



Report Action Plan Meetings

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Summary

In the project WAMBAF Tool Box, running from April 2019 to July 2021, eleven meetings were arranged to present the content of the *Action plan for Water management in Baltic forests*.

Many of the participants at the meetings were interested in the practical solutions for water protection, such as the wet area maps and the beaver tool. The structure of this project with demonstration areas and training courses was considered a good concept. Some participants were interested in the high mercury levels in Latvia, Lithuania, and Poland, and would like to learn more about this.

The need for more knowledge, and potential topics for future projects were discussed:

- Nitrogen and organic carbon connected to temperature rise and climate change.
- Climate change and water retention in the landscape
- Water protection connected to fertilization.
- Results and reports should describe the most important problems of all countries.

Other ideas and opinions that were raised and discussed:

- HELCOM could be more active in issues concerning water protection of forests.
- There is a huge need for a better knowledge among forest managers on the benefit of forest buffers.
- The timber companies in Russian Karelia are interested to organize demonstration areas to study the tools' implication.
- Other land fauna should be considered, not only beavers.

Introduction

The *Action plan for Water management in Baltic forests* was prepared within the project WAMBAF (Water Management in Baltic Forests), running from March 2016 to February 2019 and funded by the EU Interreg Baltic Sea Region Programme. WAMBAF focused on three main factors that significantly impact water quality: riparian forests, forest drainage and beaver activity.

The aim of the Action plan is to provide forest enterprises, forest owners' associations, hunters' associations, NGO:s, public authorities, and high-level decision makers with information about the new tools and material produced in the WAMBAF project for improving water quality and sustaining other ecosystem services when performing forestry operations. In addition, the Action plan presents ideas for further development for water protection in forestry in the Baltic Sea Region.

In the project WAMBAF Tool Box, running from April 2019 to July 2021, eleven meetings were arranged for relevant target groups and the content of the Action plan was presented. In addition, new results were presented from the on-going project WAMBAF Tool Box.

Each meeting focused on one, or just a few organizations. Most meetings were rather short, about one hour. Some of the meetings were part of the target groups' internal meeting, while the others were arranged as separate meetings. Six of the meetings were held online, and five meetings as physical meetings.

Meetings

1 Swedish Agency for Marine and Water Management

Date: 3 December 2019

Place: At the office of the Swedish Agency for Marine and Water Management in Göteborg, Sweden

Participants: 33 persons from the Department for Marine and Water management.

Representatives of the WAMBAF project: Daniel Thorell (Swedish Forest Agency)

The WAMBAF project and all its results were presented at this internal meeting of the department for marine and water management. Special emphasis was put on the beaver tool box, since this topic is not so much discussed in Sweden, even though beavers have a strong impact on water quality and the landscape. (Forest buffers and drainage systems have been more in focus during several years in Sweden.) The beaver film was shown, and the mercury results were presented.

The audience were interested to know more and gave feedback:

- The structure of the project with demo areas and training courses was a good example for how to carry out a project.
- If there would have been a natural beaver population during the last centuries, this would have been positive for the levels of methyl mercury. Then the methylation would have been on a more stable level. (This was a feedback connected to the result that pioneer beaver ponds may raise the level of methylation).
- The results regarding high mercury levels in Latvia, Lithuania and Poland were considered interesting.

2 HELCOM, Baltic Marine Environment Protection Commission - Helsinki Commission

Date: 10 March 2021

Place: Virtual meeting (Zoom). The meeting was arranged as part of Baltic Sea Pollution Load Compilation (PLC-8) Project Implementation Group Meeting.

Participants: 17 representatives of HELCOM.

Representatives of the WAMBAF project: Daniel Thorell (Swedish Forest Agency), Leena Finér (Luke), Eeva-Liisa Jorri (Metsähallitus)

The WAMBAF project and its main results were presented by Thorell, Finér and Jorri. Three main topics were displayed (drainage, forest buffers, beavers). Special emphasizes were put on guidelines and tools, which have been developed during WAMBAF project. Also, ideas of the future project were told.

