

Report **Marine and River Fishing Tourism**

in the Nordic Region: Iceland, Norway, Sweden and Finland

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Summary

Marine and River Fishing tourism in the Nordic Region: Culture, Economy, and Sustainability

This report on recreational fishing in the Nordic region highlights the interplay of culture, economy, and sustainability, with each country showing patterns shaped by geography, traditions, and regulatory frameworks. The countries discussed are Iceland, Norway, Sweden, and Finland.

It should be noted, however, that the economic data presented in this report are based on different methodologies and valuation approaches across countries. In particular, the estimates reported for Iceland include broader measures of economic value than those used in several of the other country studies. Consequently, the figures should be interpreted with caution and are not always directly comparable.

In Iceland, salmon fishing has deep cultural roots and attracts both locals and foreign anglers who pay high prices for access to certain rivers.

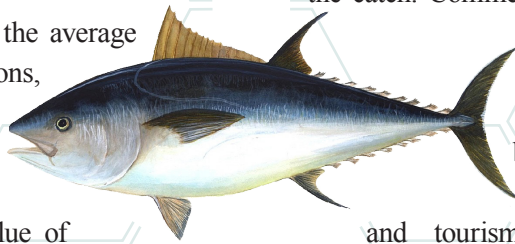
Between 2019 and 2023, the average annual catch was about 60 tons, mostly from South and West Iceland. The economic importance is considerable: in 2018, the total value of salmon and trout fisheries was estimated at ISK 170 billion (EUR 1,9 billion), benefiting not only landowners but also agriculture, guiding services, fishing equipment retailers, and tourism. Sea angling has also become a cornerstone of tourism in the Westfjords, as seen in the small village of Súðavík where the company Iceland Sea Angling ehf. has accounted for up to 45% of the national sea-angling catch in recent years. Cod dominates these fisheries, which generate jobs and municipal revenues.

However, the increase in aquaculture and the rising number of escaped farmed salmon present ecological risks, emphasising the importance of effective regulation to maintain a balance between growth and conservation. By safeguarding its wild salmon stocks and strengthening sustainable sea angling, Iceland can reinforce its role as a high-value, low-impact destination while contributing lessons to the broader Nordic region on how cultural heritage and rural development can align with modern sustainability goals.

In Norway, strong export capacity meets long-standing local traditions, particularly in Northern Norway, where cod and other groundfish have sustained livelihoods for centuries. In 2023, export revenues from commercial fisheries reached NOK 44 billion (EUR 3,75 billion), with the northern regions contributing nearly half of the catch. Commercial fishing remains dominant, with 2.4 million tons landed in 2024, valued at NOK 29-30 billion (EUR 2,47-2,56).

Alongside, recreational and tourism-related fisheries have expanded rapidly. Each year, between one-third and two-fifths of Norwegians engage in recreational fishing, mostly for personal consumption.

Tourist sea angling has also grown significantly, with over 315,000 visitors in 2024 and generating more than NOK 300 million (EUR 25,60 million) in direct value in Northern Norway. This growth has intensified competition for dwindling coastal cod stocks, as locals, tourists, and the commercial fleet all target the same resource. Recent policy changes – inclu-



Summary, continued

ding mandatory catch registration, lower export allowances, and stricter quotas – reflect efforts to balance sustainability, fairness, and economic development in a region where cultural heritage meets global markets.

In Sweden, recreational fishing is among the most popular outdoor activities, with over one million participants annually and an estimated turnover of SEK 5.7 billion (EUR 0,52 billion) in 2022. While license sales account for most direct revenues, related services such as hotels, restaurants, and guiding generate proportionally greater value added and employment – supporting about 2,800 jobs.

Regional variation is significant, with Norrland and inland regions gaining the most economic and welfare benefits. Consumer surplus was estimated at SEK 1.6 billion (EUR 0,14 billion) in 2022, underscoring the social and recreational value not captured in GDP. Governance combines EU regulations with national and local systems, often implemented through fisheries associations. The Girjas Supreme Court ruling further clarified Sámi rights in the north, adding layers of regional complexity. Examples from the Mörrum and Byske rivers show the high tourism value of angling, with anglers spending over SEK 2,100 (EUR 190) per day and each river generating about SEK 13 million (EUR 1,18 million) in annual turnover. However, the decline of salmon and sea trout stocks highlights the need for sustainable management to secure long-term value.

In Finland, participation in recreational fishing is among the highest in Europe, with 1.5-2 million people fishing annually. Recreational catches exceed 30,000 tons per year, nearly half of commercial catches. The most popular species

are perch, pike, salmon, and whitefish. Fishing tourism is a major part of Finland's nature-based tourism, with expenditures amounting to hundreds of millions of euros and welfare value close to half a billion euros. Domestic tourism dominates, with Lapland and eastern regions as key destinations, though foreign visitors – particularly salmon anglers – also contribute significantly. Periodic closures, such as the salmon fishing ban in the River Teno, have had serious impacts on local economies in Utsjoki, demonstrating the sector's vulnerability to ecological conditions and regulatory decisions.

Together, these Nordic examples highlight the multifaceted role of recreational fishing as cultural heritage, economic driver, and a source of social welfare. While salmon fishing in Iceland and Sweden targets high-income markets, sea angling in Norway and broad participation in Finland illustrate the diversity and breadth of the sector. Across all four countries, sustainability remains the central challenge.

Pressures from aquaculture in Iceland, declining coastal cod stocks in Norway, vulnerable salmon populations in Sweden and Finland, all point to the need for governance that integrates ecological, economic, and cultural considerations. The Nordic experience shows that recreational fishing is not merely a pastime but also a strategic resource for regional development, tourism, and community resilience.

The report concludes by proposing the establishment of a steering group with representatives from the four countries to transfer best practices between them and thereby enhance value creation across all. This could also be extended to Denmark, the Faroe Islands, and Greenland if there is interest.

1 Introduction

Purpose and objectives of the project

Recreational fishing in the Nordic countries carries economic, cultural, and social value for the four countries covered in this report: Iceland, Norway, Sweden, and Finland. Considerable differences exist between the countries in this respect, and each country is discussed individually. Representatives from all four countries were invited to write a chapter describing the situation in their respective country.

In April 2025, the Nordic Council of Ministers and the Fisheries Science Centre at the University of Akureyri signed an agreement to prepare a report on recreational fishing in these four countries. The assignment was given to the Bioeconomy program, run by Nordic Forest Research and Nordic Agri Research. The report is divided into four main chapters, with each country's representative writing on behalf of their nation.

Project partners:

- **Iceland:** Guðrún Arndís Jónsdóttir (project manager), Director of the Fisheries Science Centre, University of Akureyri
- **Norway:** Júlíde Ceren Ahi, Senior Researcher, NORCE Norwegian Research Centre AS
- **Sweden:** Jesper Stage, Professor of Economics, Luleå University of Technology
- **Finland:** Heidi Pokki, Group Manager, Natural Resources Institute Finland (Luke)

The research questions were largely shared but adapted to each country's context. They are presented in each country's chapter. The report covers rod fishing in rivers and lakes as well as recreational sea fishing, with some variation across countries. It also examines the laws in force for these fisheries in each

country. Both previously published data and newly collected material were used (Chapter 2).

Key findings show that recreational fishing plays an important role for employment and the economies of the studied countries. In Iceland and Sweden, recreational fishing is targeted at high-income markets; in Norway, the focus is more on sea angling, commercial catch volumes, and the rapid growth of tourist fishing alongside the decline of coastal cod stocks. In Finland, the emphasis is on widespread participation in recreational fishing, highlighting the diversity of the sector.

In Iceland, salmon fishing has deep cultural roots and generates significant revenues, both for landowners, angling associations, and tourism. Sea angling has expanded rapidly, particularly in the Westfjords, where it has become a key factor in employment and regional development. Challenges are linked to vulnerable salmon stocks and the impacts of aquaculture.

In Norway, strong commercial fisheries coexist with rapidly growing recreational fishing, particularly in Northern Norway, where cod has long been the foundation of livelihoods and culture. At the same time, competition among commercial fisheries, local residents, and tourists has increased



Introduction, continued

tensions over limited stocks. The country's regulatory framework is, however, well developed and covers all user groups.

