Barents Forest Sector Network

17-18 October,

summary notes

18 October 2018

Participants

SE (Staffan Norin, Per Hallgren, Lars Andersson, Peter Blombäck, Göran Sjöberg, Camilla Widmark), NO (Terje Hoel), FI (Tatu Tormianen, Pasi Poikonen), RU (Victoria Zubkova, Andrey Eritsov), invited speakers and guests (Mikael Bergström, Ylva Sardén, Elin Kronkvist, Ellinor Blomberg, Thomas Dahlman, Linda Rosén, Svante Larsson, Hillevi Eriksson, Leif Sandahl)

Agenda items

1. Welcome

Staffan welcomes participants and explains that the purpose of the meeting will be to follow up the meeting in June, with special emphasis on climate change and wildfires. He recalls the 25th anniversary of the Barents cooperation emphasizing that actions are in interaction. He invites participants to briefly present themselves.

Staffan and Pasi recall the important contribution from our colleague and friend Professor Timo Karjalainen who passed away this summer. Staffan invites participants to join in a minute of silence in honour of Timo.

2. Introduction to the programme

Per provides further explanation to the programme.

3. The Swedish Chairmanship of BEAC

The Swedish Chairmanship: Elinor presents an overview of the Swedish priorities for the Swedish Chairmanship. As a background she provides some information on important features of the region, i.e. rich on natural resources, forested, sparsely populated, with vast distances, vulnerable environment and ecosystems, and increasing urbanisation. She makes reference to the Agenda 2030 and its relevance for the Barents cooperation. The Swedish priorities are structured in four dimensions for sustainable development: Environmental, Economic, social and to enhance visibility of the region and the work which is undertaken under the BEAC.

Presentation of the Environmental WG (Elin): Elin explains the background to the work programme and how it is structured. The four subgroups which are the main operatives will be merged into two. She gives some examples of activities of the working group with special emphasis on so called “hot spots”. This is a list of originally 42 major polluted sites which are gradually being excluded from the list as conditions have been improved. Many are related

to pulp and paper industries. In addition several capacity building activities have been undertaken by the group. Another area is the strategy for protection of natural forest. The strategy is not yet adopted. An area that is evolving is impact of tourism on Barents' ecosystems. The 10th Habitat Contact Forum will be organized in Murmansk, Russia, in 2019. With regard to climate change the group fosters enhanced cooperation on both mitigation and adaptation based on regional strategies. Elin also emphasize the climate change action plan which is an umbrella for work under many working groups.

Presentation of the Economic Cooperation WG: Tomas provides a progress report from the WG. The group has been dormant. It is a national WGwith one subgroup (BFSN). He emphasises the contribution made by the BFSN which is one of the most active groups in the BEAC. Currently the focus will be on bioeconomy (in a broad sense). Upcoming meeting is 15 November in Murmansk, Russia. So far two meetings were held during the chairmanship, the latter in Haparanda in June 2018. The meeting agreed on how to conclude a mandate and the work modalities for the WGincluding a road map for future activities. Major thematic focus of the Haparanda meeting was the economic aspects of climate change. Promising full-scale tests of fossil free steel production was presented. Also the work of the BFSN was presented.

Development of the Bioeconomy Network: Camilla recalls the previous discussion to produce a report (review) on the state on bioeconomy in the region. The geographic coverage would be Barents and the Baltic states, Germany, Poland and possibly Iceland. The target group would be people interested in forest and bioeconomy covering policy makers and researchers. It is important to find national correspondents and people that can be engaged in writing the report. Camilla suggests a structure of the report: 1) The Forest in the North, 2) Forest programs, 3) Forest Ecosystem services, 4) Bioeconomy strategies, 5) Forest in circular bioeconomy - goods and services, 6) Forest contribution to sustainability (Synthesis). The aim is to present this at the Forest Forum in 2019. Additional outputs could be policy briefs which are tailored for politicians and other decision makers.

The meeting agreed on the proposed outline and suggested the inclusion of climate change policies/strategies in the review. It was suggested to make a visible place for this in the report pointing out the challenges and opportunities in the region with regard to climate change, and biodiversity. It was also agreed to send the outline for comments to other groups. This would probably raise interest outside BFSN and improve outreach activities. Country representatives were requested to stand ready and support finding authors. Linkages and cooperation with IBFRA should be considered.