Main points of the meeting:

- The representatives of HELCOM were satisfied with the versatile results of the WAMBAF project.

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- The participants were pleased to hear about the tools for water protection. It was discussed how binding the WAMBAF tools are in Baltic Sea Region (BSR) countries.
 - The participants were interested to hear more about mercury in the forests, and the measurements during the WAMBAF project.
 - The participants were also interested in hearing how the beaver dam removal is controlled in the BSR countries.
 - Nitrogen and phosphorus load as well the background load from forests and mires were brought out in discussions. The trend in nitrogen and organic carbon is connected to temperature rise and climate change, and it will be an important research topic in the future.
 - It was also discussed if HELCOM could be more active in issues concerning water protection of forests.

3 Ministry of Agriculture and Forestry, Finland

Date: 20 April 2020

Place: Virtual meeting (Skype)

Participants: Five representatives of Ministry of Agriculture and Forestry, Finland.

Representatives of the WAMBAF project: Leena Finér (Luke), Eeva-Liisa Jorri (Metsähallitus Forestry Ltd)

The WAMBAF project and its main results were presented by Finér and Jorri. Special emphasis was put on the forest buffers, wet area maps and drainage network maintenance since the topics are important in Finland.

Main points of the meeting:

- The representatives of Ministry of Agriculture and Forestry were satisfied with the versatile results of the WAMBAF project.
- The new wet area maps were very interesting. Participants were pleased to hear that they are ready from all over Finland.
- They were interested to hear more about main topics concerning water protection in the project countries.
- The suggestion was made to give the same presentation to the participants of The Central Union of Agricultural Producers and Forest Owners.
- There were also discussions about possibilities for future projects between BSR countries. Topics related to climate change and water retention in the landscape were supported.

4 Finnish Forest Industries

Date: 22 March 2021

Place: Virtual meeting (Teams)

Participants: Two representatives of Finnish Forest Industries

Representatives of the WAMBAF project: Leena Finér (Luke), Eeva-Liisa Jorri (Metsähallitus)

The WAMBAF project and its main results were presented by Finér and Jorri. Three main topics were displayed (drainage, forest buffers, beavers). Special emphasis was put on the peatland forests, forest buffers and wet area maps since the topics are important in Finland.

Main points of the meeting:

- The representatives of Finnish Forest Industries were satisfied with the versatile results of the WAMBAF project. They were delighted about the next WAMBAF webinars, and they wanted to advertise them to their member organizations.
- The participants asked about the level of utilizing the geospatial data in the BSR countries.
- The participants wanted to know the minimum width of forest buffers in different countries.
- The importance of water protection in both planning and implementing of forest measures was emphasized.
- The ideas of the future Interreg project were discussed. The representatives of Finnish Forest Industries highlighted water protection in fertilization.

5 Latvia's State Forests and Latvia geology and Meteorology centre

Date: 13 May 2021

Place: Virtual meeting. The Action plan meeting was organized as a separate session of LIFE IP project "Implementation of River Basin Management Plans of Latvian towards good surface water status" (LIFE 18 IPE/LV/000014) meeting.

Participants:

- 14 persons from different departments of JSC "Latvia's State Forests".
- Two persons from Latvia geology and Meteorology centre, leaders of the LIFE IP project "Implementation of River Basin Management Plans of Latvian towards good surface water status", LIFE 18 IPE/LV/000014).

The WAMBAF project and all its results were presented at this project meeting as both projects are complementary, and LIFE IP GoodWater will utilize and promote the tools developed in WAMBAF. During the meeting session mainly, the practical tools were discussed, as well as opportunities for organizing training courses for employees of JSC "Latvia's State Forests". This gained a lot of interest.