In Sweden, recreational fishing is among the most popular outdoor activities, with over one million participants annually. The economic value is significant, especially in services such as accommodation, guiding, and restaurants. Challenges include declining salmon and sea trout stocks and a complex regulatory framework that can reduce access for both domestic and foreign anglers.

In Finland, recreational fishing participation is among the highest in Europe. The fisheries carry substantial economic weight, particularly in Lapland and eastern regions. The sector, however, relies heavily on small-scale entrepreneurs who face seasonal operations and limited capital. The ban on salmon fishing in the River Teno has highlighted the fragility of the industry, though the increase of pink salmon may create new opportunities.

At the end of the report, it is recommended to establish a steering group with participation from all four countries, with the goal of strengthening recreational fishing and harmonising actions across nations.

Methodology and use of sources

Definitions and scope The study examines recreational fishing in rivers and lakes as well as recreational sea fishing in the four countries. It considers the economic benefits generated, the main areas where these activities take place, and their importance for the tourism industry in each country.

Research questions

The study seeks to answer the following questions:

1. What is the scale and economic value of recreational fishing in each country?
2. What are the impacts of recreational fishing on regional development and employment?
3. What challenges and opportunities exist in the management and sustainability of recreational fisheries?
4. How can the countries learn from each other, given their different approaches?

Data collection

The study is based on a combination of:

- Existing research and published data.
- Official statistics from national and international institutions, including the Directorate of Fisheries, the Marine and Freshwater Research Institute, Statistics Norway, Statistics Sweden, and Luke in Finland.
- Reports from universities, ministries, and international organisations such as ICES.
- Interviews, media coverage, and websites of angling associations and tourism companies.

Analytical methods

Economic methods were applied, including the travel cost method, consumer surplus estimation, and input–output analysis to assess economic impacts. In addition, case studies were carried out to highlight regional particularities: Súðavík in Iceland, Lofoten in Norway, Mörrum in Sweden, and Lapland in Finland.

Synthesis and policy recommendations

Finally, the results were placed in a broader context, highlighting the common characteristics and unique features of each country. Based on the comparative analysis, policy recommendations are provided, including opportunities for closer cooperation within the Nordic region.

2 Literature on fisheries and tourism

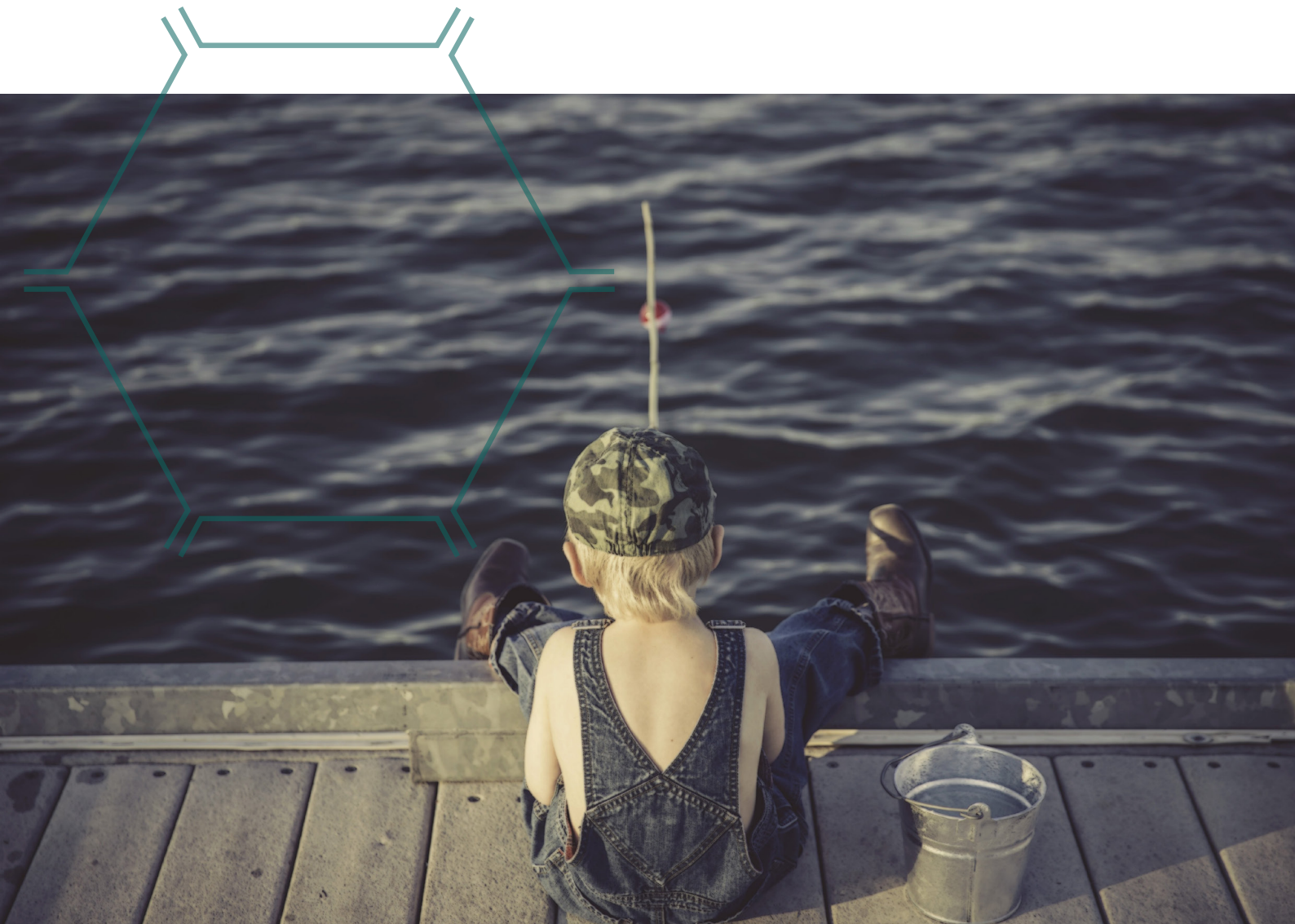
Iceland

The section from Iceland reviews the laws and regulations adopted by the Icelandic Parliament that apply to recreational fishing, outlining the legal framework that governs these activities. If recreational fisheries serve as a driver of tourism, it can be argued that rod fishing whether in rivers, lakes, or at sea creates positive externalities, which may provide grounds for public support.

The study draws on data from several public institutions and previously published research, including a 2018 report by the Institute of Economic Studies at the University of Iceland on the economic impact of fisheries. Catch volume data were obtained from the Directorate of Fisheries for both sea angling and sal-

mon, and from the Marine and Freshwater Research Institute for salmon catches between 2019 and 2023. Price data were collected from the Pricing Bureau of Ex-Vessel Value for cod during 2019–2024. Additional information was gathered from the Westfjords Marketing Office, Statistics Iceland, and other sources.

The analysis further incorporates findings from university research projects, newspaper articles, and interviews broadcast by the National Broadcasting Service (RÚV). Websites of angling associations were reviewed, and direct contact was made with municipal representatives in Súðavík as well as with local processing companies. Contact was made with the leadership of the Icelandic Federation of Fishing Associations.



Data were also collected from the website of Iceland Sea Angling ehf., which operates recreational fishing boats in Súðavík. Finally, the company's annual financial statements were reviewed through the Directorate of Internal Revenue to assess operations and performance.

Norway

The study relies on formerly conducted research on Arctic Norway and Lofoten area, and official statistics from Fisheries Directorate of Norway, Norwegian Institute for Marine Research, ICES, and Statistics Norway (SSB). Norwegian Directorate of Fisheries (2025a). Fangst i turistfiske. Grønvik, O., Andersen, L. M., & Foseid, H. (2025). Ringvirkninger av havfisketurisme i Norge. Menon-rapport 86/2025. Norwegian Directorate of Fisheries (2025e). Sea angling in Norway: regulations you should know. Latest data on Norwegian commercial fisheries: Norwegian Directorate of Fisheries. (2024a). Economic and biological figures from Norwegian fisheries 2024. Commercial harvest according to landing location and vessel registry: Norwegian Directorate of Fisheries (2025c). Fangstverdi (1000 kr) & Rundvekt (tonn) fordelt på landingsfylke og art. Norwegian Directorate of Fisheries (2025b). Fangst fordelt på fartøyfylke og -kommune (offisiell statistikk). Commercial fishing value creation: Steinsbø, S., Iversen, A., Nyrud, T., Robertsen, R., Bendiksen, B. I., & Jensen, H. S. (2025). Flåtens ringvirkninger-Verdiskaping og ringvirkninger fra den norske fiskeflåten i 2023. Nofima Report Series 1/2025.