Cooperation with the youth working group: Elinor informs about the conference "Youth perspective for the future" in Luleå April 2018. The Conference provided an input to other groups of the BEAC as well as messages to our ministers who will return to this issue by the end of 2019. Mikael provides more information on the outcome of the meeting and the joint working group of youth. He urges BFSN to integrate the youth perspective in its activities.

4. Topics of the day: Adaption to climate change

Background to the topic: Hillevi provides a background to the afternoon session by giving a global context to development of carbon dioxide emissions. Large mitigation measures are needed to meet the +1.5 degree goal. She gives examples of alternative sources which have a potential to replace fossil material, including wind, bioenergy and wood construction. Sweden has been successful in replacing oil with bioenergy in heating. She points out that the climate change will be higher in the north even if an average of 1.5 degrees is met. There will also be an expected increase of precipitation especially in winter. During summer we will have dryer soils. Only marginal changes in winds are expected. The major effects on forestry are increased stormfellings, higher risk for insect damage, increased damage from browsing (higher deer population), higher risk for forest fires (drier soils, high risk for prolonged dryer periods), forest transportation, severe erosion (higher water tables). As regards climate adaptation she emphasized the need for looking forward taking into account a changed climate when establishing new stands. She highlighted examples that the Agency has communicated to forest owners in campaigns and extensions: improved game management, diversified species composition, genetic adaptation, improved planning, fire prevention, and nature conservation.

Tatu asks how Sweden is tackling moose browsing. Hillevi explains the new system which is in place in Sweden to base measures on game monitoring.

Forest fires in Sweden and preventive measures: Svante provides a historical background to the occurrence of forest fires in Sweden. Before the 1800 forest fires were normally recurring with internals of 35 to 100 years. It declined with the increase industrial use of forest from 1900s. In recent years Sweden has had two major forest fire years: In 2014 13 100 ha was affected and in 2018 21 000 ha. The 2018 was less intense leaving some pockets of living trees in the stands. The fires were monitored using satellite images. After the fire in 2014 guidelines for prevention was adopted by the forest sector. The guidelines include planning measures for minimizing risk and impact of wild fires.

Andrey asks about what cause the fires in Sweden. Leif responds that the agency is collecting statistics

Forest protection and forest wild fires in a climate change perspective: Leif focuses in his presentation on the risk management. He explains the distribution of responsibilities among agencies. MSB is the national body coordinating central national and local authorities including international contacts and request for assistance. MSB also compensates municipalities. Most fires are combatted from the ground. In some cases with larger fires in remote locations the use of helicopters, often coming from international assistance, is more common. Most fires (99 %) are smaller, less than 100 ha. The forest owner has to monitor fires after operations. More than 90 % of fires are caused by human activities. Less than 5-10 % are caused by lightning. The need for good information to the public was emphasized.

New technology to facilitate access to information is more and more applied. Also the use of drones could give good tactical information for forest fire fighting. Leif shows different models for estimating risk for forest fire in vegetation and models for making prognosis for lightning. Leif shows that there is a trend of longer period of high and extreme risks during the period 2006-2018. Leif concludes by explaining that we can expect new fire regimes with the possibility of fires in winter.

Andrey asks who carries the cost for international assistance. Leif explains that EU COM contribute some funding. Sweden also pays for some of the assisting countries. Some were offered for free.

5. Country presentations on national or regional strategies or policies concerning adaption to climate change and, more specific, on forest fire management

Finland: Tatu presents Finnish experiences from forest fires. Forest fires are still considered a limited problem in Finland. Tatu shares the historical perspective that was presented from Sweden. Forest fire frequency has remained quite stable, around 1 000-15 000 fires a year. 1 200 ha was burned in 2018 which represents the highest area in the last 10 year period. Average size is 0.6 ha. Factors affecting low forest risk in Finland include low temperature, high moist content in soils, effective silviculture, small size of forest stands leading to a fragmented landscape, dense road networks (13 m/ha), efficient forest fire systems, good cooperation between authorities, and voluntary fire brigade networks. The composition of stand structure has changed in the last century leaving less fuel for forest fires. The landscape also offers quite a lot of natural barriers (waterways, lakes and moist soils). The forest fire system in Finland consists of 1) fire prevention (fire index) 2) Early warning systems (satellite based), 3) effective rescue work (network of 850 fire stations of which 50 % in voluntary fire brigades). Metsähallitus (state forest) is obliged to support. Airplane surveillance is voluntary and financially supported by the state.