The audience was interested in the practical solutions, for example:

- Water protection structures used during drainage system maintenance.
- Green infrastructure solutions in forest buffer zones along watercourses.
- Beaver management and decision-making approach for evaluating beaver habitats.

6 Ministry of Agriculture, Ministry of Nature Protection and Regional Development, and representatives of Latvian Forest Owners' Association

Date: 9 June 2021

Place: Virtual meeting (Teams)

Participants: 14 persons from different departments of the Ministry of Agriculture, Ministry of Nature Protection and Regional Development, as well as representatives of Latvian Forest Owners' Association.

During the meeting Zane Lībiete presented the WAMBAF project and its main results, as well as gave an overview about the developed practical tools and solutions.

The audience was interested in the contents of the Action Plan and in the already developed practical solutions, especially:

- Wet area maps for better forest management planning.
- Beaver management and decision-making approach for evaluating beaver habitats.
- It was decided to hold further consultations with the representatives of both ministries concerning the ideas for the next project proposals related to forest-water topics.

7 FSC Lithuania

Date: 6 March 2020

Place: At the office of FSC Lithuania, in Vilnius, Lithuania.

Participants: Seven persons from the Department for Marine and Water management.

The WAMBAF project results were presented at this internal meeting. The biggest attention was placed on "Blue targeting" tool, the one designed for developing the riparian zones. A special interest was expressed to drainage application that is going to support the process of detecting and managing drainage network in forests.

Since FSC is committed to encourage the active participation of interested stakeholders in different stages of planning and implementation of sustainable forest management measures, the role of communities and local people have been stressed.

Clever management of forest resources and its impact on water quality is also in line with daily FSC agenda in promoting the ecosystem services.

Participants were interested to know more and gave some feedback, for example:

- Mapping of wet areas is gaining more importance because of climate change, especially as this warm winter shows.
- Due to increasing role of environmental and ecological effects of beavers, beaver population measures could be more active nationwide. The developed "Beaver tool" could serve a decision making in forest management activities.
- A simple manual focusing on water protection measures for forest drainage with clear instructions would be very helpful for forest and landowners that perform drainage operations.

- Discussion on forest buffers, water protection zones and measures were taking an active part. It was concluded that there is a huge need for a better knowledge among forest managers on the benefit of forest buffers.

8 Ministry of Environment of the Republic of Lithuania

Date: 26 March 2020

Place: Ministry of Environment of the Republic of Lithuania, in Vilnius, Lithuania.

Participants: Five persons from the Ministry of Environment of the Republic of Lithuania.

The WAMBAF project results were presented at this internal meeting. Taking into account climate change trends, all produced material which compiled in three tool boxes is very important and can contribute to good water quality, biodiversity and ecosystem services. The WAMBAF results are significant for the sustainable use of forest resources. They will be useful to forestry policy makers, forest enterprises, forest owner associations, hunters' associations, NGOs, public authorities, and high-level decision makers.

Participants were interested to know more and give some feedback, as follow:

- It would be useful to reflect the current situation of all partner countries. For example, how long is freshwater shoreline, how many productive forests grow on peatlands, how many DTW maps were developed for demo areas in Sweden, Finland, Latvia, Lithuania, and Poland etc.
- The report would be more comprehensive if it describes the most important problems of all countries.

9 State Forest Kretinga Regional Department, Lithuania

Date: 2 March 2020

Place: At the office of the Lithuania State Forest Kretinga Regional Department, in Kretinga, Lithuania.

Participants: Seven persons from the Lithuania State Forest Kretinga Regional Department.

The WAMBAF project and all its results were presented at this internal meeting.

The audience were interested to know more and gave some feedback, for example the participants emphasized that results of the project are significant for Baltic Sea Region but the situation and differences or similarities for participant-countries are not reflected.

Conclusions:

- The Action Plan is a good ground for practitioners implementing outputs of the project.
- The current situation in BSR countries should be shown. It will be helpful to manage beaver population and their dams depending on the local conditions. The role of demonstration areas is important for better understanding of changes in water quality, including levels of methylation and their proper management.

