



The Missing Links in Latvia's Hiking System

– A Case Study of the Nature Park Talsu Pauguraine in Latvia

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The Missing Links in Latvia's Hiking System – A Case Study of the Nature Park Talsu pauguraine in Latvia

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ABSTRACT

Urban green spaces provide ecosystem services, have a positive influence on human's mental and physical health, and give room to perform outdoor recreation. Research shows that outdoor recreation not only improves health but also benefits the economy, education, and integration. During the COVID-19 pandemic, access to urban green space gained greater importance as a place to socialize and at the same time be able to keep distance from each other as other indoor and outdoor activities became limited. Those facts gave an insight into how important it is to protect and give access to urban green spaces and nature.

I heard about an EU project where they are currently developing a long-distance hiking trail through Estonia, Latvia, and Lithuania. Beyond that, the hiking trails in Latvia are not as developed as in Sweden and I decided to spend some time in Latvia to explore more. I have proposed a development plan for the Nature Park Talsu pauguraine with the purpose to improve the possibilities to hike and to increase people's access to hiking trails and thereby promote improved health through outdoor recreation. I also researched about how the culture of outdoor recreation looks like in Latvia and how the existing trails in Latvia are planned and managed.

Latvia has long traditions connected to nature but due to Latvia's history and culture, outdoor recreation is not deeply anchored in society. Through education and improved access to nature with help of an outdoor recreation infrastructure, the culture of outdoor recreation in Latvia could change with the next generations.

In Latvia, the planning and management of hiking trails are relatively new, and several issues need to be solved. The planning and management of hiking trails could be improved in Latvia by taking inspiration from other countries like Sweden and, for example, implement an outdoor recreation coordinator who simplifies the development and cooperations.

With simple actions, the hiking infrastructure can improve in Talsu pauguraine. What is challenging is to reach an agreement with the involved actors in such a project. Moreover, the management of the trails needs to take place continuously, the work needs to be evaluated and the development plan must be updated regularly. For a faster result, one of the actors should be the project leader and push the issues of improving the hiking trail infrastructure forward.

Keywords: hiking, trails, outdoor recreation, planning, management, Latvia, Talsu pauguraine

SAMMANDRAG

Urbana grönområden tillhandahåller ekosystemtjänster, har en positiv inverkan på människors mentala och fysiska hälsa och ger utrymme för friluftsliv. Forskning visar att friluftsliv inte bara förbättrar hälsan utan också gynnar ekonomin, utbildningen och integrationen. Under COVID-19-pandemin fick tillgången till grönområden i städerna större betydelse och fungerade som en plats för att umgås och samtidigt kunna hålla avstånd till varandra då andra inomhus- och utomhusaktiviteter blev begränsade. Denna information gav en inblick i hur viktigt det är att skydda och tillgängliggöra urbana grönområden och natur.

Jag hörde om ett EU-projekt där de för närvarande utvecklar en långdistansvandningsled genom Estland, Lettland och Litauen. Utöver det är vandringslederna i Lettland inte lika utvecklade som i Sverige och jag bestämde mig för att tillbringa lite tid i Lettland för att lära mig mer. Jag har tagit fram ett förslag på en utvecklingsplan för naturparken Talsu pauguraine med syfte att förbättra möjligheterna att vandra och att öka människors tillgång till vandringsleder och därigenom främja förbättrad hälsa genom friluftsliv. Jag undersökte även hur friluftskulturen ser ut i Lettland och hur de befintliga lederna i Lettland planeras och sköts.

Lettland har långa traditioner kopplade till naturen men på grund av Lettlands historia och kultur är friluftslivet inte djupt förankrat i samhället. Genom utbildning och förbättrad tillgång till naturen med hjälp av en infrastruktur för friluftsliv kan kulturen för friluftsliv i Lettland förändras med kommande generationer.

I Lettland är planering och förvaltning av vandringsleder relativt nytt och ett antal utmaningar måste lösas. Planeringen och skötseln av vandringsleder skulle kunna förbättras i Lettland genom att hämta inspiration från andra länder som Sverige och till exempel implementera en friluftssamordnare som förenklar utvecklingen och samarbete.

Med enkla åtgärder kan vandringsinfrastrukturen förbättras i Talsu pauguraine. Det som är utmanande är att nå en överenskommelse med de inblandade aktörerna i ett sådant projekt. Dessutom behöver förvaltningen av lederna ske kontinuerligt, arbetet behöver utvärderas och utvecklingsplanen måste uppdateras regelbundet. För ett snabbare resultat bör en av aktörerna vara projektledare och driva frågorna att förbättra vandringsledningarnas infrastruktur.

Nyckelord: vandring, leder, friluftsliv, planering, förvaltning, Lettland, Talsu pauguraine

ACKNOWLEDGMENTS

This master thesis has been written in 2021 for the course *Independent Project in Landscape Architecture*, EX0846. I have been situated in both Latvia and Sweden while working on the thesis.

I was lucky to find an internship in Riga, Latvia, that was working with an EU project that developed new hiking trails through Estonia, Latvia, and Lithuania. I saw the perfect opportunity to combine my internship with my master thesis and my passion for hiking. I love to explore nature, learn about different cultures, and take a break from the stressful daily life and just enjoy the landscape. A dream of mine is to enable more people to discover nature and experience nice hiking trips with good food, drinks, and company. I saw the opportunity to contribute to the development of hiking trails in Latvia through my hiking experiences, the internship in Riga, and the master thesis you are reading right now.

The COVID-19 pandemic was still ongoing while writing this thesis. The pandemic clarified the importance of access to nature, and I experienced it by myself when I and other hikers literally queued to climb Kebnekaise in Sweden in summer 2020. Hundreds of tents were dumped at Kebnekaise mountain station that summer. I saw the importance of educating people about how to behave in nature and it was another reason to write a master thesis about hiking trails. It has been challenging to write about a country I never visited before and handle a language I don't speak, but I got a lot of help on the way.

First and foremost, I am extremely grateful to my wonderful supervisor Helena Mellqvist for her invaluable advice, continuous support, and patience. Sometimes I drowned in my text, but she pulled me out again and gave me new energy. I want to thank Asnate Ziemele who offered me an internship in her office which gave me a deeper knowledge about hiking in Latvia. Thank you Juris Smaļinskis, who is a biologist and researcher at the *Institute of Social, Economic and Humanities Research* in Latvia and who helped me with literature and took me with him on hiking trips. Also, I want to thank all the other wonderful colleagues at the office who received me warmly and helped me on the way to finishing my master thesis. I am deeply grateful to Carl Noyce, who was proof-reading my English text. Last but not least, I want to thank Valters Jēkabsons who helped me in infinitely many situations. He was my personal Latvian translator, showed me around Latvia, helped me to get contact with key persons, and provided me with snacks and coffee to keep my spirits up.



Anna-Sara Reinisch

Talsi (Latvia), January 2022

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INTRODUCTION

BACKGROUND

In the book *Nature-Based Solutions to Climate Change Adaptation in Urban Areas* it is written that urban green spaces contribute to ecosystem services and moderate the effects of air pollution, urban heat islands, flooding, economic losses, and climate change. Research shows that green spaces are unequally distributed between groups of different socio-economic statuses which leads to that groups with less access to urban green spaces being more vulnerable to health issues related to climate change and urbanization (Kabisch et al. 2017).

The COVID-19 pandemic has influenced people's life through lockdown and restrictions in the physical everyday movement. To prevent the spread of the COVID-19 actions have been taken such as social distancing, limiting of daily and physical activities, limiting indoor and outdoor activities, and implementation of travel restrictions (Ammar et al. 2020). The pandemic has revealed the inequalities of access to urban green spaces and research shows that most people in European cities cannot take urban green spaces for granted (Ugolini et al. 2020).

During the pandemic, the attitude of people changed, and adults were forced to go to urban green spaces to socialize. Adults were willing to travel a long distance to get to urban green spaces. After restrictions were lifted the visiting rate of urban green spaces remained higher than the visiting rate of urban green spaces before the COVID-19 pandemic (Ugolini et al. 2020).

Research has shown that outdoor activities have a positive physical and psychological influence on human health (Tankesmedjan et al. 2007) and children growing up in an environment disconnected from nature are at a higher risk of health-related problems (Lindgren 2010).

In 2015, the 17 Global Goals were agreed upon by the world's leaders, producing guidelines on how to build a better future for everyone. Some of the goals are "*good health and well-being*", "*sustainable cities and communities*", "*climate action*", "*life below water*" and "*life on land*" (The Global Goals n.d.). Outdoor recreation can be a part of achieving those goals.

The fact that urban green spaces provide ecosystem services, the fact that nature positively influences human health, knowing the importance of kids growing up close to nature, combined with the inequality of access to urban green spaces and the Global Goals gave me an insight into how important it is to protect and give access to urban green spaces and nature.

The Swedish Environmental Protection Agency describes outdoor recreation as a meeting between nature and humans, that leads to good health, higher knowledge about nature, and different nature experiences. The prerequisites for practicing outdoor recreation are access to nature and the quality of nature (The Swedish Environmental Protection Agency 2021a).

During conversations I had with two Latvian students (studying at SLU Swedish University of Agricultural Sciences in Alnarp) I understood that the planning and management of the hiking trails in Latvia are poor which leads to limited access to nature compared with how it could be with improved planning and management. The existing hiking trails are located on roads and forest roads which can be dangerous and dusty for walkers and bikers when cars are passing by (Anonymous 2020; Jēkabsons 2020). At the same time, hiking is becoming more and more popular for Latvians which leads to the increasing demand for hiking trails (Magnetic Latvia 2020).

The Baltic Forest Hiking and *The Baltic Coastal Hiking* are two long-distance cross-border hiking trails that are currently under development. The hiking trails will link Estonia, Latvia, and Lithuania together with a 2141 km route and a 1419 km route (Baltic Country Holidays n.d.). Research of hiking trails in other areas of Latvia showed that the trails are scattered over the country without a system that links them together (Magnetic Latvia n.d.).

AIM AND PURPOSE

This thesis aims to propose a development plan for the hiking trails in the Nature Park Talsu pauguraine. The purpose of the thesis is to improve the possibilities for hiking in Latvia and increase people's access to hiking trails and thereby promote improved health through outdoor recreation.

RESEARCH QUESTIONS

- What does the culture of outdoor recreation look like in Latvia?
- How are existing hiking trails in Latvia planned and managed?
- How can the hiking trails in the Nature Park Talsu pauguraine develop in terms of management and accessibility?

METHODS

OVERVIEW

To answer the research questions multiple methods and analyses have been used. During the spring, summer, and autumn of 2021 information was collected and whilst developing the written output for the thesis. A case study was conducted on Talsu pauguraine where several site visits were carried out during summer and winter of 2021. I participated in an internship from the beginning of June to the end of August at the *Baltic Country Holidays* in Riga to learn more about outdoor recreation and hiking trails in Latvia. A proposal of a development plan for Talsu pauguraine was developed to improve the possibilities to hike and increase people's access to hiking trails and nature.

The goal of the development plan for Talsu pauguraine is to become reality in the future. Upon its completion, I will hand over the development plan to the association *Talsi Hillock Nature Park Support*, Talsi municipality, and the Nature Conservation Agency to discuss the ideas, update the plan, and hopefully get the plan approved from the different actors to start implementing the proposals.

The following figures and text will give a more detailed explanation of the methods, where the timeline shows in which order the methods were completed (see figure 1), the table gives an overview of the methods (see table 1), and the text under "working process" guides through the methods and show the connection between them.

TIMELINE OF THE WORKING PROCESS

The timeline illustrates during which period the different methods were implemented in 2021 (see figure 1).

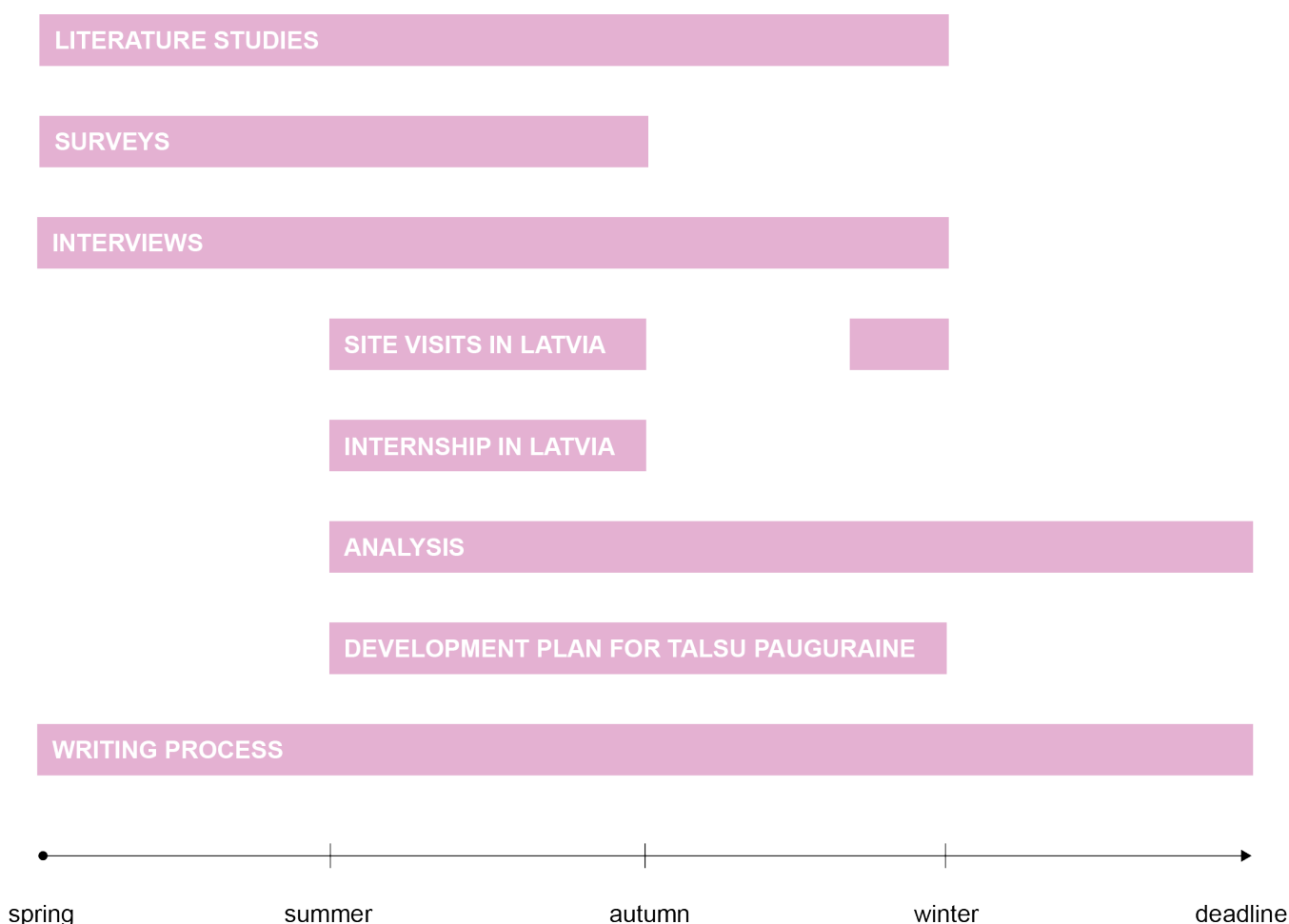


Figure 1. Timeline illustrating the working process. (Source: Anna-Sara Reinisch, 2021-12-27)

TABLE OF METHODS, PURPOSE, AND PARTICIPANTS

In Table 1 the different methods employed are listed to provide an overview; with an explanation of the purpose of using the methods and participants that were involved in each method.

METHODS	PURPOSE	PARTICIPANTS
Literature Studies	A review of the literature was done to collect background information, to know what is already known in connection to the research topic, and to be able to answer the research questions (Bryman 2015).	Researchers Agency
Online Surveys (closed-ended and open-ended questions)	Online surveys were conducted to collect data about people's opinions and attitudes (Bryman 2015) about outdoor recreation and hiking trails in Latvia. Due to the COVID-19 pandemic 2021, an online survey was considered suitable due to the recommendations of the Public Health Agency of Sweden (2021) as a way to keep distance.	Users of Outdoor Recreation Area
Interviews (non-directive interview technique)	The interviews were done to gather different opinions and perspectives of outdoor recreation and hiking trails in Latvia. A more open interview enables to conduct interviews with no detailed questions or special order which can lead to an unexpected turn with new information or new perspectives. Some general questions have been used as a guideline (Berg 2004) to be able to answer the research questions.	Forest Research Station Talsi Tourist Information Center The Association Talsi Hillock Nature Park Support The Baltic Country Holidays Users of Outdoor Recreation Area
Site Visits	Site visits provide the researcher with more data to base analysis and decisions on (Cheng et al. 2016). The site visits were conducted during summer and winter to experience Talsu pauguraine on the site and to collect data for the analysis of how to develop the area in terms of management and accessibility.	Landscape Architect (myself)

Table 1. Table of methods, purpose, and participants - part one. (Source: Anna-Sara Reinisch, 2021-12-27)

METHODS	PURPOSE	PARTICIPANTS
Internship	The internship at the Baltic Country Holidays allowed talks and interviews with professionals that are working with nature tourism and outdoor recreation. The internship was done to develop a deeper understanding of outdoor recreation in Latvia and to answer the research questions with observations from the practice.	Landscape Architect (myself)
Case Study	A case study is a detailed exploration of a specific case (Bryman 2015). The case study was done to showcase an example of an area in Latvia with a deficiency of hiking trails where the problems can be generalized to the whole country (Flyvbjerg 2010). The case study led to the development plan for Talsu pauguraine containing solutions to improve the management and accessibility of the hiking trails.	Researchers Landscape Architect (myself)
Landscape Analysis	To strengthen and clarify the arguments of the natural and cultural environment management in the developing process, a landscape analysis (Schibbye et al. 2001) was conducted on Talsu pauguraine to build up a good basis for decision making.	Researchers Landscape Architect (myself)
SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats)	Based on the collected data of Talsu pauguraine, a SWOT analysis was conducted. SWOT analysis is a strategic analysis and development framework. The SWOT analysis is a tool used in the primary stages of decision-making processes and the result is depending on the quality of the input (Sarsby 2016). The SWOT analysis was used to recognize strengths and weaknesses in Talsu pauguraine and then to propose a development plan for the hiking trails in the nature park Talsu pauguraine.	Researchers Landscape Architect (myself)

Table 1. Table of methods, purpose, and participants - part two. (Source: Anna-Sara Reinisch, 2021-12-27)

METHODS	PURPOSE	PARTICIPANTS
Design Based on Research	The development plan for Talsu pauguraine was developing through design based on research. Talsu pauguraine got divided into smaller elements where each part was analyzed. The analysis provided knowledge to make the design functional, appropriate, and solve today's problems (Milburn et al. 2003).	Researchers

Table 1. Table of methods, purpose, and participants - part three. (Source: Anna-Sara Reinisch, 2021-12-27)

WORKING PROCESS

LITERATURE STUDY

The work started in Sweden in February 2021. A literature study was conducted which according to Bryman (2015) is a way to collect background information and to know what is already known regarding the research topic. A literature study is also a way to notice a gap in the literature or inconsistency between several studies. I was collecting material about the planning and management of outdoor recreation in Latvia and Sweden. The literature study made it possible to compare the two countries and discuss what Latvia could learn from Sweden. For a better understanding of how hiking trails are managed in Latvia and Sweden, research was conducted on one hiking trail system located in each country: *The Baltic Trails* in Latvia and *Skåneleden* in Sweden. Both *Baltic Trails* and *Skåneleden* are hiking trail systems with several sections that enable everything from one-day hiking to long-distance hiking (Baltic Trails n.d.a.; Skåneleden n.d.). Also, information was collected about the outdoor recreation culture in Latvia and Sweden, about the theory of planning and management of hiking trails and about why outdoor recreation is important, which indicates the relevance of the topic.

ONLINE SURVEY AND INTERVIEWS

An online survey was conducted (Bryman 2015) about outdoor recreation in Talsu pauguraine answered by people living in the surrounding area (see further appendix). The online survey was conducted to understand what is working well and what can be improved in Talsu pauguraine. Interviews were done with the *Forest Research Station*, *Talsi tourist information center*, the association *Talsi Hillock Nature Park Support*, *The Baltic Country Holidays*, and *Skåneleden*. The interview with the *Forest Research Station* and the association *Talsi Hillock Nature Park Support* took place through email conversation. My Latvian friend helped me to translate the questions from English to Latvian and to translate the answers from Latvian to English. The interview with the *Talsi tourist information center* and *The Baltic Country Holidays* took place through personal communication in English. For the interviews, I visited the *Talsi tourist information center* and the office of *The Baltic Country Holidays*. The interview with *Skåneleden* took place in Swedish via Zoom. For the exact dates of the interview please see references.

PREPARATION OF SITE VISITS

Before going to Latvia, I prepared for the site visits of Talsu pauguraine by collecting background information, browsing web-based sources, and studying maps with help of Google Maps and ArcMap (Bryman 2015). The preparation helped me to get an overview of Talsu pauguraine which made it

easier to orientate myself when I conducted the site visits.

INTERNSHIP

At the beginning of June, I travelled to Latvia to stay there the entire summer of 2021. I started to work at the organisation *The Baltic Country Holidays* which was working on a project called *The Baltic Trails* - financed by the EU. The project is about long-distance hiking trails going through Estonia, Latvia, and Lithuania (Baltic Trails n.d.a.). It was a great opportunity to get new contacts and talk to people working with outdoor recreation in Latvia in their daily life. The work experience gave me a deeper understanding of the outdoor recreation situation in Latvia and the new knowledge helped me to answer the research questions.

CASE STUDY

A case study is a detailed exploration of a specific case (Bryman 2015) and according to Flyvbjerg, the result from a case study can be generalized (Flyvberg 2010), in this case, to Latvia. At the same time, the Swedish Environmental Protection Agency points out the importance to analyse the conditions on every single site (The Swedish Environmental Protection Agency n.d.b.).

Talsu pauguraine was chosen for the case study as Talsu pauguraine has a high potential to develop outdoor recreation due to the varied nature, several deep lakes in the Natura 2000 area, and the hilly terrain compared with the relatively flat area in the surrounding (SIA ELLE 2013). At present, this potential has not been realised due to missing trails that are marked and an absence of trails connecting the city Talsi with the Nature Park Talsu pauguraine.

