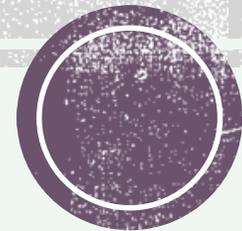


SustainBaltic (CB354)

# Developing sustainable tourism in Satakunta's coastal zone – from the perspective of land use planning

English version

5.11.2018



This plan was prepared as a part of SustainBaltic project (ICZM Plans for Sustaining Coastal and Marine Human-ecological Networks in the Baltic Region, CB354). Project enhances the share of the managed coastal networks in the Central Baltic area by the cross-border preparation of the ICZM plans for four case areas in Estonia and Finland. The lead partner in the project is the Department of Geography and Geology in the University on Turku. Other project partners are Finnish Environmental Institute, Regional Council of Satakunta,

Estonian University of Applied Sciences (Eesti Maaülikool) and the University of Tallinn (Tallinna Ülikool). SustainBaltic is funded by EU Interreg Central Baltic Programme 2014–2020. The overall budget of the project is 1.3 million Euros, of which 1.023.000 Euros is granted via European Regional Development Fund (ERDF). updated completed ICZM plans can be downloaded from the websites of the partner organizations and at the <http://www.utu.fi/SustainBaltic>.



# Foreword

In its Blue Growth Strategy (European Commission, 2012), the EU highlights coastal and maritime tourism as one of the key sectors that still hold significant development potential, both in terms of economic growth and the sustainable use of marine areas. The main benefits of sustainable tourism include the industry's heavy focus on services, high employment rate and the number of jobs created by the industry in tourist areas, which boost the vitality of sparsely-populated regions, in particular, and enable the retention of human activities in the coastal and archipelago zones, alongside the traditional industries (e.g. agriculture and fishing).

On Satakunta's coast, the development of tourism combines the region's clean environment, vitality and objectives regarding the overall regional structure. On the other hand, achieving these objectives requires extensive cooperation between various authorities, municipalities and local operators in areas such as land use planning, water resources management, management of conservation areas and cultural environments, and basic service production. The Integrated Coastal Zone Management (ICZM) plans highlight the importance of taking a holistic approach to the coastal zone planning and having different authorities working in cooperation.

In 2016–2018, the Regional Council of Satakunta took part in the SustainBaltic project (ICZM Plans for Sustaining Coastal and Marine Human-ecological

Networks in the Baltic Region, CB354), funded by the Interreg Central Baltic 2014–2020 programme, with the goal of promoting the sustainable use of the coastal areas of the northern Baltic Sea region. As part of this project, a wide-scale plan promoting the development of coastal and maritime tourism in the Bothnian Sea coastal zone was implemented. The purpose of the plan is to study the possibilities offered by land use planning in order to improve the preconditions for tourism and the enhancement of regional cooperation connected to tourism. The Coastal Zone Plan is realising the goals set in Satakunta's Regional Strategy of promoting tourism and the zone's recreational use. The plan provides a basis for updating the comprehensive regional land use plan and conducting marine spatial planning in Satakunta's coastal zone.

The Coastal Zone Plan was created by the Regional Council of Satakunta, the University of Turku's Department of Geography and Geology and the Finnish Environment Institute. Project Planner Asko Ijäs M.Sc. from the Regional Council of Satakunta served as the author of the plan. Report was translated to English by Multidoc translation services/Grano Ltd.



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# Introduction

Coastal zones are located in the peripheral zones between land and marine areas and hold great significance for both nature conservation and the local economy. The diversity of operations run in a coastal zone and the limited amount of land available create the need to find a balance between varying values and land-use requirements. The ICZM (Integrated Coastal Zone Management) is a land use planning tool that tries to factor in all the values and utilisation needs regarding coastal zones (e.g. businesses, nature conservation and recreational use) in a comprehensive way and find ways to balance these differing requirements sustainably.

Satakunta's Regional Strategy (2018–2021) sets notable growth objectives, especially when it comes to nature-based tourism and the experience economy. The coast and archipelago of the Bothnian Sea form a diverse whole, which functions as a pull factor, thanks to its clean sea water, diverse archipelago nature and culture-historical values. However, despite the resources focused on the field in recent years, the tourism industry remains fragmented in the Bothnian Sea area. Therefore, strengthening cooperation in this field and creating a shared operating environment have been designated as the main themes in the development of tourism in Satakunta (Satakunta University of Applied Sciences, SAMK 2016, the Regional Council of Satakunta 2018).

Tourism as an industry is connected to the region's general pull factors, which include the clean water of the Bothnian Sea, diverse natural and cultural values, the marine landscape and functional basic services. The conditions and available services in the area affect how long tourists will want to stay in the region and to what extent they will use the services provided by local businesses. On the other hand, even though the region's attractiveness is tied to the good condition of its environment, an increase in the number of tourists and the development of tourism services may have a negative effect on the region's current state, due to disruptions caused by human activity, littering, erosion or uncontrolled construction of new buildings, among other things (United Nations Environment Programme, UNEP, 2009).

The extensive nature of tourism also poses its own challenges for the development of this sector. In addition to the traditional land use planning, the development of tourism also requires a more strategic approach, in which land use is considered from the perspective of both the existing tourism potential and the environmental impact caused by tourism. In coastal zones, the ICZM planning is often thought of as a useful tool, especially for developing tourism, because its main goal is to find a balance between different forms of land use and increase cooperation between authorities and local tourism businesses (UNEP 2009).



# The objectives and content of the work

This plan discusses the development of Satakunta's coastal and maritime tourism in relation to the region's land use and the ICZM principles. The plan describes the current situation of tourism in the coastal zone of Satakunta and discusses the available development possibilities from the perspective of general land use in the region and the constraints it sets. In addition to this, the plan highlights the potential environmental impacts that may result from tourism and that should be considered when developing the tourism industry.

The plan's structure: Chapter 2 describes the role of coastal zone planning in the Finnish land use planning system and how these planning mechanisms can be utilised in the development of tourism and the integration of the industry into general land use planning. Chapters 3–4 give a general description of the natural and cultural values and the current land use in Satakunta's coastal zone using existing statistics and geographic data. Chapters 5–6 evaluate the current status of Satakunta's coastal and maritime tourism, the sector's main pull factors and constraints, which have an effect on the development of this industry. A set of measures were determined based on this evaluation, and these measures should be utilised when developing tourism in Satakunta's coastal zone, while not forgetting the goals of sustainable development. The measures and their monitoring have been described in Chapters 7 and 8.



# The planning process

The Coastal Zone Plan was prepared in cooperation between the Regional Council of Satakunta, Finnish Environment Institute SYKE and the University of Turku's Department of Geography and Geology. The planning process consisted of four phases, which were carried out between 2016 and 2018.

Regular presentations on the work's progress were given in regional cooperation groups governed by the Regional Council of Satakunta (e.g. the cooperation group

for regional planning in Satakunta on 6 March and 8 May 2018). In addition, feedback was also requested regarding the plan's content and the developmental goals highlighted in the plan during the meetings with these cooperation groups. This way, the plan and its creation process serve the development of tourism in the region and function as a channel for debate between the developers of Satakunta's coastal tourism, land use planners and various stakeholders.

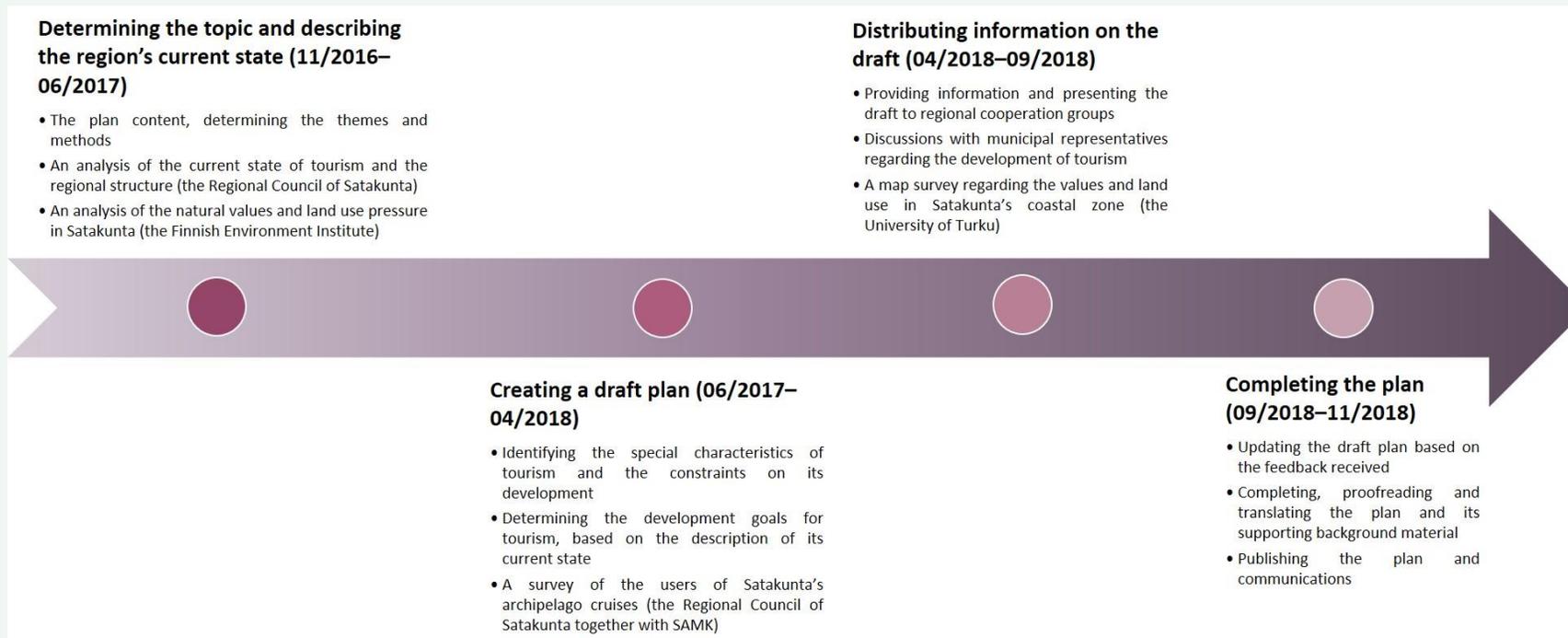


Figure 1. The planning process



## **2. The preconditions for the development of coastal and maritime tourism in Satakunta**



# The characteristics of tourism in Satakunta

Tourism employs over 2,100 people in the entire region of Satakunta and is estimated to produce nearly 340 million euros in additional income to the businesses in the region (Vähäsantanen & Karppinen 2015).

Tourism-related business in Satakunta is mainly focused in the urban centres of Pori and Rauma, whose share of the total turnover from tourism was approximately 80%. However, the positive impact that tourism has on employment in relation to the turnover is more significant in the northern part of the region (Vähäsantanen & Karppinen 2015), which means that the tourism industry can create more jobs in sparsely populated areas in comparison to towns. The tourism industry helps to balance out the general regional structure in Satakunta, increase regional equality between towns and sparsely populated areas and maintain the vitality of the countryside and archipelago.

Satakunta has no large tourist centres, and instead tourism in the region is mainly based on the operations of small and medium-sized enterprises. When it comes to land use planning in Satakunta, tourism is not among the main forms of land use, as land is often simultaneously used for other purposes as well, including general recreational use, basic services and even industrial production. Therefore, the tourism industry in Satakunta is strongly integrated with the region's general land use and is closely tied to the utilisation of the area's basic services, conservation areas and cultural environment.

Based on the number of visitors, the most notable travel destinations in Satakunta's coastal zone currently include the urban centres of Pori and Rauma, Yyteri's sand dunes and the Bothnian Sea National Park, which attract tens or even hundreds of thousands of visitors every year. In addition to the aforementioned travel destinations, the coastal zone's tourist attractions include the bird watching areas in Pori, the River Merikarvianjoki as a recreational fishing destination and several culture-historically important sites along the coast.

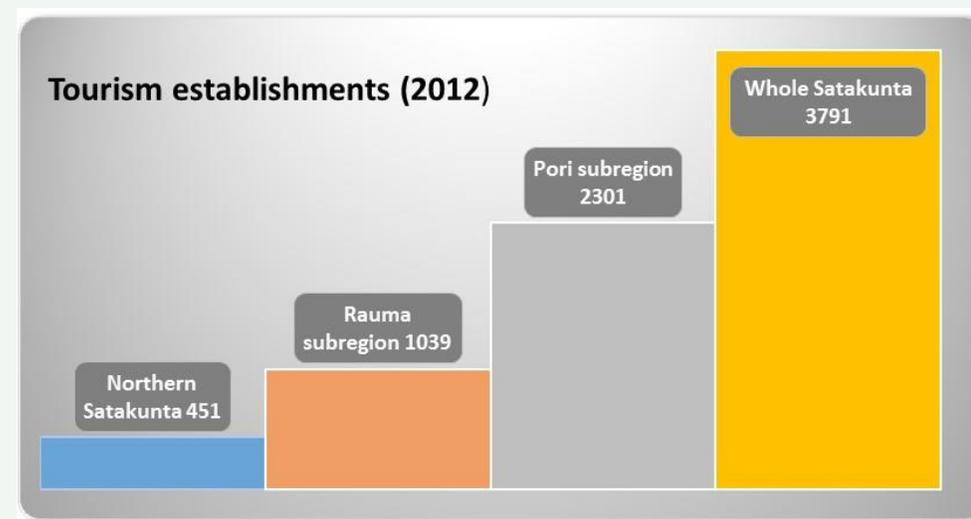


Figure 2. Tourism locations in Satakunta (in 2012)



# Developing tourism in Satakunta (1/3)

The general framework for the development of tourism in Satakunta is provided by Finland's Tourism Strategy (the Ministry of Economic Affairs and Employment 2015). The strategy discusses the national developmental directions of tourism and proposes focal points for the industry in the upcoming years. The archipelagos and tourism in these areas have been nominated as one of the key national projects in the Tourism Strategy, and the aim is to utilise these to expand the tourism industry in the near future and increase its significance for the regional economy.

The development goals for tourism in Satakunta have been determined in the region's plan for tourism objectives and measures (the Regional Council of Satakunta 2012). The plan emphasises the importance of the region's nature and culture as regional pull factors and a developmental basis for tourism in the area. In addition to defining the goals, the plan discusses the role of travel businesses, municipalities and various authorities in the promotion of tourism. Although companies that provide tourist services are key in the development of the industry and the creation of travel-related job opportunities, the region's municipalities and authorities (the Regional Council of Satakunta, the Centre for Economic Development, Transport and the Environment for Southwest Finland, the Finnish Heritage Agency, etc.) play a significant role in factors such as the region's land use planning and the management of its natural and cultural

environments.

The development programme for nature tourism in Satakunta, created in 2016 (SAMK 2016), complements the nature tourism goals outlined in the plan regarding tourism objectives and measures in Satakunta, identifies the main target groups in the industry and provides more detailed recommendations on how to improve travel-related services, increase general awareness of the region as a potential travel destination and boost its attractiveness, to name a few. The development plan emphasises Satakunta's coastal zone with its natural and cultural values as one of the most important areas for both traditional nature tourism (e.g. hiking and bird watching) and outdoor sports activities (e.g. kayaking and off-road biking).



Photo: Asko Ijäs



# Developing tourism in Satakunta (2/3)

The tourism aspect is linked to several themes regarding general land use planning and regional development. For example, according to the National Land Use Guidelines, land use planning must promote the recreational use of nature, nature tourism and cultural tourism by ensuring that a sufficient amount of land is included in the planning process for recreational purposes. The significance of integrated planning that can simultaneously account for several activities established in a single area is particularly great when it comes to nature and experience tourism, which are mainly based on the area's general pull factors and the smooth functioning of its regional structure and basic services.