Former research on local recreational fishing: Selvaag, S., Aas, Ø., Borch, T., Kleiven,

A.R. & Stensland, S. (2021). Fritidsfiskevaner i saltvann blant bosatte i Norge En oversikt over fiskeatferd, motiver og holdninger til fangstreguleringer. NINA Report 1857. Norwegian Institute for Nature Research. Haltenstvedt, A., and Wulff, A. (2004). Fritidsfiske i sjøen 2003.



Sweden

Sweden does not compile dedicated fishing tourism statistics at the national level but does compile statistics on domestic recreational fishing and has done so intermittently since the 1970s and annually since 2013. Early surveys were conducted as part of national inquiries in 1973, 1990, and 1995, followed by additional surveys in 2000, 2006, and 2011. Since 2013, the Swedish Agency for Marine and Water Management has overseen annual surveys carried out by Statistics Sweden, making recreational fishing part of Sweden's

official statistics. This provides continuous data on participation, fishing effort, catch, and associated expenditures. A 2024 report (Swedish Agency for Marine and Water Management, 2024) used these data to estimate economic statistics for recreational fishing for the years 2013 to 2022, and the Swedish section in this report draws heavily on that report.

The analysis in that report focuses on two sets of indicators (see Tinch et al., 2015, or Blomquist et al., 2022, for detailed background on the two sets of indicators used). First, the economic activity generated by recreational fishing is measured through turnover, value added, and employment effects. Second, the economic value of the recreational fishing is measured by estimating the consumer surplus, the difference between what anglers are willing to pay and what they actually pay – using a travel cost model first applied to Swedish recreational fishing in Carlén et al. (2019, 2021). Together, these indicators provide both a measure of the direct impact on the economy and an estimate of the welfare generated for participants. The study relies on the already mentioned report from the Swedish Agency for Marine and Water Management (2024), supplemented by local case studies from two Swedish rivers reported in Lidberg et al. (2025).

Finland

The Finnish case describes the volume of domestic tourism related to fishing in Finnish regions using statistical data and gathering previous research. Additionally, the previous research on economic value of recreational fishing, as well as the regional economic impacts of recreational fishing are presented.

The study also presents various consumer profiles that have been identified among travelling recreational anglers in Finland (Pokki et al. 2024b). Regulatory framework related to fishing tourism is also considered and other challenges associated with Finnish fishing tourism are discussed. Furthermore, existing literature were used to explore how fishing tourism could be developed and its value creation increased.

This report compiles data from previous studies to give an overview on the recreational fishing tourism by Finns in recent years. The volume of domestic tourism related to fishing was studied by Pokki et al. (2024a) using data from biannual recreational fishing survey carried out by Natural Resources Institute Finland (Luke) on fishing activities in 2022. In addition, the monetary value of recreational fishing was calculated with travel cost method using data from the same recreational fishing survey. Economic impacts and employment effect were also estimated in the same study using input-output method (Pokki et al. 2024a). Luke has also studied the consumer profiles of recreational fishermen using latent class analysis (Pokki et al. 2024b). Studies presented in this report utilize data primarily from the Natural Resources Institute Finland's (Luke) recreational fishing statistics (OSF 2025), data from the survey 'Recreational Fishing with Lures in Fisheries Management Areas' (Pellikka et al. 2024), and materials produced by the fishing tourism development working group (Ministry of Agriculture and Forestry 2023). The framework for Finland can be found in more detail in the Appendix 2.

3 Case studies

3.1 Iceland

Author: Guðrún Arndís Jónsdóttir, Director of the Fisheries Science Centre, University of Akureyri and Lilja Gísladóttir, CIO of Nanna Lín and Environmental Specialist at Íslenska gámafélagið.

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3.1.1 Description of the case

The purpose of this section is to present the annual catch volumes from rod fishing in Icelandic salmon rivers and the economic value they generate. It examines the quantity of salmon caught across different regions of the country, the overall financial contribution of these fisheries, and their broader impact on the national economy as well as on the local communities where the fishing takes place.

This section also considers recreational sea angling and its influence on local communities in the Westfjords. In particular, it focuses on Súðavík, a small village on Ísafjarðardjúp, to assess the role sea angling has played in shaping the community. The analysis includes data on catch volumes and the value of landings brought ashore and processed in the village.

Finally, the section outlines the main laws and regulations governing recreational fishing both inland and at sea along with a brief explanation of each.

3.1.2 Research question method and data

This study focuses on two central questions related to recreational fishing in Icelandic rivers and recreational sea angling. The analysis emphasises catch volumes and their economic significance, with particular attention to salmon fishing across Iceland and sea angling in Súðavík.

- What is the total volume of salmon caught in Iceland, and what is the economic contribution of these fisheries?

- What is the total volume of sea angling catches in Súðavík, and what is their economic contribution?

To address these questions, one company in Súðavík is examined. The company offers sea angling for tourists alongside on-site accommodation, making it an important case for understanding local impacts. This section also reviews the laws and regulations adopted by the Icelandic Parliament that apply to recreational fishing, outlining the legal framework that governs these activities. If recreational fisheries serve as a driver of tourism, it can be argued that rod fishing whether in rivers, lakes, or at sea creates positive externalities, which may provide grounds for public support.

The study draws on data from several public institutions and previously published research, including a 2018 report by the Institute of Economic Studies at the University of Iceland on the economic impact of fisheries. Catch volume data were obtained from the Directorate of Fisheries for both sea angling and salmon, and from the Marine and Freshwater Research Institute for salmon catches between 2019 and 2023. Price data were collected from the Pricing Bureau of Ex-Vessel Value for cod during 2019-2024. Additional information was gathered from the Westfjords Marketing Office, Statistics Iceland, and other sources.

The analysis further incorporates findings from university research projects, newspaper articles, and interviews broadcast by the National Broadcasting Service (RÚV). Websites of angling associations were reviewed,

and direct contact was established with municipal representatives in Súðavík, local processing companies, and the leadership of the Icelandic Federation of Fishing Associations.

Additional data was gathered from the website of Iceland Sea Angling ehf., which operates recreational fishing boats in Súðavík. The company's annual financial statements were also reviewed through the Directorate of Internal Revenue to evaluate its operations and performance.

3.1.3 Recreational fisheries

Under Icelandic law, individuals who jointly own fishing rights in rivers and lakes are required to establish a fishing association, in accordance with Act No. 61/2006 and Regulation No. 345/2014 on the activities of fishing associations (Institute of Economic Studies, 2018).

A long-standing principle of Icelandic legislation is that land ownership and fishing rights are inseparable: each landowner holds exclusive fishing rights on their property (Pétur Örn Pálmarsson, 2012). While most fishing rights holders are Icelandic, there are cases where wealthy foreign investors have purchased farms with attached fishing rights. This has been especially notable in East and Northeast Iceland, where, for example, billionaire Jim Ratcliffe has in recent years acquired several properties with such rights (RÚV, 2019).

Rod fishing for salmon and trout is permitted in rivers and lakes across the country with the appropriate license, unless otherwise stated (Figure 1). However, salmon fishing at sea is strictly prohibited, as is fishing for migratory trout species such as sea trout (*Salmo trutta*)

and Arctic char (*Salvelinus alpinus*) in marine waters.

The distribution of fishing permits for salmon and trout is managed by rod-fishing associations, landowners, fishing associations, and related entities across Iceland. A permit is also required for lake fishing, which is most commonly obtained through *Veiðikort* (“The Fishing Card”), granting access to dozens of designated lake fishing areas nationwide (*Veiðikort*, n.d.). Research further indicates that most Icelandic salmon rivers sustain distinct salmon stocks (Danielsdóttir A.K. et al., 1997), the value of which cannot be fully measured solely in terms of their contribution to biological diversity (Hagfræðistofnun, 2018).