SITE VISITS

The site visits to Talsu pauguraine were carried out on several occasions during the summer and winter of 2021. The site visits were a way to find information during different seasons that were not visible on maps such as signs in the landscape that showed how the place is used, what it feels like to spend time in the area, and what noises there are in the surrounding. During the site visits, I was taking notes and photographs and using GPS to mark places and paths.

ANALYSIS AND DEVELOPMENT PLAN

After the site visits in Talsu pauguraine, landscape analysis and SWOT analysis were conducted to build up a basis for the decision making of how to develop the area and to strengthen and clarify the arguments of actions taken in the development plan.

When developing the hiking trails in Talsu pauguraine, a focus has been put on the southern part of Talsu pauguraine, specifically the main trail leading to and from the southern part of Talsu pauguraine, due to the time constraints of the master thesis.

From the results of the analysis, a concept and a strategy were developed for the development plan of Talsu pauguraine. The strategies and design of the development plan are based on research and the collection of data (Milburn et al. 2003). The collected material got compiled in different chapters in this thesis: theory, case study, development plan, result, and discussion (see figure 2).



Figure 2. The structure of the thesis. (Source: Anna-Sara Reinisch, 2021-12-27)

METHODS - LIMITATIONS

LANGUAGE BARRIER AND A FOREIGN COUNTRY

The language barrier is one of the limitations of this research. I can't speak Latvian and some of the interviews and materials were not carried out in English. The language barrier can lead to incorrect translations or misunderstandings, which can lead to some incorrect facts without realizing it. I had to rely on discussions with people working and performing research in that field, Google translate, and Latvian friends helping me with the translations. The language barrier was also a reason why I had difficulties making contact with Talsi municipality and with the Nature Protection Board - to be able to discuss the development plan with them. Discussing the development plan with these stakeholder groups would have given valuable information about how feasible the ideas outlined in this research are or what needs to be changed, and further, their involvement in the development plan would increase the likelihood that the suggestions from this research could be implemented.

Another limitation is that I had no prior knowledge about Latvia before I started the research which led to that a lot of time being spent to try to understand the system and get to know Latvia. The proposal would probably have been more developed if the same research would have been conducted in Sweden. Although, the months I spent in Latvia and the internship help me to gain a better knowledge compared with if I would have performed the research remotely from Sweden. I got a better understanding of what impact cultural differences can have on projects. Although, I only had one internship and therefore I have no other company or experience to compare with.

MATERIAL INFLUENCING THE RESULT

The data collection and analysis are based on my knowledge and background. I included as many perspectives as possible to give a balanced representation of the current situation. Given the nature of how data was collected e.g., interviews and conversations and working as a non-native speaker, it is possible that another person using the same methods as employed in this study would have different results. As it is possible that another researcher would include other perspectives and notice something as important that I may not even have thought about. I see the advantages in being in a group with people that have different backgrounds while working on complex projects to include more perspectives which may lead to a more well-thought-out result.

The research could have been conducted differently by writing with another person to brainstorm with and draw on a greater range of literature. Other examples and methods could have been used which could have led the discussions in another direction.

In this research, clearly the results are influenced by my own experiences, methods, literature, and questions I choose to ask and the people I choose to interview. The volume of data that was collected as part of the case study together with the time restrictions impact the results. Also, the type of data that was collected influence the material on which decisions are based. As the case study was based on one single site, caution should be taken into consideration when the results from this research be uniformly used in other locations. However, the general statements and identified problems from a case study can be used in a similar study at other locations (Flyvbjerg 2010; The Swedish Environmental Protection Agency n.d.b.).

COVID-19

The COVID-19 situation meant I had to keep my distance from people which limited my ability to organize events where people could meet face-to-face and where I could encourage discussions about the strength and weaknesses in Talsu pauguraine. It would have been valuable information for the result and a way to give citizens a bigger voice in participating in development projects in their region.

THEORY

OUTDOOR RECREATION AND THE RIGHT OF PUBLIC ACCESS

The Swedish Environmental Protection Agency defines outdoor recreation as “*being outdoor in natural and cultural landscapes for well-being and nature experiences without the expectation of competition*” (The Swedish Environmental Protection Agency 2021a). Also, outdoor recreation takes place in different environments, from urban green areas to wilderness, and is an interaction between people and nature (The Swedish Environmental Protection Agency 2021a). Examples of outdoor recreation are hiking, canoeing, biking, skiing, hunting, fishing, mushroom picking, and camping (Fredman et al. 2018).

Outdoor recreation has a history of about 100 years. It started in the late 19th century when people had a desire to discover nature. Mostly it was privileged people, that had time, could afford to buy needed equipment, and who engaged in for example mountaineering. Industrialization led to urbanization where people migrated from villages to towns. The agrarian society became a more industrial society. The densely populated cities led to an increased interest in visiting nature and rural areas. Recreation in nature became important for people’s health and the interest to save nature when the industrial society increased (Sandell et al. 2000).

Fundamental for outdoor recreation is access to nature. Some countries in the world have *the Right of Public Access* which gives people the freedom to enjoy nature. *The Right of Public Access* comes with obligations as well as rights (The Swedish Environmental Protection Agency 2021a). European countries that have something like *the Right of Public Access* are Finland, Norway, Denmark, Iceland, England, Wales, and Scotland. In the rest of Europe, the opportunity of spending time in nature varies. It’s often forbidden to camp, and to pick flowers, mushrooms, and berries (The Swedish Environmental Protection Agency n.d.c.).

PLANNING AND MANAGEMENT OF OUTDOOR RECREATION

PLANNING

According to the Swedish Environmental Protection Agency, planning outdoor recreation is to plan for increased public health, increased knowledge about nature, and regional development. The Swedish Environmental Protection Agency has developed a guidebook for outdoor recreation planning and management. Long-term planning help to provide people with secure access, accessibility, and a qualitative natural and cultural landscape for outdoor recreation. The guidebook is divided into six steps (The Swedish Environmental Protection Agency n.d.b.):

1. PILOT STUDY: Several questions need to be answered early in the process such as what kind of plan the product should be, who should be involved, and how the plan should be used. The site conditions are analysed, and the collected material is the base for decision making.
2. DECISION OF DEVELOPING A PLAN: Based on the pilot study, a decision must be taken if an outdoor recreation plan should be developed or not. A decision should be taken about what kind of plan should be developed and how the process should look like. The planning of outdoor recreation includes several actors that need to be contacted and involved.
3. MAPPING AND COLLECTING INFORMATION: Good knowledge about the conditions of the site and the situation of outdoor recreation is important in the development of a plan. Collecting information about outdoor recreation values and needs is one part. The other part is to collect existing information and supplement it with new information that has been collected. To achieve a wider perspective various actors and citizens should be used as a source of knowledge.
4. DIALOGUE AND DEVELOP A PROPOSAL: After the collection of information and needs is done,

a plan is developed that includes goals, strategy, and actions. The plan should be developed together with people with different backgrounds which leads to a plan based on a wider perspective.

5. DECISION TO ADOPT THE PLAN: The plan needs to be inspected by different actors and corrections need to be made if some issues are found.

6. IMPLEMENT AND FOLLOW UP: After the plan is adopted, it needs to be transferred into reality. Ongoing follow-ups are needed to ensure that goals are achieved, and the work is carried out according to the agreed plan.

MANAGEMENT

Persson describes the management of public green spaces with the park-organisation-user model (see figure 3) which shows the relationship between the different parts (Randrup et al. 2008). The model is used as a structure in the case study and for the development plan of Talsu pauguraine. “*The park*” is Talsu pauguraine, “*the organisation*” is laws and culture, the actors involved in the planning and management, etc., and “*the users*” are the hikers.

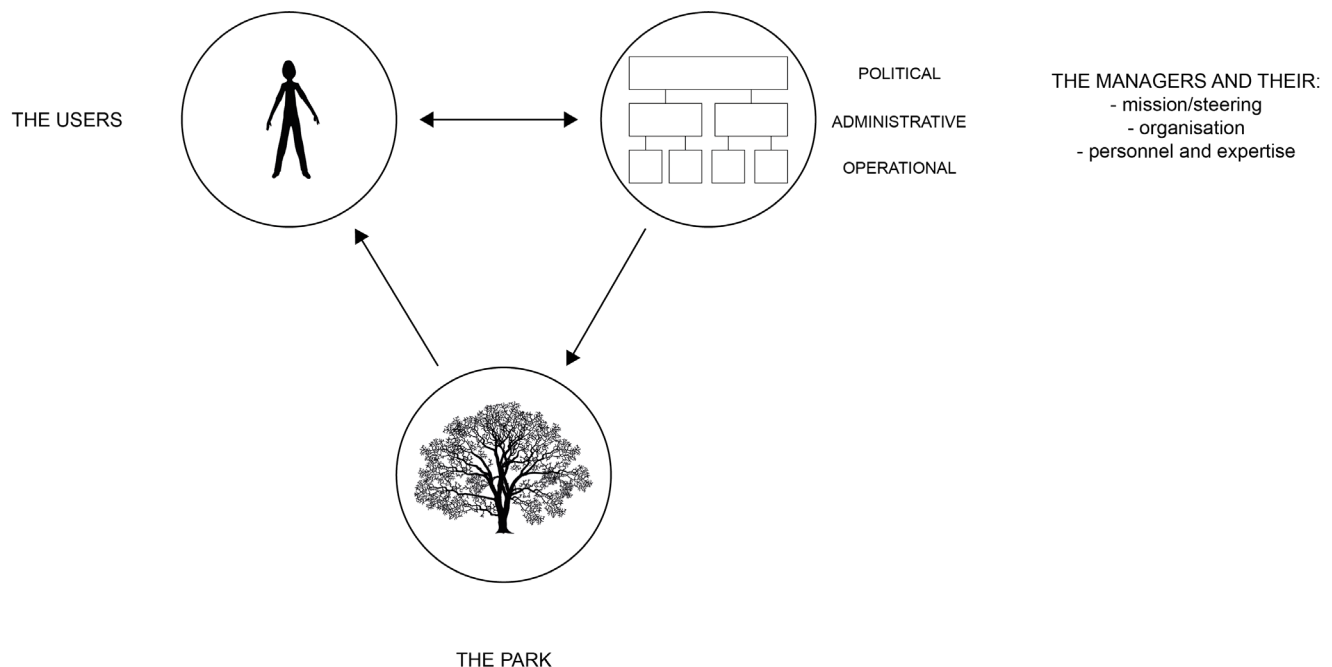


Figure 3. The park-organisation-user model used for the case study and development plan of Talsu pauguraine. (Source: Anna-Sara Reinisch, 2021-12-27, based on Randrup et al. 2008)

THE HIKERS' NEED

Hikers have different needs. Brämer has developed quality criteria for hiking trails, hiking friendly hosts, and hiking brochures. According to Brämer, hikers particularly like beautiful landscapes and wide views, natural paths, individual tours, and reliable hiking guidance systems. Common complaints from hikers while hiking is garbage in the countryside, trafficked roads, misleading signposts, traffic noise of all kinds, incorrect hiking maps, unkempt benches and huts, long asphalt stretches, damaged paths, and insufficient marking (Profilstudie Wandern 2000, cited in Brämer 2009).

Examples of preferred hiking destinations are pristine nature, natural silence, views, peaks, waterfalls, caves, ravines, managed huts, waterbodies, forests, old trees, meadows, heather, historical buildings (such as castles and churches), archaeology places, places to get refreshments, nature

reserve, natural trails, and art (Interessant am Wegesrand. WanderMarkt intern Nr. 91, Marburg 2000, cited in Brämer 2009; Recreation SA Trails Sub Committee 2016). Natural trails are what hikers appreciate the most. Gravel and asphalt roads are what hikers appreciate the least (Brämer 2009).

The guidelines from Recreation SA listed places of interest that hikers should avoid such as environmentally sensitive areas, steep side slopes, low-lying wet/boggy areas, water crossings and riparian zones, known weed infested or diseased areas, and inappropriate soils such as loose sand and boggy clays (Recreation SA Trails Sub Committee 2016).

Guidelines for trail planning, design and management mention that users of trails expect unique nature, culture and landscape, step on and step off opportunity, information via the website, accessible transport and vehicle parking, accommodation, services, sustainable and low environmental and cultural impact, trail-based events, and everything between short walk component to multi day walks (MTBA n.d.). Other facilities that should be provided are toilets, shelters, and camping possibilities on long-distance trails (Recreation SA Trails Sub Committee 2016).

Hikers appreciate orientation such as signposts, markings, hiking maps, orientation boards, and hiking maps (Profilstudie Wandern 2000, cited in Brämer 2009). Brämer also defined the basic principles of trail marking such as correspondence with maps, completeness, and direction visible in both directions. The visibility should, for example, be frontal, on eye level, and outside curves (Brämer 2009).

Baltic Country Holidays has developed criteria and guidelines to make services such as accommodation along trails more hiker-friendly. Examples of criteria are to provide information about the trails, to have available information in at least one foreign language, to offer information about public transportation, have Wi-Fi Internet available, have drinking water available, or the chance to refill water bottles, offer the opportunity to charge electronic devices, have accommodation available, offer the opportunity to clean or dry clothes, offer a hot shower, etc. (Baltic Trails, n.d.b).

There are different kinds of trails systems like linear, loop, and stacked loop. Linear trails are points suitable for long-distance trails and that connect two points. Side trails can allow access to secondary recreation features like viewpoints. The loop guides the user back to the trailhead and is mostly the preferable way to design a trail. It prevents retrace steps and is, therefore, more interesting to use. The stacked loop offers a variety of travel distances and can be used to offer a wider range of difficulties to suit the user's ability (see figure 4) (Recreation SA Trails Sub Committee 2016). Trail systems can be combined to offer a variety of hiking experiences (see figure 5).

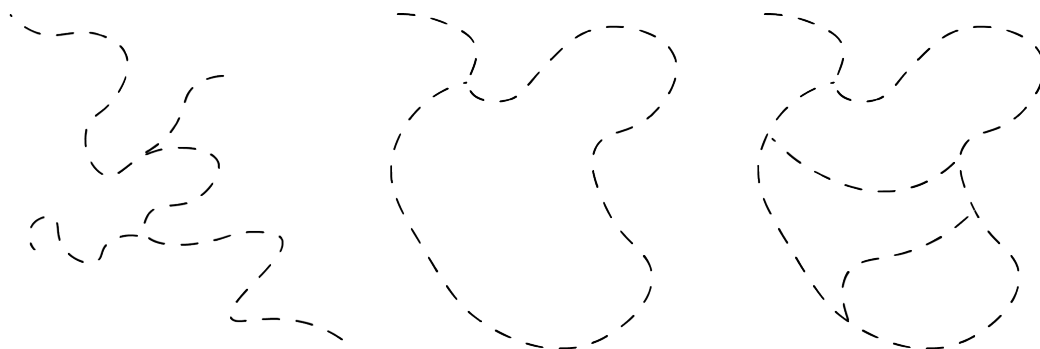


Figure 4. Common trail systems: linear, loop, and stacked loop. (Source: Anna-Sara Reinisch, 2021-12-27, based on Recreation SA Trails Sub Committee 2016)

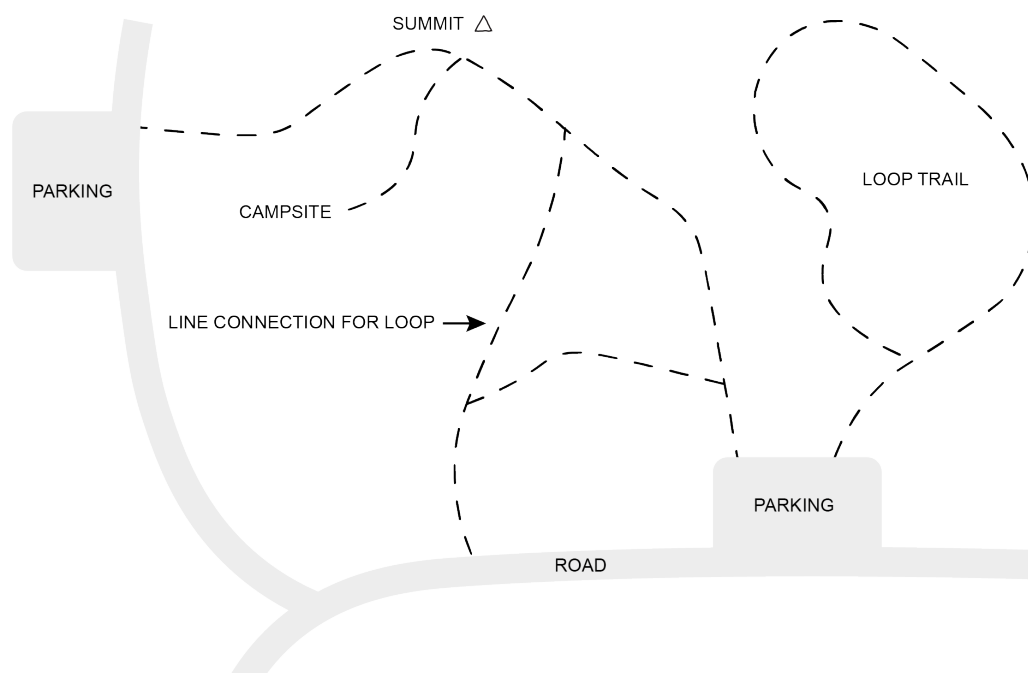


Figure 5. Example of combined trail systems. (Source: Anna-Sara Reinisch, 2021-12-27, based on North 2021)

THE BENEFITS OF OUTDOOR RECREATION

Research shows positive effects on humans when they are practicing outdoor recreation. Contact with nature promotes the physical and mental health of humans (The Public Health Agency of Sweden 2021) as well as benefits the economy, education, and integration (Faskunger 2020).

HEALTH

Too much sedentary and too little movement and exercise is estimated to cause around 5,3 million deaths worldwide each year (Faskunger 2013; Malm et al. 2017). Both occasional and regular outdoor recreation has a positive effect on human health as it increases fitness and muscle strength, reduces stress and the risk for different diseases, improves sleep, and increases the intake of vitamin D as spending time outside (Faskunger 2020; WHO 2016).

Research indicates that the positive mental effects of outdoor recreation are at least as significant as the physical ones (WHO 2016; Keniger et al. 2013; Lackey 2019). Outdoor recreation in a blue and green environment led to increased recovery, reduced risk of mental illness, depression, increased mental stability, and benefit the social life (Abraham et al. 2010; WHO 2016; Lackey et al. 2019; Eigenschenk et al. 2019; Faskunger 2020).

OPPORTUNITIES AND CHALLENGES WITH OUTDOOR RECREATION DURING COVID-19

COVID-19 is an ongoing global pandemic since 2019. To reduce the spread of the COVID-19 virus, many countries imposed lockdown measures to limit people's movement and interaction with other people, especially indoors (McGinlay et al. 2020) which has put green spaces under pressure worldwide (Kleinschroth et al. 2020). The COVID-19 pandemic increased the interest in urban green spaces, but the access to urban green spaces is unequally distributed in the landscape and varies with social and economic status (Haase et al. 2017, cited in Kleinschroth et al. 2020).

The visiting numbers of the Nature Protected Areas decreased during the strict lockdown. When the

strict lockdown was repealed during spring and summer 2020, the number of visitors to Nature Protected areas increased steeply. The green areas provided people with stress release during societal disruption (Kleinschroth et al. 2020; McGinlay et al. 2020).

The challenge that is faced in Nature Protected areas due to the COVID-19 is to find a balance between nature conservation and public health safety. Other challenges are overcrowding, problematic behavior by users including waste management and disturbance, parking and traffic issues, managing social distancing, and cancellation of educational and cultural activities (McGinlay et al. 2020). The COVID-19 crisis has shown the importance of preserving and developing future urban green infrastructures (Kleinschroth et al. 2020).

ECONOMY

The relative health improvements of increased physical activity in relation to sedentary lifestyles are well known for a wide range of diseases and symptoms (Malm et al. 2017). Extended outdoor recreation can contribute to decreasing the need and reducing the cost of healthcare (Hagberg 2017). Also, outdoor recreation in residential areas is a cheap alternative for individuals compared with other leisure activities like organized sport (Eigenschenk et al. 2019).

The local economy benefits from outdoor tourism when the consumption of food and services increases, events are arranged, and accommodation is needed (Pettersson et al. 2017). It gives new possibilities for job opportunities and companies which leads to increasing income (The Swedish Agency for Economic and Regional Growth 2018). Also, the forest visits have value itself when people can use the forest for walks, mushroom and berries picking, fishing, and hunting (Fredman et al. 2013).

Recreation areas with trees provide the society with ecosystem services where the benefits are higher than the cost for creating and maintaining the recreation areas (Elmqvist et al. 2015). Besides, residential areas close to recreation areas have a higher economic value and are more attractive in the housing market (WHO 2016).

EDUCATION

Sweden has ten objectives for outdoor recreation policy to promote opportunities to be outdoors in nature and to enjoy outdoor recreation. One of the ten policies is “*a rich range of outdoor recreation in schools*” (The Swedish Environmental Protection Agency n.d.a).

Research shows that when pupils have classes partly outdoors during their education, it leads to a positive effect on learning, working memory, concentration, personal and social development, health, physical activity, and motivation. Increasing outdoor teaching does not decrease the result of theoretical subjects. Instead, an increase in outdoor teaching improves the results of the pupils (Faskunger et al. 2018).

Increased outdoor recreation and outdoor education promote the motor skills of children. Good motor skills have a strong connection with high cognitive ability and development during the years of growing up (Ericsson 2017). Children’s opportunities for physical activity and outdoor recreation in adulthood will be worse compared to their peers with better motor skills. The risk increases of high societal costs, health issues, and suffering in the future if people don’t perform outdoor recreation in their childhood (Faskunger 2020).

INTEGRATION

Research shows that people born in a country outside of Europe are spending less time in nature

compared with people born in Sweden or another European country (The Swedish Environmental Protection Agency 2019a). In the Nordic countries, it is relatively common to use outdoor recreation and nature for integration purposes in educational programs. The initiatives are often used as an introduction to the new society, in language teaching, for skills development, to learn a profession linked to the green industry, and to generally promote motion and outdoor recreation (Nordic Council of Ministers 2017). Outdoor recreation has the potential to be a safe platform and simple meeting place to promote learning, intercultural contacts, and maintain cultural traditions of ethnic groups (Stodolka et al. 2016; Gentin, 2011; Gentin et al. 2019).