Satakunta's regional land use plan (the Regional Council of Satakunta 2011) defines the target zones for tourism development and the areas of tourist services from the land use planning perspective. In the regional land use plan, the coastal zone of the Bothnian Sea is determined to be an important development area for nature tourism (Figure 3). A development area notation indicates the areas that are important to the development goals of the region but are also used for other purposes, resulting in the need for reconciliation between various uses. However, the preconditions for the development of tourism or the space requirements within the development zone were not determined in more detail during the preparation of the regional land use plan.



Figure 3. The development areas for nature tourism (code mv3) in the regional land use plan of Satakunta. The coastal zone has been marked in red on the map.



# Developing tourism in Satakunta (3/3)

Tourism is an extensive industry, which is why the scope of land use involved cannot be determined based on individual planning zones. Instead, tourism development requires a comprehensive approach to land use, factoring in land use planning notations that either allow or restrict tourism in a specific area. In addition to the actual tourism sites (camping grounds, beaches, etc.), conservation areas, cultural environments and recreational areas, for example, specified in regional and municipal land use plans play a vital role in the development of nature and cultural tourism. If these land use purposes are realised, such areas will allow visitors to observe birds, admire the scenery and take part in various sports and outdoor activities, among other things.

Satakunta's coastal zone has several large conservation areas (e.g. the Bothnian Sea National Park, the Preiviikinlahti Bay and the Kokemäenjoki river delta), which create a solid foundation for the development of nature and experience tourism. Plenty of work has been done in recent years to develop tourism in the Bothnian Sea National Park (Jalkanen & Mussaari 2016, Nordström 2016, Uusiniitty-Kivimäki 2016). The Bothnian Sea National Park covers a significant portion of Satakunta's archipelago, and therefore the work that has been conducted also has a positive, wide-spread impact on the development of tourism in the entire coastal zone of Satakunta.



*Photos: The Regional Council of Satakunta*



# The principles of sustainable tourism (1/2)

No specific definition exists for sustainable tourism or its evaluation, and instead it varies notably depending on the region and context (e.g. Hunter 1997, Liu 2003). This multitude of definitions emphasises the diversity of the tourism industry, as well as the fact that the definitions are area- and context-specific (Sharpley 2000).

The World Tourism Organization (UNWTO) has created instructions for the promotion of sustainable tourism and tourist services (UNEP & UNWTO 2005). With these instructions, the organisation highlights the ecological and social aspects, as well as those pertaining to regional economy, of tourism, and each of these plays an important part in keeping the sector sustainable and preventing negative environmental effects caused by tourism. As stated by Staffans & Merikoski (2009), the development of sustainable tourism is not about selecting a single form of tourism or mode of travel. Instead it is about the general principles that steer the industry's short- and long-term developments in an environmentally sustainable direction. Depending on the region and its developmental requirements, these principles may need to be applied to regulating construction, utilising various areas and their natural resources, managing mobility or developing new services, for example.

The environmental effects of tourism vary widely from global climate issues (e.g. greenhouse emissions from transport) to local effects on the living environment

and social structures (McCool & Moisey 2001). It is not usually possible to control all of the environmental effects of tourism using a single set of measures, which makes the overall management of these effects difficult. Therefore, the principles of sustainable tourism must typically be approached from the perspective of a specific environmental effect and its scope. For example, the increase in the number of air and long-distance travellers is the key factor in the climate impacts caused by tourism, and this number can mainly be decreased through means of taxation regarding travel habits and modes. However, what is more important for an individual travel destination is the available infrastructure required for tourism and the mobility management amongst tourists, in which regional and local planning plays a vital role (Uusitalo et al. 2007).

***"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities"***

Figure 4. The World Tourism Organization's definition of sustainable tourism (UNEP & UNWTO 2005)



# The principles of sustainable tourism (2/2)

The ecological and social impact of tourism in a specific area can usually be managed by planning the operations carefully and factoring in the conditions of the area and its susceptibility to changes caused by tourism and an increase in general human activity, while attempting to direct operations connected to tourism or recreational use to areas that can better withstand these (UNEP & UNWTO 2005). Furthermore, with detailed plans, tourists can be directed away from areas that are the most sensitive in terms of biodiversity, where human activity may considerably harm the areas' current condition or affect the preservation of their natural and cultural values, either in the short or the long run.

In Finland, the establishment of human activities is regulated with land use planning (public land) and detailed maintenance and usage plans (e.g. conservation areas). Sites that are problematic due to their possible environmental effects are identified as part of the land use planning process, and the land use in areas like these is planned so that an increase in human activity will not pose a threat to the areas' ecological or social characteristics. An intrinsic feature in Finnish land use planning is the requirement that the environmental impact of the planned operations must be assessed, i.e. their effects on the area's environment and its natural and cultural values must be evaluated. By including these assessments in the planning process, the planners can create land use plans

in a way that allows them to anticipate possible environmental effects and find solutions to prevent them. Particularly in natural environments, people's mobility can often be controlled at a practical level with paths and various other solutions that provide easier access to an area (e.g. duckboards). On the other hand, creating paths and other passages can be used to direct large crowds away from sensitive areas, thereby preserving the areas' values and ensuring their sustainable use.



*Photo: Asko Ijäs*



# The background and legal status of coastal zone planning

The Integrated Coastal Zone Management planning is based on the United Nations' sustainable development programme, Agenda 21 (Earth Summit 1992), which was adopted at UN Conference on Environment and Development held in Rio de Janeiro in 1992. The biodiversity of coastal zones and the pressure to allocate land for various forms of human activity place an emphasis on the importance of careful planning, so that the environmental impact caused by human activity can be prevented, thereby facilitating the sustainable use of coastal zones.

The European union applies the principles regarding the sustainable use and management of coastal zones in the bloc's own legislation through 1) the Directive on Maritime Spatial Planning (2014/89/EU) and 2) the Recommendation on Integrated Coastal Zone Management (2002/413/EC). One of the main themes in the Directive on Maritime Spatial Planning is the interaction between land and sea, which emphasises the significance of coastal zones and the human activity conducted there for the good condition and sustainable use of marine areas, and vice versa. However, the integrated coastal zone management is not part of the actual maritime spatial planning, and instead the Directive highlights the importance of having a national planning system in place to control land use in coastal zones. In practice this means that the planning authorities in each member state have the right to make decisions regarding the use of their own

coastal zones, and therefore legally binding decisions cannot be made in connection to this in maritime spatial planning.

In Finland, the Land Use and Building Act (132/1999) grants regions and municipalities the right to create statutory land use plans for coastal zones, but also for archipelagos and territorial waters, thereby allowing them to control the utilisation and sustainable use of these areas. The principles of the integrated coastal zone management have been made part of the region's planning system, and no separate coastal zone plan is therefore required.

However, coastal zone planning can be used as a strategic planning tool, which produces information to support land use planning and general regional development, for example. Strategic planning will help create a foundation for turning the developmental principles created by regions and municipalities into concrete goals and assessing their environmental impact (Laitio & Maijala 2010).



# The land use planning system

In Finland, land use planning is based on the Land Use and Building Act, which provides the framework for land use planning at various administrative levels and determines the main control means for the planning work at each level. The purpose of the legislation is to organise land use and building in the individual regions in a way that enables the creation of a good living environment and promotes ecologically, economically, socially and culturally sustainable development (Section 1 of the Land Use and Building Act).

The Finnish land use planning system consists of 1) the National Land Use Guidelines, whose principles are further applied to practical planning with the help of 2) regional land use plans, 3) local master plans and 4) local detailed plans. In addition to the National Land Use Guidelines, land use planning is affected by the general strategies for regional development, which can be factored in when planning land use. The Finnish land use planning system is based on the principle that the creation of detailed land use plans is governed by more general plans, and the decisions made on a higher level of planning must be accounted for at the more detailed level. The aim of this system is to ensure that the strategic decisions made at the national level (e.g. the National Land Use Guidelines) are taken into account in the regional (e.g. regional land use plans) and municipal level planning (e.g. local master plans and local detailed plans).

The amendment to the Land Use and Building Act concerning maritime spatial planning came into force in October 2016. A maritime spatial plan is a general

plan with the intention of promoting sustainable growth in Finland's marine areas and finding a balance between different utilisation needs, while taking into consideration the current state and capacity of the marine ecosystem (Kaituri et al. 2017). Maritime spatial planning complements the Finnish land use planning system by providing the state and regions with the opportunity to conduct land use planning in the marine areas outside of our territorial waters (Kaituri et al. 2017).



Figure 5. The regional planning system (the Regional Council of Satakunta 2016)



# The planning situation in Satakunta's coastal zone (1/2)

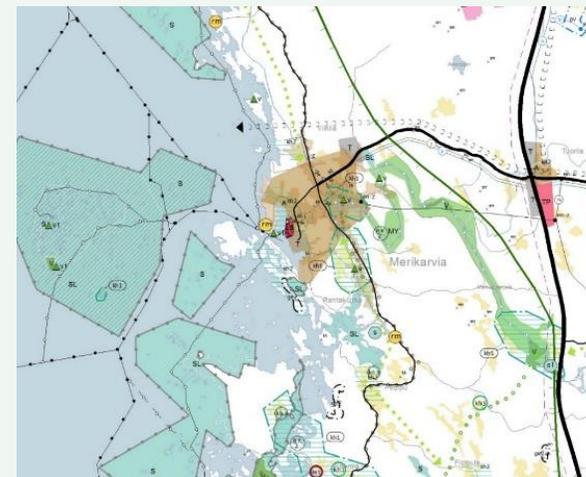
In Satakunta, the utilisation of shorelines is primarily controlled with the regional land use plan and local master plans, with the regional land use plan covering the entire planning area and the local master plans the majority of it. In addition to these planning levels, more detailed local plans and shoreline plans have been created in the region. The more detailed land use plans are mainly focused on urban centres and other densely populated areas, and they have been excluded from this discussion.

## Regional land use planning

The comprehensive regional land use plan of Satakunta was approved by the Ministry of the Environment on 30 November 2011 and became enforceable by the decision of the Supreme Administrative Court of Finland on 13 March 2013. The regional land use plan considers land use in the entire region and seeks a balance between a wide range of themes concerning land use, regional development and the conservation of natural and cultural environments, to name a few. The regional land use plan is part of the region's land use planning system, which supports the ecologically, socially and economically sustainable use of the area at a regional level, and applies the strategic objectives of the National Land Use Guidelines to the planning performed at the regional level.

The comprehensive regional land use plan of Satakunta has been amended with two phased regional land use plans since its approval, providing more details to

the original regional land use plan's notations and regulations, and adding information pertaining to themes that are important for regional development. The 1st phased regional land use plan, dealing with onshore wind energy, was approved by the Ministry of the Environment on 3 December 2014 and became enforceable by the decision of the Supreme Administrative Court of Finland on 6 May 2016. The 2nd phased regional land use plan of Satakunta is currently in the proposal phase and deals with elements such as the development of peat production and solar energy, and accounting for national and regional landscape areas.



*Figure 6. A section of Satakunta's regional land use plan from Merikarvia's coastal zone*



# The planning situation in Satakunta's coastal zone (2/2)

## Local master plans

There are 51 local master plans either confirmed or being prepared for Satakunta's coastal zone, and these cover 65% of the entire planning area and 71% of the region's total land area. 75% of the planning area's land use plans have been created to have a legal effect, i.e. they steer decision-making in the municipalities and new building permits cannot be granted if they go against the local master plan, for example. Those land use plans for the region that have no legal effect mainly date back to the 20th century, and at least in the City of Rauma, such plans are being reformed. The local master plans for shoreline development in municipalities currently cover the archipelago as well, apart from the tiniest islands and islets, which in practice have no effect on construction.

Most of the planning area's local master plans were created to control the construction of buildings for permanent and leisure use and to avoid clashes between shoreline construction and the coastal zone's natural and cultural values and its recreational use, among other things. Industrial operations are an important business sector in Satakunta, and this is also reflected in the local master plans for shorelines, which deal with construction related to wind power, waste management, circular economy and nuclear power, in addition to building on shorelines.

## The management and utilisation plans for conservation areas

The regional land use plans and local master plans do not govern land use in conservation areas. Instead, a separate provision is issued when a conservation area is founded and typically complemented with a specific management and utilisation plan. The Bothnian Sea National Park received a management and utilisation plan in 2017, in addition to which the management and utilisation plans for Pori's Preiviikinlahti Bay and Eurajoki's Pinkjärvi-Lastensuo are being prepared by the ELY Centre for Southwest Finland (Preiviikinlahti Bay) and Metsähallitus (Pinkjärvi-Lastensuo).



Figure 7. The local master plans with and without legal effect in Satakunta's coastal zone (on 1 March 2018)



# The key operators in the development of sustainable tourism (1/3)

Tourism in Satakunta's coastal zone is connected to the municipalities' existing basic services, businesses, vitality and the region's nature conservation areas and cultural environments. Due to these close links in the sector, developing tourism and maintaining the region's pull factors requires cooperation between the authorities and tourist service providers, in which each party's contributions are made visible and any development needs become public knowledge.

The following section provides a short description of the roles of various operators working to develop tourism and recreational land use ('local tourism') in Satakunta's coastal zone, particularly from the perspective of land use planning and ensuring that the basic requirements for tourism exist. The plan regarding the tourism objectives and measures in Satakunta (the Regional Council of Satakunta 2012) contains more detailed information on how the region's tourism-related businesses and the development of their operations have become more organised

## The Regional Council of Satakunta

- A regional development, lobbying, research and planning organisation responsible for safeguarding the region's interests and developing the region in general
- The authority in charge of land use and maritime spatial planning, whose main goal is to find a balance between different land use interests and human activity, thereby promoting the principles of sustainable use at regional level
- A key operator in looking after the interests of the region, improving cooperation at regional level, and increasing the visibility and attractiveness of the region outside Satakunta

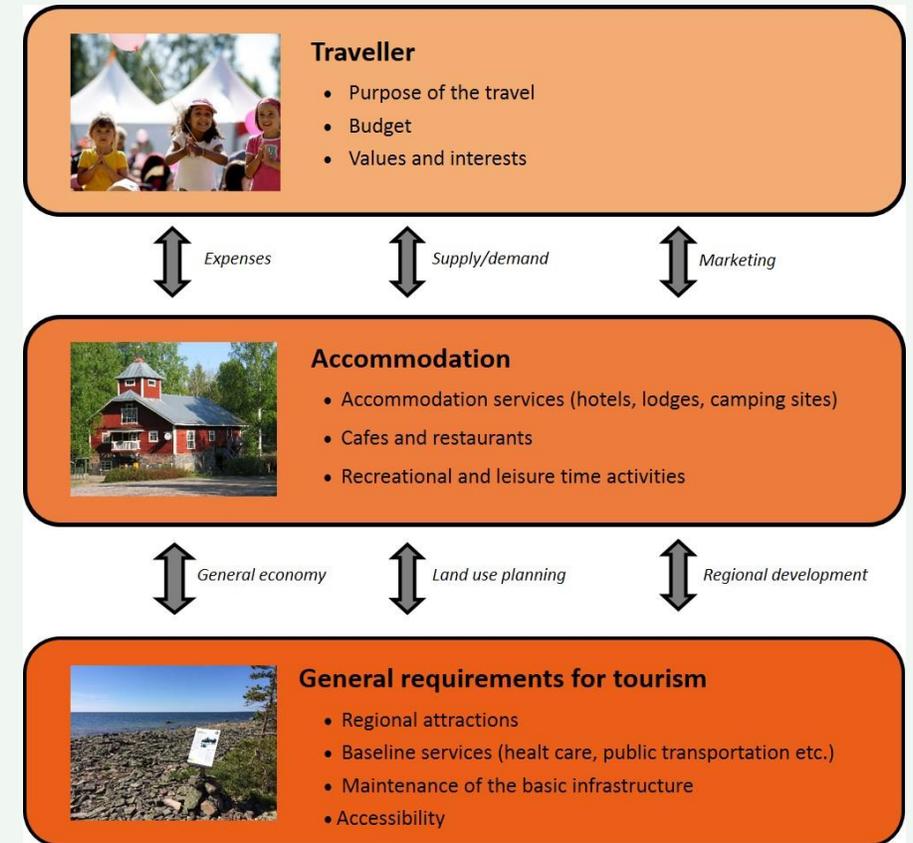


Figure 8. Tourist services and tourism operators in relation to travellers and the authorities



# The key operators in the development of sustainable tourism (2/3)

## **The Centre for Economic Development, Transport and the Environment for Southwest Finland (ELY Centre)**

- In charge of the economic development, transport planning and official regional duties regarding the environment and nature conservation in Satakunta
- Responsible for founding private conservation areas and planning their care and use
- Manages several regional EU funding sources (e.g. the European Regional Development Fund and the European Social Fund), through which funding may be applied for for projects that support tourism

## **The region's municipalities (Merikarvia, Pori, Eurajoki and Rauma)**

- In charge of their own local master plan and local detailed plan processes, which govern the use of land and marine areas and the development of these in more detail than the regional land use plan
- Responsible for providing tourist information and promoting tourism within their own borders. Out of the four coastal municipalities in Satakunta, the cities of Pori (Visit Pori) and Rauma (Visit Rauma) have their own tourism promotion units, while in the smaller municipalities (Eurajoki and Merikarvia), activities that promote tourism are conducted as part of the general municipal development work

- They may, within their own operations and budgets, promote the maintenance of nature paths and bird towers and take part in various projects, for example

## **Metsähallitus**

- Manages the land and marine areas owned by the state and plans their care and use
- In charge of the management and utilisation plans for the Bothnian Sea National Park and contributes to the promotion of the area's use for tourism and recreational purposes
- Grants permits for conducting business operations within the Bothnian Sea National Park

## **The Finnish Heritage Agency**

- The official authority in the management and utilisation of built cultural environments and archaeological heritage sites

## **The Leader groups (Northern Satakunta, Karhuseutu and Ravakka)**

- Can provide funding to small-scale development projects involving tourism, village vitality or agricultural development, to name a few



# The key operators in the development of sustainable tourism (3/3)

## Research and educational institutions

- Produce basic information on the condition of Satakunta's coastal zone and the human activity conducted there for land use planning and development of tourism. Key operators include the University Consortium of Pori and the educational institutions operating under it, Satakunta University of Applied Sciences (SAMK) and Winnova.
- SAMK currently has its own diploma programme in tourism and the development of the tourism industry. In addition to this, SAMK runs a wide range of projects in connection with the development of tourist services and tourist service businesses in Satakunta.

