Andis Lazdin, Latvian State Forest Research Institute (SILAVA), Latvia, andis.lazdins@silava.lv, C. Tattersall Smith, University of Toronto, Canada, tat.smith@utoronto.ca, Dagnija Lazdina, Latvian State Forest Research Institute (SILAVA), Latvia, dagnija.lazdina@silava.lv, Dave M. Morris, Ministry of Natural Resources and Forestry (MNRF), Ontario, Canada, Dave.M.Morris@ontario.ca, Diana Lukminė, Lithuanian Research Center for Agriculture and Forestry, (LAMMC), Lithuania, Diana.Lukmine@lammc.lt, Helja-Sisko Helmisaari, University of Helsinki, Finland, Helja-sisko.helmisaari@helsinki.fi, Iveta Varnagiryte-Kabasinskiene, Lithuanian Research Center for Agriculture and Forestry, (LAMMC), Lithuania, iveta.kabasinskiene@mi.lt, Kristi Nigul, Estonian University of Life Sciences (EMU) and HD Forest, Estonia, nigul@hdforest.com, Lars Högbom, SkogForsk, Sweden, lars.hogbom@skogforsk.se, Liviu Nichiforel, Stefan cel Mare University of Suceava, Romania, nichiforel@usv.ro, Nicholas Clarke, Norwegian Institute of Bioeconomy Research (NIBIO), Norway, Nicholas.Clarke@nibio.no, Puneet Dwivedi, University of Georgia (UGA), Warnell School of Forestry & Natural Resources, USA, puneetd@warnell.uga.edu

Organisers:

Disclaimers:

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