Outdoor recreation can contribute to the work against discrimination in society, but at the same time, many outdoor areas and exercise areas are not sufficiently accessible for people with functional variations (The Swedish Environmental Protection Agency 2013). People with one or more functional variations spend less time in outdoor recreation areas compared to those who have no disability (The Public Health Agency of Sweden et al. 2019a).

OUTDOOR RECREATION IN LATVIA

THE OUTDOOR RECREATION CULTURE

In Latvia (see figure 6), nature-culture can be found in folk arts and crafts. Latvian culture includes close interaction with land, sea, forest, and sky with ancient interactions with the natural habitat by farmers, herders, fishing, and forest folk. Even with modern society, Latvians have an unbroken connection with nature since many Latvians know folk poetry, folksongs, folk dances, and folk games which are the key elements in celebrations (Bunkše 1992).



Figure 6. Latvia's location in Europe. (Source: TUBS 2011 (CC BY-SA 3.0))

According to Tūrismaģids (2016), national tourism in Latvia developed in the late 1920s and early 1930s. In the 1930s there was a national campaign in Latvia: “*Travel the Motherland!*”. The purpose was to get to know the country, the natural and historical heritage values, beauty, charm, and diversity. Leaders of Latvia used tourism and tourism propaganda as a method to strengthen the love of

the motherland, unit the nation, activate the people, and had an educational purpose (Tūrismagids, 2016).

Latvia was occupied by the Soviet Union from the Second World War until 1991 (NE n.d.). Ziemele, founder and president of *The Baltic Country Holidays*, explained that during the Soviet time people had a habit to go on outdoor trips in the mountains and skiing was a must for everyone. Sports lessons and shooting lessons were part of the Soviet Union's ideology to keep people fit for the war. During school, young people practiced skiing, had competitions, sports events, and sports camps (Ziemele 2021). During the Soviet Union, it was prohibited to own private property (Encyclopedia n.d.) but when Latvia got independence in 1991, the land and economy became privatized again (Britannica n.d.).

After the fall of the 'Iron Curtain', the tourism industry developed, and traveling increased. A national and international tourist infrastructure with travel agencies and information centers got established. Area development projects and protection of the natural environment and cultural landscape became more common. The development of tourism was a way to get closer to the economy in post-socialist Europe (Banaszkiewicz et al. 2017).

Latvia has now been independent for 30 years and the development of outdoor recreation trails has according to Ziemele, for example, been happening through private organisations. *Baltic Country Holidays* developed *The Baltic Trails*, which are one of the first long-distance paths going through Latvia. The development of *The Baltic Coastal Hiking* started in 2017. According to Ziemele, the trails got appreciated and since then hiking has become more popular. Before that, Latvia had a history of short hiking trails with a maximum of 10 km (Ziemele 2021; Kurzemes regions 2017).

Human activities are allowed on land owned by the LMV (Latvia's State Forest). To inform people about how to behave in the forest, LMV is currently writing a document called "*Rules of Good Behaviour in Forests*" which will be published for the citizens when it's done. Examples of what the documents say are that it's allowed to pick berries and mushrooms, medicinal plants, one Christmas tree, and a small volume of moss, lichens, and tree branches. Waste disposal, damage to property, and improper use of forest roads are not allowed. If an activity is arranged for 50 people or more, or if a public event is planned, LVM must get noticed. It's forbidden to light bonfires in the forest during the forest fire period. It's not allowed to go off-road with motor vehicles. It's also not allowed to disturb other forest visitors (Melne 2021).

PLANNING AND MANAGEMENT

Today, Latvia state has no overall planning and management for outdoor recreation, and *Baltic Country Holidays* had to independently implement a hiking trail project (Ziemele 2021). According to Serzante, working at *Baltic Country Holidays*, multiple parties are involved in the development of outdoor recreation in Latvia such as private entrepreneurs (guest houses, holiday complexes, etc.), state organisations (Nature Conservation Agency, Latvia's State Forests, regional planning institutions), non-governmental organisations (country tourism associations), and local municipalities. The route and the marking must be agreed upon and confirmed with the landowners (Serzante 2021).

According to Ziemele, Latvia's hiking system is not as developed as in the Nordic countries, but the Baltic State is looking at the Nordic countries as a role model. When Ziemele's organisation *The Baltic Country Holidays* started with *The Baltic Coastal Hiking* project, the organisation had to deal with a lot of question marks and break prejudice. The Nature Protection Agency and the municipality were not happy with the development of hiking trails in nature and the society was not used to long hikes (Ziemele 2021).

With time, the development became easier when people started to understand the idea of the trails.

According to Ziemele, it will take time before people start to spend more time performing outdoor recreation. To develop hiking projects successfully, Ziemele believes that it is important to involve people in the projects and have their support to decrease the risks that the trails will get demolished. When the development of new sections started on *The Baltic Trails*, it was already much easier. People understood the idea and there was an existing structure to work after (Ziemele 2021).

When planning where the hiking trails should go, Serzante emphasises that there usually are fewer problems with state-owned lands. Agreements with private landowners may be challenging as they often don't want tourists on their property. That is the reason why long stretches of hiking trails go along public roads (Serzante 2021).

If the trails cross a specially protected nature area, it must be confirmed with the Nature Conservation Agency in Latvia. The Nature Conservation Agency and Latvia's State Forests have also developed outdoor recreation infrastructure, such as nature trails, lookout towers, public resting areas, etc. Furthermore, private entrepreneurs and local municipalities tend to create outdoor recreation infrastructure objects or organize events (Serzante 2021).

According to Serzante, the budget for those hiking trail projects comes from different sources. For example, *The Baltic Trails* have been developed within EU projects with the co-funding of the European Regional Development Fund. The Nature Conservation Agency and Latvia's State Forests use state budgets, but also these organisations use co-funding from different EU projects. Private entrepreneurs use their budget or participate in projects (Serzante 2021).

For the management of *The Baltic Trails*, the project partners work together with the municipality. If a hiker is contacting *The Baltic Country Holidays* about some damage or problems along the trail, *The Baltic Country Holidays* contact the right project partner that contacts the municipality who is responsible to solve the problem. According to Ziemele, the municipalities do something because they see how popular the trails are (Ziemele 2021).

A PAN Baltic conference was arranged by the *Baltic Country Holidays* on November 9th, 2021, to invite international stakeholders to exchange experiences and to talk and discuss planning, developing, and management of hiking trails. A discussion was held on who should take care of future hiking trails and what could be the financing model and funding source for trail maintenance.

The conclusion was that NGOs, private commercial organisations, public organisations like state and municipalities, and potentially one of the existing organisations should take care of future hiking trails. Today, there is already a group of volunteers monitors the routes. Entrepreneurs recognize the route and contact the local tourist information center if something is wrong. The options for funding were membership and donations, EU project founding, public funding from state institutions, commercial services, and combined funding of EU and local municipalities (Baltic Country Holidays 2021).

During the conference, problems related to the trails were presented such as negativity surrounding *The Baltic Forest Trail* because of situations such as people damaging stands and markings (see figure 7 on next page). e.g., environmentalists consider painting a tree to be damaging. There could also be political reasons where people recall the old Belarussian flag and see the marking as political activity. There are also problems with private landowners who are against tourism and destroy markings close to their properties (Baltic Country Holidays 2021).

To prevent damage, information has been shared on social media to inform people about the trails and local children have been involved in the marking events as an opportunity to talk about nature and tourism (Baltic Country Holidays 2021).



Figure 7. Damaged markings along *The Baltic Forest Trails*. (Source: Ražinskis 2021, the photos are used with the permission of the photographer)

THE BALTIC TRAILS

The Baltic Trails are two new long-distance hiking paths in the Baltic States. The paths are called *The Baltic Coastal Hiking trail* (1419 km) and *The Baltic Forest Hiking trail* (2141 km). *The Baltic Coastal Hiking* (see figure 8) is a part of the E9 European long-distance path. The Baltic part of the trail starts at the Lithuanian-Russian border, leads through Latvia, and finishes in Tallinn, Estonia. It is a trail that runs along the Baltic Sea coast with sandy and rocky beaches (see figure 9) (Baltic Trails n.d.a.).

The Baltic Forest Hiking (see figure 8) is part of the E11 European long-distance path and goes through the Baltic States where it starts at the Polish-Lithuanian border, leads through Latvia, and finishes in Tallinn, Estonia. The trail lead through the most forested lands and national parks in Estonia, Latvia, and Lithuania (see figure 10) (Baltic Trails n.d.a.).



Figure 8. Overview of *The Baltic Coastal Hiking* and the long-distance path E9 (to the left) and *The Baltic Forest Hiking* and the long-distance path E11 (to the right). (Source: Baltic Trails n.d.a; Baltic Trails n.d.b, the figures are used with the permission of the owner)

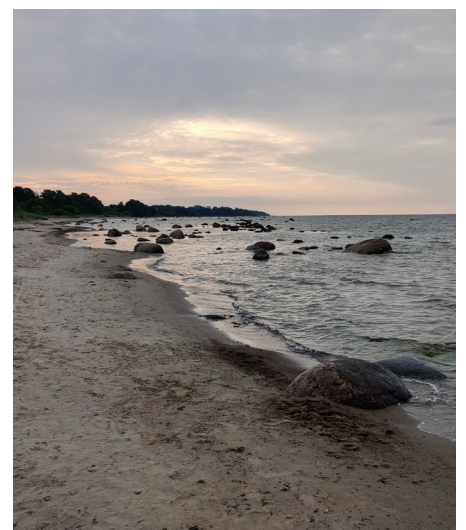


Figure 9. *The Baltic Coastal Hiking* in Latvia (see figure 8) is running through a varied landscape. The pictures are taken along the coast west of Riga. (Photos: Anna-Sara Reinisch, 2021-07-28)

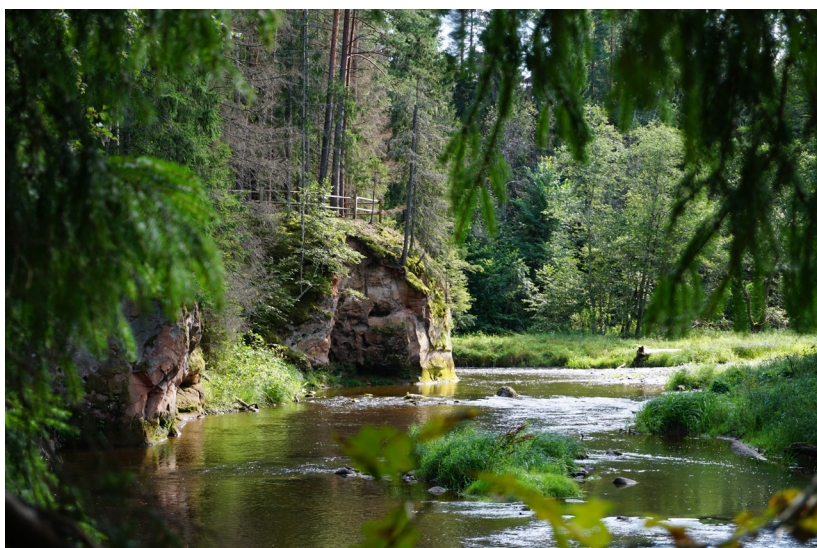


Figure 10. *The Baltic Forest Hiking* in Latvia (see figure 8) is running through a varied landscape like forests and national parks. The pictures are taken in Kuldīga and east of Riga. (Photos: Anna-Sara Reinisch, 2021-08-27)

The Baltic Trails are divided into different regions and about 100 sections. The sections are recommended starting and ending and located in cities and villages, beaches, recreation parks, train stations, bridges, squares, or parking lots. The sections are around 20 km long and can be managed during one-day hiking or the sections can be combined into a longer hike. Almost every section has accommodation and transport options along the path (Baltic Trails n.d.a.).

The goals for the projects are to increase the number of visitors in the project area by developing cross-border long-distance hiking paths. Nature is one of the key resources for tourism development in the Baltic States and the project partners hope that with help of the trails the overnight stays in rural areas will increase. Accommodation, food, transport service, local shops, etc. along the trail are calculated to receive more visitors (Interreg Latvija-Lietuva n.d.).

When developing the trails, marking events have been arranged where locals had the chance to participate to increase their knowledge about the project and for a higher acceptance of the trails (see figure 11). The forest and coastal areas will be more accessible, safe, and comfortable through marked trails, the information provided, and management which will benefit the general tourism interest. Information is accessible via information boards, maps, brochures, the website, and various mobile applications (Interreg Latvija-Lietuva n.d.).



Figure 11. Marking event of *The Baltic Forest Hiking*. (Photos: Anna-Sara Reinisch, 2021-08-20)

OUTDOOR RECREATION IN SWEDEN

THE OUTDOOR RECREATION CULTURE

According to The Swedish Environmental Protection Agency (2020a), outdoor recreation is part of the Swedish welfare with a long tradition and unique opportunities. In the radio program *Vetenskapsradion historia* (2020), Thurfjell explains that most people live their daily life in an urban environment. At the same time, nature is important for people and connected with the Swedish culture. Relatives have utilised forest resources and that culture has been passed on to the next generations.

More affluent proportions of the demographic have had more access to participate in outdoor recreation, as a result of greater financial resources who started outdoor recreation in the Swedish mountains. According to Sandell (2000), a professor in cultural geography, explains that outdoor recreation, nature tourism, and outdoor pedagogy have emerged as a very important part of industrial society. The need for nature have increased due to more people were living in overcrowded cities with polluted air (The Swedish Environmental Protection Agency conferences and meetings 2017).

From 1930 the view of outdoor recreation changed. Outdoor recreation should be for everyone and not just for the privileged people. Laws like *the Right to Public access* and beach protection were founded. Everyone was supposed to have access to nature (The Swedish Environmental Protection Agency conferences and meetings 2017).

Sandell describes that during the new century of 2000, the definition of outdoor recreation became more specific, and Sweden implemented the ten objectives for outdoor recreation (The Swedish Environmental Protection Agency conferences and meetings 2017). The ten objectives for outdoor recreation policy are (The Swedish Environmental Protection Agency n.d.a):

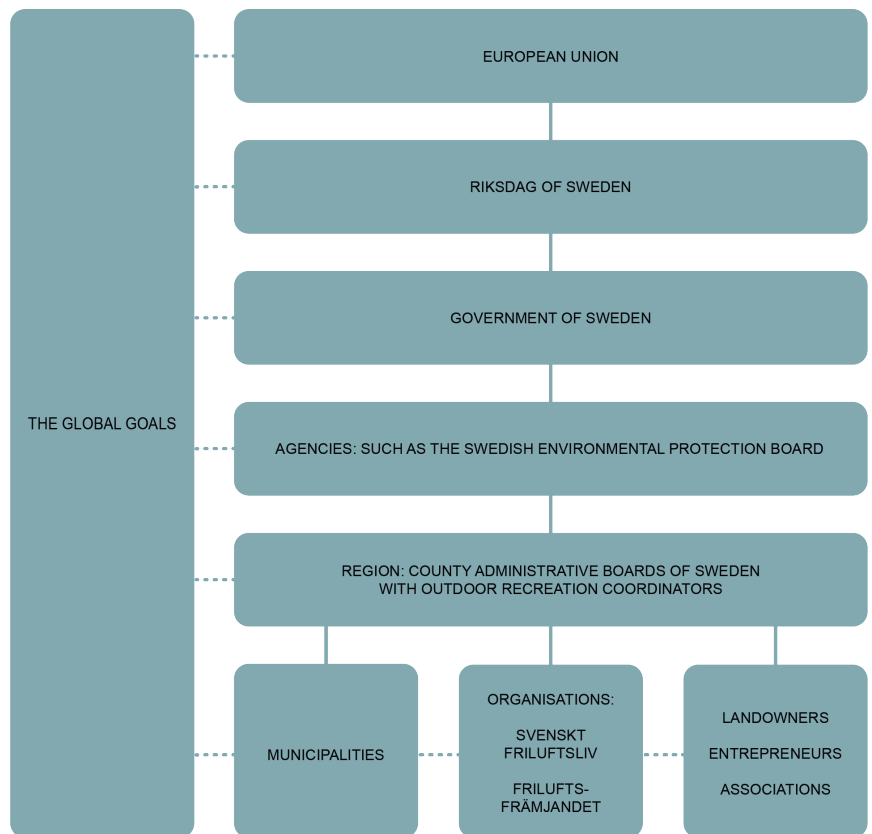
1. Accessible nature for everyone
2. Strong commitment and collaboration for outdoor recreation
3. The Right of Public Access
4. Access to nature for outdoor recreation
5. Attractive urban nature
6. Sustainable regional growth and rural development
7. Protected areas as a resource for outdoor recreation
8. A rich range of outdoor recreation in schools
9. Outdoor recreation for good public health
10. Good knowledge about outdoor recreation

PLANNING AND MANAGEMENT

There are several actors involved in the planning, management, and funding of outdoor recreation in Sweden. Regarding the budget, there are various opportunities to finance investments in outdoor recreation. There are, for example, government grants, EU support, calls from authorities, municipalities, organisations, foundations, companies, etc. The County Administrative Board (see figure 12) handles several types of support that various actors can apply for to implement initiatives that contribute to the outdoor recreation goals (The County Administrative Board Västmanland n.d.).

The Agencies (see figure 12) make sure that laws that have been decided by the Swedish Riksdag (The Swedish Parliament in English) and government become reality (Regeringen 2021). The role of the Swedish Environmental Protection Agency (see figure 12) is to distribute the annual grant of almost SEK 48 million to the organisation *Svenskt Friluftsliv* (Swedish outdoor recreation in English) and report back the effects to the government (see figure 12) (The Swedish Environmental Protection Agency 2021b). The Swedish Environmental Protection Agency is also responsible for environmental issues and the tasks include distributing government grants to other actors who work,

Figure 12. Model of actors involved in the management of outdoor recreation in Sweden. (Source: Anna-Sara Reinisch, 2021-12-27, based on The County Administrative Board Västmland n.d.; Swedish Environmental Protection Agency 2020c; The Global Goals n.d.; Svenskt Friluftsliv n.d.; Friluftsfrämjandet n.d.)



for example, with protection and management of valuable nature, and they also provide support to outdoor organisations (The Swedish Environmental Protection Agency 2020b).

On behalf of the government, the organisation *Svenskt Friluftsliv* (see figure 12) distributes the grant to different outdoor recreation organisations (The Swedish Environmental Protection Agency 2021b). *Svenskt Friluftsliv* is an umbrella organisation for 27 non-profit outdoor organisations which *Svenskt Friluftsliv* is representing. *Svenskt Friluftsliv* is a spokesperson for the government, the Riksdag of Sweden, and the agencies (Svenskt Friluftsliv n.d.).

The County Administrative Board's (see figure 12) task is to lead and coordinate the work in the county. The national goals for outdoor recreation guide the County Administrative Board in their work. Outdoor recreation is varied, and the County Administrative Board has contact with people that are working with community planning, public health, school, care, culture, nature conservation, and the environment as well as regional and local development. Many authorities, therefore, need to collaborate within outdoor recreation. The County Administrative Board cooperates and has a dialogue with the region, the municipalities, agencies, associations, companies, landowners, and other actors in the county who work with and are affected by outdoor recreation (The County Administrative Board Västmland n.d.).

The regional outdoor coordinators at the County Administrative Board (see figure 12) and have a central role in disseminating information and contributing to skills development on the outdoor goals of regional and local actors. The outdoor coordinator supports the municipalities in their work to develop the conditions for outdoor activities (The Swedish Environmental Protection Agency 2019b).

The municipalities (see figure 12) work with outdoor recreation on a political and strategic level. Today, more and more municipalities have plans and governing documents connected to outdoor recreation. More municipalities state that they have an outdoor council for dialogue with outdoor organisations, foundations, landowners, and others on outdoor issues in the municipality (The Swedish Environmental Protection Agency 2019b).

Friluftsrämjandet (see figure 12) is a non-political, non-religious, and non-profit organisation that since 1892 has promoted outdoor recreation and protected *the Right of Public Access* in Sweden. *Friluftsrämjandet* is Sweden's largest organisation for outdoor activities. They offer thousands of outdoor activities and work towards Sweden's objectives for outdoor recreation policy and the Global Goals (see figure 13) (*Friluftsrämjandet* n.d.).



Figure 13. Various actors work towards the Global Goals in their work with outdoor recreation. (Source: Global Goals n.d.)

SKÅNELEDEN

Skåneleden is a hiking trail located in Scania, Sweden (see figure 14). The hiking trail is 1300 km long divided into more than 100 sections with nature and cultural places along the trail. A section has a maximum of 30 km but is not shorter than 5-7 km. The main aim of *Skåneleden* is to get people out in nature and to improve public health (*Skåneleden* n.d.; Kronen 2021).

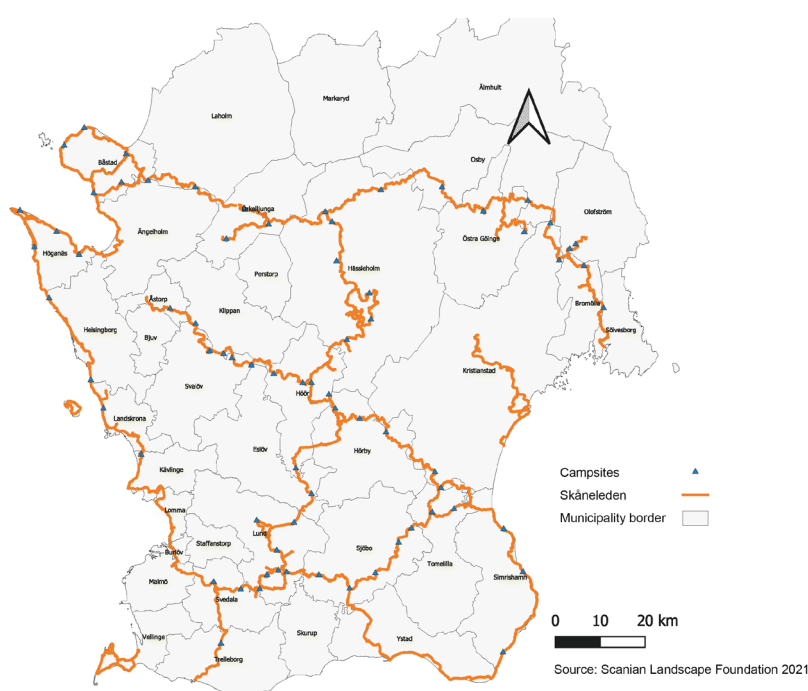


Figure 14. Overview of *Skåneleden*, Sweden. (Source: The Scanian Landscape Foundation 2021)

During an interview with Kronen, who is working as a coordinator for *Skåneleden*, Kronen explained that the sections are going from service to service such as train stations and hotels. The trails are marked with orange marks on trees, stones, and signs and almost all the trails have campsites with wind shelters (Skåneleden n.d.; Kronen 2021).