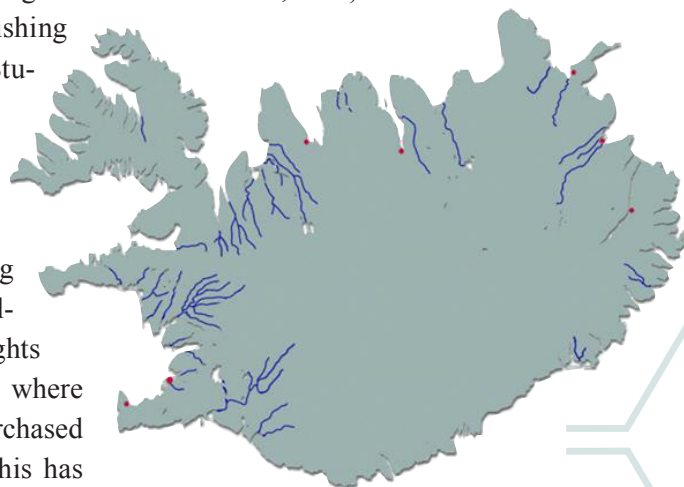


Figure 1 The Atlantic Salmon Rivers of Iceland, (*Veiðikort*, n.d.).

Fishing areas and catch volume

In Iceland, there are around 150 designated salmon fishing areas, with annual catches ranging from just a single salmon to several thousand (Sigurbergur Steinsson, 2010).

Table 1. Total Salmon catch years 2019-2023 (Marine and Freshwater Research Institute, 2019-2023)²

Salmon catch total						
Year	Catch (number)	Catch landed (kg)	Catch 1SW number	Catch 1SW (kg)	Catch 2SW number	Catch 2SW (kg)
2019	34.416	54.761	15.003	34.352	4.228	20.409
2020	50.876	79.273	25.785	62.568	4.191	16.705
2021	41.035	59.356	19.163	46.567	3.103	12.788
2022	22.603	58.472	20.341	47.783	2.262	10.690
2023	15.969	43.501	13.869	34.155	2.101	9.344

In some parts of the country, salmon fishing makes a significant contribution to local livelihoods. On the West Coast, for instance, it accounts for about 69% of agricultural income, compared with 34% in the East and only 9% in the Westfjords, with other regions falling somewhere in between (Statistics Iceland, n.d.).

Between 2019 and 2023, the total salmon catch averaged roughly 60 tons per year (Table 1). In 2023, approximately 63% of this catch came from South Iceland and 23% from West Iceland, with relatively smaller quantities taken in other regions (Figure 2). The high yields in South Iceland are largely due to ranching practices,¹ whereby large numbers of smolts are released into rivers and subsequently return to be caught in later years. In other regions, the catch derives primarily

from natural spawning and juvenile rearing (Sigurbergur Steinsson, 2010).

As noted, South Iceland consistently produces the majority of the country's salmon catch, reflecting its extensive ranching rivers (Table 1; Figure 2). In West Iceland, salmon fishing is also economically important. Here, a considerable number of farms have river frontage, and around 38 fishing associations along with seven sub-associations manage rights across some 620 farms. The region is home to several of Iceland's most valuable salmon rivers as well as some of its oldest fishing associations. A large share of the revenues generated from fishing in this area goes directly into agriculture, a pattern mirrored elsewhere in the country, though generally to a lesser extent (Marine and freshwater Institute, 2025; Institute of Economic, 2018).

¹ Definition. Ranching: In this system, the natural return of fish to rivers is not solely controlled by nature but assisted by human intervention to enhance the fishing grounds. Juvenile fish are produced in hatcheries and then released into the rivers. They remain in the river during the summer, migrate to the sea, and later return to the same rivers where they were released.

² Explanation: Catch 1SW Big salmon number, Catch 1 SW (kg) Big salmon kg. Catch 2SW Small number Catch 2SW (kg) Small salmon kg.

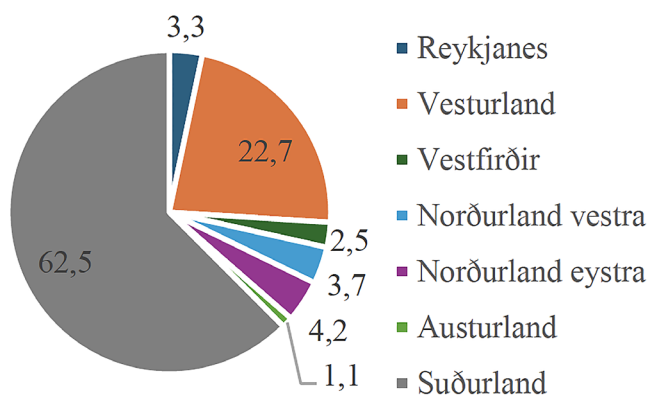


Figure 2, Catch 2023: Percentage distribution across regions (Marine and Freshwater Institute, 2025)

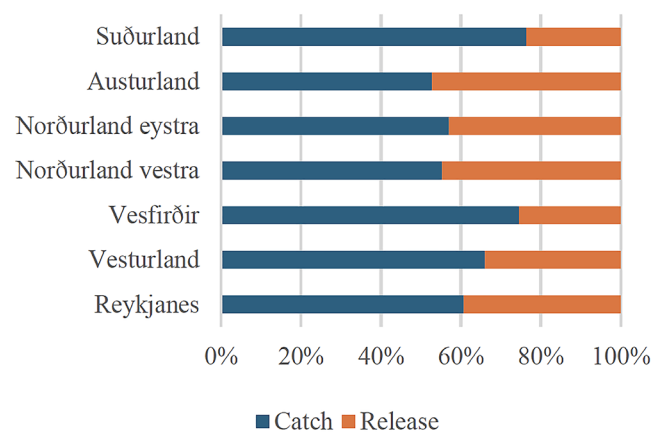


Figure 3. Catch and release 2019-2023 average by regions (Marine and Freshwater Institute, 2025).

Catch and release

Catch and release has become increasingly common among salmon anglers in Iceland and is now the dominant practice in most rivers (Figure 3). Although opinions differ regarding its effectiveness, there is broad agreement that the method was originally introduced to allow more fish to remain in rivers to spawn, thereby supporting stock conservation. Successful catch and release, however, requires proper handling of the fish, for instance, ensuring it is not overly exhausted before being released (Veððar, n.d.) and care must be taken to monitor the water temperature, ensuring it does not get too high. Elevated temperatures increase the risk of infections and reduce the fish's ability to recover³.

Many argue that more education is needed on correct techniques for both releasing fish and handling them responsibly when release is intended. This reflects a broader weakness in cooperation and guidance on best practices

(Unnar, 2021). Figure 3 illustrates the proportion of fish caught and released across different regions of the country.

Farmed Salmon

Research has long shown that genetic mixing between farmed salmon and wild stocks has occurred in Iceland. Around the turn of the millennium, the use of genetically improved, Norwegian-origin farmed salmon was authorized for sea-cage farming in Iceland. At the same time, salmon farming was prohibited in fjords and bays located near the country's major salmon rivers. Despite these restrictions, accidental escapes from sea cages have occurred along Iceland's coasts, and strong evidence of genetic mixing in wild salmon populations has been documented for many years. Most recently, several large farmed salmon were discovered in the lower reaches of one of Iceland's prime salmon rivers, later confirmed to be of farmed origin (Vísir, 2025).

Approximately 90% of escaped salmon that enter rivers are sexually mature, yet they generally display poor competitiveness compared to wild salmon (Hafrannsóknarstofnun, 2017). Many therefore regard sea-based salmon farming as the greatest threat to the long-term sustainability of Icelandic salmon angling. It also poses reputational risks, as further expansion could undermine Iceland's image as a premier salmon fishing destination. Similar challenges have already been observed in Norway, Scotland, and Ireland, where salmon farming has had negative impacts on wild salmon stocks (Unnar, 2021).

Total Value and Their Impact on the Economy

On the international fishing license market, competition is strong. Iceland's main competitors include the Kola Peninsula in Russia, Scotland, Canada, Argentina, Chile, and Norway. The primary foreign markets for Icelandic fishing licenses have traditionally been the United Kingdom, Switzerland, Spain, and the Nordic countries (Sigurbergur Steinsson, 2010).