Hillevi asks who is responsible for coordination from national level. Tatu answers that there is coordination between authorities.

Lars asks about national policies for climate change. Tatu gives example on national plans for climate adaptation. This will also be included in the revision of the National Forest Programme. Tatu presented examples of ongoing actions including guidelines for forest management, tree breeding programmes, and programmes on diversification of forest management, e.g. continuous cover forestry.

Leif asks what type of fires is included in the figure of fires presented. Tatu answers that it refers to forest fires, or at least the majority is taking place in forests.

Norway: Terje recognizes that there are many similarities within the Nordic countries. He mentions the Norwegian forest policy on climate change adaptation. More extreme weather events are expected to cause more wild fires, large storm felling, damage to infrastructure and, perhaps worst of all, increased damage from insects, pest and diseases. Examples from 2018 included 1 900 fires (until August) which is almost double the normal area. About 3 000 ha of which 1 170 ha productive forest were burned. A poll on people's perception on the

quality of forest fire management gave a quite good outcome (70 % were content). Terje gives a historical perspective on preparedness which has been quite fluctuating, affected by events on large forest fires which have given high political attention. The reorganization of forest fire reserves and the establishment of the Incident Command System (ICS) in 2008 had a positive impact on preparedness. Terje concludes with the measures taken on national (plans, coordination) and forest sector level to increase forest fire preparedness.

Russia: Andrey presents examples of forest fire management in the Russian federation. Russia has today a 12-month fire season as compared to 7-month earlier. Globally there are over 300 thousand wildfires burning about 300 million ha. In Russia annually 10 000 to 30 000 fires, accounting for about 2-3 million ha. Some are quite mild. Only 10 % are totally burned. In NW Russia the extent of forest fires has declined over the last decade. Andrey points out that there is already ongoing international cooperation within the Barents cooperation (Joint Committee on Rescue Cooperation in the Barents Region) which also has joint training activities. The forest are zoned depending on the priority of prevention activities. The Aerial Fire Management Zone consists of 489,4 million ha and has access to about 300 aircrafts and 3 200 smokejumpers. Regional Government is the top responsible agency for coordinating forest management. Forest District Fire Management plans are signed by the governor. 90 % of the fires are caused by human activities. Public information is of vital importance. Several campaigns and educational programmes on fire prevention are undertaken. Andrey concluded by giving support to the current work under the Joint Committee on Rescue Cooperation in the Barents Region.

Asked whether there is any national climate policies in Russia Andrey confirms that there are. One was adopted in 2017.

Asked how the surveillance works, Andrey described the use of local observers (on the ground) and aerial from aircrafts. For the control zone (Eastern Russia) satellite images are more used.

6. Discussion to identify similarities, differences and gaps including options for future cooperation

Hillevi opens the session by giving some examples to spur the discussions. She structures the discussion in three steps: Similarities, differencies and options for cooperation. From earlier presentations she concludes that all countries have plans or strategies on climate adaptation in place. She requests participants to send references of these to the Swedish chairmanship. In the subsequent discussion the following conclusions and possible actions were proposed for further consideration by the group on the second day (see below under item 9)