## Tourist service businesses and other tourist service providers

- Responsible for developing services and selling them to travellers
- The preconditions for tourism (natural values, possibility to use certain areas for tourism, available services and tourism infrastructure) affect the developmental possibilities of services
- Can influence the environmental effects of the tourism industry and increase environmental awareness through their operations



Photo: The Regional Council of Satakunta



### **3. The natural and cultural values of Satakunta's coastal zone**



# The location and general description of the planning area

The planning area covers Satakunta's coastal zone from Merikarvia to Rauma. In the east, the planning area follows highway No 8, and in the west, it is bordered by a depth zone of 20 metres. The length of the planning area from north to south is approximately 140 km, and its administration is divided between four municipalities (Merikarvia, Pori, Eurajoki and Rauma).

The planning area consists of a narrow and fairly rugged archipelago zone and a low-lying coastal zone with a relatively uniform landscape. Topographically, the planning area has very little variation (altitude range of 0–60 m above sea level). The elevation increases gradually when moving inland from the Gulf of Bothnia's shoreline, apart from the large river valleys (the rivers Kokemäenjoki, Merikarvianjoki and Eurajoki), which in Satakunta are clearly lower than their surrounding terrain. Forests cover 70% of the land in the planning area. However, the proportion of built environments increases when moving from the mainland closer to the Bothnian Sea coast, which illustrates the focus of human activities on the coastal zone.

Satakunta has an extremely broken coastline. Instead of a straight coastline, the area is characterised by several ridges composed of mineral soil, formed by the Ice Age and running from southeast to northwest (e.g. Yyteri, Kuuminaistenniemi and Lankoori) and the gulfs and river deltas (e.g. Kokemäenjoki river delta and

Viasvedenlahti Bay) formed in between. The Baltic Sea quickly becomes deeper in the Bothnian Sea, which is why the archipelago zone is so narrow in Satakunta's coastal area as the majority of the archipelago extends less than 10 kilometres from the mainland. In terms of surface area, the region's three biggest archipelagos are Luvia, Pori's Gummandoora and Merikarvia's Oura.

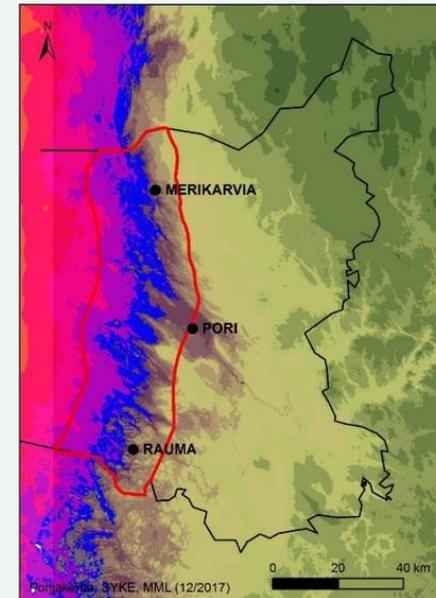


Figure 9. The location and topography of the planning area



# The characteristics of the nature in the planning area (1/3)

The coastal zone of Satakunta has diverse characteristics that include elements from both sea and land. The features of Satakunta's coastal zone include marine archipelago zones, shallow and verdant sea gulfs and coastal forests of mainly deciduous trees that are replaced by more rugged forests of spruce and pine when moving from the coast inland. The close proximity of the sea and the diversity of the soil and bedrock composition affect the characteristics of the nature in Satakunta's coastal zone. The vegetation is at its lushest near the coast and the southern parts of the planning area, where the section's southern position and the diabase dykes in the bedrock increase the diversity of biotopes.

The majority of the forests in Satakunta's coastal zone are currently being used for forestry, which has resulted in the fragmentation of forest biotopes, a large proportion of young forests and little variation in the forests' age structure. The Finnish Environment Institute (SYKE) has conducted an analysis covering the forests of the entire country, using software called Zonation to assess the biodiversity of our forests in terms of forest composition, logging operations, protected species and biotopes (Lehtomäki 2014, Mikkonen et al. 2018). According to this analysis, the most valuable forests in the planning area are located in its midsection in Ahlainen and near the Bothnian Sea coast, where the value of the forests is increased by the high average age of the trees, nutrient-

rich soil, the close proximity to the coast and the proportion of deciduous and mixed forests.

The Bothnian Sea coastline in Satakunta is moving towards the west due to post-glacial rebound, creating new habitats for plant species of open coastal areas and for archipelago and wading birds that prefer shores and islands, for example. The ground in Satakunta rises by approximately 3.5–6.5 mm a year, and the phenomenon is strongest in the northern parts of the region (Johansson et al. 2014). The land areas rising from the sea gradually change from the open coastal meadows to lush bushes and deciduous forests, eventually becoming rugged spruce and pine forests, and this creates a set of different zones typical for a coast affected by post-glacial rebound (Svensson & Jeglum 2000). However, due to the brokenness of the coastline and the slow pace of the post-glacial rebound, the formation of such a varied range of vegetation zones that normally characterises rising coastlines is not as strong as further north in Kvarken. In addition to the land areas rising from the water, the post-glacial rebound in Satakunta is evident in the shallowing of its gulfs and river deltas, which, together with the nutrient loading and eutrophication of the Baltic Sea, has increased the amount of overgrowth in the marine areas.



# The characteristics of the nature in the planning area (2/3)

During the 21st century, the underwater nature in Satakunta's marine area has been studied as part of the Finnish Inventory Programme for the Underwater Marine Environment (VELMU), which aims to map the distribution of underwater biotopes and groups of organisms in Finland's sea areas, thereby promoting the conservation of the underwater nature in the Baltic Sea and the sustainable use of these areas. Satakunta's shallow marine areas are mainly characterised by a hard seabed of moraine, rock and gravel, as well as often widespread growth of bladder wrack. Many aquatic plants and algae grow deeper in Satakunta than anywhere else in Finland's sea area, thanks to the water in the Bothnian Sea being so clean and clear (Arponen et al. 2017). Of all the underwater Natura biotopes, reefs in particular are the best represented in the Bothnian Sea and many of them can be found around Satakunta's coastal zone (Uusiniitty-Kivimäki 2016). The natural conditions in Pori's Yyteri differ significantly from those along the rest of Satakunta's coast. Yyteri has the most notable sand dunes on the coast of Satakunta, continuing from the mainland far out to the open sea. Yyteri's dunes provide a potential habitat for many species of flora and fauna that prefer a sandy or a muddy foundation.

Geographically, the Bothnian Sea is located in the ecotone between southern and northern flora and fauna, and several species (e.g. the cowslip and the blue mussel) are significantly less abundant in the Bothnian Sea, partly due to the

climate and partly because of the lower level of salinity. On the other hand, the Bothnian Sea forms the southern boundary for many species present in the Bothnian Sea's marine area and archipelago, and their numbers quickly rise towards the Bothnian Bay. Due to the rapid change in the distribution of different species, the Bothnian Sea area is particularly vulnerable to climate change, which it is estimated will have a stronger effect on the northern species' distribution (Hakala et al. 2011).

These days, the Bothnian Sea is one of the cleanest sea areas in Finland, which is evident in the ecological status of its surface water and the depth of the sea water's transparency. The current ecological status of the Bothnian Sea's coastal water furthest away from the shore is ranked as being in the highest category, whilst the condition of the coastal water closer to the shore varies from moderate to poor. Of all the planning area's marine areas, the sea areas and river deltas near cities are in the poorest condition (Westberg et al. 2014). During the autumn and winter, the water masses become more efficiently mixed in the Gulf of Bothnia, and no deep basins without any oxygen can form.



# The characteristics of the nature in the planning area (3/3)

In spite of its good general condition, the marine nature in the Bothnian Sea bears evidence of human activity as well. The impact of human activities is most notable near the coasts, where the condition of marine nature is affected by the nutrient loading and solid matter, in particular, generated by the nearby human activity and carried by the large rivers in the area (the rivers Kokemäenjoki, Eurajoki and Merikarvianjoki). The nutrient loading in Satakunta's gulfs and river deltas results in eutrophication, an increase in various filamentous algae and overgrowth of shallow sea areas.

The most significant threat to the nature and condition of the Bothnian Sea marine area is eutrophication, caused mainly by the nutrient loading and diffuse pollution from agriculture carried there from the main open expanse of the Baltic Sea. Communal and industrial wastewaters still cause local problems, but their impact on the Bothnian Sea's general condition has lessened, as the monitoring systems, wastewater management systems and emission limits have become stricter (Hyvärinen 2005). In addition to diffuse pollution, the biggest challenge in safeguarding the marine area of the Bothnian Sea is the nutrient loading originating from the Archipelago Sea. In the summer, most of the surface water in the Bothnian Sea comes from the Archipelago Sea. This is indicated by the fact that the reduction in the loading of the Kokemäenjoki River has not led to a reduction in the nutrient loading off the coast of Pori. Improving the condition of the Archipelago Sea is also important to Satakunta.

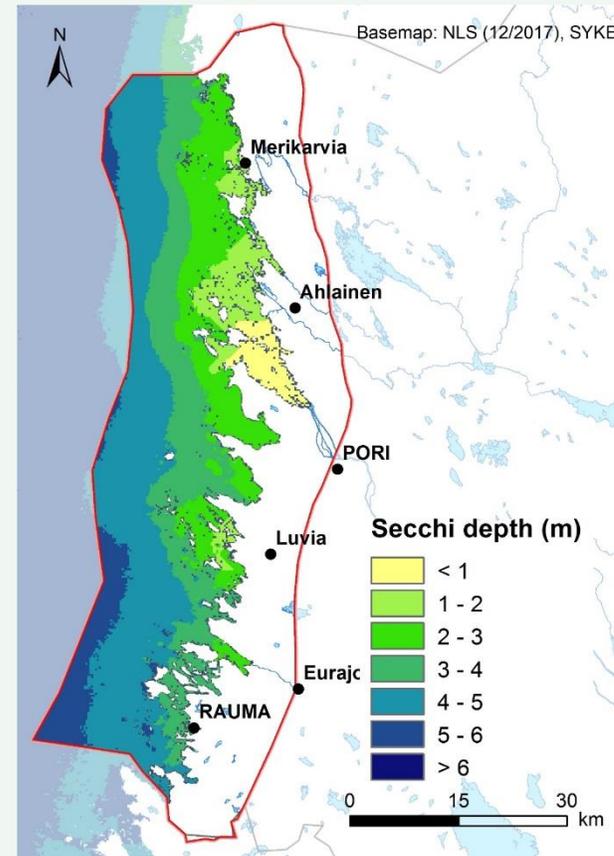


Figure 10. The transparency depth in Satakunta's coastal zone (SYKE/VELMU 2018)



# Birds

Several nationally and internationally important bird areas are located on Satakunta's coast and, in addition to biodiversity, they are also important for nature and bird-watching tourism. In particular, the waterfowl habitats in the Pori region (e.g. Preiviikinlahti Bay and Kokemäenjoki river delta) and Yyteri's muddy areas attract bird watchers year round.

Many bird species that are rare in Finland regularly nest in the planning area (e.g. the dunlin, the Montagu's harrier and the Eurasian penduline tit). The diversity of nesting birds is greatest in the coastal zone's shallow gulfs, river deltas and the lush coastal forests surrounding these. In addition, the gulfs and coastal fields of Satakunta attract a large number of resting migrant birds during migration (Vilen et al. 2015). In particular, the congregation sites in Yyteri for wading birds, waterfowl and rarer visitors increase the area's significance for both birdlife and bird-watching tourism.

The previous survey of the bird species present in Satakunta's archipelago during the nesting season was conducted in 2012–2013, when a large-scale inventory was taken of the area's nesting bird species and congregation sites (Selkämeren ammattikalastajat & Porin lintutieteellinen yhdistys 2013, Ijäs et al. 2013). The most important nesting islands for the archipelago birds are located in the western parts of Satakunta's archipelago, which have a larger number of potential, treeless and rocky or gravelly islands available for seabirds. The parts of the archipelago

closer to the mainland have fewer nesting islands for these birds, because the islands are covered with forests and are more often sites for human settlements and activities (e.g. boating). The number of seabird pairs is highest in Luvia's lush archipelago. In the more northern archipelagos of Gummandooraa and Oura, the number of waterfowl and wading bird pairs, in particular, drops as the islands become more barren and rocky. Out of the species that are important protection-wise, the breeding population of the lesser black-backed gull, in particular, is currently very strong in Satakunta, even though its numbers have gone down in the region in recent years. In addition to the nesting birds, during the summer, Satakunta's shallow gulfs and archipelago attract a huge number of birds that are moulting or preparing to moult. The largest numbers of these birds can be found in the sea areas of Pori's Tahkoluoto and off Preiviikinlahti Bay, as well as the archipelago of Luvia (Ijäs et al. 2013).

The Gulf of Bothnia's coastline forms an important migration path for many northbound bird species. Therefore, a large number of migrant birds, significant on a national level, are regularly spotted at Satakunta's coastal bird sites. Sites open to the public for spotting migrating birds include Merikarvia's Kasala, the bird towers in the Kokemäenjoki river delta and Preiviikinlahti Bay and the lighthouse islands of Säppi and Kylmäpihlaja.



# Important areas in terms of nature conservation (1/4)

Several nationally and internationally important conservation areas are located in Satakunta's coastal zone. The majority of these are at sea and in the coastal gulfs. The conservation areas located on Satakunta's coastal zone are fewer in number, which indicates that the notable natural values are focused on the shores of the Bothnian Sea, but also that there is human activity on the mainland side of the zone.