A distinctive feature of Icelandic fisheries is that land ownership can include fishing rights, which may be separated from the real estate and leased for a specified period. However, on public lands, fishing rights are held by the state, as stipulated in Article 5 of the Act on Salmon and Trout Fishing. Revenues from the sale of fishing licenses in these areas therefore represent their accounting value (Brynjar Örn Ólafsson, 2009).

Fishing license prices vary widely. According to data from angling association sales platforms, a license for one rod can cost as little as ISK 5,000 (EUR 35,16) per day or as much as several hundred thousand ISK. Hig-

her-priced licenses typically include guiding services, accommodation, meals, and transport to and from the fishing site.

Most river leaseholders handle permit sales themselves through their own websites. In addition, a considerable number of fishing permits are sold via online marketplaces such as veiditorg.is and veida.is ⁴.

In 2018, the Institute of Economic Studies of University of Iceland estimated that anglers spent ISK 4.9 billion (EUR 0,03 billion) on fishing licenses for rivers and lakes. In addition, domestic anglers incurred direct costs of at least ISK 2.9 billion (EUR 0,02 billion), while foreign anglers spent a minimum of ISK 2.2 billion (EUR 0,02 billion). Investments in fishing lodges, salmon ladders, and other infrastructure added around ISK 1 billion (EUR 0,01 billion) annually. In total, direct expenditures related to salmon and trout fishing amounted to approximately ISK 11 billion (EUR 0,08 billion) in 2018. The net present value of fishing rights for owners was estimated at just over ISK 70 billion (EUR 0,49 billion) in that year (Institute of Economic, 2018) (Table 2).

That same report found 169 angling associations and 58 sub-associations in operation, representing a total of 4,518 farms with fishing rights. Regionally, the highest revenues were recorded in West Iceland (33.8%), followed by South Iceland (21.5%) and North Iceland (21.5%) (Institute of Economic, 2018). In West Iceland alone, revenues in 2018 were estimated at ISK 924 million (EUR 6,5 million), with operating costs of ISK 200 million (EUR 1,41 million). The region is home to a large number of sustainable rivers and some of the country's most profitable angling associations and rights holders.

⁴ Email 8th September 2025 from Jóhanni Helga Stefánssyni. Managing director, CEO, of the Icelandic Association of Fishing Clubs.

Economic impacts in 2018 (ISK billions)			
	Income	Share of imported goods and services	Domestic production directly attributable to angling (ISK billions)
Income of angling associations	2,8	5%	2,7
Income of lessees (after deductions for payments to angling associations)	2,1	5%	2,0
Income of others:			
By domestic anglers	2,9	30%	2,0
From foreign anglers	2,2	40%	1,3
Investments	1	30%	0,7
Direct economic impacts	11		8,7
Value (ISK billion)			
Net present value of operating profit	72,5		
Net present value of benefits to domestic anglers	98		
Total value of salmon and trout fishing for Icelanders	170,5		

Table 2. Economic impacts of salmon and trout fishing in 2018 (billion ISK)(Institute of Economic, 2018)

Overall, about 59% of association revenues come from rivers offering full services (i.e., accommodation and full board), while several rivers offer full services for part of the fishing season. Revenue per salmon caught in rivers averages ISK 46,900 (EUR 329,82) for rights holders. In 2018, average revenue per salmon in 15 full-service rivers was ISK 60,220 (EUR 423,49), while average revenue per rod day reached ISK 95,602 (EUR 672,31). In rivers without full services, the average revenue per rod day in 2016 was approximately

ISK 53,000 (EUR 372,71), with revenue per salmon at ISK 51,000 (EUR 358,65) (Institute of Economic, 2018). In 2018, Iceland had 247,472 residents between the ages of 18 and 75 (Statistics Iceland, n.d.). Based on the estimate that 20–25% of adults participate in angling, this suggests that between 49,900 and 62,368 Icelanders fish for salmon or trout⁵.

By 2023, fishing license prices had risen sharply, with estimates suggesting increases of up to 30%, largely due to inflation. Since most lease agreements between lessees and

⁵ E mail 8th September 2025 from Jón Helgi Björnsson, Chairman of National Association of Fishing Associations.

landowners are inflation-indexed, and operating costs such as wages, outsourced services, and property maintenance also increased, prices followed accordingly. Despite this, demand remained strong, and license sales were highly successful. Buyers typically fall into three groups: foreign anglers, Icelandic companies, and individual Icelanders (Morgunblaðið, 2023).

Representatives of fishing rights holders interviewed by the National Broadcasting Service (RÚV) emphasized that a large share of revenues flows directly into agriculture, particularly in West Iceland. While salmon is the most sought-after species, sea trout has also gained in importance, making Iceland comparable to Argentina as a destination for this type of angling. With salmon stocks in better condition than in many competing regions, Iceland continues to attract anglers worldwide (RÚV, 2025). Among the most expensive rivers is Haffjarðará in West Iceland. During the prime season, fishing there including license, accommodation, meals, and guiding costs around ISK 1,000,000 (EUR 7.032,35) per day (RÚV, 2025). Similarly, in East Iceland, some of the country's most exclusive rivers charge between ISK 800,000 (EUR 5.625,88) and 900,000 (EUR 6.329,11) per day, with profits reinvested primarily into local development. Many argue that in some rural areas, agriculture would struggle to survive without revenue from salmon rivers. Fishing also provides income for municipalities through services catering to anglers. As licenses are a limited resource and demand consistently outstrips supply, anglers are willing to pay premium prices for access (RÚV, 2025).

The 2018 report by the Institute of Econo-

mics of University of Iceland emphasized that, when assessing the value of fisheries resources for Icelanders, two factors should be considered: the net operating profit of fishing rights holders (revenues minus operating costs) and the benefits to domestic anglers. According to the report, the net present value of fishing rights holders was just over ISK 70 billion (EUR 0,49 billion). The benefits to anglers were assumed to be equivalent to the value of fishing licenses, estimated at nearly ISK 100 billion (EUR 0,70 billion). In total, the value of salmon and trout fishing for Icelanders in 2018 was therefore estimated at approximately ISK 170 billion (EUR 1,20 billion) (Institute of Economic, 2018; Table 2).

Data for the report was obtained directly from the vast majority of fishing rights holders, ensuring reliable estimates of revenues from rod fishing. Costs, however, were less straightforward, and there was greater uncertainty when estimating the benefits to anglers compared with the revenues and costs of fishing rights holders (Institute of Economic, 2018).

3.1.4 Commercial fisheries

Sea angling in Iceland does not require a special license if the catch is solely for personal use. However, catching salmon or migratory trout at sea is strictly prohibited. Recreational fishing boats are also subject to specific regulations (Veiðikortið, n.d.).

Sea angling has become increasingly popular in Iceland, particularly among locals. Several companies now offer sea angling trips, and decent fishing grounds are usually not far from shore. Typical catches include cod, haddock, saithe, wolffish, and plaice, among other species (Vísir, 2019).



Figure 4. Map Súðavík, Ísafjarðardjúp.

Marine-based tourism has expanded substantially in recent years, with sea angling now available in more and more locations. In some cases, it has even become the foundation of local tourism. A notable example is the small Westfjords village of Súðavík, where sea angling trips have developed into a central pillar of the tourism industry (Vísindavefurinn, 2007).

Súðavík

Súðavík lies on Álftafjörður, a fjord branching off Ísafjarðardjúp in the Westfjords (Figure 4). Tourism in the area has grown steadily, and the village is now a popular destination for foreign sea-angling tourists. Visitors are also drawn to the area's scenic hiking routes, a local museum, and dramatic natural landscapes (Westfjords Marketing Office, n.d.). According to Statistics Iceland, the municipality of Súðavík had 209 inhabitants at the beginning of 2025, a number that has remained relatively stable since 1998 (Statistic

Iceland, n.d.). The village was devastated on January 16, 1995, when an avalanche struck in the early morning, destroying several homes. Fourteen people lost their lives (including eight children), and twelve others were injured. Rescue operations were hampered by severe snowstorms, and on January 23 it was decided that the village would be rebuilt in a safer location. Today, many of the old town's properties are rented to tourists during the summer (Súðavík, n.d.).