Day two Thursday 18 October: Wood construction as climate mitigation

7. Expert presentation concerning wood as construction material in house building

Linda Rosén (CEO at Lindbäck's group) shows a film presenting the company which is a 4th generation family owned, Europe- leading multi-story builder in wood. The company was founded in 1924. In 1994 new regulation allowed for multi-story buildings allowing the company to expand its business. The company continuously has about 12 construction sites in operation. Linda demonstrates some reference pictures on projects. The company applies an industrial building system. Currently 16 volumes (equivalent to six apartments) are produced per day. The company has recently invested 55 MEuro in a new modern plant and therefore recruited an additional 150 employees. The plant will eventually triple capacity to reach 2 400 homes/year. The company applies a LEAN production model and has established values that lay the ground for internal and external relations. Basic principles include Safety, Quality, Lead-time, Cost, and Co-workmanship. Lead-time for production is always 28 weeks. This requires more planning than for other material since everything has to be produced (and decided) in the factory and not on the site. The industrial system needs to be flexible as changes to design are frequent. Women make up 17-19 % of the workforce in the company with similar representation on all levels. 70 % of the apartments are transported to the Stockholm area. Main transportation is on road. At the end of the project the company offers aftermarket services. 3 % of the turnover is invested in research and directed to the Luleå University of Technology. From a climate perspective, wood building offers minimal CO_2 emissions. Other advantages include shorter building times, lower impact, easier transport, less sound, and renewable material. They currently have transfer of technical knowledge to subcontractors.

Asked whether there is are any government support, Linda replies that current laws regulating the use of forest (Forest Act) and regulation on transportation are two examples of obstacles. The construction obstacles are less today.

On a question how wood procurement works Linda answers that Lindbäck's partner with sawmills to source wood. In their agreement with the sawmills they only accept wood originating from Sweden.

Linda added that the competition with the concrete industry is stiff. However, she sees positive development in recent years. Lindbäck's is now a recognized brand that receives several contracts. They can also see that many competitors are entering the market of wood building.

Asked if customers' perception of sustainability in forestry is an issue, Linda replies that this may be the case sometimes. However, Lindbäck's has chosen not to join any certification scheme for SFM.

Asked on how high buildings they are constructing. Linda replies that currently they have reached nine levels. Both in Finland and Norway there are reports that even higher buildings up to 13-14 stories are underway.

Asked on what competence requirement they have, Linda replies that the industrial process means that the requirements for previous experience from wood working is of less importance. They put more emphasis on other aspects such as sense of quality and service.

Asked on their international plans Linda replies that since the product is tailored and designed to fit to Swedish conditions and regulations, there are currently no plans to expand business outside the country.

8. Discussion concerning opportunities and obstacles for wood as sustainable construction in the Barents region

Tomas opens the session by giving an overview of the areas of responsibility that fall under the Ministry of Enterprise and Innovation. In recent years there have been several outreach activities to other countries to open the path for export of wooden houses. Often there are a lot of legal obstacles and often a case of changing mindsets.

Norway: Terje gives a historical background to wood building. Until 2000 only small buildings were possible due to regulations. New visionary thinking started in the 90's (the Olympics, airport). In 2000 a wooden based innovation programme was started. The programme consists of several projects promoting wood building country wide. The programme has included cooperation with contractors and architects. It has also included campaigns and integration to municipal planning and public procurement processes. The need of science-based documentation was stressed. In recent years there has been a great breakthrough on wood in student building with today 80 % of the buildings in wood. Other interesting markets include schools, hospitals and other public buildings/offices. The world's tallest wood building, 85.4 meters, with glulam (in Lillehammer) will be ready early in 2019. Advantages for building in wood include sustainability, cost, architectural freedom, and building for people.

Asked on the bottle necks Terje says it is probably investments which have been lacking. However, he sees a positive trend.

Finland: Pasi presents an example from the administrative region of North Karelia. Wood construction is a part of more general climate programme in the region. Joensuu is an important knowledge centre for forest research and development in Finland. Targets for the construction sector include: energy efficiency, region leading in wood construction, renewable principal heating source, provision of regional energy advice. Wood construction has several advantages in comparison to other materials for example with regard to carbon storage (13-15 tons for a single-family home). The Metla building (2004) was the first large modern wooden office building in Finland. The building hosts 220 employees (78 000 m^2) and used 2 000 m^3. Some of the wood was recycled from demolished buildings. Pasi demonstrates several examples of public wooden buildings and structures. The current share of wooden buildings is in private houses 85 %, summer cottages 99 % and multi-storey buildings 4-5 %.

Asked about the bottle necks for multi-storey buildings Pasi mentions that technical requirements for higher buildings are still being investigated. Once tested this might remove barriers for higher buildings in wood. Fire regulation is also an issue.