10 Ministry of Natural Resources of Karelia Republic and Forest enterprises, Russia

Date: 31 March 2021

Place: "Fregate" hotel, Petrozavodsk city, Republic of Karelia

Participants: totally 23 persons from the Ministry of Natural Resources of Karelia Republic, Karelian Research Centre of Russian Academy of Sciences (Institutes of Biology, Forest Research and Northern Water Problems), timber companies (physically), Swedish university of Agricultural Sciences (online), LUKE (online).

The WAMBAF project and all its results were presented for the Karelia Republic stakeholders, Arkhangelsk region stakeholders were invited as well, though couldn't participate. Special emphasis was put on the Blue Targeting tool and its adaptation to the Russian North-Western conditions. Also, the beaver tool box, forest drainage and demo areas were discussed. Since the beavers have a strong impact on water quality and the landscape in Karelia Republic, the topic turned really relevant for the local stakeholders. Representative of LUKE and SLU gave their perspective on the relevant tool boxes.

The adapted beaver film, riparian forests and forest drainage films were shown.

The audience were interested to know more and gave some feedback, for example:

- The timber companies are interested to organize the model areas to study the tools' implication. The demo areas in Russian riparian forests are limited due to the forest and water legislation.
- The beavers are a disaster and appropriate management tools are needed to make relevant decisions; What is the specific position (as the state with the most similar landscape conditions) of Finland on that topic?
- Beavers need to be definitely prioritized for Karelian Republic in the following stages of the project. Other land fauna should be taken into account (no to be limited only by beavers).
- There is a need for a common final expert decision on the Blue targeting tool in Russia. Ministry of Natural Resources of Karelia Republic should be consulted under the coming preparation stages to meet the regional planning.

11 State Forests and Coordination Center for Environmental Projects, Poland

Date: 14 June 2021

Place: Virtual meeting (Skype)

Participants: the meeting was attended by 15 representatives of the General Directorate of State Forests, Regional Directorates of State Forests and Coordination Center for Environmental Projects.

During the meeting, basic information about the WAMBAF and WAMBAF Tool Box project was presented (purpose, scope and funding). In addition, the main results of the project were discussed, divided into issues of beaver population management, maintenance of retention and drainage facilities in the forest, forest management in buffer zone and geomatic solutions. The statements of the people who had previously participated in the trainings about the possibility of practical application of the tools developed in the project were presented. The presentation, which summarized the project, lasted about 35 minutes. Afterwards, a discussion took place.

The participants of the meeting emphasized the practical aspect of the project. Participants were interested in geomatic solutions and the principles of forest management in buffer zones. An important element was also the opportunity to learn

about water management in forest areas, which is carried out in other countries in the region Baltic Sea.

Conclusions

The action plan meetings were a good way of disseminating the results of the project and getting feedback from our target groups. It was easy for our target groups to attend, since many of the meetings were virtual and rather short. From the beginning we intended to arrange separate meetings, but it turned out to be better in some cases to take part in the target groups' internal meetings.

Practical solutions for water protection, such as wet area maps and planning tools, is considered important by the target group.

Many participants were interested to know more about the situation regarding forestry, water protection and the beaver situation in the other Baltic Sea Region countries. This shows the need for transnational projects like this one, and future Interreg projects.

List of terms

Baltic Sea Region (BSR) refers to the definition used by EU; <https://www.interreg-baltic.eu/about-the-programme/area.html>

DTW maps are generated from digital elevation models based on high-resolution elevation scans using LiDAR technology, and they model the depth to a hypothetical groundwater surface.

Blue Targeting is a stream scale decision support tool for assessing the biodiversity values of streams and their sensitivity to changes which can be useful when planning forest buffers.

Beaver Tool is a decision support and assessment tool for balancing beneficial and detrimental effects of beaver dams against each other.