Region Scania is the trail principal for the *Skåneleden* and brings the development of the trail forward. Region Scania is also responsible for the communication and marketing of the trails, for the webpage, maps, quality standards, and the control documents which makes sure that *Skåneleden* looks similar in all municipalities (Skåneleden n.d.; Kronen 2021).

The Scanian Landscape Foundation is the coordinator for *Skåneleden* and receives money from Region Scania for the municipalities to manage the trails. *The Scanian Landscape Foundation* is cooperating with the municipality and if the municipality has any problems, *the Scanian Landscape Foundation* talks with Region Scania to reach a solution to present to the municipality (Skåneleden n.d.; Kronen 2021).

The municipalities are responsible for the management of the trails and are checking if the signs are intact, clearing the trails, remark the trail if it is necessary, managing the wind shelters and making sure there is firewood available, emptying the trash bins, empty and clean the toilets and make sure that the trails are nice and welcoming. The municipality supposes to walk along the trail at least once a year to check if there are any issues, but all municipalities don't have the budget for it. In some cases, it is the hikers that are reporting if any problems or damages have occurred, and then *the Scanian Landscape Foundation* contact the responsible municipality to solve the issue (Skåneleden n.d.; Kronen 2021).

The maintenance of the hiking trail differs between municipalities. *Skåneleden* never gets inspected by some and in others, entrepreneurs are looking after the trails. Some municipalities have a group of people that is required to return to the labour market or learn how to function in a context. The municipality pays a lower salary for those teams compared with owners which means that the team can inspect the trails more regularly and solve issues more frequently (Kronen 2021).

Skåneleden runs mostly on privately owned land. It is due to the approximately 1000 landowners along the *Skåneleden* trail who have approved that hikers can cross their land and makes the trail possible. The landowners are signing a contract that is running five years and after that, the contract is extended automatically. Regardless of the agreement, as soon as landowners have issues with the hikers on their land a solution is found as fast as possible (Skåneleden n.d.; Kronen 2021).

An argument that Kronen is using to convince the landowners to accept the trail crossing their land is that the marking will help to canalize the people instead of those hikers being spread out all over the property. The landowners will also get help with management and removing garbage. *Skåneleden* also helps to solve issues connected with the hikers. Wind shelters can help to collect people in one place instead of having people camp all over the property and increase the risk for garbage in the whole forest. *The Right of Public Access* gives people the right to cross private properties anyway and if the trail is not marked, the landowners risk dealing with the problems of the hikers by themselves (Kronen 2021).

Regarding the development of *Skåneleden*, the municipalities are taking the initiative to find suitable routes to connect with other municipalities (Kronen 2021). *Skåneleden* connect to the hiking trails *Hallandsleden* and *Blekingeleden*, that also are marked with orange (Hallandsleden n.d.; Naturkartan 2019).

CASE STUDY OF TALSU PAUGURAINÉ

DEVELOPMENT OF TALSU PAUGURAINIE

As mentioned before, Talsu pauguraine has recreational potentials that is not fully used today. The area has a varied mosaic landscape on a hilly terrain which makes the landscape interesting as moving through it. The poor recreational infrastructure is one of the reasons why the recreational potentials can't be used to its fullest. Therefore, a development plan for the area will be presented based on the theory and the case study of Talsu pauguraine. Through the SWOT analysis (Sarsby 2016) at the end of this chapter the strengths, weaknesses, opportunities, and threats are found in Talsu pauguraine and measurements pointed down. In the development plan, solutions to the problems are presented and how to strengthen the potentials in Talsu pauguraine to become an improved hiking area.

The association *Talsi Hillock Nature Park Support* will be the head leader of the development of Talsu pauguraine. The focus is on hiking trails and how to improve the hiking infrastructure in and around Talsu pauguraine for improved accessibility to nature, improved health, and for a better local economy. Also, services along the trail like rest areas, campsite, and toilets will be developed. Actions and management will be presented in the development plan.

The case study starts with an introduction of Talsu pauguraine. The case study and the development plan are based on Persson's park-organisation-user model (Randsup et al. 2008). "*The park*" is the physical environment in Talsu pauguraine. "*The organisation*" are laws, responsible, employees, structure, and culture. "*The users*" are the ones who are using Talsu pauguraine such as hikers. In the case study, "*the park*", "*the organisation*", and "*the users*" are each divided into "*the situation today*", "*potentials*", and "*challenges*" (see figure 15).

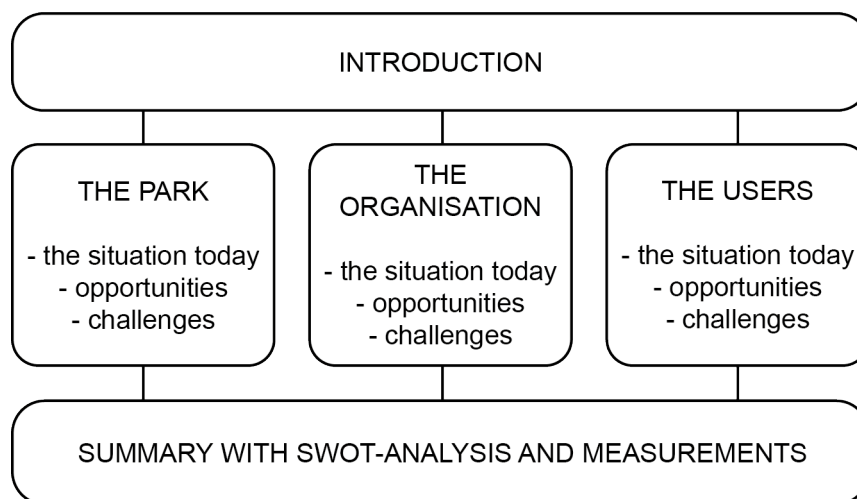


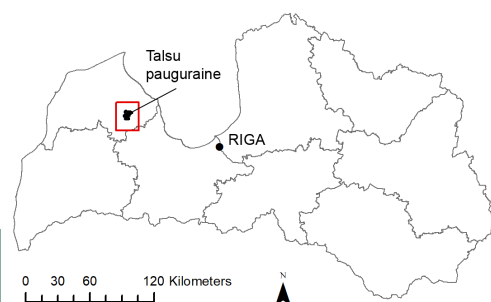
Figure 15. Structure of the case study implemented on Talsu pauguraine. (Source: Anna-Sara Reinisch, 2021-12-27)

INTRODUCTION OF TALSU PAUGURAINIE

Talsu pauguraine is a Nature Park of 3624 ha and is in the north-western part of Latvia (see figure 16). It's part of Talsi municipality. The town Talsi with around 10 700 inhabitants is located west of the Nature Park Talsu pauguraine. The Nature Park was established as a protected landscape area in 1977, in 1987 the area got the statues Nature Park and in 2005 the area became a Natura 2000 site (SIA ELLE 2013).



Figure 16. Location of Talsu pauguraine in Latvia.
(Cartographer: Anna-Sara Reinisch, 2022-01-06)



THE PARK

THE SITUATION TODAY

Talsu pauguraine is one of the most diverse areas of North Kurzeme. The main feature of the Nature Park Talsu pauguraine is the landscape formed in hilly terrain that is covered by coniferous, mixed forests and agricultural land. Another feature is the interaction between human economic activities and natural processes. The biological values in the area are the broad-leaved forests and the natural deep lakes (see figure 17). Protected invertebrate species are found in places where old broadleaf trees have been preserved as cultural and historical value. The landscape is a favourable living environment for several protected bird species and their habitats are relatively little disturbed by human activities (SIA ELLE 2013; Natura 2000 2021).

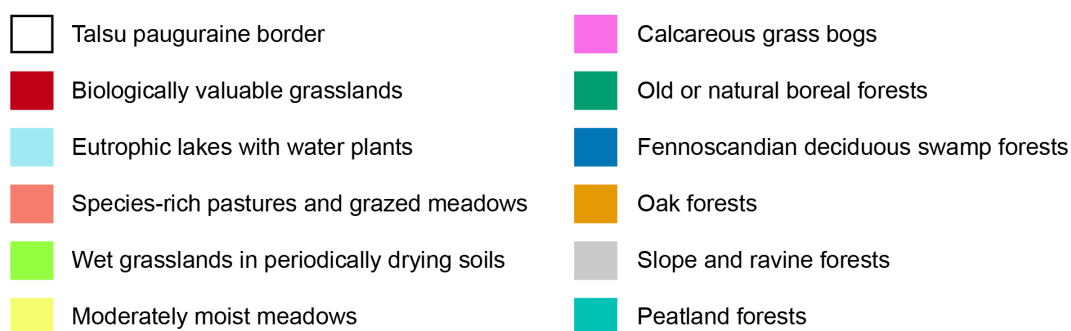
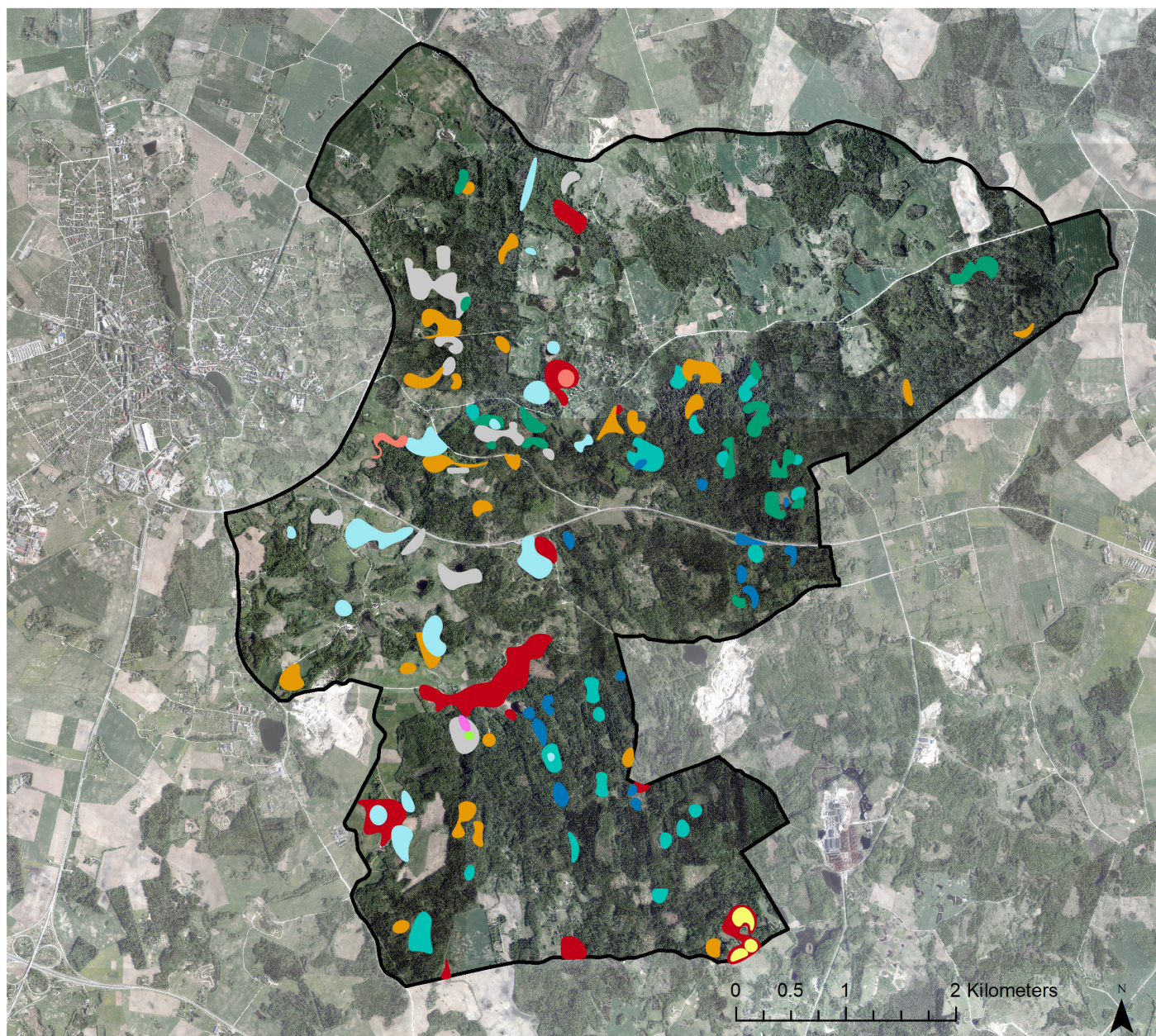
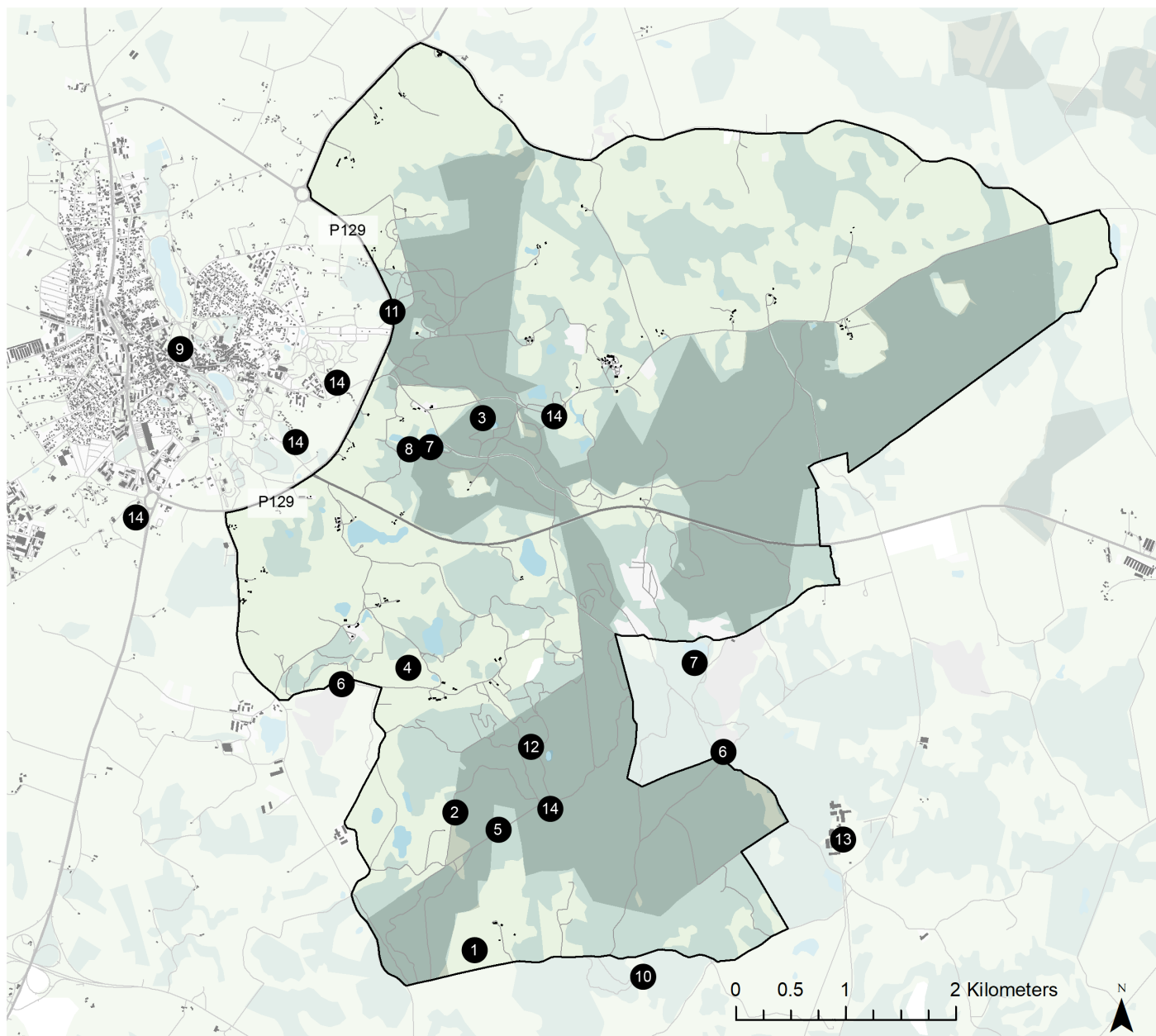


Figure 17. Map with protected and biologically valuable areas in the Nature Park Talsu pauguraine. (Cartographer: Anna-Sara Reinisch, 2021-12-28, based on SIA ELLA 2013)

The long-term exploitation of the site has on the one hand, maintained the diversity of ecosystems, on the other hand, led to that the biologically valued areas being relatively fragmented (SIA ELLA 2013). In and around Talsu pauguraine sawmills are located as well as quarries, mini zoo, Kamparkalns lookout tower, museums, shops, accommodations, swimming places, fishing places, tourist information center, view points, meadows, schools, hospital, restaurants, etc. (see figure 18 and 19) (SIA ELLA 2013; Google Maps 2021).



- | | | |
|-------------------------|--|------------------------------|
| Border Talsu pauguraine | 1 Agriculture (see picture figure 19) | 10 Mini zoo |
| Buildings | 2 Forest (see picture figure 19) | 11 Tunnel under P129 |
| Road and paths | 3 Deep natural lakes (see picture figure 19) | 12 Kamparkalns lookout tower |
| Forest | 4 Hilly terrain (see picture figure 19) | 13 Sawmill |
| Lakes | 5 Winter in Talsu pauguraine (see picture figure 19) | 14 Parking lots |
| Agricultural land | 6 View point | |
| Quarry | 7 Lake - swimming | |
| Urban areas | 8 Lake - fishing | |
| State Research Forest | 9 Talsi city: museums, shops, accommodations, tourist information center, schools, hospital, and restaurants | |

Figure 18. Landscape analysis of Talsu pauguraine (Cartographer: Anna-Sara Reinisch, 2022-01-06)



1.



2.



3.



4.



5.

1. Agriculture
2. Forest
3. Deep natural lakes
4. Hilly terrain
5. Winter in Talsu pauguraine

Figure 19. Photos taken during the site visits in Talsu pauguraine (for location see figure 18). (Photos: Anna-Sara Reinisch, 2021-07-11, 2021-12-08)

Traveling to Talsu pauguraine is possible by car, bike, and on foot (see figure 20). Busses are going from Talsi to Sukturi and Eerkalni, located in Talsu pauguraine (see figure 20). It is possible to take a direct bus from the capital Riga, Ventspils, Liepājā, and Kuldīga to Talsi city center (see figure 20) (SIA ELLA 2013; Google Maps 2021; 1188 n.d.). According to Jēkabsons, it's also possible to talk with the bus driver to stop at one spot in the Nature Park Talsu pauguraine (see figure 20, unofficial bus stop) (Jēkabsons 2021).

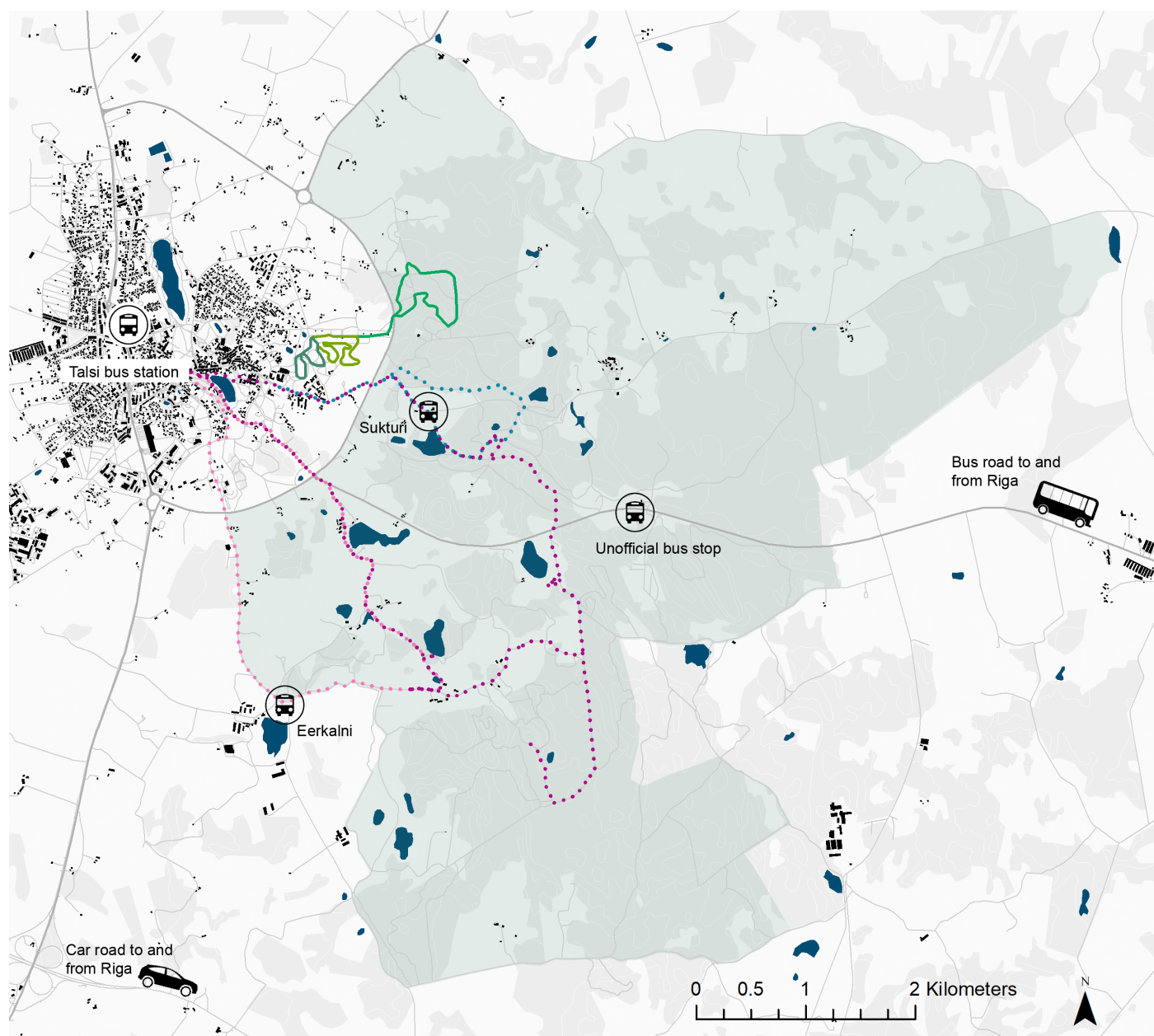


Figure 20. The transport infrastructure in and around Talsu pauguraine and photo of Eerkalni bus stop. (Cartographer: Anna-Sara Reinisch, 2022-01-06, based on 1188 n.d. and Visit Talsi n.d.)