## Conservation areas on state-owned land

Conservation areas that are located on state-owned land are usually founded with a separate law or regulation, and they include national parks, nature reserves, wilderness areas and national hiking areas. When a conservation area is founded, the conservational values that form the basis for the area's conservation and permissible activities allowed there are determined.

Most state-owned sea and archipelago areas in Satakunta are part of the Bothnian Sea National Park (KPU020037), founded in 2011, the purpose of which is to safeguard the habitats and nature typical for the sea area and archipelagos of the Bothnian Sea and to promote nature management, teaching and research conducted in the national park. The Act on the Foundation of the Bothnian Sea National Park (326/2011) governs the foundation of this national park and the

use of its land and marine areas, in addition to which a detailed management and utilisation plan was created for the national park in 2017 (Nordström 2017).

In addition to the Bothnian Sea National Park, the planning area includes Liiklankari's protected old-growth forest (VMA020001) which is located on state-owned land in southern Olkiluoto, Eurajoki.

## The nature conservation programme areas

The state protects nationally important natural values through various nature conservation programmes (e.g. the conservation programmes for groves, shores and waterfowl habitats). Conservation areas either have been or will potentially be founded in most of the areas included in the nature conservation programmes, based on an act or a regulation (state-owned land) or a decision made by the region's ELY Centre (private land).

A total of 23 areas included in the nature conservation programmes are located within the planning area. The largest of these are the landscape area of Ahlainen (MAO020036) and the archipelagos of Luvia (RSO020021), Gummandoora and Pookeri (RSO020022), Rauma (RSO020020) and Oura (RSO020023), which have been included in the protection programme for coasts. Currently, these areas are largely bordered by the Bothnian Sea National Park, which was founded in 2011.



# Important areas in terms of nature conservation (2/4)

## Private conservation areas

Private conservation areas can be formed on land owned by a municipality, a community or a private person, based on the decision of the local ELY Centre. The majority of Satakunta's conservation areas have been founded on private land, through land-owners' applications. So far, a total of 233 private conservation areas have been founded in the planning area (as of November 2017). The conservation areas are mainly located in the lush coasts and archipelagos of the Bothnian Sea, and the grounds for their protection are primarily connected to the safeguarding and protection of the diverse marine and archipelago nature in the Bothnian Sea. Most of the planning area's private conservation areas are small in size (16.5 ha on average), which is partly explained by the fragmented state of land ownership in the coastal zone of Satakunta.

## The Natura 2000 network of protected areas

The Natura 2000 network of protected areas supports the protection of biodiversity within the EU, aiming to safeguard the biotopes and species specified in the Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) and the Directive on the Conservation of Wild Birds

(79/409/EEC) within the member states' territories. The protection of the Natura areas must be realised by the member states in a way that safeguards the areas' natural values that form the basis for the protection. In Finland, the protection of the Natura areas can be realised with the Nature Conservation Act (1096/1996), the Land Extraction Act (555/1981) or the Forest Act (1093/1996), depending on the area. In addition to this, the prohibition of deterioration applies to the Natura areas, in accordance with Section 65 of the Nature Conservation Act.

A total of 18 areas included in the Natura 2000 network of protected areas are located in Satakunta's coastal zone, out of which 13 are protected by the Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Sites of Community Interest, SCI), one by the Directive on the Conservation of Wild Birds (Special Protection Areas, SPA) and four by both directives (SPA/SCI). There is significant overlapping in the planning area's Natura areas with both existing conservation areas and the nature conservation programme areas. However, the boundaries of areas and sites protected based on different reasons differ from one another, with the Natura and the nature conservation programme areas typically being larger than the existing conservation areas.



# Important areas in terms of nature conservation (3/4)

## Internationally and nationally important bird areas

The internationally (IBA) and nationally important bird areas (FINIBA) determine important sites for nesting and migrating birds, which are considered to have either national or international significance when it comes to protecting birds and maintaining their numbers.

In Satakunta's coastal zone, wide portions of the shallow gulfs and bird lakes (e.g. Preiviikinlahti Bay and Kokemäenjoki river delta) near Pori have been included in the IBA area of Pori's waterfowl habitats and coast (FI083), in addition to which the archipelagos of Rauma and Luvia (FI085) and Oura and Enskeri (FI088) are part of the IBA areas named after them. Pori's waterfowl habitats (120070) and the archipelagos of Rauma, Luvia and Pori (120074) have been included in both the IBA and FINIBA areas (Leivo et al. 2002). However, the boundaries of the FINIBA areas differ somewhat from the IBA areas. In addition to the IBA areas, the wetlands of northern Merikarvia (120012), the Eurajoki River Delta (120075), and Eurajoki's Luvianlahti Bay (120076) and Kuivalahti Bay (120077) have been included in the nationally important bird areas of Finland. The majority of the aforementioned bird areas are located at sites that are already protected or have been included in the Natura network of protected areas.

Regional ornithological societies have complemented the IBA and FINIBA network with regionally important areas (the so-called MAALI areas). In Satakunta, several important field areas for migrant birds, in particular, were identified during the determination of the MAALI areas (Vilen et al. 2015).

## Endangered species

Comprehensive information on the endangered species or biotopes in the planning area is not available to allow for these to be accounted for. However, the endangered species and biotopes in the Bothnian Sea National Park have been studied extensively in the development manual for the Bothnian Sea National Park (Uusiniitty-Kivimäki 2015).



# Important areas in terms of nature conservation (4/4)

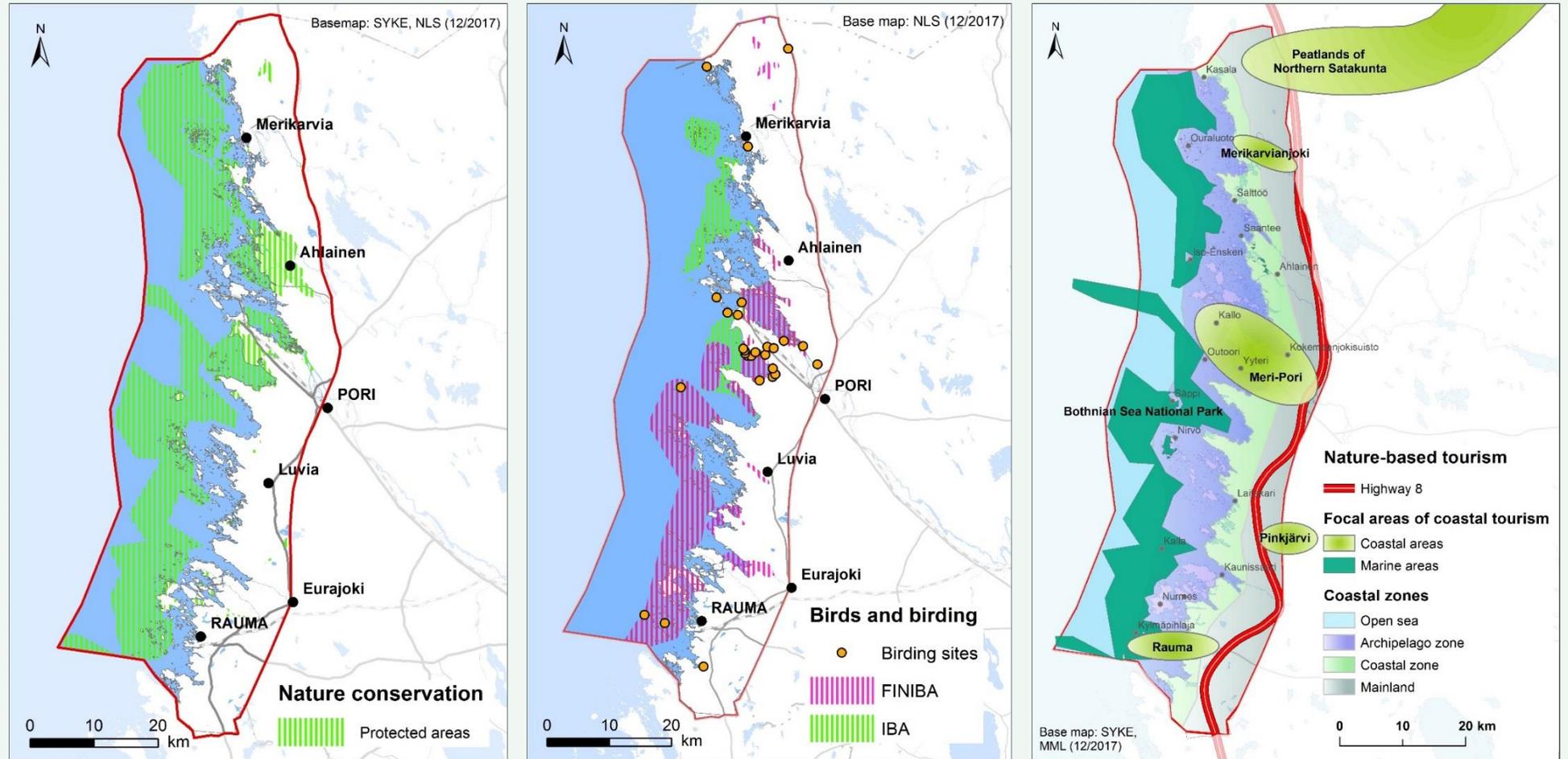


Figure 11. Important areas for nature conservation (left), birdlife (centre) and tourism (right) in Satakunta's coastal zone



# Cultural history

The built cultural environment, i.e. archaeological heritage sites, include buildings and built areas, as well as various other constructions, such as roads, bridges and lighthouses. A built environment can be thought of as an entity consisting of various landscapes and milieus or as groups of buildings or individual constructions. In the past, the coastal zones and waterways functioned as the main passages for transporting people and goods, which is why the largest settlements are usually located near coasts and waterway junctions.

Satakunta is one of the oldest populated regions in Finland, which is illustrated by the region's diverse cultural history and several nationally and regionally important cultural environments (Nummelin & Uusi-Seppä 2012). The cultivated river valleys from where human settlements gradually spread around the coastal zone and further inland are an integral part of Satakunta's landscape. In Satakunta's coastal zone, the cultural environments mainly consist of old peasant buildings and agricultural sites, complemented by urban industrial environments, fishing huts in the archipelago and on the coast, the wooden buildings of Old Rauma and the stone buildings in Pori's Eteläranta

A historical coastal road, the Bothnian Coast Road, runs through Satakunta's coastal zone, and used to provide a land connection between the cities of Turku and Stockholm during the Middle Ages. In the past, this road was used in

Southwestern Finland for communication purposes between the castles in Turku and Korsholm and as a postal route along the Bothnian Sea, in particular (Lähteenmäki 2009). Even though the Bothnian Coast Road is no longer such an important connecting passage, its past significance is obvious, as several of the area's cultural environment sites are located along the old road layout, which was adapted to the surrounding terrain.

In addition to the old peasant culture, the cultural history of Satakunta's coastal zone is characterised by fishing and shipping, and a large number of ancient monuments and cultural environment sites can be found in the area. For example, close to 900 old fishing sites and other significant places connected to the fishing tradition have been identified in Merikarvia (Mellanoura 2016). Important sites for shipping in the planning area include the lighthouses of Kymäpihlaja, Säppi, Kallo and the Oura archipelago, as well as beacons that complement the chain of lighthouses.



# Culture-historically important sites (1/3)

The protection of cultural environments is based on the national inventories of cultural environments and landscapes, and the government is responsible for deciding on their updating. An inventory of the nationally important cultural environments was taken in 2009 (RKY2009) and of the landscapes in 1992 (the Ministry of the Environment, the Environmental Protection Department, Report 66/1992). In addition to the nationally important cultural environments and landscapes, different regions have added their own regional areas and sites, which are factored when creating regional land use plans, for example, to the network of nationally important landscapes and cultural environments.

## Nationally valuable landscapes

The national landscape inventory categorises the sand dunes in Pori's Yyteri and the village of Ahlainen as national landscapes. Ahlainen is thought to be one of the best preserved villages in Finland with its old remaining structures, and it is a combination of the region's close connection to the sea, cultural heritage and natural values – typical of Satakunta's coastal zone. The landscape in Yyteri consists of sand dunes and sandy embankments, flat muddy shores that are several kilometres long, and a ridge formation with a pine forest running alongside these. The area's extensive sandy beaches are a nationally valuable

natural sight. Yyteri's landscape is among the nationally valuable landscapes and one of the natural sights in Satakunta's coastal zone.

## Nationally important cultural environments

A total of 28 nationally important cultural environments are located in the planning area (RKY2009). These are divided equally across the entire planning area and form a representative whole of the old peasant, farming, archipelago, shipping and fishing cultures. The sites located on the mainland are found alongside the historical Bothnian Coast Road.

## Regionally important cultural environments

The project Katson maalaismaisemaa ('Looking at the rural landscape'), run by the Regional Council of Satakunta, took an inventory and updated the list of nationally valuable landscapes in 2014. During this project, the regionally important cultural environments were also listed. A total of 217 regionally important cultural environments or larger area combinations formed by these were identified in Satakunta's coastal zone.



# Culture-historically important sites (2/3)

## The UNESCO World Heritage Sites

The protection of world heritage is based on the international Convention Concerning the Protection of the World's Cultural and Natural Heritage, adopted in 1972 by UNESCO. Satakunta's coastal zone has two UNESCO World Heritage Sites. Old Rauma is a unique example of an old, living and well-maintained, Nordic town built of wood. The Bronze Age burial cairn site of Sammallahdenmäki was accepted onto UNESCO's World Heritage List in 1999. Sammallahdenmäki's burial site is the most extensive and diverse Scandinavian Bronze Age burial site in the Gulf of Bothnia. Old Rauma has been protected with a local detailed plan, whilst Sammallahdenmäki is an ancient monument protected by the Antiquities Act. Both of these World Heritage Sites have also been marked on the regional land use plan of Satakunta.

## Ancient monuments

Satakunta's coastal zone has been inhabited for an extensive period, which is the reason it has such a significant number of known ancient monuments and registered shipwrecks, protected by the Antiquities Act (295/1963). Ancient monuments, as specified in the Antiquities Act, are structures and strata preserved in the landscape, soil or bodies of water and created by the people

living in the area. The known ancient monuments in Satakunta's coastal zone date back to various eras, starting from the Stone Age and Bronze Age (e.g. barrows) and reaching all the way to the early industrial period (e.g. the wooden church of Reksaari). During the Stone Age and Bronze Age, the Bothnian Sea coastline ran significantly further east, which is why most of the ancient monuments located along the old coastline are these days fairly far away from the coast (Koivisto 2012).