Russia: Andrey reports on recent developments underway in Russia. Much of this is driven by Russia's ambitious climate change targets. Wooden architecture is being more recognized as a means to contribute to this work. Currently about 25 % of housing consist of one-story buildings which represent about 120 million m^2. New building standards have been developed facilitating use of wood in construction. By 2025 the plan is to double the amount of wooden buildings. The development strategy for 2030 includes several instruments enabling more people to afford their own houses. Currently 5-10 % of buildings are wooden. In certain regions it is up to 30 % . Andrey stresses the importance in changing the attitude to wooden buildings. In this effort it is important to involve media.

Asked what major incentive Russia has taken to increase wooden buildings, Andrey mentions the investment programmes which offer tax incentives for wood construction investors and also favourable credit terms for the consumers.

Asked on the current trend Andrey sees that wooden buildings are increasingly built in wood, basing this observations from some of the recent settlements that has been built.

Mikael informs of bilateral meetings with Russia on wooden buildings, for example a meeting in May this year in Skellefteå and another upcoming meeting in Petrozavodsk next week.

Hillevi points out that the substitution value of wooden building is the most important contribution to climate change mitigation. So far we have not seen carbon neutral cement.

Pasi informs that Finnish companies have constructed small villages based on log houses close to the border.

Asked if changing climate will have a negative effect on wood building life-time, Hillevi replies that probably not.

Staffan reflects on the need to understand the integration of several uses of the wood resources and how they interact with each other.

Mats-Rune informs about Trästad, that is a Swedish initiative to promote wood construction country-wide. The initiative is part of the Swedish National Forest Programme which also funds some of the activities. The initiative has engaged representatives from municipalities, authorities and the industry (and the Swedish king).

Tomas concludes the morning session which has provided interesting insight into different approaches. He observes that approaches are very much tailored to the national context of standards and regulation. This is an area to explore further, especially from a business angle. Staffan added that this could be a theme for a joint activity for the WGEC and BFSN which Tomas also supported.

9. Reflections and conclusions from day 1 as part of the climate change action plan

The following conclusions and proposals were presented:

1) We have had a good mapping exercise over the situation in the region with regard to climate change adaptation and forest fire management
2) A range of cooperative activities related to climate adaptation is on-going in other fora, such as EFI (e.g. EFI resilience programme), EU, FAO, universities, etc
3) Climate adaptation can now be observed in a wide range of forest management practices including long-term planning, development of forest transporting planning systems, breeding programmes, choice of tree species, game management, etc
4) Better communication to the public for improved prevention of forest fires
5) Better cooperation between fire brigades and the forest sector
6) Better knowledge on impact of forest structure and forest management
7) On fire risks
8) On other climate-induced risks (pests, etc)
    a) to base advice on how to improve general resilience
9) Raise awareness of general importance of Barents cooperation about adaptation to increased risk for forest fires in the region
10) How to diversify forest management practices in order to improve resilience to a changing climate
11) Forest fire index methods and scales need to be locally adapted. Yet there may lessons to be learned from each other's systems
12) The following activities were suggested for further consideration:
    a) Fire prevention communication
    b) Action: exchange of experiences in Joint committée on rescue operations
    c) Improved communication and cooperation between fire brigades and the forest sector (larger companies/SFA)
    d) Action: Joint meeting BFSN and "rescue comm"
    e) Possibly including adaptation to increased forest fire risk in coming revision of the Action Plan on Climate Change
    f) Initiate discussion with WGE
    g) Follow development on how to form more resilient forests, e.g. through EFI resilience programme, FAO and other national and international processes, as well as practical implementation

Action: recurrent theme BFSN meetings

Staffan suggests also to add recommendation for exchange to forestry operators to prevent forest fires during high risk periods as a possible action.

10. Reflections on the Circumboreal declaration from the Haparanda meeting.

Peter presents the historical background to the Boreal cooperation which includes Canada, United States, Norway, Sweden, Finland and the Russian Federation. The cooperation has gradually evolved since 2012. An important milestone was the meeting in Haparanda where

the ministers decided to explore the possibility to establish a ToS on Boreal issues under ECE/FAO. Another outcome from the Haparanda meeting was the launching of insight processes. A first insight process is being launched in 2018 and will report back to the joint FAO/ECE session in 2019.