OPPORTUNITIES

During my field walks in Talsu pauguraine, I perceived the Nature Park as diverse with a nature full of life compared with the relatively silent nature in Sweden. I could hear sounds from birds, frogs, and insects. I was surprised about how many storks were present in the area and I think that Talsu pauguraine could be a place to practice bird watching. From distance, it was possible to hear a sawmill.

During the field walks, I noticed that Talsu pauguraine already has a lot of trails and roads and that there is not a need for new ones. On the maps, that I got from the tourist information center in Talsi, hiking trails were marked in Talsu pauguraine. The problem is that the existing hiking trails are not marked in the landscape which makes it hard for people visiting and that are not from the area to orientate themselves in the Nature Park.

During one of the site visits, I discovered a tunnel going under the main road P129. The main road is a barrier between Talsi and Talsu pauguraine and it is allowed to drive 90 km/h on that road. The tunnel could be a safe way to pass the road P129 without interacting with the traffic, especially for children (see figures 18 and 21).



Figure 21. Tunnel going under the road P129.
(Photo: Anna-Sara Reinisch, 2021-08-15)

The Baltic Forest Hiking and *The Baltic Coastal Hiking* are located relatively close by Talsu pauguraine (Baltic Trails n.d.a.). There is a possibility to connect the trails in Talsu pauguraine with *The Baltic Trails* to develop a national and international network of hiking trails. From Talsu pauguraine to *The Baltic Forest Hiking* it is approximately 25 km (see figure 22). From Talsu pauguraine to *The Baltic Coastal Hiking* it is approximately 30 km (see figure 22). For those who would like to hike on both *Baltic Forest Hiking* and *Baltic Coastal Hiking*, it could be a spot where to jump from one trail to the other.



Figure 22. *The Baltic Forest Hiking* and *The Baltic Coastal Hiking* in relation to Talsu pauguraine. (Cartographer: Anna-Sara Reinisch, 2022-01-06, © OpenStreetMaps contributors (CC BY-SA))

CHALLENGES

During site visits in Talsu pauguraine, I could observe how dusty clouds were forming when cars passed by on the gravel roads. The vegetation around the road had a layer of dust on the leaves and it was not pleasant to hike in the dust cloud after a car passed (see figure 23).



Figure 23. Gravel roads in Talsu pauguraine where dusty clouds are formed when a car pass. (Photos: Anna-Sara Reinisch, 2021-06-27)

During the site visits conducted during the winter, I noticed that trees and branches got pushed down or fell over the trails due to the heavy snow (see figure 24). Sometimes it was difficult to see where the trail was leading because the branches covered the view or I had to find another way to pass the fallen tree. I noticed how important marked trails are when the snow is covering the trail and it is hard to orientate where the paths lead. Especially when there is new-fallen snow, and no one has walked on the trail. During summer there were also fallen trees over the trails (see figure 24).

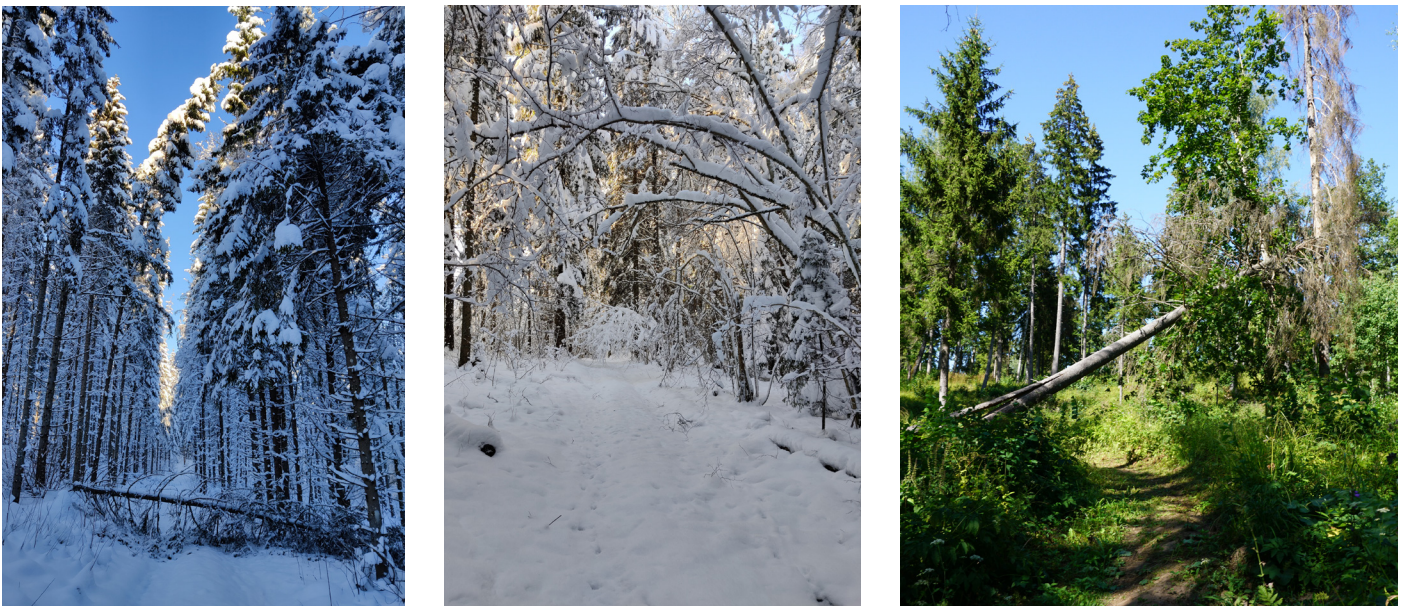


Figure 24. Fallen trees over the trails in Talsu pauguraine. (Photos: Anna-Sara Reinisch, 2021-07-24, 2021-12-08)

The poor management during summer led to poor accessibility due to high vegetation (see figure 25) and the garbage in nature reduced the aesthetic of the landscape and the hiking experience. Invasive non-native species like the giant hogweed, *Heracleum mantegazzianum*, are problematic because the plant can cause painful burns and permanent scarring. The plant releases sap by brushing against or breaking the plant. Combined with sunlight and moisture, the sap can cause a severe burn on the skin (Natura 2000 2021; Department of Environmental Conservation n.d.).

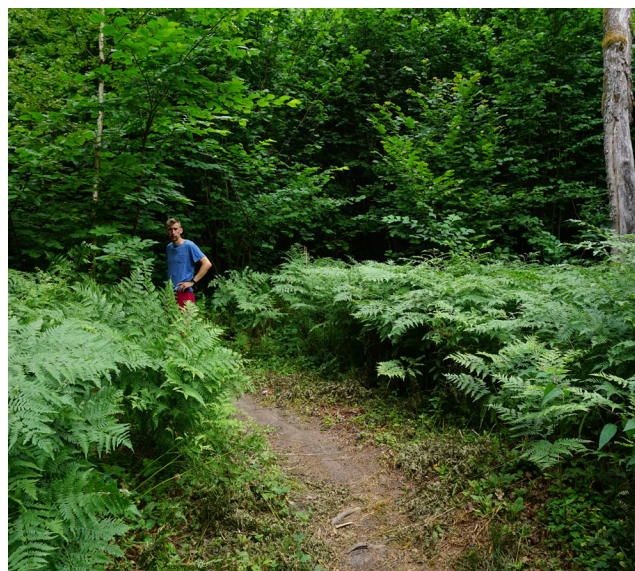


Figure 25. Unmanaged vs. managed trail in Talsu pauguraine during summer. (Photos: Anna-Sara Reinisch, 2021-06-25, 2021-07-11)

THE ORGANISATION

THE SITUATION TODAY

The landowners in Talsu pauguraine are the reserve land fund, the state, the municipality, legal persons, and private persons (see figure 26) (SIA ELLE 2013).

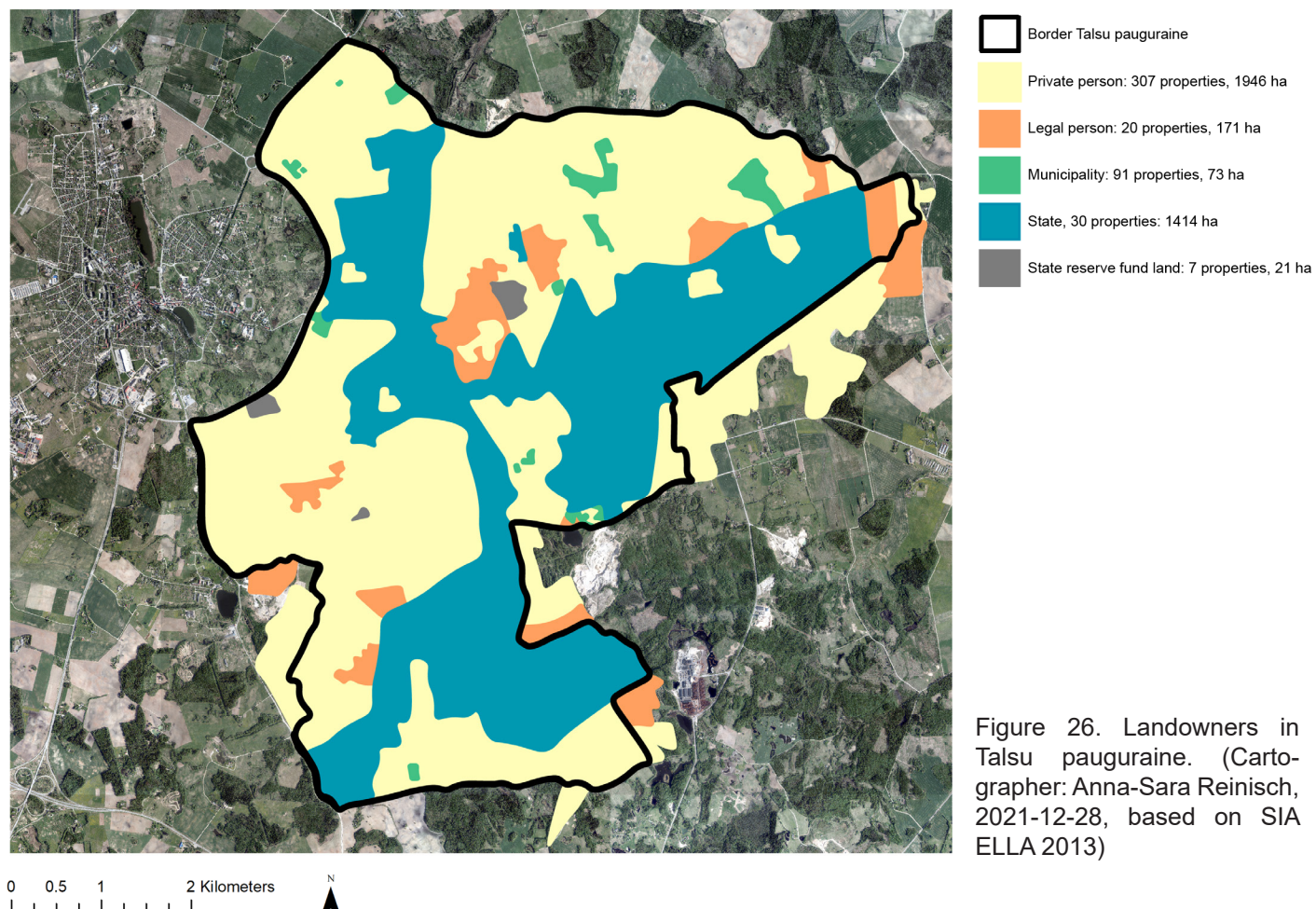


Figure 26. Landowners in Talsu pauguraine. (Cartographer: Anna-Sara Reinisch, 2021-12-28, based on SIA ELLA 2013)

A nature conservation plan for Talsu pauguraine implemented for the period 2014-2024 and which the municipality and landowners need to take into account. According to the plan, the long-term goals for Talsu pauguraine are (SIA ELLA 2013):

"The Nature Park area has a harmonized interest in nature conservation, landowners and visitors to the area, preserving the site-specific landscape structure, visual value, and ecological processes, ensuring the existence of the most biologically valuable areas and habitats at the same time as the socio-economic development of the site. The nature park area provides a favourable position for the natural values of European importance.

The area of the Natural Park "Talsu pauguraine" is a developed tourism infrastructure based on sustainable and gentle use of local natural, cultural, historical, and human resources, promoting active tourism, and educating visitors to the area on environmental and nature protection issues (SIA ELLA 2013, p. 10)."

Currently, the management of the nature park, protection control, and the implementation of management measures is coordinated by the regional administration of the Nature Conservation Agency in Kurzeme under the authority of the Ministry. The Nature Conservation Agency supervises the development of the nature protection plan and, after approval of the plan, facilitates its implementation. Talsu pauguraine is managed by the landowners (SIA ELLE 2013).

The short-distance skiing routes and mountain biking routes, which are also part of Talsu pauguraine, are operated by the sports clubs. The maintenance of infrastructure and the publication of tourism information material is ensured by the Talsi municipality and the Talsi tourism information centre. The maintenance of roads in Talsu pauguraine shall be carried out by the local government of the Latvia State Road Agency, Talsi municipality, and landowners (SIA ELLE 2013).

The permitted use of the territory shall be determined by the spatial plan of the local government. The Nature Conservation Agency is controlling that the use complies with the rules of protection and use of the nature park. Forest management and use in the territory shall be controlled by the regional State Forest office (SIA ELLE 2013).

OPPORTUNITIES

During a visit to the Talsi tourism information centre, Dāvidsone who works there, explains that if you are a non-governmental association, it is possible to receive funding from the municipality for projects conducted in Talsi municipality (Dāvidsone 2021). She also told, that there is an existing association called *Talsi Hillock Nature Park Support* which has the aim to "encourage inhabitants of the region to collaborate with one another and participate in the decision-making process of local government in the improvement of the quality of life" and to "carry out research and develop projects on conservation of nature and environmental quality improvement as well as creating a favourable background for region's socially economic development" (Talsu pauguraine n.d.).

Dāvidsone came with the suggestion to collaborate with *Talsi Hillock Nature Park Support* instead of starting a new association to implement the ideas of the development plan. Dāvidsone also offered to help with the administration part to receive funding in case the development plan become reality and since the tourism information center already has a database in the system of the municipality (Dāvidsone 2021).

The Forest Research Station, which owns some land in Talsu pauguraine was contacted and asked if they are interested in participating in the development of Talsu pauguraine. The Forest Research Station was ready to be involved in the issues of landscape, cultural-historical and social context of Talsu pauguraine development, with some conditions. The cooperation partner who creates the "pull" in this process must be a non-governmental organisation (association, etc.) with appropriate

goals.

According to the Forest Research Station, the first stage should be to develop a concept and strategy where the municipality and the Nature Conservation Agency are involved and become a part of a new nature conservation plan for Talsu pauguraine. The planned recreational infrastructure should be based on the principle “*bring in, bring out*” and contain as few elements of “*small architectural forms*” characteristic of landscaped parks as possible.

The Forest Research Station also underlines that they aim to manage the state research forests to support forest science and forest education, therefore, it should be considered that the landscape, cultural and social management of the territory will be subordinated to the main function (Līdums 2021).

CHALLENGES

According to Jēkabsons, who is from the area, and Dāvidsone, who works at the tourism information centre, the main problems in the park are unmanaged and unmarked trails and the arising of non-official trails in the nature park which leads to disturbance in nature and are a threat for red-listed species. Garbage in nature, disturbing motorcycles, and no marked hiking trail connecting the city Talsi and the Nature Park Talsu pauguraine are other problems (Jēkabsons and Dāvidsone 2020).

Dāvidsone explains that there are existing trails in Talus pauguraine but nowadays they are just found in maps and applications and not physical in the landscape. The marking was not possible so far because the Road Agency was totally against the marking of trails in Talsu pauguraine. The responsible person at the Road Agency has now changed and Dāvidsone hopes that the new person will accept the marking of the hiking trails (Dāvidsone 2021).

According to Dāvidsone, marking the trail is the easiest part of the whole process. What takes time is the planning process and the talks with people. It takes time before people are convinced about the ideas. If one landowner is against the trail crossing their private land it can stop the whole project. Another issue is that private owner doesn't always want to remove fallen trees from the trail because it cost time and money for them (Dāvidsone 2021). During my time in Lativa, I got the impression that Latvians want to have their property for themselves and don't want any strangers on or close to their property. This mindset could be problematic when designing hiking trails in the landscape. Due to the many actors that need to be involved in the project, it will be challenging to agree on a joint solution.

THE USERS

THE SITUATION TODAY

Talsu pauguraine is sparsely populated. There are scattered farmsteads in the Nature Park where farming is ongoing, silviculture is practiced, and Talsu pauguraine is according to the descriptions from Natura 2000 an attractive place for tourists (Natura 2000 2021). During site visits in Talsu pauguraine, I observed people using the place for several purposes. Berry and mushroom picking, biking, walking, running, swimming, observing animals, sitting next to a campfire, practicing cross country skiing, and visiting points of interest are some examples. Also, there are different events arranged in the Nature Park like the MTB (mountainbike) competition (MTB Maratons n.d.).

An online survey was published in the Facebook group *Talsi – enterprising and creative* where 47 people responded during the period 2021-02-20 to 2021-03-09. Most of the people who answered come according the survey to Talsu pauguraine by car. On the second place was by foot and on the third place by bike. The most common reasons for visiting Talsu pauguraine were to go for a walk to

enjoy the landscape and nature, and to practice sport. People's favourite places in Talsu pauguraine are the lookout tower Kamparkalns, the lakes, and around the evangelical Lutheran church of Leprosarium. According to the survey, people want to leave the forest as it is and keep the untouched nature. See the appendix for more detailed information about the online survey.

OPPORTUNITIES

During site visits in Talsu pauguraine, I noticed that before the MTB competitions, the grass along the paths gets cut. Cooperation could be arranged with the managers in a way that the trails gets managed all year long and can be used both for hiking and for biking.

In the online survey mentioned above, one of the questions was how to improve Talsu pauguraine (see further appendix). People's suggestions were:

- Improve the outdoor recreation and tourism infrastructure around Kamparkalns and provide more parking lots.
- Improve the management around the lakes and provide a spot where to meet and sit after a swim.
- Provide an area where it is allowed to camp and put-up tents.
- Arrange initiatives that lead to less garbage in nature.
- Provide maps to easier find trails and points of interest.
- Provide more benches and tables.
- Provide toilets.
- Provide more campfire places.
- Better management of the trails and places to visit.
- More activities and trails for kids.
- More walking and biking trails.
- Fewer motorcycles in the forests.
- More information boards.
- Do not develop Talsu pauguraine to a massive tourism location.
- Offering orientation.
- Working together with the local inhabitants.

CHALLENGES

After competitions were arranged in Talsu pauguraine I noticed during site visits that garbage and energy tubes were found in the forests. When walking along trails, garbage was also found along the trails and rest areas. It could be a challenge to educate people to stop leaving garbage in nature and instead take it with them home.

In the online survey, it turned out that the car is the most common way to get to Talsu pauguraine (see further appendix). It could be a challenge to stop this trend and instead encourage people to hike from Talsi to the nature park.

Human impact and disturbances like outdoor sports, leisure activities, and recreational activities are activities that impact nature (Natura 2000 2021). At the same time, the area needs more visitors to improve the local economy (The Swedish Agency for Economic and Regional Growth 2018). It could be a challenge to attract more visitors to Talsu pauguraine and to make the area known. It could also be a challenge to find a balance between encouraging outdoor recreation and the protection of nature. Due to a wide range of landowners, another challenge could be to find a balance between visitors and local interests without starting new conflicts.

SUMMARY

A summary of the different analyses done in Talsu pauguraine are listed below with help of the SWOT analysis (Sarsby 2016). The strengths and weaknesses are shown, and the opportunities and threats are listed. The most important measurements that need to be done in Talsu pauguraine to improve the hiking trails with better management and accessibility compared with the situation today are chosen based on the theory about planning and management of hiking trails and listed below.

STRENGTHS

- Relative hilly terrain compared with the surrounding.
- Diverse mosaic landscape, including red-listed species.
- Industry and nature working together.
- 'Treasures' from nature: mushrooms, berries, herbs.
- Biking, skiing, swimming, running, and walking opportunities.
- The area is not crowded with people which facilitatesenable alone time alone in nature.
- Points of interest are existing.
- Seasonal activities are possible.

WEAKNESSES

- For visitors that are not from the local area, it's hard to orientate because of the lack of signs.
- Presence of garbage in nature.
- People use cars as the most common transport option to visit Talsu pauguraine.
- Dusty gravel roads when cars are passing by.
- Lack of management of the trails.
- A culture exists where people bring their garbage from home to public trash bins.
- Arising of non-official roads.
- Few toilets.
- Few benches and tables.
- No marked trail exists that connects Talsi with Talsu pauguraine.
- Lack of information boards where trails are collected in one place.

OPPORTUNITIES

- Potential for a better outdoor recreation infrastructure.
- Use of technology to spread information through applications and QR-code.
- Possibilities to connect the trails in Talsu pauguraine with trails located in the surrounding and with *The Baltic Trails*.
- Protected Natura 2000 area.
- Potential to host different kinds of events.
- Potential to improve the local economy.
- Opportunity to learn about the local culture and nature.
- Ability to try local food.
- Meet new people with different perspectives and backgrounds.
- Some actors are already positive about the idea of improving the outdoor recreation infrastructure in Talsu pauguraine.
- Use of volunteers to manage the trails.
- Cooperate with locals and entrepreneurs.