Photo: Asko Ijäs



# Culture-historically important sites (3/3)

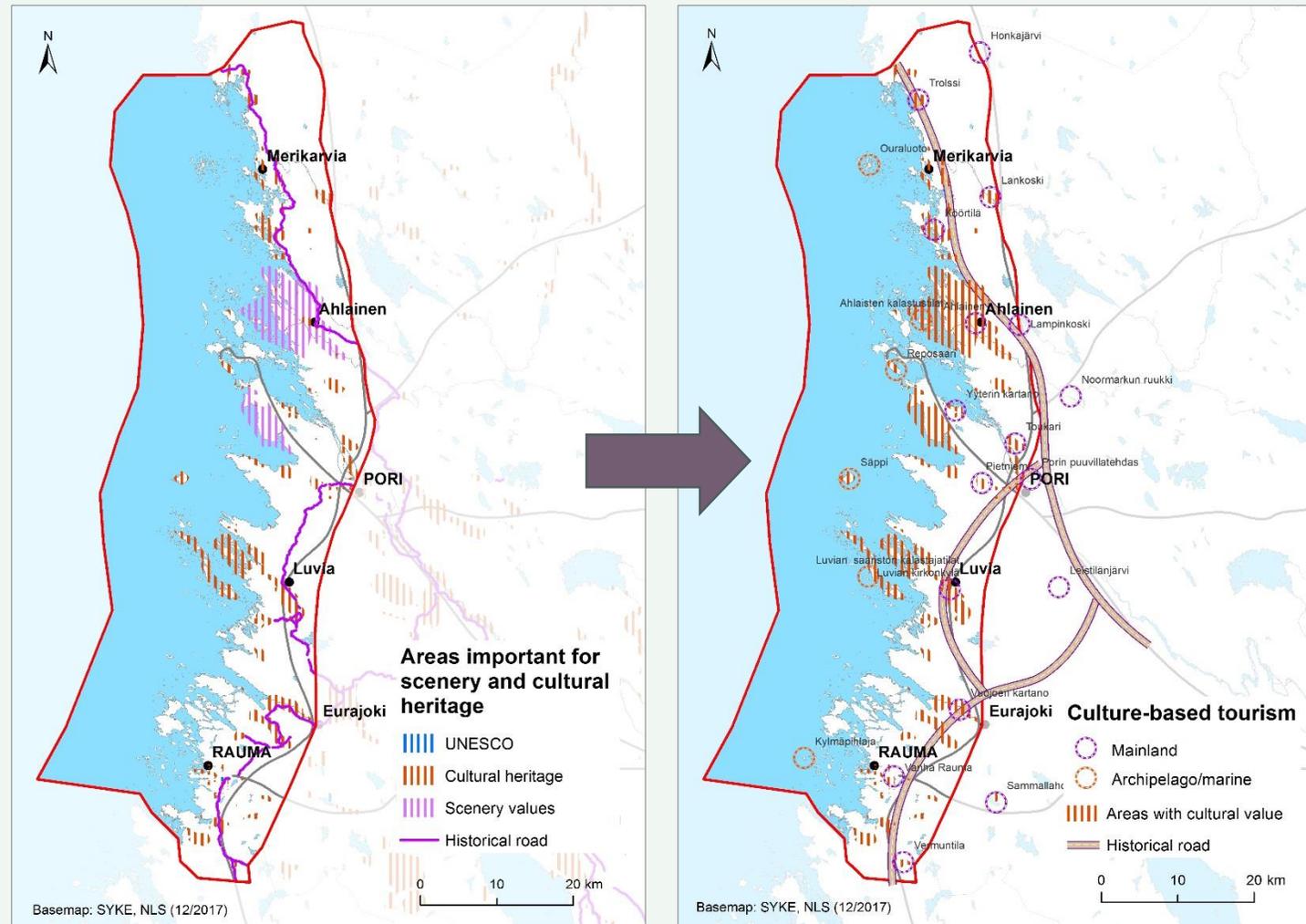


Figure 12. The landscape-wise and culture-historically important areas in Satakunta's coastal zone



## 4. Human activity in Satakunta's coastal zone



# The population and construction

The main body of Satakunta's regional structure is formed by the cross-regional urban zones on 1) the Bothnian Sea coast (Pori and Rauma) and 2) the Kokemäenjoki river valley, where the majority of Satakunta's population lives. This zone consists of towns and other urban settlements, as well as rural areas, that have close interaction with one another and are connected by a well-functioning transport system.

The population and jobs in Satakunta are primarily concentrated in the Bothnian Sea's coastal zone and the Kokemäenjoki river valley, where the average population density is 50 inhabitants per square kilometre. Pori and Rauma are the largest population concentrations in the planning area and the entirety of Satakunta, and approximately 55% of the region's population lives in these two cities (the Regional Council of Satakunta 2014). In addition to Pori and Rauma, the planning area includes the regionally important municipal centres of Merikarvia, Luvia and Eurajoki, as well as the urban settlements of Pihlava, Kaanaa, Mäntyluoto and Reposaari, which are part of the City of Pori. Outside the urban settlements, the population is sparse and mainly consists of individual farms and small hamlets consisting of a few houses.

In addition to permanent dwellings, land use in Satakunta is characterised by an extensive number of buildings providing holiday home facilities, most of which are located on the coastal zone of the Bothnian Sea and on the shores of lakes and rivers. In Satakunta's coastal zone, most properties bordered by shoreline

have begun to be utilised, either partially or completely, for holiday purposes over the past decades (Laurila & Kalliola 2008). All in all, about 60% of the Bothnian Sea coastline in Satakunta has undergone development, and in many places the free shore areas have become fragmented into short sections between the built areas. The longest undeveloped shore areas are located in the northern parts of the planning area in Merikarvia's Pooskeri and Pori's Saanteenharju and Yyterinniemi. Both Saanteenharju and Yyteri are either partly or entirely encompassed by conservation areas.



Photo: Visa Vehmanen/The Regional Council of Satakunta

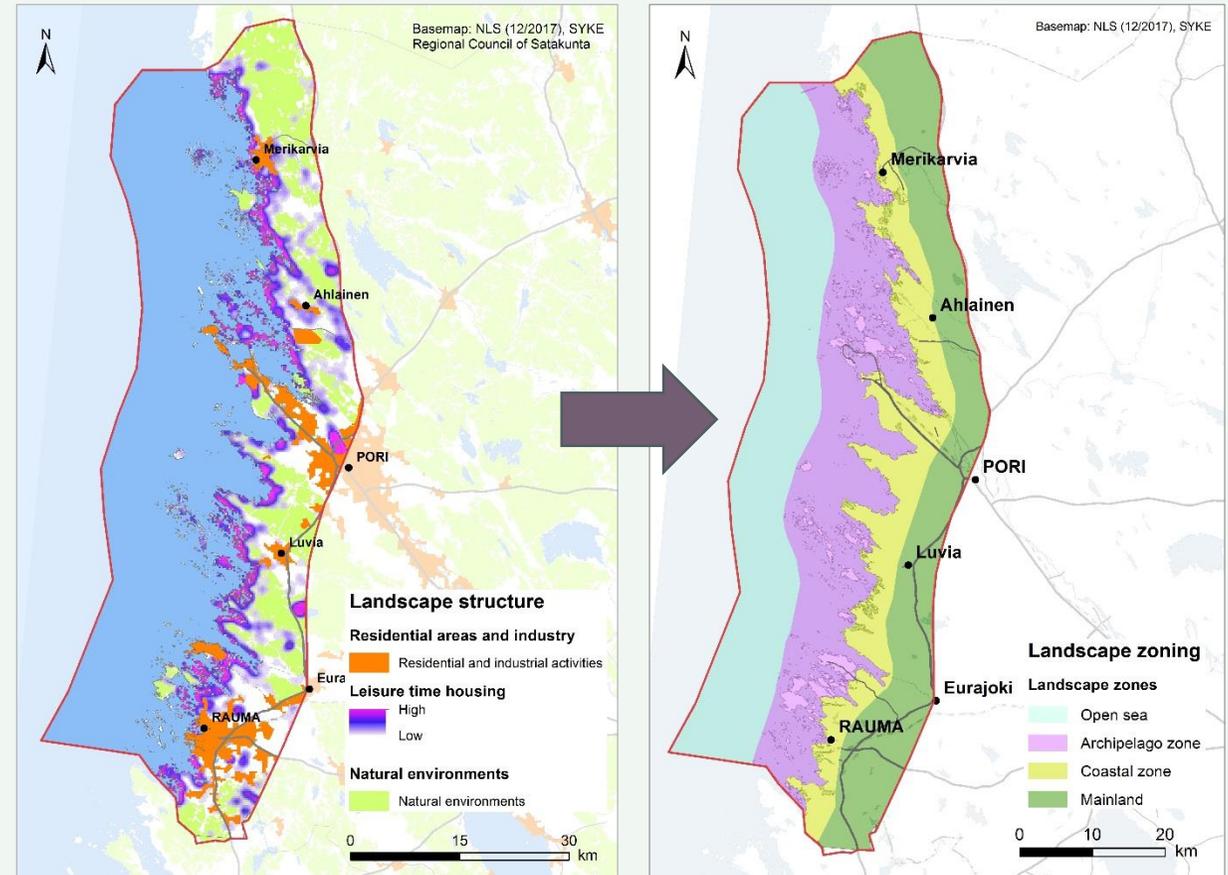


# The human activity zones in Satakunta's coastal zone

In terms of the regional structure and human activity, Satakunta's coastal zone can be divided into four sections running from east to west. These have different levels of human activity and varying ecological conditions:

1. **The marine zone** (open sea, human activity mainly limited to professional fishing operations and maritime transport with some leisure boating)
2. **The archipelago zone** (has great importance for nature conservation and tourism, human activity mainly focused on tourism, recreational land use and professional fishing, some of the islands used for holiday homes)
3. **The coastal zone** (little free shoreline left, in addition to the permanent and holiday homes the area also has industrial and shipping operations, as well as several tourist sites by the coast)
4. **The mainland zone** (reduced effect of the coastline, population outside of the urban settlements is sparse, several large wetland and forest areas)

Figure 13. The human activity zones on the coast of Satakunta



# Human activity in Satakunta's coastal zone (1/3)

The human activity in Satakunta's coastal zone is diverse in nature, and the area has industrial, maritime transport and energy production operations. Satakunta is one of the most industrialised regions in Finland, and industrial operations provide roughly 20% of the region's jobs (the Regional Council of Satakunta 2016). The industrial operations in the coastal zone are focused around the freight ports of Pori and Rauma, as well as the northern parts of the Yyterinniemi Cape.

A balance between different forms of land use in Satakunta's coastal zone has been achieved as part of its regional land use plan, which takes into account the space requirements of not just housing and businesses, but also recreational land use and tourism, for example. Satakunta's regional land use plan (including phased regional land use plans No 1 and 2) contain a total of 37 different forms of land use in the coastal zone of Satakunta. Notations that steer the development, but are not accompanied by a specifically allocated area in the plans, have been excluded from this review. This review of land use did include BirdLife Finland's definitions, the nationally and internationally important bird areas (IBA/FINIBA), which, together with conservation and Natura areas, indicate the areas' value for birdlife. The review does not discuss forestry or professional fishing, for example, as these are mainly governed by their own sector-specific legislation and therefore have no specific area allocations in the land use plans. However, the

regional land use plan does highlight sites that are valuable in terms of forest biodiversity and recreational use, and these should be accounted for in land use planning.

Of all the operations and land use interests, 19 are connected to construction and human activity (i.e. activity that alters the environment), and 10 to the protection of nature and cultural environments (operations that restrict human activities). Nine of the operations are neutral and have no direct impact on the area's current state. These neutral operations include various development zone notations, which do not directly create pressure to make alterations to an area or restrict its use.



# Human activity in Satakunta's coastal zone (2/3)

The land use needs vary in different parts of Satakunta's coastal zone, with human activity clearly focused in and around the cities of Pori and Rauma. The human activity is at its most diverse in Meri-Pori, where a single area can have up to 14 land use plan notations. The reverse is true of the forested and sparsely populated areas of Merikarvia and Luvia, in particular, which are currently experiencing little developmental pressure. In Satakunta, operations connected to construction and regional development mainly take place on the mainland, whilst operations located at sea only include shipping and boating lanes, various types of sea wires and cables, and the offshore wind farm of Tahkoluoto.

In land use planning, natural and cultural values must be balanced with other human activity. During the planning, any human activity that may alter the environment is primarily steered away from protected areas. In Satakunta's coastal zone, 35.4% of the raster grid cells reviewed contained notations connected to both human activity and nature conservation. The human activities that most often occupy the same cells as protected sites include shipping lanes (17.2%), roads (12.8%) and power lines (10.5%). In the marine areas, in particular, the shipping lanes and sea cables mainly run through protected areas, which increases their overall proportion in the material. In addition to these lanes and lines, the protection notations overlap with the land use plan's notations concerning urban settlements (5.4%).

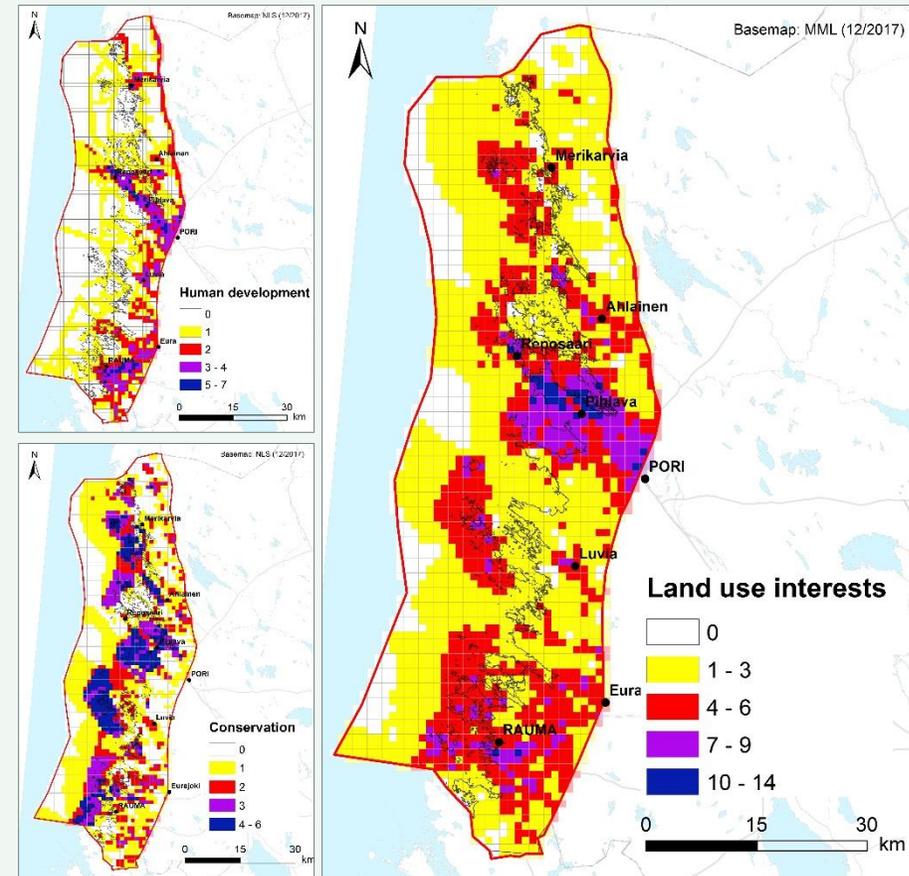


Figure 14. The diversity of human activities (right), the construction notations (top left) and the conservation area notations (bottom left) in Satakunta's coastal zone



# Human activity in Satakunta's coastal zone (3/3)

Notation	Proportion (% of the cells)	Notation	Proportion (% of the cells)
Shipping and boating lanes	17.2%	Tourism_development zone	1.7%
Urban structure_development zone	15.0%	Silence	1.5%
IBA/FINIBA	13.7%	Wind power	1.4%
Conservation areas (incl. the Bothnian Sea NP)	13.3%	Groundwater area	1.3%
Roads	12.8%	Shipwrecks	1.0%
Cultural environments	11.3%	Ports_development zone	0.7%
Power lines/cables	10.5%	Energy supply	0.6%
Natura 2000	8.7%	Port areas	0.5%
Urban settlements	5.4%	Waste management	0.5%
Landscapes	5.4%	Services	0.4%
Ancient monuments	5.1%	Employment areas	0.4%
Valuable cliff areas	4.5%	Solar energy	0.3%
An area protected by a land use plan (S)	4.4%	Borrow pits	0.3%
Recreational use	3.1%	Peat production	0.1%
Landscape and cultural environment development zone	3.0%	Communications	0.1%
Railways	3.0%	UNESCO	0.1%
Valuable forest environments (MY, MU)	2.8%	Large commercial units	0.1%
Flood risk areas	2.0%	Timber terminals	0.0%
Industry	1.9%	Air traffic	0.0%