The local economy is built primarily on fishing, fish processing, and tourism. Alongside the summerhouses in the old town, several tourism businesses operate in Súðavík, including Iceland Sea Angling ehf., a tour guiding company (Súðavík, n.d.).

Between 2019 and 2024, annual landings from sea angling in Súðavík ranged from just over 70 tons to more than 160 tons, most of which was cod. The fish was processed locally at Vestfiskur ehf. (Directorate of Fisheries, 2025; Figure 7). Recreational fishing

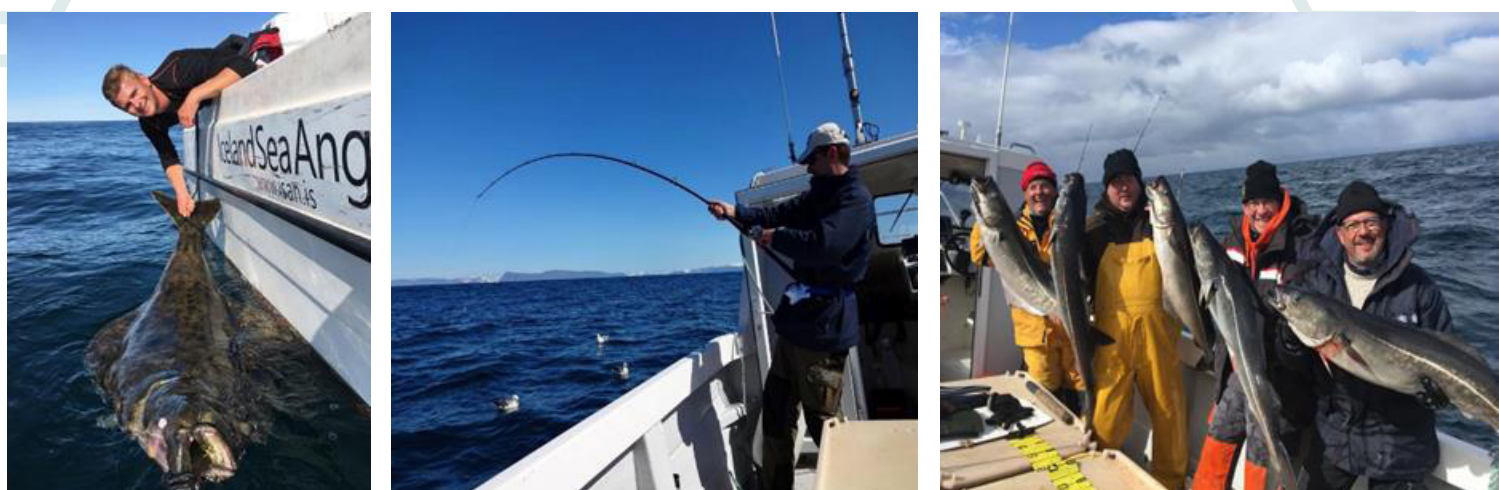


Figure 5. Iceland Sea Angling ehf, fishing and fishing boat (Iceland Sea Angling, 2025)

landings created around four jobs at the plant, which also produced dried fish from the raw material⁶. In 2023, Vestfiskur paid over ISK 40 million (EUR 0,28 million) in wages and employment-related expenses, highlighting the economic significance of these jobs in the small community (Skatturinn, 2023).

Iceland Sea Angling ehf., based in Súðavík, is a tourism company specializing in sea angling tours for foreign visitors (Figure 5). The company operates 21 boats and owns 14 tourist apartments (Iceland Sea Angling ehf., n.d.). Since its founding in 2006, it has created several year-round jobs in the village. Ownership is primarily private (about 80%), with the municipality of Súðavíkurhreppur holding a 20% share. A restaurant now operates near the apartments during the summer months. Sea angling has become a valuable addition to local tourism, recreation, and efforts to maintain settlement in rural areas. Súðavík is a good example of this. Since the municipality has no permanent fishing quotas, this form of

fishing is currently the only active operation.⁷

When the company was established, the managing director and spouse relocated to Súðavík, creating at least two additional jobs for servicing and cleaning the apartments. Further employment was generated through boat maintenance and servicing vital opportunities in a small community. The company has also rented municipal facilities for boat operations.⁸

Recreational sea angling by foreign visitors has become an important revenue stream for the Westfjords tourism industry. Iceland Sea Angling ehf. operates mainly during the summer, with German tourists making up a particularly large share of the clientele (Fiskifrétir, 2025).

Economic Value

Iceland Sea Angling ehf. has generated profits in recent years, with the exception of 2020, when revenues declined sharply due to the COVID-19 pandemic and the collapse of international tourism (Figure 6). The company

⁶ E mail 11th of August, from; Óðinn Gestsson, Managing Director.

⁷ E mail 29th of August 2025 from; Bragi Thor Thoroddsen, Mayor of Súðavík municipality

⁸ E mail 12th of August from Bragi Thor Thoroddsen, Mayor of municipality

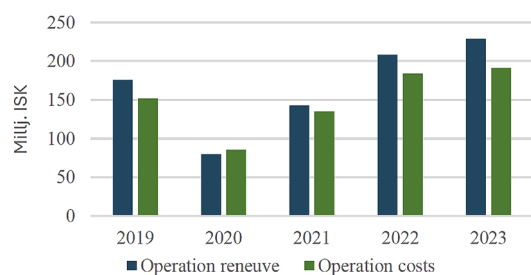


Figure 6. Revenues and costs of Iceland Sea angling ehf. the years 2019-2023 (Skatturinn, 2019-2023).

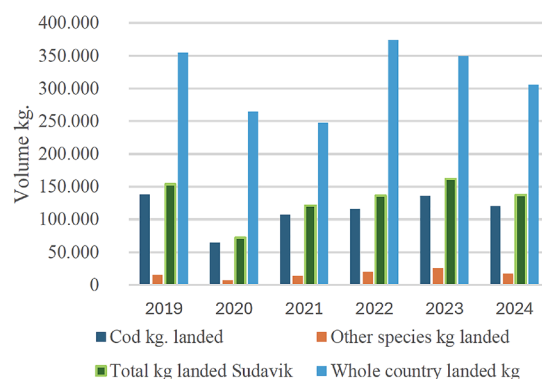


Figure 7. Sea angling: Landings in Súðavík-cod, other species and total landing in country pr year. (Directorate of Fisheries, 2025)

employed between 2 and 4 full-time staff annually, depending on activity levels, and wage payments ranged from ISK 5 million (EUR 0,04 million) in 2020 to ISK 23 million (EUR 0,16 million) in 2023. Consequently, it can be assumed that municipal tax revenues have increased significantly as a result (Skatturinn, n.d.).

In the 2023/2024 fishing year, recreational boats in Súðavík were allocated 65 tons of cod-equivalent quota through the ITQ system and also leased additional quotas, landing a total of 175 tons (Directorate of Fisheries, 2024). For the 2024/2025 fishing year, the municipal council distributed a 90-tonnes community quota, of which 50 tons went to recreational fishing (Fiskifrétir, 2025).⁹ Between 2019 and 2024, 30–45% of Iceland’s total sea angling catch was landed in Súðavík, peaking at 161 tons in 2023, out of a national total of 349 tons that year (Directorate of Fisheries, 2025; Figure 7)¹⁰

Recreational boats deliver their catch to the local processing plant in Súðavík and

pay landing fees to the municipality ISK 581,057 (EUR 4.086,20) in 2024 as well as harbor berthing and service fees. The cod landed in Súðavík between 2019 and 2024 had an average annual value of ISK 37 million (EUR 0,26 million), based on catch volumes and average cod prices (Table 3). Processing at Vestfiskur ehf. not only created jobs but also added significant value by turning raw fish into economically more valuable consumer goods (Verðlagsstofa skiptaverðs, 2025; Directorate of Fisheries, 2025).

Bookings are already strong, with about 70% of next year’s trips sold and some reservations made as far ahead as 2027. Many of the same visitors return year after year. It is crucial to secure the framework of this industry so that the authorities allocate sufficient fishing quotas to support it. Establishing similar services in other parts of Iceland, especially in communities that have lost fishing quotas, could provide a valuable opportunity for regional development¹²

⁹ For the allocation of catch quotas in Iceland, the official fishing year extends from September 1 to August 31 of the following year. In this project, however, catch data are presented on a calendar-year basis, i.e., from January 1 to December 31.