THREATS

- Falling trees over the paths.
- Remaining barbed wires.
- Human intrusions and disturbances: outdoor sports and leisure activities, recreational activities.
- Invasive non-native species.
- Conflicts of interests.
- Private landowners that don't want hikers on or close their property.
- Risk of conflicts between locals and visitors.
- Limited budget.
- People that don't know how to behave in nature.

MEASUREMENTS TO TAKE IN TALSU PAUGURAINĒ

The result from the SWOT analysis identifies both problems and opportunities in Talsu paugurainē. The points have been added together to measurements and divided into the three categories “*the park*”, “*the organisation*” and “*the users*”. Points have been chosen based on the theory that will lead to a fast result in Talsu paugurainē to improve the hiking trails in terms of management and accessibility.

THE PARK

- Find a balance between protecting nature and encouraging outdoor recreation.
- Keep the values that are protected in Talsu paugurainē like the mosaic landscape with valuable biological areas and at the same time be able to encourage socio-economic development.
- Keep some protected and biologically valuable areas for species without human interaction (see figure 17).
- Develop hiking trails that “*bring in, bring out*” as a wish from the Forest Research Station and add as few elements as possible of “*small architectural forms*” characteristic of landscaped parks.
- Mark the trails for easier orientation and safer hiking.
- Connect trails with trails in the surrounding like *The Baltic Trails*.
- Develop the hiking system, points of interest, and services along the trail. Add benches, tables, educational points of interest, public toilets, wind shelter, campsite, and information boards along the trail.
- Add information boards at entrances with all the trails gathered at one place.

THE ORGANISATION

- Involve the *Talsi Hillock Nature Park Support*, the Forest Research Centre, Talsi municipality, Talsi tourism information centre, the Nature Conservation Agency, the Road Agency, private landowners, visitors, local inhabitants, and volunteers for democratic decision making and a wider perspective to base decisions on.
- Marketing of trails in Talsu paugurainē so that people know the trails exist and that the trails get used.
- Involve local entrepreneurs in a way to improve the local economy.
- Don't develop the area into a big tourist attraction area for fewer conflicts with the locals.

THE USERS

- Arrange marking events of the trails as an opportunity for people to help to develop the trails, take better care of the trails, learn more about the project, get the people on the side of the project, and meet new people.

- Inform people about how to behave in nature and to take home their trash to reduce the pressure on nature and for a more aesthetic environment.
- Develop some trails with high greater accessibility to facilitate use for a greater demographic of people.
- Develop educational trails to educate society.
- Arrange activities for kids to learn more about nature and to be a generation growing up with outdoor recreation as a part of their life.
- Create events like garbage picking, night quizzes, picture orientation, night hiking, guided tours, and removal of invasive species to make people aware of their surroundings and make hiking attractive to a new group of people.
- Provide activities during the whole year for a stable number of visitors and income.

DEVELOPMENT PLAN

INTRODUCTION

The purpose of the development plan is to find solutions to problems and highlight the potentials that were discovered during the case study in Talsu pauguraine. Another purpose is to improve the hiking infrastructure and management of trails and services in Talsu pauguraine. The development plan includes concept and strategy, overall long-term goals, and a proposal of what the result looks like after implementing the hiking infrastructure. The short-term goals and actions are divided into three different groups: "*the park*", "*the organisation*", and "*the users*" (see figure 27) (Randsup et al. 2008).

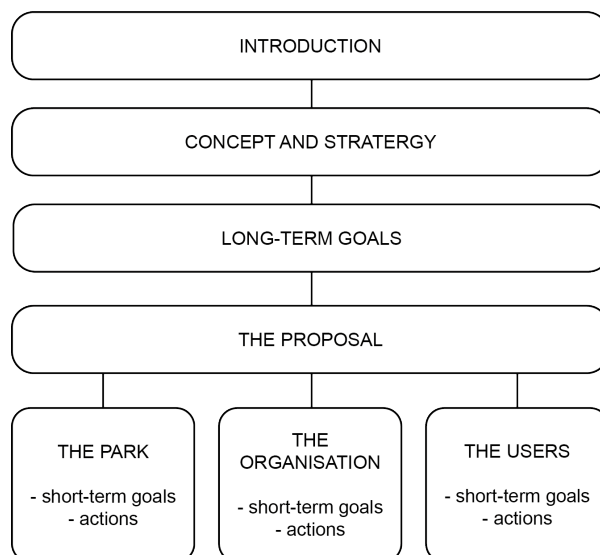


Figure 27. Arrangement of the development plan. (Source: Anna-Sara Reinisch, 2021-12-27)

The development plan is valid for 10 years. After implementing the actions, the goals and results need to be followed up and evaluated. If something is not working or changes is needed, goals and actions must be updated into a new development plan.

CONCEPT AND STRATEGY

Talsu pauguraine provides recreational, educational, and ecological values which will be highlighted by creating a development plan that with effective tools and low financial effort leads to a positive change in the area. Through different actions, Talsu pauguraine will get higher accessibility to people and at the same time protect sensitive nature and keep the naturalness. Managed trails will go through the Nature Park with signs for easy orientation and informative boards to learn more about the area and how to behave in nature. Along the path, points of interest and services will be highlighted. There will be activities all year long to improve people's health and for a regular visitor rate and local income during the whole year.

Definition of *points of interest* = is a specific point location that someone may find useful or interesting such as lookout tower, quarry, lake, zoo, sawmill, nature, etc.

Definition of *services* = a system supplying hikers need such as public transport, shop, toilet, accommodation, campsite, restaurant, rest area, etc.

LONG-TERM GOALS

From the list of measurements in the case study, long-term goals have been created as a common goal to work towards improving the hiking trails and the accessibility in Talsu pauguraine and at the

same time protect nature. The long-term goals are:

- Protection and management of nature and biodiversity.
- Keep a balance between the protection of nature and outdoor recreation.
- Encourage outdoor recreation by a well-developed hiking infrastructure, points of interest, and services.
- Provide information about the area and the trails.
- Ensure accessibility in the area.
- Develop Talsu pauguraine democratically by including different actors in the planning process.
- Educate society and arrange educational events.
- Increase the visitors to the area to improve the local economy.
- Connect the trails in Talsu pauguraine with the trail network in Latvia, the Baltic States, and Europe.

THE NEW HIKING INFRASTRUCTURE IN TALSU PAUGURAINĒ

All existing hiking trails will be gathered on one plan and marked in Talsu pauguraine. Marking events will be arranged to involve locals and volunteers to learn more about their surroundings and about the project to obtain a higher acceptance for the trails, points of interest, and services along the trails.

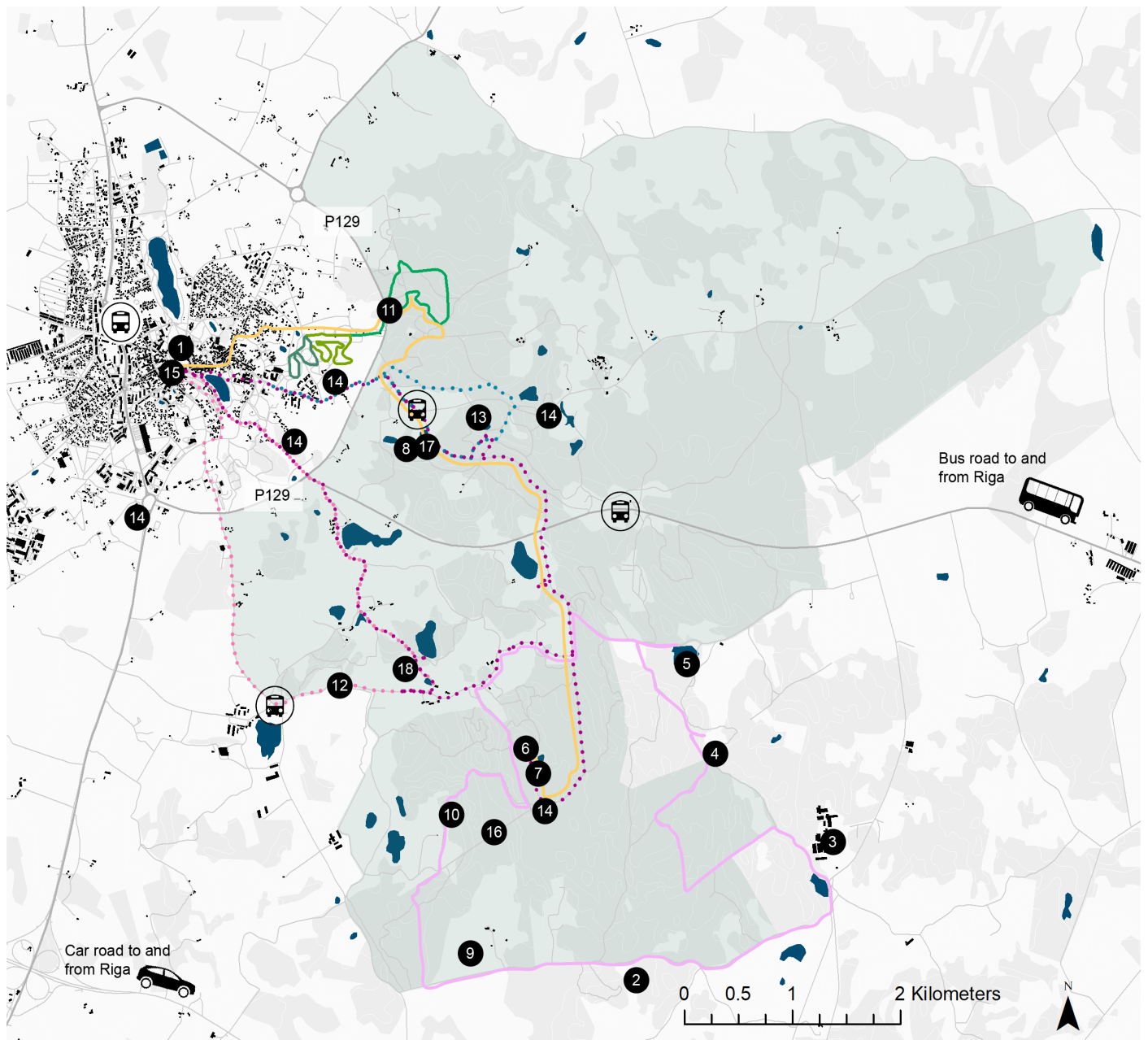
Most of the trails start at the Talsi tourism information centre (see figure 28), where people can get information about Talsu pauguraine, the trails, and events happening in the surrounding. In the tourism information centre, people can cover themselves with souvenirs from the area. The souvenirs are a way to improve the local economy and to learn more about the culture and handcraft performed in the surrounding.

In Talsi (see figure 28), hikers can buy provisions such as food and drinks for the hike. Accommodations are found in Talsi as well as restaurants, cafes, shops, pharmacies, hospital, museums, parking lots, gas stations, and bus stations with buses to and from cities such as Riga, Kuldīga, Liepāja, and Ventspils.

Two new trails will be introduced in Talsu pauguraine (see figure 28). Due to limited time, the focus on developing hiking trails has been put, as mentioned in the method, on the southern part of Talsu pauguraine. The southern part has today a less developed hiking infrastructure compared to the central part. A trail connecting the new hiking trail with Talsi has also been developed (which was a desired outcome of the respondents who participated in the online survey (see further appendix). From the online survey and the site visits the most interesting places have been highlighted and a hiking trail has been developed that links the places together via existing public roads and paths. Decisions have also been made based on the theoretical models (Milburn et al. 2003).

One of the trails will be the main trail marked clearly and connecting Talsi city with the Nature Park Talsu pauguraine (orange line, 9,5 km). The trail will lead through the existing tunnel going under road P129 for a safe hike from the city to the Nature Park. The trail will end close to the lookout tower Kamparkalns (see figure 28), one of the most popular places to visit in Talsu pauguraine. The second new trail (pink line) will enable a hike in the southern part of Talsu pauguraine where the hiking infrastructure today is not as developed as in the central part of Talsu pauguraine.

Along with the "pink line trail" different points of interest and services will be provided (see figure 28). The trail will pass lakes where it is possible to swim, forests with berries, mushrooms, and herbs, agricultural land, meadows, quarries, a mini zoo, sawmill, Kamparkalns lookout tower, and hilly terrain. A campsite will be established with a toilet, a wind shelter, and a place for a campfire that enables an overnight stay in Talsu pauguraine. Benches, tables, information boards, and educational points of interest will also be found along the trail.



- | | | | |
|--|--------------------------|--|--|
| ••••• Talsi Hillocks Charm 18 km | — Roads and paths | 1 Talsi city: museums, shops, accommodation, schools, hospital, and restaurants (see figure 29). | 10 Forest (see figure 19) |
| ••••• Mysteries of Vanagkalns 14 km | ■ Buildings | 2 Mini zoo (see figure 29) | 11 Tunnel under P129 |
| ••••• Treasures of Talsi Hillocks Nature Park 6 km | ■ Border Talsu paguraine | 3 Sawmill (see figure 29) | 12 View point |
| — Skiing trail 1,3 km from start | ■ Lakes | 4 Quarry (see figure 29) | 13 Deep natural lakes (see figure 19) |
| — Skiing trail 3 km from start | ■ Forest | 5 Lake Lejaslabini (see figure 30) | 14 Parking lots |
| — Skiing trail 6,2 km from start | ■ Agricultural land | 6 Kamparkalns lookout tower (see figure 30) | 15 Talsi tourist information center |
| — New main hiking trail 9,5 km | Terrain | 7 Public toilet (see figure 30) | 16 Winter in Talsu paguraine (see figure 19) |
| — New hiking trail 18 km | ■ Bus stop | 8 Lake - fishing | 17 Lake - swimming |
| | | 9 Agriculture (see figure 19) | 18 Hilly terrain (see figure 19) |

Figure 28. Existing and new hiking trails, points of interest, and services in and around Talsu paguraine. (Cartographer: Anna-Sara Reinisch, 2022-01-06, based on 1188 n.d. and Visit Talsi n.d.)

The “pink line trail” (see figure 28, 29 and 30) covers remarkably diverse terrain and different view points. The trail gives the hiker the chance to explore everything from industry and natural forest to active quarry and sawmills. The vision is to show how diverse and interesting Talsu paguraine is and consist of something interesting for everyone. The total length of the “pink line trail” is approximately 18 km.



1.



2.



3.



3.



4.

- 1. Talsi city
- 2. Mini zoo
- 3. Sawmill
- 3. Sawmill
- 4. Quarry

Figure 29. Points of interest and services along the new pink trail (for location see figure 28). (Photos: Anna-Sara Reinisch, 2021-06-26, 2021-12-08)



- 5. Lake Lejaslabini
- 6. View tower Kamparkalns
- 7. Public toilet

Figure 30. Points of interest and services along the new pink trail (for location see figure 28). (Photos: Anna-Sara Reinisch, 2021-06-26, 2021-12-08)

For more examples of points of interest that could be added along the trails in the future see next page (figure 31). Trails will go north and south of Talsu pauguraine and connect to the trails in Talsu pauguraine with the existing long-distance hiking trails *The Baltic Coastal Hiking* and *The Baltic Forest Hiking* (see figure 22). It is a start to connect the hiking trails in Latvia.



1. Swing
2. and 3. Inspiration on information boards to cook outside
4. Frame
5. Hut for kids
6. Wind shelter with fireplace
7. Cube as a frame and rest area



Figure 31. Examples of future points of interest and services along the trails. (Photos: Anna-Sara Reinisch, 2020)

THE PARK

SHORT-TERM GOALS

A balance should be found between outdoor recreation and nature protection. The infrastructure, points of interest, and services should be developed for hikers' needs. The values that are protected in Talsu pauguraine shall continue to be protected which are *“the attractive landscape (formed in hilly terrain) and the interaction between human economic activities and natural processes. The biological values in the area are the broad-leaved forests (including slopes) and the natural deep lakes. Protected invertebrate species are found in places where old broadleaf trees have been preserved as cultural and historical value. The landscape is a favourable living environment for several protected bird species”* (SIA ELLE 2013).

ACTIONS

TRAILS

Developing the hiking trails can help to control the flow of people to certain points and paths. Nature will have less pressure if people are staying on the trails. Existing roads and trails owned by the municipality and the Forest Research Centre will be used instead of private ones to limit the conflicts with private landowners. The vision for the trails is that it will enable more people to leave their car at home which will reduce the need for parking lots in Talsu pauguraine and improve people's health. With time, when people get used to the hiking trails and see the benefits, private landowners will hopefully allow the development of hiking trails on their property.

The main trail (see figure 28, orange line) is connected with other trails in Talsu pauguraine. From the main trail, different hikes are available and can be combined as hikers prefer. The main trail is the *“highway”* to bring hikers in and out of Talsu pauguraine. The other trails are most of the time developed as a loop crossing the main trails (see figure 32) in order to that people don't need to take the same way back which leads to a more interesting hike. The marking of the trails should be visible, done in both directions, and performed in a way that ensures safe hiking. The trails should go through the mosaic landscape to show as many different nuances of the landscape as possible with information accessible to learn about the surrounding.

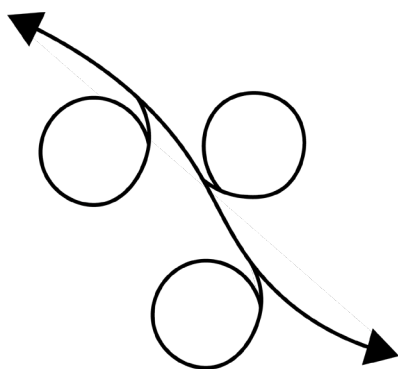


Figure 32. Main trail with crossing loop trails (inspired by Recreation SA Trails Sub Committee 2016). (Source: Anna-Sara Reinisch, 2021-12-27)

In the future, hiking trails can be developed in the northeastern part of Talsu pauguraine (see figure 28) to enable higher accessibility to nature. Places with sensible nature (see figure 17) should be conserved or have limitations of visitors during sensible periods. The visitor flow will be controlled by marking the trails which will keep most of the visitors on the trails and at the same time spread out the people in Talsu pauguraine to not harm nature in a potential popular place. Later on, the trails can be connected with existing trails in Latvia, the Baltic States, and Europe. In that way, people can

choose if they want to hike one day, multiple days, or for months and a national and international hiking infrastructure starts to form.

POINTS OF INTEREST AND SERVICES

Along the trails, some places will be highlighted by clearing around big trees, next to the lakes, creating viewpoints, and showcasing historical, cultural, and urban spots. The nature with unique values will also be highlighted. Some points of interest are located outside the border of Talsu pauguraine. The board is not as visible in the landscape as in the documents and should therefore be involved.

The vision is that most people will leave the car at home and hike to Talsu pauguraine. Although, parking lots will be provided in Talsu pauguraine for people with functional variations and others to enable greater accessibility.

During a day in nature, breaks are needed for having a cup of coffee or eating some food or snacks. Therefore, rest areas will be created with, for example, logs of bigger diameter to sit on and at the same time helps to increase the biodiversity (see figure 33, top left picture). With time the logs will start to rot, and it will give new space for living organisms and small new ecosystems.

One campsite will be created where people can stay overnight in a wind shelter or tent, cook on a campfire, and use the toilet. Firewood shelter with firewood will be provided on the campsite (see figure 33, top right picture and bottom left picture).



Figure 33. Examples of rest areas and campsites that can be developed in Talsu pauguraine. (Photos: Anna-Sara Reinisch, 2021)

SIGNS AND INFORMATION BOARDS

Signs and information boards in different languages will give information about the area and nature and will make the orientation easier (see figures 34 and 35). Educational information boards will be put up in the area to educate people about, for example, forestry processes, geography, trees, and red-listed species. There will be education spots along the trail where, for example, kids with families can enjoy different educational activities (see figure 36) or see the difference between industrial forest and natural forest side by side (see figure 37).

Information signs will give information about rules in the park and draw people's attention to not leave garbage in nature. Less garbage will lead to a more attractive and aesthetic environment. The area will get safer through signs, roadblocks, and fences that will stop cars, motorcycles, and other unauthorized transport vehicles from entering the place.



Figure 34. To the left: example of a sign with a more friendly language which tells both what is allowed and not allowed. To the right: the benefits with symbols are that they are clear and understandable of what is not allowed in multiple languages. (Photos: Asnate Ziemele, unknown date; Anna-Sara Reinisch, 2021-07-29)



Figure 35. Examples of hiking trail information boards. (Photos: Anna-Sara Reinisch, 2021-07-28, 2021-08-27)



Figure 36. Educational activities such as guessing species of tree.
(Photo: Anna-Sara Reinisch, 2018-06-03)



Figure 37. Industrial forest and natural forest side by side as an educational spot to learn more about the differences.
(Photos: Anna-Sara Reinisch, 2021-12-12)

THE ORGANISATION

SHORT-TERM GOALS

The organisation that plans and manage Talsu pauguraine shall consist of a variety of actors for a wider perspective and to consider different interests. The planning and management shall improve the hiking infrastructure continuously, with results within a year, and at the same time be sustainable in the future. The actions should be evaluated regularly to be able to discover problems at an early stage.

ACTORS

To be able to develop the hiking infrastructure and at the same time follow the laws, get the right permissions, have a wide range of knowledge, and include different interests a collaboration needs to be conducted between different actors. The association *Talsi Hillock Nature Park Support* will be the project leader. The project partners are the actors involved in the collaboration. Talsi municipality, the Nature Conservation Agency, the Forest Research Station, The Road Agency, and the landowners are required to be in the collaboration due to laws and the structure of decision making. The other actors are involved as supporting actors to collect more opinions and anchor the project in society. Then there are different actors helping with the funding to be able to implement the development plan. For more detailed information see table 2.