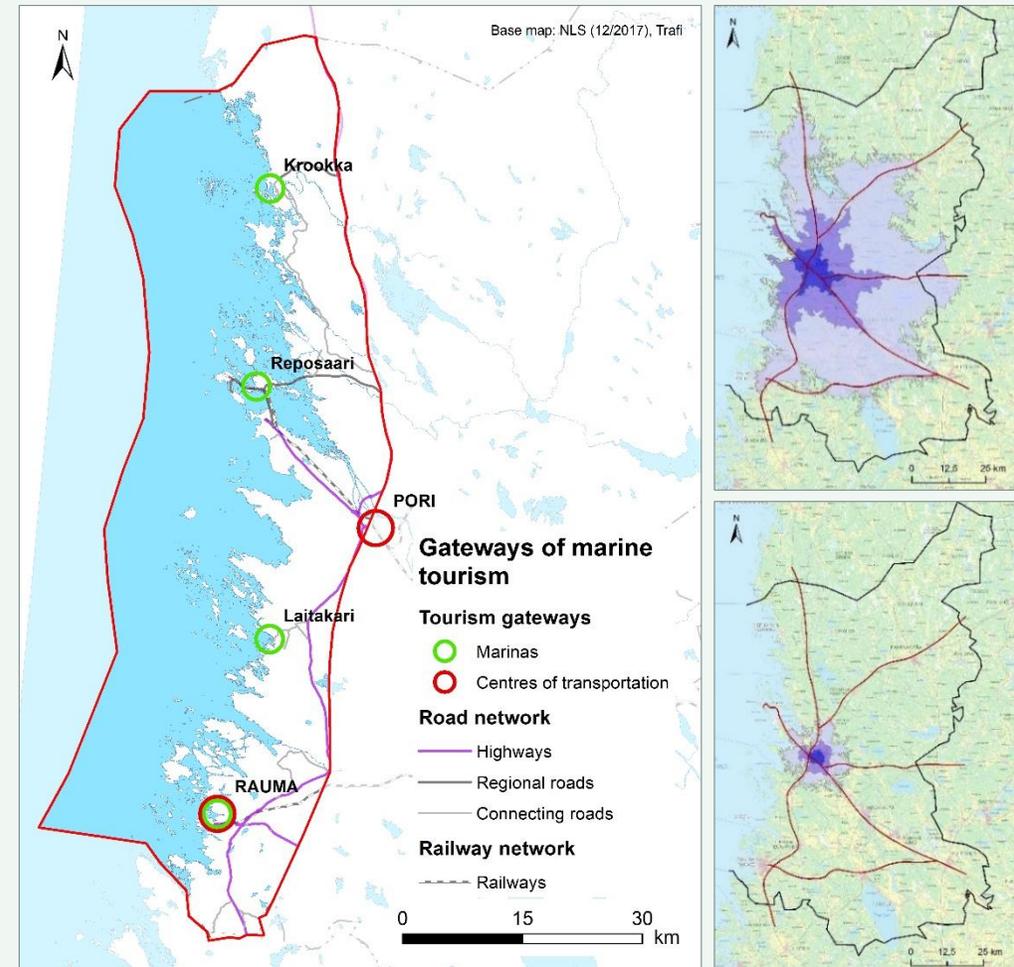
Figure 15. Land use in Satakunta's coastal zone, based on the regional land use plan's notations



# Accessibility on the mainland

- These days, the road network connects Satakunta with the large growth centres in Southern and Southwestern Finland (Helsinki, Tampere and Turku) efficiently. The most important transport connections in the region include highway No 8, which connects Satakunta's coastal zone to both Turku and Vaasa, highways 2 and 11 from Pori to Helsinki and Tampere, and highway 12 from Rauma to Tampere. The regional and local road networks complement the overall road network of Satakunta, and almost all sections of the coastal zone can now be accessed by car from Pori in less than an hour.
- Furthermore, Satakunta's coastal zone can also be accessed by train from Tampere and by plane from Helsinki and Stockholm. Trains and planes in Satakunta travel via Pori, which makes the city the region's major transport hub for both commuters and leisure transport.
- Nowadays, the public transport along the region's main roads and between the central cities is efficient. However, public transport connections from the cities to the travel destinations along the coastline (e.g. Yyteri, Laitakari and the River Merikarvianjoki) are poor and often do not provide a competitive alternative to private vehicles.

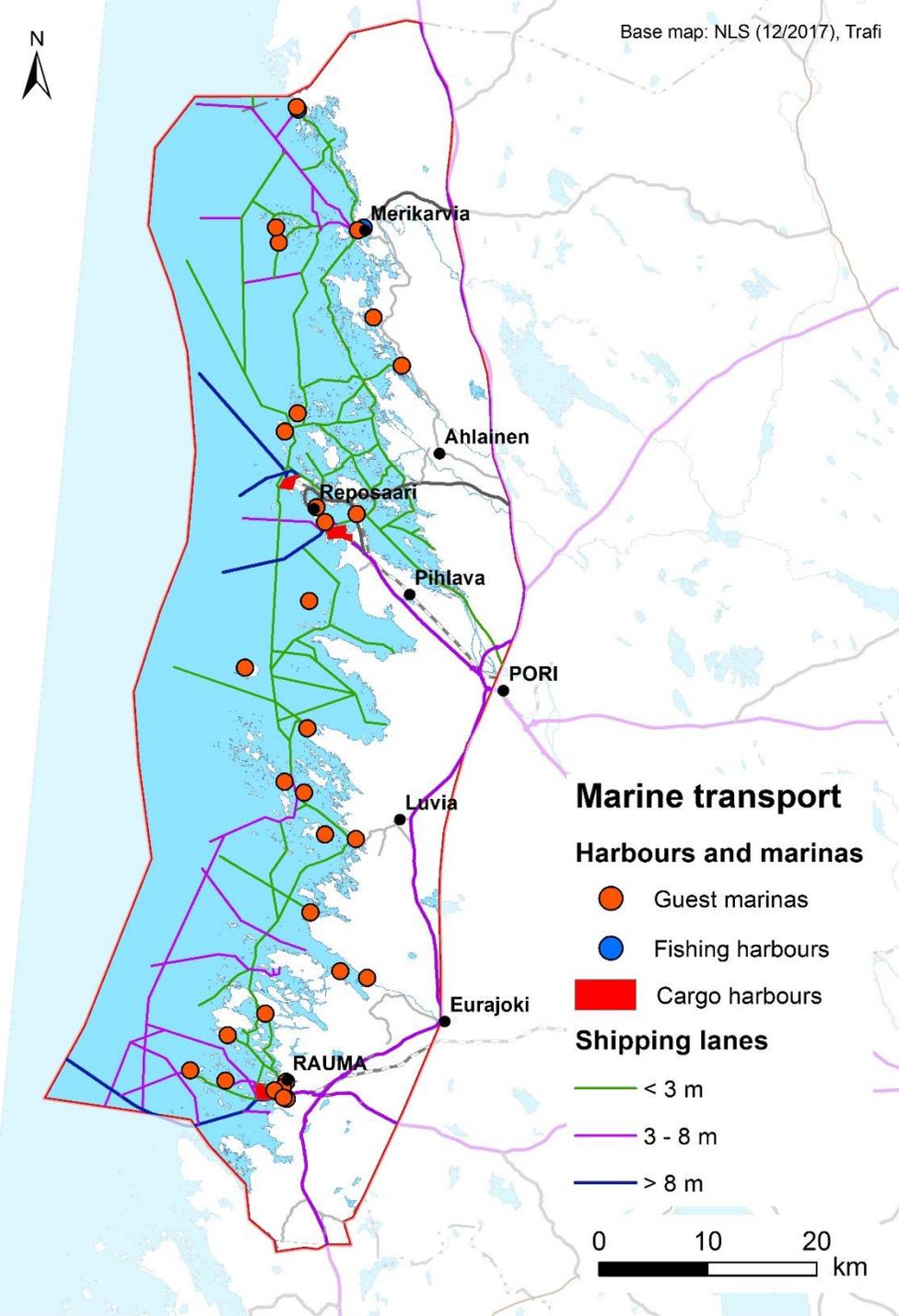
Figure 16. The main transport routes for tourism in Satakunta (left), and the region's accessibility from Pori's Travel Centre by car (top right) and by bicycle (bottom right). The accessibility maps show the areas that can be accessed with different modes of transport within 15, 30 and 60 minutes.



# Accessibility from the sea

- Leisure boating in the coastal zone of Satakunta is these days one of the most popular recreational activities, and a significant number of the visitors to the Bothnian Sea National Park arrive by boat.
- The transport system in the marine area consists of 1) shipping and boating lanes of varying depths and 2) guest harbours and excursion harbours, currently found both on the mainland and islands. There are approximately 775 line kilometres of shipping and boating lanes in Satakunta's coastal zone, and they cover almost the entire coast of Satakunta's archipelago area.
- The shallowness of the sea and its rocky bottom make boating outside of the lanes difficult, due to which boating is focused in the shipping and boating lanes in Satakunta's coastal zone (Rosu 2015). Post-glacial rebound and icy winters are constantly reshaping the topographic profile of the seabed, which creates hazards in the shallower boating lanes (channel depth less than 3 m), in particular, and a need to increase the lane depth.
- In addition to leisure boating, the coastal zone of Satakunta has two notable freight ports (the ports of Pori and Rauma), and goods are transported through these regularly throughout the year. Entrance lanes have been dredged from the edge of the deep sea area to the three largest ports (Rauma, Mäntyluoto and Tahkoluoto), and their depths vary from 8 to 12 metres.

Figure 17. Maritime transport in Satakunta's coastal zone and the major freight ports, guest marinas and fishing harbours (according to the Regional Council of Satakunta 2011 and the Finnish Transport Agency)



## 5. The regional structure of tourism in Satakunta's coastal zone



# Determining the regional structure and the current state of tourism

A regional structure analysis describes the distribution of the population and various human activities in an area, as well as how these are connected to one another in relation to the area's transport system and different modes of transport (Ponnikas et al. 2010).

The basic needs of tourists (Figure 18) depend on 1) the area's pull factors (i.e. what attracts travellers to the area) and 2) the available services in the area (i.e. what makes people enjoy staying there). The significance of different basic services for tourists varies notably between target groups. For example, travellers using their own boats to visit an archipelago are not necessarily interested in the available accommodation services, and instead find the location of guest marinas and excursion harbours and their range of services more important. The regional structure analysis concerning tourism reviews a service location (e.g. accommodation, restaurants and shops) in relation to the area's pull factors, such as conservation areas and cultural environments (the Helsinki-Uusimaa Regional Council 2017).

Holiday houses are the main form of land use in Satakunta's coastal zone, and a significant portion of the Bothnian Sea coastline has already been built on. Although a small portion of the coastal zone's holiday homes are also being rented out to tourists, the majority of Satakunta's holiday homes and shoreline properties are in private use. Holiday homes were not reviewed as part of the

regional structure model when studying the regional structure of tourism, instead they were primarily considered a prerequisite for tourism, which should be accounted for when developing tourist operations. The aim of this approach was to focus the regional structure analysis on the needs (e.g. services and opportunities for recreational use) of active travellers, in particular, who come from within or outside of the region.



Figure 18. The basic needs of travellers



# The Bothnian Sea – a diverse combination of clean nature and culture

- The clear seawater, the large size of the Bothnian Sea and the narrow shape of its archipelago zone create a maritime atmosphere in Satakunta's coastal zone, which can also be felt on the mainland.
- Satakunta has some of the oldest settlements in Finland, which is nowadays reflected in the diverse rustic and archipelago cultures and a large number of nationally or regionally important rural landscapes and cultural environments.
- The Bothnian Sea National Park, the internationally important bird sanctuaries in Satakunta's gulfs, and the diverse archipelago and rustic cultures provide a wide range of experience opportunities and enable, in part, the development of a comprehensive set of services for the purposes of nature and cultural tourism. In addition to the Bothnian Sea National Park, Satakunta's coastal zone is also home to the world heritage sites of Old Rauma and Sammallahdenmäki, Yyteri's sand dunes and the recreational area of the River Merikarvianjoki, all of which aid in the development of tourism in the region.
- Each municipality offers a unique range of tourism services that reflect the area's natural characteristics and cultural history.

Figure 19. The local characteristics of tourism in the coastal zone of Satakunta

## Merikarvia

- Rural tourism
- Recreational fishing
- River Merikarvianjoki

## Eurajoki

- Marine services and cultural history
- Laitakari marina

## Pori

- Versatile services and attractions
- Yyteri
- Event production (Pori Jazz, Suomi Areena etc.)

## Rauma

- Marine accessibility and services
- Old Rauma cultural heritage site



# The tourism target groups

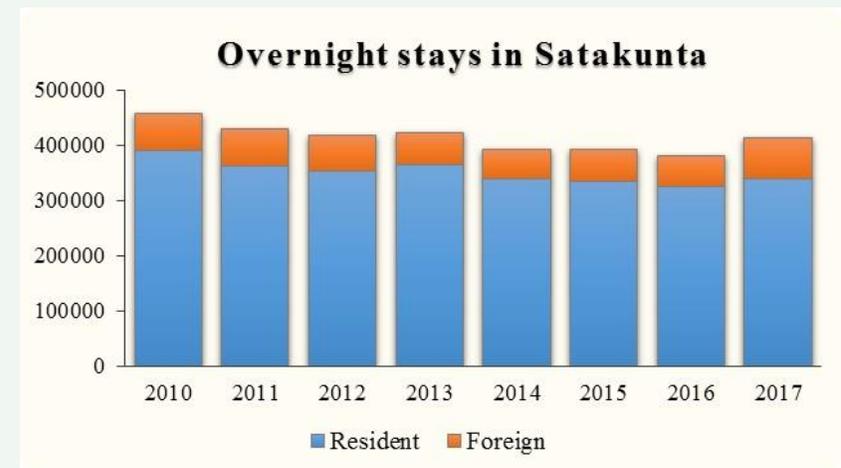
## Tourism in Satakunta

- In 2017, a total of 412,700 people stayed at Satakunta's accommodation establishments, and approximately 82% of them were Finnish. However, the proportion of foreign tourists has been on the rise in the 21st century, with German and Swedish tourists being the largest groups of foreign visitors in Satakunta (Statistics Finland 2018).
- A considerable proportion of the visitors to the Bothnian Sea National Park are Finnish (roughly 98%, Rosu 2015).

## The main target groups in coastal and maritime tourism

- Travellers from nearby regions (Pirkanmaa and Varsinais-Suomi, in particular) and local recreational users currently form the most important target groups in nature tourism (SAMK 2015)
- The customers of Yyteri and Old Rauma are the main tourist groups and should be offered the chance to explore all the travel destinations in the region
- The large public events in Pori and Rauma (Pori Jazz, SuomiAreena and the Lace Week) bring tourists to the region from Finland and abroad.
- Leisure boating is one of the most important forms of tourism and recreation in the coastal zone of Satakunta (Rosu 2015), which should be factored in when developing tourist services and planning the use of the marine areas.