Terje adds that in addition to the climate the boreal cooperation also initiated a working group on bioeconomy. Peter responds that bioeconomy is still on the agenda and will probably be a subgroup under the ToS.

Several delegates emphasise the importance of a close cooperation between BFSN och and the Circumboreal Working Group. One possible item is the BFSN review on bioeconomy which could serve as a good basis for discussion between the groups.

Summing up, reflections from the BFSN – meeting and the way forward

Staffan introduces by recapitulating the main conclusions from the June meeting. He continues by summarizing major outcomes from the present meeting:

1) The BFSN meeting support the chairs suggestion with a road map for meetings during 2018 and 2019. The meeting further enhanced with suggestions of increased cooperation with other groups, and with more specified suggestions for topics and :
   a) Meeting in Norrbotten, Sweden, 17 – 18 October.
      i) The main topics for the meeting would be to expand on the topic of forest resources utilized in bioeconomy as substitution materials in house building and energy, and the issue of climate change, adaption and mitigation.
   b) Meeting in Stockholm 30 th of January. Preliminary invitation will be sent out as soon as possible. The meeting will be back to back with the final meeting for the WAMBAF project the 29th of January.
   c) Spring meeting 2019, probably in April, eventually a distance meeting, partly joint meeting with the WG of education. If physical meeting. Focus on education and agreeing on the details for Forest Forum.
   d) Forest Forum
      i) Main session concerning labour and competence supply and forest education
      ii) Public knowledge of bioeconomy, forestry and other forest values.
      iii) Corporate bilateral meeting point
   e) Handing over to the Norwegian chair for 2020-2021
2) During the meeting several projects of relevance for the Barents cooperation presented their projects as information. The meeting appreciated the overview of ongoing cooperate projects and agree to further examine and provide the chair with information on ongoing cooperative projects that might be of concern for the BFS Network.

   The chair will, if manageable investigate further and compile a list with basic information about and contact information to projects.

IBS will be asked to support the effort with infrastructure and some assistance.

3) The chair will work together with SLU and the future Bioeconomy network (currently EFINORD) to establish a interdisciplinary expert group in forest circular bioeconomy to assist BFSN. Neither BFSN, nor "EFINORD" Bioeconomy network, can provide financing to researchers in the expert group.
4) Planning forward
   a) BFSN-meeting 29th january
   b) Suggested topic, Rehearsing forest forum, within the group
   c) Maj 2019, planning meeting for forest forum
   d) Sep – Okt 2019, forest forum

Staffan requests delegates to send their contribution with references to relevant projects by the end of the year.

With regard to the update of the mandate, Staffan suggests to send out a proposal for comments by delegates.

Elin suggests to add activities to strengthen cooperation and joint work with the WGE.

Per presents proposals for future meetings of BFSN:

- Barents meeting in the margins of the WAMBAF meeting in Stockholm 29 January 2019
- Planning meeting in May 2019
- Forest Forum in September/October 2019

Staffan asks delegates to comment on the proposed dates and possible conflict with other meetings.

Camilla informs that next IUFRO meeting will take place 29 September-5 September.

Andrey suggests 1st or third week in September for the Forest Forum. Andrey also informs about the International Forest Forum which will take place in Moscow, Russia, 22 November 2018 and invite delegates to consider participation. The RFFA also organizes an international youth contest every year.

Mikael informs about a conference on indigenous people in Barents in March.

Mikael also informs about the BEAC meeting 1st week of October.

Staffan concludes that the BFSN meeting will be organized 30th of January. Staffan will return with suggested dates for the planning meeting and the Forest Forum after receiving input from delegates within three weeks.

Staffan proposes items for the next meeting in January, including follow-up to decision and activities, update of the BFSN mandate, deliberate further on how to operationalize the youth perspective (e.g. exchange of students, inviting student to future meetings etc.).

The delegates approve the chair's summary and the suggested actions.

11. Closing

Staffan thanks participants and closes the meeting.