ACTORS	ROLES
PROJECT LEADER	
Talsi Hillock Nature Park Support	The association <i>Talsi Hillock Nature Park Support</i> is the project leader and makes sure that the development plan will be implemented. It's a similar structure as in <i>The Baltic Trails</i> project where <i>The Baltic Country Holidays</i> took the initiative and was the project leader. <i>Talsi Hillock Nature Park Support</i> will inform about the project, arrange meetings and bring together the right persons to arrange a collaboration, apply for funding, and prepare all the documents. They will also create different events in Talsu pauguraine to educate society.
PROJECT PARTNERS – REQUIRED ACTORS FOR IMPLEMENTATION	
Talsi Municipality	The municipality needs to approve the development plan but they are also a source for knowledge about Talsi, Talsu pauguraine, and the surrounding. They can contribute with the marketing of the trails that more people can benefit from the investments and nature. They will be responsible for the management of the trails, points of interest, and services.
The Nature Conservation Agency	The Nature Conservation Agency ensures that the project doesn't harm the area and they need to approve the development plan.
The Forest Research Centre	Part of the trail crosses their land. Therefore, they need to be informed, involved, and approve the trails. The Forest Research Centre will perform the management of the trails on their property.
The Road Agency	The road agency are responsible for the roads (except private roads) and need to approve that the marking of the trail is permitted on their roads.
Landowners	Landowners needs to be informed and involved in the development of hiking trails. The landowners need to give permission that trails are crossing their land and approve the marking. A contract needs to be developed between the project leader and the landowners with agreements that the trail is crossing the property.
PROJECT PARTNERS – SUPPORTING ACTORS	
Talsi Tourist Information Centre	Talsi Tourist Information Centre can help with the marketing of the trail to visitors, give information about the surroundings and activities, help with the applications for the founding of projects, and help with the marking of trails. They already has plans to remark some of the existing trails.
Entrepreneurs	With more visitors all year long, the local economy can improve and generate more jobs. Existing shops, accommodations, and public transport can benefit and develop to hiker-friendly destinations. Therefore, the entrepreneurs need to be involved in the benefits of hiking trails.

Table 2. Actors involved in the hiking trail project in Talsu pauguraine and their role - part one. (Source: Anna-Sara Reinisch, 2021-12-27)

Volunteers	With help of volunteers, information about the project can be spread and more work can be done with a limited budget. They can help with the marking and management of trails and come with ideas on how to improve the area. People have the chance to interact with others and free activities can be arranged.
Local inhabitants	Can contribute with thoughts and ideas.
Visitors	Can contribute with thoughts, ideas, and improve the local economy.
PROJECT PARTNERS – FUNDING ACTORS	
EU	Possibilities to receive funding.
The municipality	Possibilities to receive funding.
Locals	Possibilities to receive funding.
Visitors	Possibilities to receive funding.

Table 2. Actors involved in the hiking trail project in Talsu pauguraine and their role - part two. (Source: Anna-Sara Reinis, 2021-12-27)

ACTIONS AND MANAGEMENT

Since all the actions can not be carried out simultaneously due to limited budget and time, the actions and management have been divided into different steps and years depending on their importance.

YEAR ONE

The first year will be used to organize, take contact and create a budget. More specific points are listed below:

- *Talsi Hillock Nature Park Support* is the project leader and is responsible for contacting the actors listed in table 2 to get the development plan approved.
- An implementation plan is developed together with the actors in table 2. *Talsi Hillock Nature Park Support* is the project leader.
- *Talsi Hillock Nature Park Support* applies for funding for the project. Depending on how big the budget is the following year's actions can be implemented going seriatim.

YEAR TWO

The second year is used to start implementing the development plan and mark trails, provide information, marketing the trails, and maintain the trails. More specific points are listed below:

- *Talsi Hillock Nature Park Support* creates events and invites volunteers to help with the physical tasks in Talsu pauguraine like marking trails and maintaining the trails.
- Mark the trails with paint on trees and stones and stickers on signs and lamp-posts. Create marking events to invite local communities and schools as an opportunity to contribute and learn more about the project and meet new people.
- The municipality, the Forest Research Station, and volunteers maintain the marked trails. Actions like cutting the grass along the trail and removing trees and branches that impede accessibility are included in this task.

- Provide digital information about the trails, points of interest, and services on a website and digital applications (apps). It's information that easily can be updated compared with if it's printed on information boards. After some years, when the development plan is evaluated and new functioning trails have been established, information signs can start to be put up in Talsu pauguraine.
- Place poles with QR-code in the area that provide visitors with information. This information can also be updated easily online.
- Arrange marketing of the hiking trails in Talsu pauguraine so that more people can take advantage of the investment into the project and discover nature. At the same time, the numbers of visitors or the flow of people need to be controlled so that nature values are not compromised as a result of too many visitors.

WITHIN THREE YEARS

Within three years the hiking infrastructure in Talsu pauguraine will be evaluated (post-monitoring) to see what is working well and what needs to be improved. New trails will be implemented with rest areas, information boards, signs, etc. along the trail. Continuous dialogue will be held with local inhabitants and events will be created. More specific points are listed below:

- The involved actors evaluate the situation, what is working well, what needs to be improved, what actions need to be taken, and where marked hiking trails are missing according to wishes and people's movement in the landscape (arising of non-official trails). After the evaluation, decisions can be made where to put up information boards, signs, rest areas, etc.
- Marking of new trails connected with the main trail going between Talsi and Talsu pauguraine (see figure 28). Create marking events which include local communities.
- Arrange rest areas and campsite with wind shelter, shelter for firewood, firewood, fireplaces, and toilets along the trail.
- Place out information boards with all trails in the surrounding area. Place the information boards at entrances and in suitable places located after the evaluation is complete.
- Place out information boards about how to behave in nature and inform about not leaving garbage behind. Place the information boards at entrances and in suitable places located after the evaluation was done.
- The municipality, the Forest Research Station, and volunteers maintain the trails, services, and points of interest by cutting grass and taking away branches and trees that are reducing the accessibility for hikers. Remarking the trails if needed.
- *Talsi Hillock Nature Park Support* maintain constant dialogue with private landowners and local inhabitants to understand their perspectives and wishes and find a solution if problems appear.
- *Talsi Hillock Nature Park Support* arrange events to pick up garbage, maintain the trails and remove invasive species.

WITHIN TEN YEARS

Within ten years, actions that will benefit the future are conducted such as making sure to have a good relationship with the landowners and local inhabitants, making the area safer, and start connecting the trails in Talsu pauguraine with trails in the surrounding as a step towards developing a

national and international hiking trail system. More specific points are listed below:

- Evaluation of the situation. Questions that should be answered are what is working well, what needs to be improved, what actions need to be taken, and where marked hiking trails are missing according to wishes and people's movement. After the evaluation decision can be made where to put up information boards, signs, rest area, etc.
- Develop a safer area through signs and roadblocks in areas that are supposed to be without any vehicles.
- Have a constant dialogue with private landowners and local inhabitants to understand their perspectives and wishes and solve problems connected to the hiking trails when they appear.
- Inform children in kindergarten and schools about nature and how to behave in nature for an educated next generation.
- Connect Talsu pauguraine to other trails in the surrounding such as *The Baltic Trails* as a step to develop a national and international hiking trail system.

AFTER TEN YEARS

After ten years the development plan needs to be updated. Below, points are listed with actions that maybe not will be managed within the first 10 years but that could be implemented further in the future. Talsu pauguraine could be used more from schools and other types of trails such as biking trails could be introduced for a wider range of users. More specific points are listed below:

- Evaluate the situation and update the management plan that is valuable for the next coming 10 years.
- Create new places where local inhabitants and visitors can learn more about the culture and nature in Talsu pauguraine and that are working as new excursion points.
- Create a trail where children can learn more about culture and nature. Cooperation can be arranged with kindergarten and schools where guided excursions are held in Talsu pauguraine. Classes could be held outside, or “*outdoor days*” arranged where children instead of having classes are doing different activities in nature several times a year for better health and knowledge about nature.
- Create a multifunctional Talsu pauguraine where other types of trails are developed and involved in the outdoor recreation infrastructure such as MTB, biking, horse riding, etc. which will attract a wider range of users.

ANNUAL MANAGEMENT

The points below highlight the management that needs to be carried out along the trails annually by the municipality, the Forest Research Station, and volunteers:

- Inspect the trails, services, rest area, points of interest, signs, and information boards at least once per year. Remark the signs if needed.
- Maintain the trails and points of interest. Cut grass and remove fallen trees, branches, or other obstacles. Remove garbage and invasive species along the trail.
- Inspect the campsite regularly, clean the toilet, and provide firewood.

THE USERS

SHORT-TERM GOALS

The goal is to create an area for hikers and cover different activities and interests of people all year around. The place should be both for hikers and local inhabitants, have high accessibility, and at the same time protect different species whose habitats are in Talsu pauguraine. The recreational infrastructure shall be developed for different kinds of hikers and needs. It shall be a place where people can enjoy nature, improve their health, meet other people, learn about the culture and nature, and it should enable jobs and entrepreneurship to improve the local economy.

ACTIONS

INFORMATION

Information and open dialouge play an important role which enabling different interest groups to use the same area and to minimize conflicts. Visitors will be informed about how to behave in nature and that visitors need to take garbage with them back home. Visitors will be informed about the area to improve their understanding of nature and culture.

The information about the trails should include facts such as length, duration, starting point, end-point, the course of the route, road surface, difficulty, dangerous points, facts that are good to know, alternatives, nature, point of interest, and services. It will make the hike safer when the hikers can prepare for what kind of hike they will expect. Other information that can be included is what kind of equipment hikers should bring during different seasons to be more prepared and enable a safer hike.

ACCESSIBILITY

The main trail (orange line) from Talsi to the Kamparkalns lookout tower will have a trail surface with high accessibility (see figure 28) so that people with strollers, wheelchairs, or similar have access to nature. It will at the same time be an educational trail with information boards about nature and cultural heritage of the area. Also, an educational story for children will be provided along the trail. From a website, games like bingo and trekking will be able to download to make the hike more interesting for children. Other trails will be more natural to offer a wide range of hiking experiences.

EDUCATION

Education and talks with the community are other actions to spread knowledge about the benefits of hiking trails. Entrepreneurs will be informed and can start businesses along the trail. Children will be involved in the project, and activities will be arranged to learn more about nature. It's a way to stay connected with nature to understand its importance. Marketing of the trails will be arranged to spread the knowledge about the trails and enable more visitors.

EVENTS AND ACTIVITIES

Events and activities will be arranged such as trash picking, night hiking with a quiz, picture orientation, events for kids, nature bingo, hiking scavenger hunt, guided tours, and removal of invasive species. It will educate society, give social benefits, and is a way to influence the flow of people. A balance needs to be found between outdoor activities and protection of nature so that nature doesn't get exposed to high pressure. Marked hiking trails can control the movement of people to a certain degree. Easily accessible information about the trails will simplify the orientation in the area.

ACTIVITIES DURING THE YEAR

Some hiking activities can be done all-year round in Talsu pauguraine such as tracking, photography, learning, BBQ, orienteering, geocaching, camping, and enjoying nature. Other activities are related to the season and are listed below. Providing activities all year round increases the chance for visitors and enables a more stable income during the whole year. The landscape that is changing due to the seasons is a reason to visit Talsu pauguraine again due to different hiking experiences (see figure 38). Also, offering different activities can make hiking more attractive for a new group of people.



Figure 38. The same landscape in Talsu pauguraine during summer vs. winter. (Photos: Anna-Sara Reinisch, 2021-06-12, 2021-12-08)

Activities during the spring:

- Bird watching
- Observe how nature sprouts and blossom
- Picking herbs

Activities during the summer

- Picking mushrooms and berries
- Picking herbs
- Swimming
- Combine the hike with biking
- Picknick
- Sunbathing
- Observe mosquitos
- Cook outside

Activities during the autumn:

- Bird watching
- Picking mushrooms and berries
- Enjoy autumn colours
- Picking nuts

Activities during the winter:

- Winter camping
- Combine the hike with skiing
- Enjoy the snow
- Heat up next to a campfire
- Go sledding
- Have a snowball fight
- Create snow sculptures
- Walk with snowshoe
- Ice bathing

DECISIONS BASED ON RESEARCH

The development plan has been based on research (Milburn et al. 2003) where decisions have been based on information both from the theory and the case study of Talsu pauguraine. Regarding the Nature Park Talsu pauguraine, the case study showed that trails are not marked and have poor management (Jēkabsons and Dāvidsone 2020), there is a wish among the local inhabitants for more

information about the trails, more benches, tables, toilets, campsites, and a trail that is connecting Talsi with Talsu pauguraine (see further appendix).

By marking the trail, letting the trail cross diverse nature, leading the trail to points of interest, and providing services and information along the trail, hiker's expectations and needs will be covered (Brämer 2009; Recreation SA Trails Sub Committee 2016; Baltic Trails, n.d.b) and a safer hike will be enabled (Brämer 2009). By offering different trails, trails can be combined regarding the hiker's desired outcomes that enable a more interesting hiking experience (Recreation SA Trails Sub Committee 2016). Furthermore, it's a step towards covering a wider range of national and international hiking infrastructure similar to *The Baltic Trails* and *Skåneleden* (Baltic Trails n.d.a.; Skåneleden n.d.; Kronen 2021).

Trails enable access to nature which is fundamental for outdoor recreation (The Swedish Environmental Protection Agency 2021a) at the same time as trails are controlling the flow of people partially which can protect nature if people stay on the trails. Both occasional and regular outdoor recreation has a positive effect on human health (Faskunger 2020; WHO 2016) and is a place for social activities for both local inhabitants and visitors (Stodolka et al. 2016; Gentin, 2011; Gentin et al. 2019).

Regarding the organisation, a project leader will push the issues in the development plan forward such as *The Baltic Country Holidays* ensured that *The Baltic Trails* got implemented and like *The Scanian Landscape Foundation* is coordinating *Skåneleden* (Ziemele 2021; Baltic Trails n.d.a.; Skåneleden n.d.; Kronen 2021). The development plan is divided into different steps of implementation to have the chance to evaluate the results and conduct changes if needed as the guidebook of the Swedish Environmental Protection Agency recommends (n.d.d.). At the same time, long-term goals are set for long-term thinking and to be able to reach the Global Goals (Global Goals n.d.).

Educating the users of Talsu pauguraine will be a part of the work to ensure the protection of nature and ensure an aesthetic environment without garbage. Like in Sweden, *the Right of Public Access* comes with obligations as well as rights (The Swedish Environmental Protection Agency 2021). In Talsu pauguraine, the signs and information boards will inform the hikers what they are allowed to do but also what isn't allowed. By involving children in the hiking project and having excursions to Talsu pauguraine, the next generation will be provided with a bigger knowledge about nature, improving their education and health. There is a higher chance that adults will include outdoor recreation in their later life if they participated in outdoor recreation as a child (Faskunger 2020; WHO 2016; Faskunger et al. 2018; Faskunger 2020).

Outdoor recreation tourism improves the local economy by increasing the consumption of food and use of services and accommodations (Pettersson et al. 2017; Interreg Latvija-Lietuva n.d.). By involving local entrepreneurs in and around Talsu pauguraine new job opportunities can be created (The Swedish Agency for Economic and Regional Growth 2018) and by creating events a higher acceptance for the trails can be reached (Interreg Latvija-Lietuva n.d.; Baltic Country Holidays 2021) and give the opportunity for enhanced social interaction (Stodolka et al. 2016; Gentin, 2011; Gentin et al. 2019).

RESULT

RESEARCH QUESTIONS AND RESULT

Outdoor recreation is a meeting between nature and humans that contributes to a higher knowledge about nature and improves human health. The pre-requisites for practicing outdoor recreation are access to qualitative nature (The Swedish Environmental Protection Agency 2021a; Kabisch et al. 2017; Tankesmedjan et al. 2007). In Latvia, the infrastructure and the management of hiking trails are poor, which limits access to nature. At the same time, hiking is becoming more and more popular in Latvia (Ziemele 2021; Jēkabsons 2021; Magnetic Latvia 2020). The research questions and results of this thesis are found below.

WHAT DOES THE CULTURE OF OUTDOOR RECREATION LOOK LIKE IN LATVIA?

In Latvia, the traditions are closely connected to nature and ancient interactions with the natural habitat by farmers, herders, the fishing community, and forest folk. The traditions are still widely performed in Latvia today and are one of the reasons why people are close to nature (Bunkše 1992).

Latvia was occupied by the Soviet Union from the Second World War until 1991 (NE n.d.b). During the occupation, sport and skiing was a part of daily life in Latvia because of the Soviet Union's propaganda. It was a way to keep the population fit for the war (Ziemele 2021).

After the fall of the 'Iron Curtain', entrepreneurship started: tourism and trails developed in a way to strengthen the economy. The occurrence of trails has made hiking more popular (Banaszkiewicz et al. 2017; Ziemele 2021). Outdoor recreation is constantly developing in Latvia by different actors. However, it will take time before society changes and people will participate in more outdoor recreation. Nowadays private landowners generally are sceptical or are against hiking trails crossing their land (Banaszkiewicz et al. 2017; Ziemele 2021; Dāvidsone 2021).

HOW ARE EXISTING HIKING TRAILS IN LATVIA PLANNED AND MANAGED?

Currently, Latvia has no overall planning and management of outdoor recreation. In 2017, one of the first long-distance hiking trail projects in Latvia started to develop, *The Baltic Coastal Hiking* (Kurzemes regions 2017). During the *Baltic Coastal Hiking* project, knowledge was poor about how to develop hiking trails in Latvia. The organisation *The Baltic Country Holidays* had to find solutions to issues they had no previous experience about with and break prejudice among; the people in, for example, the local municipality, the Nature Conservation Agency, and private landowners. With time, the planning and management of new hiking trails got easier as people started to understand the ideas and approaches since the involved actors already had experience with the development of *The Baltic Coastal Hiking* (Ziemele 2021).

The Nature Conservation Agency, Latvia's State Forests, and tourism associations are today developing the hiking trails in Latvia. Actors like landowners, private entrepreneurs, state organisations, non-governmental organisations, and local municipalities are involved in the projects (Serzante 2021). EU is the main founder of developing trails in Latvia (Serzante 2021).

Private landowners are often against hiking trails crossing their land. This has resulted in most trails only crossing land from the municipality and the state (Serzante 2021; Dāvidsone 2021). Conferences are arranged to evaluate the situation today, get international inspiration from guest speakers, and discuss how to solve problems in the future (Baltic Country Holidays 2021).

HOW CAN THE HIKING TRAILS IN THE NATURE PARK TALSU PAUGURAINĒ DEVELOP IN TERMS OF MANAGEMENT AND ACCESSIBILITY?

The proposal is that *Talsi Hillock Nature Park Support* becomes a project leader and involves diffe-

rent actors to develop a development plan to improve the hiking trails in Talsu pauguraine in terms of management and accessibility. The next step is to get the plan approved and implemented. The goals and actions of the development plan need to be evaluated and updated regularly (Swedish Environmental Protection Agency n.d.b.).

Throughout the case study, challenges and opportunities were found in Talsu pauguraine and the solutions were transferred to the development plan. In the development plan, the proposal is to mark hiking trails, provide information through boards, signs, and websites, offer stacked loop trails, start a cooperation between different actors, apply for funding, conduct regular maintenance, involve local inhabitants and volunteers, educate the society and offer activities during the whole year at the same time as protecting the nature. Trails become more accessible, safe, and comfortable through marked trails, provided information, and management which will attract more visitors (Interreg Latvija-Lietuva n.d.).

DISCUSSION

DEVELOPMENT OF HIKING TRAILS IN TALSU PAUGURAINĒ

The vision that Talsu pauguraine should have developed a tourism infrastructure is outlined in the conservation plan for the period 2014-2024 (SIA ELLA 2013) but has not yet been fully implemented. Local inhabitants described unmarked and unmanaged trails where some are located on dusty gravel roads created by cars passing (Jēkabsons and Dāvidsone 2021). During my site visits in Talsu pauguraine, I experienced that for a person who is not familiar with the area, it was hard to orientate to different destinations because of a lack of signs or information.

To develop the hiking trails in Talsu pauguraine, the association *Talsi Hillock Nature Park Support* could push the issue for faster development as *The Baltic Country Holidays* did with *The Baltic Trails*. *The Baltic Trails* led to that hiking becoming more popular due to enabling hiking (Ziemele 2021). The trails become more accessible, safe, and comfortable through marked trails, provided information, and management which attracts more visitors (Interreg Latvija-Lietuva n.d.).

To develop the hiking trails in Talsu pauguraine, it requires that *Talsi Hillock Nature Park Support* has good cooperation and atmosphere with the involved actors. Also, *Talsi Hillock Nature Park Support* must continue to push the issue for continuous implementation of the development plan and maintenance of the trails, or the association must find someone that replaces them and who continues the work. *Talsi Hillock Nature Park Support* could be the coordinator for the trails as *The Scanian Landscape Foundation* is the coordinator for *Skåneleden* and cooperating with the municipality, distribute the funding, and help to solve problems that appear along the trails (Skåneleden n.d.; Kronen 2021).

As the situation looks today, the development plan should be clear to understand. As Ziemele explained, long-distance hiking trails are relatively new in Latvia and some people are sceptical, don't understand the ideas, or have prejudice (Ziemele 2021). Due to lack of knowledge and experience about planning and management of hiking trails, someone needs to lead the work by showing and informing organisers how to implement the hiking projects.

The hiking trails in Talsu pauguraine are designed as stacked loops which according to the Recreation SA Trails Sub Committee (2016) offer a variety of travel distances and a wider range of difficulties. This could be a solution that works well as some of the goals in the development plan are to create an area for hikers, cover different activities and interests, and that the recreational infrastructure shall be developed for different kinds of hikers. Information will be put up along the trail as hikers, according to Brämer, appreciate orientation such as signposts, markings, and orientation boards (Brämer 2009).

The existing and planned trails are mostly going on gravel roads and paths owned by the municipality or the State Forest (SIA ELLA 2013; see figure 28) even if the recommendations from Brämer (2009) are to avoid long stretches of asphalt and gravel roads as hikers appreciate those the least. During my site visits, I noticed that a lot of roads and paths were already existing in Talsu pauguraine. I used existing roads and trails in the development plan to avoid the landscape becoming more fragmented and to avoid conflicts with private landowners - as they are currently sceptical to trails crossing their land. My idea is to develop high quality trails (Brämer 2009) that can work as positive examples to make the private landowners more open to incorporating hiking trails in their land.

IMPLEMENTATION OF THE DEVELOPMENT PLAN IN OTHER PLACES IN LATVIA

The development plan of Talsu pauguraine is based on a case study with a detailed exploration of the case study (Bryman 2015) and according to Flyvbjerg, the result from a case study can be generalized (Flyvberg 2010), in this case, to Latvia. At the same time, it is necessary to analyse

the conditions on every single site (Swedish Environmental Protection Agency n.d.b.). I interpreted this as that a case study is an example of how to proceed, give tools to work with and showcase the general problems and opportunities. However, every site must be analysed to find their specific challenges and opportunities to then develop a development plan from that.