Figure 20. Nights spent in Satakunta's accommodation establishments in 2012–2017 (above) and estimated number of visitors at the region's travel destinations and events (below)



Tourism destination	Visitor count
Yyteri (beach)	200,000
Yyteri (protected area)	15,000
Kylmäpihlaja lighthouse	10,000
Säppi lighthouse	3,500
Seliskeri marina	2,500
Bothnian Sea National Park (total)	87,900
Old Rauma (Unesco)	500,000
Sammallahdenmäki (UNESCO)	8,000
Pori Jazz	59,000
River Merikarvianjoki	10,000*
Vuojoki Mansion	20,000
Satakunta museum	6,100
Natural museum Arkki	13,000
Rauman Art Museum	10,500

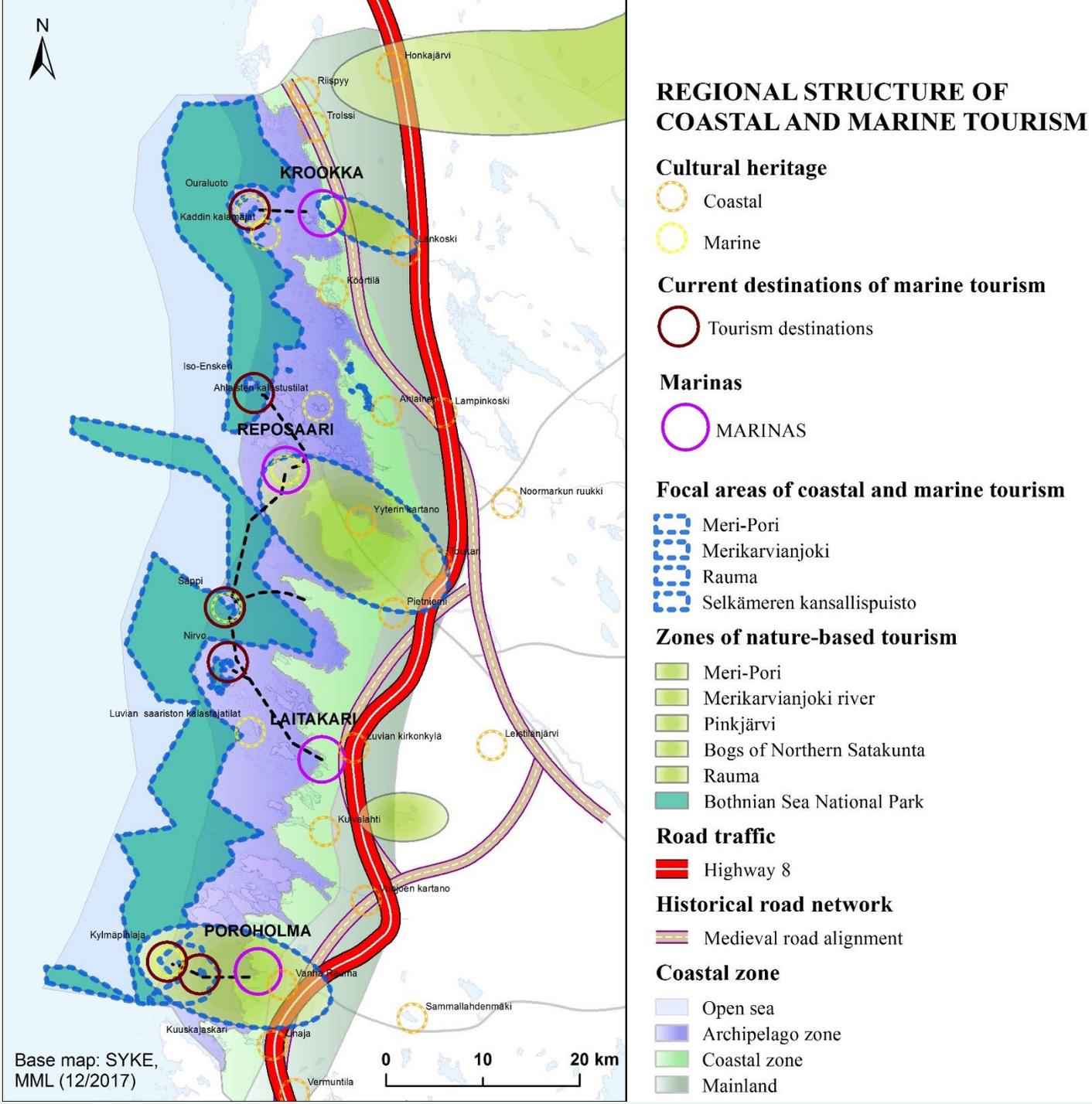


# The regional structure of tourism on Satakunta's coast

The coastal and maritime tourism, as well as tourist mobility, in Satakunta currently depend on the following:

- The area's **existing tourist centres** and their services (the urban centres of Rauma and Pori, Yyteri and the River Merikarvianjoki)
- **The Bothnian Sea National Park** and its easily accessible archipelago destinations (Kylmäpihlaja, Kuuskajaskari, Nirvo, Säppi, Iso-Enskeri and Ouraluoto)
- The four biggest guest marinas that function as the main hubs between land and sea travel (**Krookka, Reposaari, Laitakari and Poroholma**)
- The **historical Bothnian Coast Road** and the cultural environments alongside it
- **Highway 8** and its effect on transport within the area

Figure 21. The regional structure of coastal and maritime tourism in Satakunta

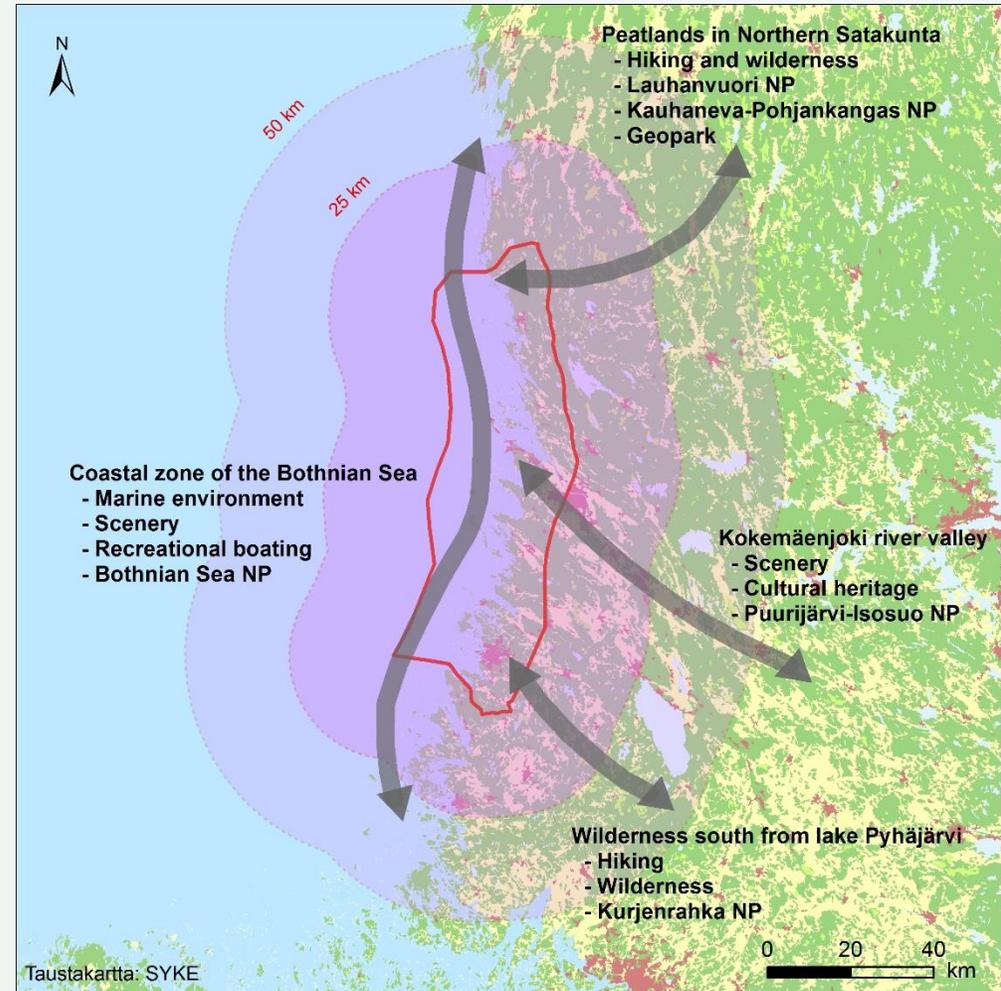


# The general operating environment of nature tourism

The coastal zone of Satakunta is connected to many of the natural attractions and attraction zones that are important in terms of biodiversity and recreational use and help enable the development of nature tourism and the inclusion of the coastal zone in regional and cross-regional cooperation. These attractions include, in particular:

1. the extensive wetland zone in Northern Satakunta and South Ostrobothnia;
2. the landscapes and cultural environments of the Kokemäenjoki river valley;
3. the large forests and wetland areas southwest of Pyhäjärvi, on the border of Satakunta and Varsinais-Suomi; and
4. the Bothnian Sea coastline and archipelago zone from the Archipelago Sea all the way to Kvarken.

Figure 22. The connection of Satakunta's nature tourism to the local area and its most important environmental and cultural sights



# The strengths and challenges of coastal and maritime tourism in Satakunta

STRENGTHS	CHALLENGES
<ul style="list-style-type: none"><li>• The area's location near the large growth centres of Southern Finland</li><li>• The clean Bothnian Sea is a significant pull factor</li><li>• The diverse nature and cultural history enable the provision of various types of experiences and service packages</li><li>• The tourism profiles of the area's municipalities are different, which enables the provision of a wide range of tourist services</li><li>• Strong brands (e.g. Pori Jazz) and nationally famous destinations (e.g. Yyteri and Old Rauma) help attract tourists to the region</li><li>• Access to the archipelago for people without their own boats has been made easy especially in Rauma</li></ul>	<ul style="list-style-type: none"><li>• The accessibility of the archipelago and travel destinations outside the urban centres (Pori and Rauma)</li><li>• The fragmentation of the tourism industry and the large number of small and part-time service providers</li><li>• The impact of the public sector's funding situation on the maintenance of the infrastructure that supports tourism and recreational land use (e.g. excursion harbours, paths and fire pits)</li><li>• The effects of human activity and climate change on the state of the Bothnian Sea and the area's attractiveness as a travel destination</li><li>• Poor awareness of Satakunta as a nature tourism and recreational destination and the challenges it causes to the marketing of the region's travel destinations</li><li>• General lack of appreciation of the Bothnian Sea in comparison to the Archipelago Sea and Kvarken</li></ul>



## **6. The reconciliation needs regarding land use and the challenges pertaining to blue growth**



# Land use planning as a tool to develop tourism

The prerequisites for tourism can be improved by factoring in the sector's needs in land use planning. These needs may be connected to the foundation of new travel destinations or centres, for example, which require appropriate land use plan notations, usually in either the local master plan or the regional land use plan, depending on the size of the area. In addition to the land use plan notations that allow for the realisation of tourist operations, the development of the tourism industry is based on achieving a balance with the other human activities, in which land use planning is used to protect the pull factors that form the basis for tourism development.

Tourism and recreational activities in Satakunta have been reviewed as part of Satakunta's regional land use plan (the Regional Council of Satakunta 2009). This plan identifies the key areas for tourism and aims to protect the most important areas and their sufficiency for tourism and recreational use with the help of planning solutions. The main factor in tourism and the recreational use of Satakunta's coastal zone are its natural environments and green areas that are open to all (including the sea and archipelago areas), where both the locals and visitors can enjoy the typical nature of the Bothnian Sea's coastal zone.

In its Development Plan for Blue Bioeconomy (the Ministry of Agriculture and Forestry 2016), the Ministry of Agriculture and Forestry emphasises the business opportunities linked to waterways and water resources as one of the sectors that

are expected to grow significantly over the next few years. In addition to tourism and wellbeing services, it also considers bioproducts originating from aquatic environments (e.g. fish farming), energy production and various types of water processing and management know-how as blue growth sectors. Many of the aforementioned blue growth sectors also have growth potential in Satakunta's marine areas and will have a significant status in the region's maritime spatial planning in the future.

The following pages discuss the reconciliation needs between tourism, the land use in Satakunta's coastal zone and the main interests regarding the region. The discussion is based on the operations reviewed in Satakunta's regional land use plan, and the assessment has also accounted for the sectors of agriculture, forestry and blue growth, which have not received special consideration in the current land use plan.



# The coordination needs between tourism and other land use purposes (1/4)

Form of land use	Nature of impact	Impact mechanisms	Means to balance different operations
<b>Construction of urban settlements and basic service provision</b>	Direct	<ul style="list-style-type: none"> <li>• Tourism operations provide extensive benefits to the public services in Satakunta</li> <li>• The proportion tourism accounts for of the total amount of services used is small and does not put excessive pressure on the region's municipalities</li> </ul>	<ul style="list-style-type: none"> <li>• No particular reconciliation needs for as long as the proportion of tourists in relation to the total amount of service use remains reasonable</li> </ul>
<b>Permanent/holiday homes</b>	Direct	<ul style="list-style-type: none"> <li>• Currently, shoreline construction is strongly affecting mobility on the Bothnian Sea coastline and built islands</li> <li>• Increasing the volume of tourism near private holiday home areas may result in a higher number of conflicts between the local population and tourists</li> </ul>	<ul style="list-style-type: none"> <li>• Focusing tourist operations in areas that have few holiday homes or where holiday homes have been made part of the tourist operations</li> <li>• More effective marketing of important travel destinations and recreational sites (e.g. vast green areas, nature paths and bird towers)</li> </ul>
<b>Forestry</b>	Indirect	<ul style="list-style-type: none"> <li>• Forestry affects the current state of natural environments, which may have an indirect impact (either positive or negative) in the area's attractiveness</li> <li>• Focused especially on private land on the mainland, with forestry typically being the main form of land use</li> </ul>	<ul style="list-style-type: none"> <li>• Forestry operations are not governed by land use plans</li> <li>• Taking the preconditions for tourism and recreational land use (e.g. landscape values) into account when planning forestry operations, particularly in forests near tourist destinations and recreational sites</li> </ul>
<b>Agriculture</b>	Indirect	<ul style="list-style-type: none"> <li>• Agricultural areas possess no significant value for tourism or recreation, apart from certain cultural environments</li> <li>• The agricultural nutrient loading has an indirect effect on the state of the Bothnian Sea and its eutrophication</li> <li>• Agro-tourism functions as a potential source of extra income for local farmers</li> </ul>	<ul style="list-style-type: none"> <li>• Prevention of agricultural nutrient loading as part the surface water management plans will also promote the area's use for travel and recreational purposes</li> </ul>



# The coordination needs between tourism and other land use purposes (2/4)

Form of land use	Nature of impact	Impact mechanisms	Means to balance different operations
<b>Industry (including energy transmission)</b>	Direct/indirect	<ul style="list-style-type: none"> <li>Industrial sites affect the coastal zone's accessibility, meaning that industrial plants have an indirect effect on the region's general landscape and partly also on the state of the sea area, for example.</li> </ul>	<ul style="list-style-type: none"> <li>There is currently no significant need to establish new industrial sites in Satakunta, so little coordination between different forms of land use is required</li> </ul>
<b>Maritime transport</b>	Direct/indirect	<ul style="list-style-type: none"> <li>As above</li> </ul>	<ul style="list-style-type: none"> <li>As above</li> </ul>
<b>Road transport</b>	Indirect	<ul style="list-style-type: none"> <li>Tourism in Satakunta is clearly dependent on smoothly functioning road connections</li> <li>An increase in traffic may harm the environment (e.g. noise and parking problems), especially near tourist destinations</li> </ul>	<ul style="list-style-type: none"> <li>Functional conditions on the region's main roads and roads leading to sights will be ensured</li> <li>The option of using public transport or a shared vehicle between travel destinations and urban centres, in particular, will be improved</li> </ul>
<b>Fish farming</b>	Indirect	<ul style="list-style-type: none"> <li>A sector that is expected to grow in the Bothnian Sea area over the next few years</li> <li>Not generally located in areas that are important for tourism or recreation</li> <li>Affects the current state of the Bothnian Sea through nutrient loading, which may have further, indirect effects on the area's attractiveness</li> </ul>	<ul style="list-style-type: none"> <li>Mitigating the eutrophication of the Bothnian Sea by laying down plans for land and marine area utilisation and surface water management</li> <li>Identifying optimal areas regarding environmental effects and natural environments, and preventing the impact of the operations at the plants by creating plans for the plants' utilisation</li> </ul>



# The coordination needs between tourism and other land use purposes (3/4)

Form of land use	Nature of impact	Impact mechanisms	Means to balance different operations
<b>Professional fishing</b>	Indirect	<ul style="list-style-type: none"> <li>No significant need to balance this with tourism and recreational use</li> <li>Recreational fishing, at its current scale, does not yet provide notable competition for professional fishing</li> <li>Providing transport to the archipelago functions as a potential source of extra income for professional fishers</li> </ul>	<ul style="list-style-type: none"> <li>No need to reconcile these operations as part of land use planning</li> <li>Developing cooperation between tourism industry operators and professional fishers may create synergy benefits for both sectors</li> </ul>
<b>Wind power</b>	Direct/indirect	<ul style="list-style-type: none"> <li>Wind power production has increased markedly in Satakunta's coastal zone in recent years, which can be seen in the area's landscape</li> <li>The sound and landscape effects of wind power may affect the area's attractiveness with regard to tourism and recreational use</li> </ul>	<ul style="list-style-type: none"> <li>Accounting for travel and recreation sites when planning new wind farms</li> </ul>
<b>The protection of cultural environments</b>	Direct	<ul style="list-style-type: none"> <li>Cultural environments and cultural history are one of the main pull factors for tourism in Satakunta</li> <li>A rise in the number of visitors may accelerate erosion and increase the risk of vandalism at some sites</li> </ul>	<ul style="list-style-type: none"> <li>Planning the management and use of cultural environment sites and steering people away from areas that are the most susceptible to erosion</li> </ul>