¹⁰ E mail 01.04.2025 from Bragi Thor Thoroddsen, Mayor of Súðavík municipality.

¹² E mail 29th August 2025 from Bragi Thor Thoroddsen, Mayor of Súðavík municipality

Cod, value pr. kg. Sea angling, Súðavík			
Year	Average price pr. kg ISK	Total kg.	Total pr. kg ISK
2019	265,6	138.281	36.727.434
2020	284,6	64.647	18.398.536
2021	292,4	107.257	31.361.947
2022	356,5	116.173	41.415.675
2023	388,6	136.004	52.851.154
2024	390,5	120.041	46.876.011

Table 3. Value of cod catches from sea angling in Súðavík, 2019-2024.(Verðlagsstofa skiptaverðs¹¹, 2025).

3.1.5 Acts and regulations (Alpingi. (n.d.))

Iceland's regulatory framework for recreational fishing is relatively strong and has been an important factor in preserving the country's wild salmon stocks compared to neighbouring countries. Four main legal pillars are most relevant in this case:

1. Act on Salmon and Trout Fishing No. 61/2006

The purpose of this Act is to regulate fishing rights in freshwater and ensure the rational, sustainable use and conservation of freshwater fish stocks. It also governs the establishment of angling associations and related matters. The provisions apply to all fishing from freshwater fish stocks within Icelandic jurisdiction, except where otherwise specified by this Act.

2. Act on the Management of Fisheries No. 116/2006

This Act establishes that the exploitable fish stocks in Icelandic waters are the common property of the Icelandic nation. Its objective is to ensure the conservation and efficient uti-

lization of these resources, thereby supporting stable employment and sustainable settlement across the country. The allocation of fishing quotas under this Act does not constitute ownership rights nor grant irrevocable control of fishing rights to individual parties.

3. Act on Fish Farming No. 58/2006

The purpose of this Act is to promote fish farming in freshwater. Its implementation must always aim to minimize disruption of freshwater ecosystems and wild freshwater fish populations, ensuring that their sustainable use is not endangered. The scope of the Act covers all freshwater aquaculture within Icelandic jurisdiction. Its implementation must be consistent with the Act on Salmon and Trout Fishing, the Act on Aquaculture, and the Act on the Prevention of Fish Diseases.

4. Act on Aquaculture No. 71/2008

The purpose of this Act is to establish conditions for the development of aquaculture, thereby strengthening employment and rural communities in Iceland, promoting responsible aquaculture, and ensuring the protec-

¹¹ Verðlagsstofa skiptaverðs: The pricing of Bureau of EX- Vessel Value is the official institution responsible for determining and recording reference prices of marine products at the point of first sale (ex-vessel). Its role is to ensure transparency and fairness in the distribution of revenues between vessel owners and crew, as well as to provide reliable price data for policy-making, statistics, and economic analysis of the fisheries sector.

tion of wild fish stocks. To this end, the Act emphasizes maintaining production quality, preventing potential damage to wild stocks and their ecosystems, and safeguarding the interests of those who utilize these resources. In implementing the Act, every effort must be made to minimize disruption of wild fish ecosystems and avoid jeopardizing their sustainable use. The Act applies to the farming of freshwater fish and marine species within Icelandic jurisdiction. Its implementation must be coordinated with the Act on Salmon and Trout Fishing, the Act on Fish Farming, and the Act on the Prevention of Fish Diseases

Other supporting legislation (e.g. on fish diseases, veterinary authority, or penalties for illegal catches) complements these main frameworks but plays a less central role in shaping recreational fishing. The framework can be found in more detail in the appendix 1.

Together, these laws aim to balance access, economic benefits, and long-term sustainability. However, concerns remain about how aquaculture is implemented and the need to harmonize boundaries and governance of fishing associations.

3.1.6 Results

Iceland offers numerous fishing opportunities, particularly salmon angling, which generates significant revenue for the economy and provides vital income for remote communities. Fishing associations are legally required for each river, and around 150 salmon fishing areas exist nationwide.

From 2019 to 2023, the total salmon catch averaged 60 tons per year. Revenues from salmon fishing are an important supplement

to local agriculture, particularly in South Iceland, where large seaward rivers account for 63% of the catch. In West Iceland, however, the largest sustainable salmon rivers are found, and fishing traditions remain strong. The river Haffjarðará is regarded as Iceland's most expensive, with a single fishing day costing around ISK 1 million (EUR 0,01 million).

Fishing generates revenue not only for landowners and rights holders but also for related service providers such as equipment suppliers, guides, and tour operators. According to the 2018 report from the University of Iceland's Institute of Economic, the value of salmon and trout fishing to Icelanders was estimated at ISK 170.5 billion (EUR 1,20 billion) that year.

Catch-and-release practices are widespread, helping to maintain spawning stocks and support natural renewal of salmon populations.

At the same time, aquaculture has expanded in Icelandic fjords and is increasingly seen as a threat to wild salmon. Escapes from pens have raised concerns that Icelandic salmon stocks could suffer the same genetic and ecological impacts observed in Norway, Scotland, and Ireland. It is important to maintain, update, and adapt the legal framework so that it continues to support the sustainable development of the sector.

Sea angling has also grown significantly, with national catches ranging from 247 tons in 2020 to 374 tons in 2022. For Súðavík, a village of just over 200 people, sea angling has been especially important. The activity has created new jobs and brought in valuable revenue through tourism.

Iceland Sea Angling ehf., based in Súðavík, has been central to this growth. Although

operating costs are substantial, the company has remained profitable every year since 2019, except in 2020 due to the pandemic. Sea angling in Súðavík accounts for roughly 45% of Iceland's total sea angling catch. Tourists drawn by these activities also purchase accommodation and other local services. The catch, mainly cod, is sold to Vestfiskur ehf., which processes it into stockfish and other products, adding further value.

Sea angling can therefore be regarded as a key economic driver for Súðavík and, more broadly, as an important contributor to the economy of coastal communities throughout the Westfjords.

3.1.7 Discussion

Recreational fishing in Iceland is strongly shaped by the country's salmon rivers and sea angling opportunities. The analysis shows

that annual salmon catches average around 60 tons and generate significant economic value through river leases and angling tourism, while sea angling adds further income streams in rural areas. Together, these activities illustrate how relatively modest catch volumes can still provide high per-fish economic returns.

Recreational fishing, including salmon rivers and sea angling, already brings considerable economic value to Iceland's residents and communities. However, there may be further potential for growth in Icelandic fishing tourism. The country has excellent conditions for such growth, with diverse salmon rivers, unspoiled nature, and unique opportunities for sea angling, particularly in the Westfjords. Foreign visitors pay high prices for access to Icelandic fishing grounds, generating valuable foreign currency.

Salmon fishing in rivers has long been impor-



tant for rural communities, providing income for both landowners and fishing associations.

However, the sector competes with other destinations such as Scotland, Canada, Argentina, and Norway.

Stronger marketing support, clearer regulatory alignment, and more education on sustainable methods, such as catch and release, could enhance both the value and the long-term sustainability of the industry. At the same time, challenges remain: salmon stocks are vulnerable, and the fisheries must be grounded in solid scientific advice and conservation measures.

Sea angling, on the other hand, has developed on a smaller scale, with Súðavík taking a leading role. There, the company Iceland Sea Angling ehf. has built up operations that created jobs in the village and diversified the local economy.

Alongside this, the processing company Vestfiskur ehf. has benefited from the catch, generating both direct and indirect employment, increasing wages, and boosting municipal tax revenue, impacts that are especially significant in such a small community. This shows how sea angling can play a key role in sustaining rural settlements.

Still, rapid expansion could create risks if regulation and oversight do not keep pace, especially as demand continues to grow. Authorities must ensure adequate quota allocations for these fisheries. Moreover, the strong seasonality of the activity makes it difficult to provide stable year-round employment.

The Icelandic case therefore clearly demonstrates the importance of governance. The role of angling associations in managing rivers has proven effective for conservation, while national legislation provides the framework for sustainable use. At the same time, aquaculture continues to pose risks for wild salmon

populations. Addressing these challenges will require adaptive management methods, such as stock monitoring, habitat restoration, and stricter aquaculture controls.