Moreover, I think that the development plan of Talsu pauguraine is not the only and ultimate solution. As the Swedish Environmental Protection Agency explains in their guidebook for planning outdoor recreation, through discussions the proposal will develop and be updated (Swedish Environmental Protection Agency n.d.b.). I believe that the development plan will improve if more people are involved in the process, and thus recommend that it is not implemented until a fair representation of all stakeholders has been included.

The development plan covers the basic needs of hikers which also should be covered in other places in Latvia when developing qualitative hiking trails. Brämer's qualitative criteria for hiking trails (Brämer 2009) has been considered, which also covers some of the suggestions from the online survey of how to develop Talsu pauguraine (see further appendix). The online survey was a way to involve the local inhabitants in the development of their area and could also be implemented in other places in Latvia.

PLANNING AND MANAGEMENT OF HIKING TRAILS IN LATVIA

At the time of writing, the Latvian state has no overall planning and management of outdoor recreation (Ziemele 2021) which allows Latvia to look at Sweden's system as a role model for inspiration. Latvia could implement an outdoor recreation policy like Sweden has (The Swedish Environmental Protection Agency n.d.a) which gives the society common goals to work towards. The Nature Conservation Agency in Latvia could distribute an annual grant for outdoor recreation, which comes from the government. This is done in Sweden where the Swedish Environmental Protection Agency distributes the annual grant to the organisation *Svenskt Friluftsliv*, which distributes the grants to different outdoor recreation organisations (The Swedish Environmental Protection Agency 2021b).

Also, Sweden has an outdoor coordinator working at the county administrative board and who plays a central role in disseminating information, helping to reach the outdoor recreation goals, and supporting the municipalities in their work to develop the conditions for outdoor activities (The Swedish Environmental Protection Agency 2019b). Sweden also has a strong organisation called *Friluftsliv* who organize outdoor activities and work towards the Global Goals (Friluftsliv n.d.). This could be implemented in Latvia to simplify implementing outdoor recreation projects and cooperation. More projects could be started in Latvia as the cross-border hiking trail project *The Baltic Trails* in the Baltic States (Baltic Country Holidays n.d.) to start connecting hiking trails between regions and municipalities.

To transfer the Swedish system exactly to Latvia is however, not possible. Fundamentally because Sweden provides through *the Right of Public Access* (The Swedish Environmental Protection Agency 2021a) and, while in Latvia the same law does not exist (The Swedish Environmental Protection Agency n.d.c.). Also, there is resistance among private landowners who don't want any hikers on their property, and this is the reason why the trails often cross land owned by the state or municipality (Serzante 2021; Dāvidsone 2021).

During the Soviet Union, it was prohibited to own private property (Encyclopedia n.d.) but when Latvia got independence in 1991, the land and economy became privatized again (Britannica n.d.). During my stay in Latvia, I got the impression that people appreciate finally having their land and do not have a common desire to return land to public ownership. In Sweden, people are used to being able to cross other's property because it has been a part of the culture for a long time (The Swedish Environmental Protection Agency 2020a) compared with Latvia.

To change the mindset of people who don't want any hikers on their property, the benefits of organized outdoor recreation could be shown. The development of hiking trails increases the overnight stays in rural areas and accommodations. Also, restaurants, shops, and transport services have more visitors (Interreg Latvija-Lietuva n.d.). Opportunities will increase not just for hikers but also for local inhabitants and allow them to perform outdoor recreation in their daily life. The increasing practice of outdoor recreation will benefit health, economy, education, and integration (The Public Health Agency of Sweden 2021a; Faskunger 2020). Another argument could be, as *Skåneleden* is using, that the landowners can get help with the management and removing of garbage if they allow hiking trails to cross their property (Skåneleden n.d.; Kronen 2021).

To stop people from demolishing the trails and markings (Baltic Country Holidays 2021), marking events could be created as it was created for *The Baltic Trails*. The marking events were organized to integrate people and allow them to learn more about the project and understand the reasons behind it (Interreg Latvija-Lietuva n.d.). Hopefully, people will start seeing the benefits of hiking trails instead of only problems. According to Ziemele, it's a way to get the people on the project's side (Ziemele 2021).

Regarding the management of the trails in Latvia, volunteers could be used like in the marking events (Interreg Latvija-Lietuva n.d.) and cooperation could be held with the municipalities like *Skåneleden* and *The Baltic Trails* have and where trails are inspected regularly and remarked if needed (Skåneleden n.d.; Kronen 2021; Ziemele 2021).

Conferences like the PAN Baltic conference that invite international stakeholders to exchange experiences and to talk and discuss planning, developing, and management of hiking trails (Baltic Country Holidays 2021) is a start. More conferences could be arranged annually to evaluate the development of hiking trails during the year, find out what to improve, invite national and international guests for inspiration, etc. The PAN Baltic conference could grow bigger and bigger every year and in that way spread the knowledge about planning and management about hiking trails.

OUTDOOR RECREATION CULTURE IN LATVIA

Latvia has a long tradition based on nature (Bunkše 1992) where the history has influenced how outdoor recreation has been practiced such as propaganda to explore their own country (Tūrisma-gids, 2016), to keep people fit for war during the Soviet time (Ziemele 2021) and the fall of the 'Iron Curtain' that enabled entrepreneurship and tourism industry development to improve the economy (Banaszkiewicz et al. 2017).

In Sweden, outdoor recreation is part of the welfare and deeply anchored in the culture. It's a way to improve health and learn more about nature (The Swedish Environmental Protection Agency 2020). My conclusion is that outdoor recreation in Latvia nowadays is based on improving the economy (Banaszkiewicz et al. 2017; Ziemele 2021). In Sweden, outdoor recreation is according to Sandell and Thurfjell more about improving public health and staying connected with nature (Sandell et al. 2000; Thurfjell 2020). Communication about how outdoor recreation benefits health could also be used in Latvia in a way to improve the general health of the Latvian population.

Sweden has *the Right of Public Access* (The Swedish Environmental Protection Agency 2020a) while in Latvia, Latvia's State Forest currently is working on a document with rules on how to behave in the State Forest where everyone is welcome to go. The document contains what is allowed and not allowed in the forests owned by the state (Melne 2021). It shows that Latvia has something like the Swedish *Right of Public Access* but the information for the public is not written down and published yet. Although the process is currently being developed it should be acknowledged that this will take a long-time for the process to conclude. The development is under process but it's nothing that can be changed from one day to another.

As Ziemele has stated (Ziemele 2021), it will take some generations before outdoor recreation is as well-developed in Latvia as it is in Sweden and becomes a part of the culture. A way to accelerate the process could be to invest in the next generation and implement outdoor recreation in children's education like in Sweden, where one of the ten objectives for outdoor recreation is "*a rich range of outdoor recreation in schools*" (The Swedish Environmental Protection Agency n.d.a). It would improve the learning of pupils and their health (Faskunger et al. 2018) and increase physical activity and outdoor recreation in adulthood (Faskunger 2020).

I must admit that it's hard to get to know a new culture fully during such a limited time without knowing the language and that's a reason why it was the hardest research question to answer.

THE IMPORTANCE OF THIS RESEARCH

Why is this research and hiking trails important? That leads to the beginning of the thesis. There are several benefits to hiking and outdoor recreation. It improves public health, educates society, enables people to integrate, and has economic benefits (Faskunger 2020) which could strengthen the economy in rural areas in Latvia and reduce urbanization. Outdoor recreation could improve public health (The Public Health Agency of Sweden 2021) of Latvia's population and be introduced in education in kindergarten and schools to improve the study result (Faskunger et al. 2018). All those measurements could bring the society in Latvia a step further.

Another reason why the research is important is that the COVID-19 pandemic showed the unequal distribution of urban green spaces and what happens if an area exposes to high pressure due to a high number of visitors (Kleinschroth et al. 2020). It shows that it is important to spread out people (McGinlay et al. 2020) and make it possible to perform outdoor recreation in less crowded places. Talsu pauguraine is today not a well-known hiking place (Jēkabsons and Dāvidsone 2021) but could get more visitors in the future. Hopefully, politicians have seen the importance of green spaces to perform outdoor recreation and will make it easier to implement outdoor recreation projects.

Talsu pauguraine is an example of an area that have unused potential and how to transform an area into a developed hiking destination and that could be applied to other places in Latvia (Flyvberg 2010). The development plan can be used as a guidebook on how to develop hiking infrastructure and to see some examples of how to do it. Also, more guidebooks could be developed to guide Latvia in the work to improve the hiking system such as the Swedish Environmental Protection Agency (n.d.b.), Recreation SA Trails Sub Committee (2016), and MTBA (n.d.) does with their documents.

With time, the development of trails could spread to other activities. The outdoor recreation infrastructure could include other types of trails such as trails for biking, skiing, horse riding, etc. Also, the services and points of interest along the trails will be need to be developed for different groups' needs. Trails for different types of users would enable a more inclusive outdoor recreation.

CONCLUSION

Latvia has long traditions connected to nature but due to history and culture, outdoor recreation is not as deeply anchored in the society as in Sweden where outdoor recreation has been part of the Swedish culture for a long time. Through education, especially of children, improving the accessibility to nature, and creating a managed outdoor recreation infrastructure the culture of outdoor recreation can change with the next generations in Latvia.

In Latvia, planning and management of hiking trails are relatively new. Actors from different initiatives are nowadays involved in the development of hiking trails and EU is financing the biggest part of the hiking trail projects. One way in which Latvia could develop hiking opportunities is, for example, to implement a coordinator who has an overall view of the projects and can help to connect different projects and create collaborations.

With simple actions, the hiking infrastructure can improve in Talsu paguraine. A bucket of paint and a brush for the marking of trails are small costs. What is challenging and takes time is to reach an agreement with the involved stakeholders. Also, the management and maintenance of the trails needs to take place regularly, the work needs to be evaluated and the development plan needs to be updated. Marketing is an important step to attract more visitors. For a faster result and more stable implementation of any development plan, a project leader will be needed to guide the process and ensure its success.

FUTURE RESEARCH

The next step would be to show the development plan to the Nature Protection Board and Talsi municipality to receive a response and find out if the plan is practicable. After the feedback, the plan needs to be updated and a more detailed implementation plan needs to be developed. Then the plan can become reality. The research questions could be *“how to realize the development plan in Talsu pauguraine”* or *“how to implement the development plan in another area in Latvia”*.

Another possible research topic could be to examine the administrative part of outdoor recreation planning and find problems in today's cooperation of developing the outdoor recreation infrastructure in Talsu pauguraine or Latvia and find out how to improve the cooperation. Research could be conducted on problems that may arise and how to simplify the administrative system.

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APPENDIX

ONLINE SURVEY TALSU PAUGURAINĒ

DESCRIPTION OF THE SURVEY

The research is part of a master's thesis about outdoor recreation in Latvia's nature. It would be great if you could help and be a part of this. We chose Talsu pauguraine as the case study area. We are conducting a study on the current situation in Talsu pauguraine and how Talsu pauguraine can develop in the future. Therefore, it would be great to hear and involve your thoughts and opinions in the framework of the master's thesis.

The online survey was published in the Facebook group "*Talsi – enterprising and creative*" (Talsinieki – uzņēmīgie un radošie" in Latvian) and the answers come from the period 2021-02-20 – 2021-03-09 where 47 people responded.

QUESTIONS AND ANSWERS

1. Gender?

- a. Female: 34 people
- b. Male: 13 people

2. Age?

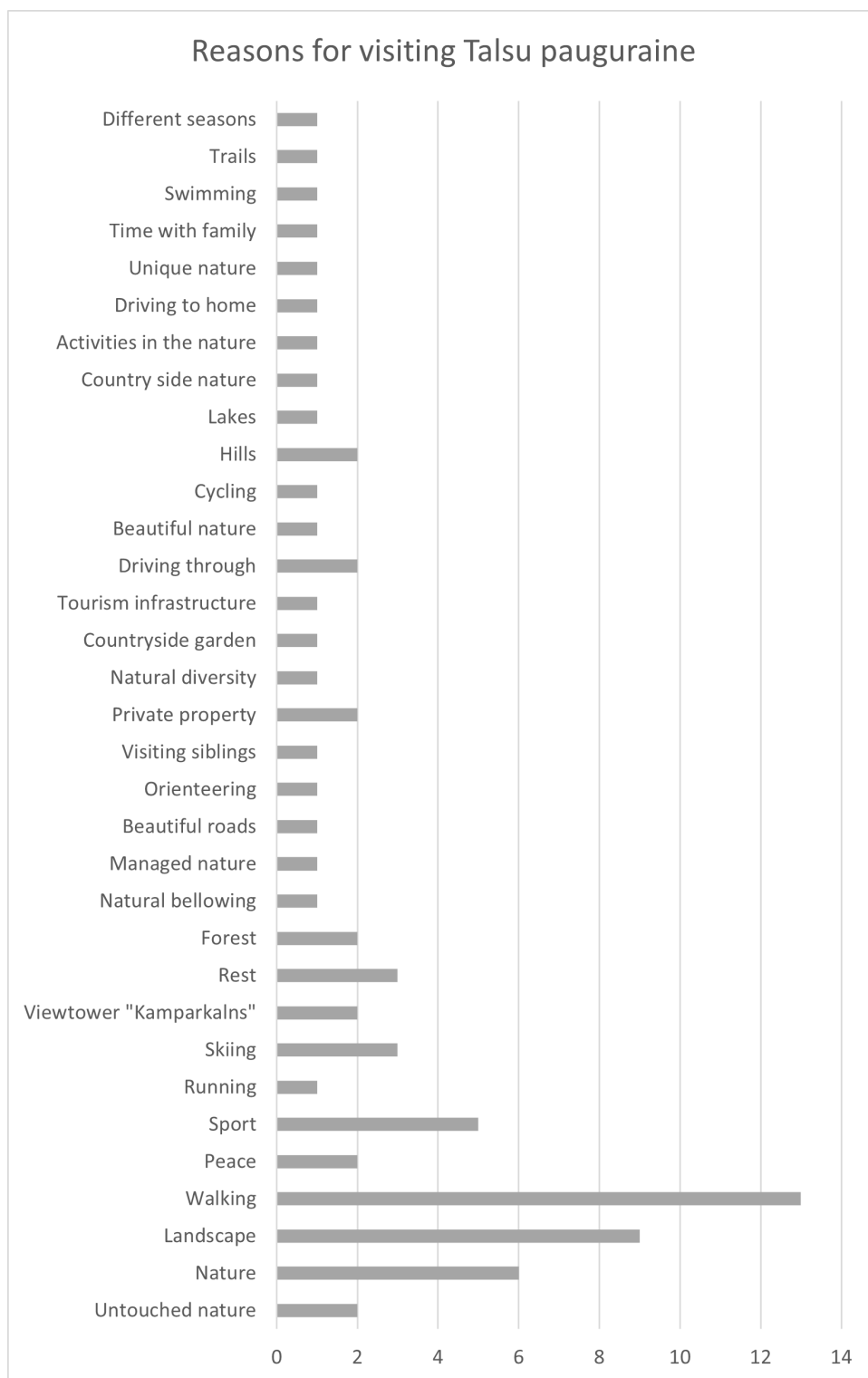
- 18-29 years old: 14 people
- 30-39 years old: 11 people
- 40-49 years old: 13 people
- 50-59 years old: 7 people
- 60-69 years old: 2 people

3. How do you get to Talsu pauguraine?

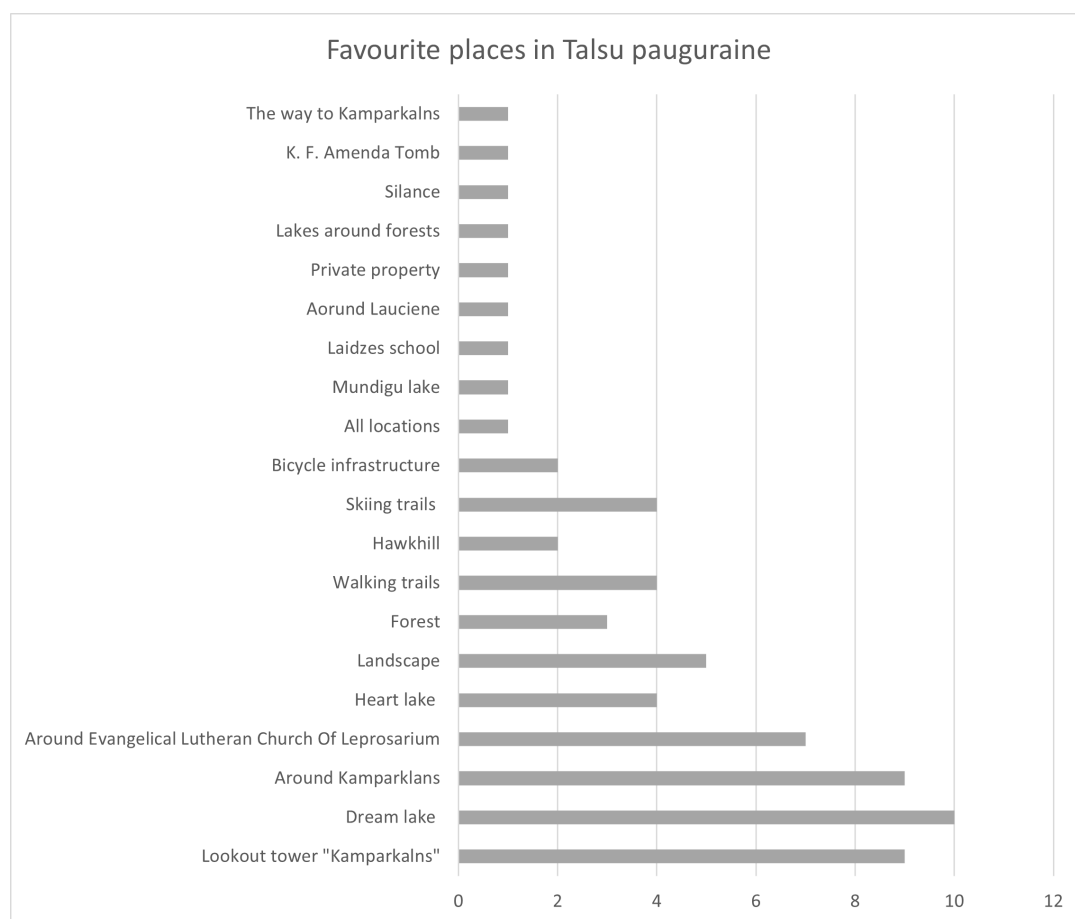
- a. By car: 38 people
- b. By foot: 26 people
- c. By bike: 21 people
- d. Other: 4 people

(The survey continues on the next page)

4. Is there a particular reason why you are visiting Talsu pauguraine?



5. Which is your favourite place in Talsu pauguraine?



6. Where in the Talsu pauguraine should improvements be made? Please describe why:

- Have an infrastructure around Kamparkalns (some roads led to Kamparkalns) but there is a need for more infrastructure around Kamparkalns area, for parking plots, walking trails, etc. which would be better for visitors (family, old ones, etc).
- There is a need to manage the area around Heartlake and the lake of Čumala. There is a need for spots where you can meet and sit after a swim and a need for a place for camping and set up a tent.
- Places with people also have some garbage. There is a need to think about how to manage it.
- There is a need for trail maps that make it easier to find trails and places.
- More parking plots.
- Less garbage around lakes. Need to think about how to manage garbage. More rest areas with tables.
- Toilets, rest areas, parking plots next to the most popular spots (Dreamleak, Heartleak, Jewish Cemetery). Information boards around Talsu pauguraine. Show cultural spots, nature spots, etc. Need to educate society about garbage.
- Repair the roads. Develop rest areas.

- Talsu pauguraine should make some overall management with info boards, marked trails, etc.
- Maybe just more seating, random benches without disturbing nature to have a place to sit when it's wet.
- Trails for kids, that it's interesting for small ones. Rest areas.
- Tourism infrastructure.
- Better management of trails with tourism infrastructure.
- More garbage bins and tables next to lakes. More trails around Talsu pauguraine.
- Walking and bicycle trails.
- More walking trails.
- More infrastructure for tourism.
- A lot of places need management.
- Tables and rest areas next to Kamparkalns.
- A lot of places need some infrastructure and management.
- Let it be how it is!!!
- Benches
- Should make an official main entrance for Talsu pauguraine.
- Heartlake should be more developed for fisherman
- Necessary informative instructions, necessary well-equipped recreation places: benches, tables, campfire places, toilets. Of course, the choice of sites must be carefully considered to minimize damage to nature. A lot of places need infrastructure and management.
- Managed rest areas.
- Less management.
- Better managed spots.
- Less forest management, fewer motorcycles in the forest.
- It is important not to damage the environment by improving it.
- Everything is good.
- Maybe benches and WC.

7. Is something missing in Talsu pauguraine? Please describe where and why:

- Better managed lakes.
- Everything is good. Maybe more garbage bins and information boards.
- Parking lots.
- 1) I am afraid that their unique nature may be destroyed. If you install something, then with care and without disturbing its inhabitants.
- 2) A scenic walking trail for both the old and the youngest, which can be reached by car because the big hikes will most often start from the 2nd secondary school or Sauleskalns (this is not obligatory, only if you do not leave the crane home)
- Advertisements and help from the municipality.
- All places.
- Nothing. More people, more problems.
- Rest areas.
- Maybe information boards. Problem to find the exit (from the walking trail).
- Activity spots for children.
- Well-managed/marked walking trails with signs.
- More information boards, educational signs about nature.
- Everything is good.
- Bicycle trails.
- Maps of walking trails.
- Better managed trails.
- Nature is the best.
- More walking trails
- Better infrastructure
- WC
- Signs and maps
- More parking spots

9. Is there anything extra that you would like to mention that would be important to know for the development of a development plan for Talsu pauguraine? Please describe what and why:

- It would be nice if there would be information boards.
- More work with local inhabitants.
- Do not make as a massive tourism location.
- Good place for orientation.
- Parking plots, infrastructure for bicycle and trails from Talsi city to Talsu pauguraine.
- A corporation with Talsu pauguraine managers and local municipalities and state departments.
- Garbage.
- Generally, don't manage a lot overall, that it pleasant place for family and children.
- Parking plots, clear management vision, and tourism management plan.
- Make clear functional zones.
- Sign tables and marked trails. Also, advertisement.
- Hope that there will not be any management.
- Manage and visit with head.
- Do not transform Talsu pauguraine into a massive tourism location.
- Information tables. Develop a walking trails plan.
- More well-managed spots.
- Information tables. Develop walking trails.
- Information tables for education options. Rest areas.
- Environmental education aspects.
- More information boards, maps, well-managed system.