# The coordination needs between tourism and other land use purposes (4/4)

Form of land use	Nature of impact	Impact mechanisms	Means to balance different operations
<b>Biodiversity on the mainland and the islands</b>	Direct	<ul style="list-style-type: none"> <li>• Tourism and recreational land use will increase the number of people in Satakunta's archipelago, and this heightened human activity will, in turn, cause more risks for the sensitive nature in certain areas of the archipelago</li> <li>• The mechanisms include increased consumption due to human activity, direct disruptive effects and increased littering</li> <li>• Coastal meadows and important bird nesting islets are vulnerable to the environmental impact caused by an increase in human activities</li> </ul>	<ul style="list-style-type: none"> <li>• Directing human activity to areas less sensitive to consumption when planning the management and use of protected areas</li> <li>• Landing restrictions for the most important bird islets (conservation areas)</li> <li>• Distributing more information to the public about the adverse effects of human activity on nature and birdlife in the archipelago</li> </ul>
<b>Marine biodiversity</b>	Direct	<ul style="list-style-type: none"> <li>• An increase in tourism and recreational land use will result in more environmental effects due to general human activity, especially in the Bothnian Sea area</li> <li>• Boating is mainly focused in the existing boating lanes in Satakunta, which reduces the impact risk in the shallower sea areas</li> <li>• The measures to mitigate the effects of increased boating on the sea area's condition (e.g. underwater noise) and maintain the boating lanes play a vital role</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring functional basic services at guest marinas and excursion harbours (e.g. emptying stations for septic tanks)</li> <li>• Planning the maintenance measures for the boating lanes and conducting a comprehensive assessment of the environmental effects</li> </ul>



## 7. The development goals of coastal and maritime tourism in Satakunta



# The development themes of coastal and maritime tourism in Satakunta

The following paragraphs present the main goals regarding the development of Satakunta's coastal and maritime tourism and ensuring that the appropriate prerequisites are in place and the sector remains sustainable as part of the land use planning and regional development. Achieving these goals will enhance the tourism efforts and the prerequisites for general recreational land use, while supporting the aim of ensuring the continued good condition of the environment and safeguarding biodiversity. These goals are seamlessly connected to land use planning and regional development, but also to the general objectives regarding elements such as managing water resources and safeguarding biodiversity.

The development goals have been divided into four themes in the plan, and these are linked to maintaining the region's general attractiveness, developing the operating environment of the tourism industry and preventing harmful environmental effects of tourism operations.

- 1. Protecting the environment and natural values, and ensuring the region's attractiveness as part of land use planning**
- 2. Factoring in the regional characteristics when developing Satakunta's coastal and maritime tourism**

- 3. Improving the sustainability of tourism and preventing environmental effects caused by it**
- 4. Increasing awareness and the amount of information regarding the environment, and utilising these as a resource in Satakunta's coastal and maritime tourism**

The plan includes a short general description of the significance of each development theme for coastal and maritime tourism in Satakunta, after which the related development goals are presented.



# THEME 1: Protecting the environment and natural values, and ensuring the region's attractiveness

The natural and cultural values are the most important resources for tourism in Satakunta's marine and coastal zone, and any weakening of these may in the long run also have an impact on the region's overall attractiveness as a travel destination. Nowadays, the Bothnian Sea is one of the cleanest sections of the Baltic Sea and differs notably from the Archipelago Sea, for example, where the effects of eutrophication are more pronounced. Satakunta's coastal zone is under developmental pressure for both natural and human activity-based reasons. It is vital for tourism, as well, that we work to prevent environmental effects caused by human activity (e.g. eutrophication and worsening of the marine ecosystems' condition), so that we may ensure the attractiveness of Satakunta's coastal zone, especially as an environmentally clean travel destination.

The current state of the Bothnian Sea depends on the measures taken both on land and at sea. Therefore, the maintenance and utilisation plans for the sea areas must also take into consideration the goals regarding land and marine area utilisation and water resources management. Achieving these goals requires extensive cooperation between land use planners and environmental authorities, in particular, but the needs of municipalities, as well as the local people and businesses, among others, should also be considered during the planning process.

The utilisation plans for Satakunta's land and marine areas must include a sufficient amount of land area suitable for tourism and recreational use, and when planning operations that alter the environment, the needs of tourism must also be considered, e.g. the area's landscape and soundscape. The needs of tourism must be accounted for in Satakunta's maritime spatial planning, in particular, alongside the development objectives concerning aquaculture and energy production, for example.



# THEME 1: Protecting the environment and natural values, and ensuring the region's attractiveness

## Goal

**Goal 1.1.** To improve cooperation between the region's authorities in order to achieve a balance between the use of land and marine areas, water resources management and nature conservation, thereby ensuring that the region's natural values and the processes that maintain these remain on par with the development of human activity and utilisation of natural resources.

**Goal 1.2.** To demonstrate the principles of ecosystem-based planning in order to prevent the environmental effects of human activity in Satakunta's marine and coastal zone and to create a framework for sustainable development

**Goal 1.3.** To ensure with national and regional funding solutions that the resources to plan the maintenance and utilisation of the conservation areas, cultural environments and the most important recreational sites are sufficient, thereby increasing the opportunities for utilising these as travel destinations and recreational areas

**Goal 1.4.** To compile a comprehensive report on the state of Satakunta's biodiversity and ecological network, the operations that maintain the terrestrial and marine ecosystems and the factors affecting these in cooperation with various authorities, Metsähallitus and the research institutions operating in the region

**Goal 1.5.** To identify the most important sites/area combinations for the region's pull factors (e.g. natural values, birdlife, landscapes and natural quiet) and to analyse the possibilities for utilising these sustainably for tourism and recreation

**Goal 1.6.** To assess the relationship between the pull factors of the region's natural and cultural environments and the areas' actual use, and to evaluate, based on this, the significance of various factors for tourism in the coastal zone



# THEME 2: The regional characteristics of tourism

Satakunta's coastal zone is divided into several areas, based on their varying ranges of tourist services, which reflect the areas' natural and culture-historical characteristics. The characteristics of tourism in the region are affected by the values connected to the Bothnian Sea nature, the landscape and the archipelago culture, but also by the importance of Satakunta's coast as a historical settlement area and transport route. The structural diversity in Satakunta's coastal zone creates an opportunity to produce an extensive range of tourist services and travel experiences, which can be used to coax travellers to stay in the region longer and possibly even return there. However, benefitting from this structural diversity requires extensive cooperation between tourist companies and the authorities, so that visitors arriving in Satakunta can utilise the services of the entire region instead of just those offered at a few individual sites.

Tourism in Satakunta mainly depends on the region's larger urban centres, Pori and Rauma, in terms of the number of travellers and profit made from tourism. This is explained by the wide range of services provided in and around these cities and the easy access to these areas in comparison to the more sparsely populated areas, mostly used for agriculture. Pori's Yyteri and Old Rauma are destinations that attract hundreds of thousands of tourists every year, both from Finland and

abroad. These visitors form a potential target group for tourism, not just in Rauma and Pori, but in the entire region. All of the region's tourist services should be marketed to the aforementioned groups and regional cooperation networks need to be developed.

Tourism in Satakunta strongly relies on small and part-time travel businesses. These operators often have limited opportunities for advertising their services and developing their operations in comparison to large companies. Therefore, tourism in Satakunta must in the future be built more on cooperation networks, where entrepreneurs are brought together with local educational institutions (e.g. Satakunta University of Applied Sciences) and various authorities. More efficient cooperation will also provide smaller companies with the opportunity to market their services and increase their sales, resulting in more revenue for the entire region.



# THEME 2: The regional characteristics of tourism

## Goal

**Goal 2.1.** To create for the coastal municipalities of Satakunta their own development and communications plans regarding tourism in cooperation with local authorities, businesses and regional authorities, and to utilise these plans in regional-level communications

**Goal 2.2.** To improve municipality-level cooperation between tourist service businesses, authorities and national tourism industry operators (e.g. Visit Finland) and to use this cooperation to provide small tourist service businesses with the opportunity to advertise their services and develop them together with other operators in the area

**Goal 2.3.** To promote the visibility of the region's tourist services in the existing tourism centres of Satakunta's coastal zone (Yyteri and Old Rauma, in particular), with the aim of extending the amount of time visitors spend in Satakunta and increasing the amount of services they use

**Goal 2.4.** To emphasise the significance of the changing seasons (winter, in particular) and the fluctuation in the amount of light over the course of 24 hours as pull factors in the coastal zone of Satakunta, thereby making tourism less seasonal in nature

**Goal 2.5.** To further highlight the importance of the historical Bothnian Coast Road and its culture-historical value and increase the road's visibility in the region's communications regarding its cultural heritage, while identifying possibilities for utilising sites along this road as travel destinations

**Goal 2.6.** To improve the accessibility of Satakunta's maritime travel destinations (e.g. Säppi, Iso-Enskeri and the Oura Archipelago) by further developing the archipelago cruise services and landing opportunities, thereby enabling the improvement of maritime activities (e.g. kayaking and recreational fishing) as well.



# THEME 3: Promoting sustainable tourism

Although Satakunta's nature and experience tourism is based on the region's natural and cultural environments, an increase in the number of tourists will inevitably cause harm to the environment, due to human activity. Preventing environmental effects caused by human activity (e.g. trampling, littering and direct disturbance) is important, particularly in order to achieve a balance between the natural values and tourism in the Bothnian Sea area.

Satakunta's urban centres (Pori and Rauma) can be easily accessed by public transport, but travelling around the region requires a car. This increases the overall environmental effects from traffic and climate-harming emissions due to tourism. In the future, the development of tourism must emphasise innovations linked to the region's accessibility and sustainable transport solutions. These may include the development of a public transport system for the most important tourist areas (e.g. Yyteri) and various vehicle sharing solutions from travel centres to the major guest marinas.

The environmental impact of tourism or recreational land use is not being systematically monitored in Satakunta, and nor have indicators measuring changes (see, for example, UNEP & UNWTO 2009) been specified for tourism in the region. The national Marine Resources Management Plan proposes that the

environmental effects of leisure boating be monitored based on the number of nesting archipelago birds (e.g. the velvet scoter and the horned grebe). However, these indicators are not sufficiently specific for an area the size of Satakunta, due to the low number of these birds and the vast range of factors affecting their current numbers. Therefore, in order to improve the sustainability and monitoring of tourism, the main indicators measuring change should be determined for Satakunta's coastal zone, so that the potential environmental effects of tourism and recreational land use can be monitored, especially in the Bothnian Sea National Park and the archipelago areas within its boundaries.



# THEME 3: Promoting sustainable tourism

## Goal

**Goal 3.1.** To promote the creation and maintenance of the basic structures (signposts, excursion harbours and hiking routes) that support tourism and recreational use, thereby preventing the environmental effects caused by tourism and recreational use, particularly in areas that are vulnerable to human activity

**Goal 3.2.** To develop public transport between Satakunta's urban centres and the region's most important travel destinations (e.g. Yyteri, Laitakari and the largest camping grounds), thus increasing the attractiveness of public transport among tourists, in particular

**Goal 3.3.** To assess the current state of the boating lanes that are the most important for tourism and recreational use and their dredging requirements in relation to their usability and potential environmental effects

**Goal 3.4.** To create area-specific indicators for assessing the sustainability and environmental impact of tourism

**Goal 3.5.** To identify the most important sites on the mainland and in the archipelago in terms of sea views and analyse their accessibility in order to avoid disturbance and conflicts with the local population



# THEME 4: Increasing the amount of environmental information and awareness

Environmental awareness is currently one of the megatrends in tourism, and an increasingly large proportion of travellers wish to avoid unnecessary consumption and promote sustainable development through the choices they make (Rate et al. 2018). Emphasising environmental awareness will provide a significant competitive edge to Satakunta as well, because tourism there is strongly based on the region's nature and the clean Bothnian Sea.

Highlighting environmental awareness in tourism requires a sufficient amount of information to be available on the region's natural values and the factors that affect these. Plenty of information on Satakunta's marine and archipelago nature has been produced, for example through the Finnish Inventory Programme for the Underwater Marine Environment, VELMU. However, this information is mainly intended for researchers and environmental authorities, and no area-specific analyses have been carried out for local businesses or stakeholders. In addition to VELMU, environmental information has been collected through various projects, but the material they have generated is scattered between different systems. The fragmentation of the information reduces the number of utilisation options and its effectiveness. The usability of the existing information

and making it easier to understand will be key in the upcoming years, if we wish to also increase the perceived value of the Bothnian Sea in the tourism sector.

In addition to the authorities, the industry's businesses and other stakeholders, who are responsible for producing and marketing tourist services, have an important role in sustainable tourism in Satakunta. We must focus on improving the environmental awareness of the sector's operators in Satakunta, so that service providers will also have an overall understanding of the characteristics of the Bothnian Sea area. The increase in environmental awareness and appreciation will support the sustainable development of tourism, if operators believe that the region's natural and landscape values will add value to their businesses and will therefore take these into account when planning their services.



# THEME 4: Increasing the amount of environmental information and awareness

## Goal

**Goal 4.1.** To improve access to the information regarding the nature of the Bothnian Sea marine and coastal zone and increase its usability among travel businesses, land use planners and NGOs through training and popularisation

**Goal 4.2.** To increase research connected to the practical application and utilisation of the existing information in Satakunta, thereby generating information on the region to support land use and regional development

**Goal 4.3.** To highlight the pull factors of Satakunta's coastal zone in regional communications, at public events and on social media, which will increase public awareness of the region's importance

**Goal 4.4.** To include basic information regarding the natural values and the land use planning system of the Bothnian Sea area more effectively in the courses offered to tourism companies and the tourism industry education provided by the higher education institutions in Satakunta



## **8. The implementation and monitoring of the plan**



# The implementation and monitoring of the plan

## Implementing the plan

The realisation of the plan is linked to the realisation of Satakunta's Regional Strategy 2018–2021 with regard to the goals set for the tourism and experience economy, blue growth and increasing the general attractiveness of the region. Furthermore, the plan promotes the realisation of Satakunta's regional land use plan, aiming to factor in the tourism development zone located in Satakunta's coastal area as part of the region's general development. The maritime spatial planning for Southwestern Finland, a planning area that also covers Satakunta, was launched in spring 2018. The plan will enable coastal and maritime tourism to be extensively included in the maritime spatial plan, alongside the other blue growth sectors.

A lot of work is being done by authorities and research organisations to develop Satakunta's coastal zone and its natural and cultural values. Making this work and the use of available resources more efficient and increasing cooperation in order to reduce duplication of work have a key role in achieving the goals proposed in the plan. In addition to cooperation and funding, one of the main factors affecting the development of tourism is the establishment of clear objectives by the various organisations, stating how they would like tourism and recreational land

use to be developed in the region and how much they are willing to invest in this work.

However, the goals of the plan also include a clear need for research and information production (e.g. goals 1.4, 2.1 and 3.3), which cannot be conducted as part of regular work and instead require external funding. The potential funding mechanisms for this include the EU's funding programmes (the European Regional Development Fund, the European Social Fund, Interreg Central Baltic and regional Leader groups), whose aim is to promote basic research, information-based decision-making and sustainable development.

## Monitoring

The realisation of the plan's goals is monitored as part of the monitoring of Satakunta's Regional Strategy and regional land use plan. In addition to this, the monitoring of the plan's realisation will also aim to account for the projects that are currently in progress in Satakunta, wherever possible. The success of responding to the information needs identified in the plan will be evaluated based on the objectives and research publications produced by these projects.



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