There are opportunities to better integrate recreational fishing with other forms of tourism, such as nature experiences, hiking, local cuisine, and cultural attractions. This would increase the value of the trips beyond the catch itself, as international examples have shown.

Strengthening Iceland's image as a recreational fishing destination through coordinated marketing and strategy would further enhance this potential. Similar ventures could be developed in other parts of the country, particularly in communities that have lost fishing quotas but still have housing, harbour facilities, and other infrastructure.

Looking ahead, recreational fishing could become an even more important pillar for rural Iceland, both economically and as part of a sustainable use of natural resources. There is also a case for targeted public support to help the sector realise its full potential. If developed carefully, Iceland could position itself as a high-value, low-impact fishing tourism destination, drawing on its reputation for pristine rivers and unique angling experiences. This would allow the sector to generate substantial income with minimal ecological footprint, aligning with broader Nordic sustainability goals.

Finally, the Icelandic experience offers lessons for other Nordic and international communities. The combination of local governance (angling associations), national regulation, and premium tourism markets provides a model that could be replicated elsewhere, particularly in regions seeking to revitalise rural economies while conserving vulnerable fish populations.

3.2 Norway

Author: Jülide Ceren Ahi. NORCE Norwegian Research Centre AS.

Rate average 1 EUR- NOK 11, 72 (30.09.2025)

Rate average 1 EUR- USD 1,174 (30.09.2025)

Fisheries have long been a cornerstone of the Norwegian economy and coastal livelihoods, particularly in Northern Norway (Gullestad et al., 2014; Espinasse et al., 2023). In 2023, Norway's wild capture fisheries generated NOK 44 billion (EUR 3,75 billion) in export value, an 8.5% increase from previous year, driven by strong prices for cod, mackerel, and snow crab despite some decline in volumes (Steinsbø et al., 2025). While these revenues stem from commercial catches, the iconic species- cod, mackerel, and other key stocks- also sustain recreation, cultural traditions, and tourism, illustrating the multiple dimensions of their value.

Within this broader national picture, the following case study concentrates on Northern Norway (Arctic Norway) – comprising Nordland, Troms, and Finnmark – which stands out as a historical and contemporary fisheries stronghold. Both the offshore and coastal fleets are active in this region, targeting a range of demersal species. Cod and other groundfish have for centuries shaped local economies, cultural heritage, and community identity here. Particularly the cod fishery in Lofoten region highlights this connection, defining livelihoods, settlement patterns, harbour facilities, and regional infrastructure since the Iron

Age and the Viking Ages (Perdikaris, 1999; Kalternborn et al., 2020).

The winter cod fishery of Lofoten, traditionally known as Lofotfiske, targets the migratory northeast arctic cod (skrei), which returns annually to spawn along the Lofoten coast. Even in 1890s, between 24 000 and 32 000 fishermen participated in this fishery annually, catching between 15 million and 31 million spawning cod (Hysten et al., 2008). In 2023, Norwegian vessels landed 242 117 tons of cod in Northeast Arctic cod fishery including Lofoten (JRN-AFWG, 2024), reflecting the continued intensity of fishing activity in the region. In addition to skrei, Northern Norway is also home to coastal cod (kysttorsk), a more stationary population that remains in nearshore waters year-round. Coastal cod is particularly important for the small-scale coastal fleet and has become a conservation concern due to declining stocks in several Norwegian fjord systems. While these cod stocks remain economically and culturally important for the commercial fleet, the fleet is no longer the only major stakeholder. In recent years, Northern Norway has seen significant growth in marine fishing tourism, alongside participation by local recreational anglers, which all utilize the same resource.¹³

This diversification of users and interests has led to growing conflicts and regulatory complexity, making Northern Norway a compelling case for multi-stakeholder fisheries management. The coexistence of traditional

¹³ Due to scope limitations, this report does not include an in-depth analysis of Sámi access to natural resources. This is a complex area of research encompassing Indigenous rights, governance, and co-management, and warrants dedicated study beyond the focus of this report.

commercial fishing, expanding marine fishing tourism, and local recreational anglers within a geographically limited and ecologically important area highlights the challenges of balancing sustainability, equity, and economic development.

3.2.2 Research question, method and data

The Norwegian case study on Northern Norway examines the following research questions:

- What is the scale and economic value of different fisheries in Northern Norway?
- What are the key areas of conflict among marine fisheries stakeholders in Northern Norway?
- How are various fisheries and user groups regulated, and what frameworks apply?

The study relies on formerly conducted research on Arctic Norway and Lofoten area, and official statistics from Fisheries Directorate of Norway, Norwegian Institute for Marine Research, ICES, and Statistics Norway (SSB).

3.2.3 Recreational fisheries

The marine recreational fisheries in Norway are exploited both by locals and tourists, each driven by different motives, targeting different species, and are subject to distinct regulatory frameworks. Therefore, the following sections examines these two groups separately. While providing a general overview of recreational and tourist fisheries in Norway including key fi-

gures, we place particular focus on Arctic Norway and Lofoten as a case study.

The analysis will concentrate on marine recreational fisheries, since majority of Norwegians engage in marine fishing (Toivonen et al., 2004), and inland fisheries play a relatively minor role with less time dedicated to them by recreational fishers (Selvaag et al., 2021); official harvest statistics are lacking but the total inland catch is estimated at only 8 000-10 000 tons annually (Nedreaas et al., 2022; Norwegian Directorate for Nature Management; 2010).¹⁴

Local recreational fishing

It is estimated that a large share of the Norwegian population engages in marine recreational fishing, though the participation rate varies across studies. Hyder et al. (2018) estimate participation at around 33% of the population, corresponding to approximately EUR 1,155 million in total spending. Hallenstvedt and Wulff (2004) reported an even higher estimate of 44%, while more recent figures from Statistics Norway (SSB, 2024) report a participation rate of 38.2%.

Recent research on local recreational fishing indicates that fishing with rod/line from boat is the most common way of fishing, while it is most popular in Central and Northern Norway (Selvaag et al., 2021). The most targeted specie among residents is cod (*gadus morhua*),

¹⁴ Inland and salmon fishing remain an important part of tradition and recreational life in Norway, with an estimated 60 000 – 80 000 anglers participating in salmon fishing annually (Aas et al., 2021). However, harvests have declined significantly in recent years due to reduced salmon stocks, which led to closure of many rivers and coastal areas for salmon fishing. In 2024, total salmon harvests from sea and river fisheries reached a record low of 168 tons, reflecting poor returns driven by long-term population decline, human-induced threats, and reduced marine survival (Vitenskapelig råd for lakseforvaltning, 2025). According to SSB (2025), river fisheries yielded only 91.8 tons of salmon, 26 tons of sea trout, 2 tons of Arctic char, 89 kg of rainbow trout, and 140 kg of pink salmon, excluding releases. While these figures represent only a fraction of overall inland fisheries, they also underscore the relatively small harvests compared to Norway's marine fisheries.

while saithe (*pollachius virens*) and mackerel (*scomber scombrus*) are other popular species with variation across regions and seasons (Selvaag et al., 2021).

Collecting updated data regarding the locals' recreational catch is challenging due to Norway's long coastline with no defined access points (Fertter et al., 2023). However, former research estimates an average annual marine harvest of 30 kg per recreational fisher in Norway, with Northern Norway leading at just over 80 kg per fisher, followed by Central Norway at approximately 35 kg (Hallenstvedt and Wulff, 2004). More recent data show that in Central Norway, 25% of surveyed residents reported an annual harvest of 20-100 kg, and 6% harvested 101-500 kg, while 24% of surveyed Northern Norwegians reported harvesting 20-100 kg annually, 10% harvested 101-500 kg, and 1% exceeded 500 kg (Selvaag et al., 2021), illustrating the scale of recreational catch in both regions.

When it comes to motivations for engaging in recreational fishing, Scandinavians tend to separate from their other Western counterparts due to a long-standing tradition of harvest-oriented, subsistence-like practices (Aas and Kaltenborn, 1995), which may blur the line between recreational fishing and subsistence fishing. Reflecting this tradition, it is estimated that approximately 45 000 tons of fish are harvested annually for non-commercial, personal, family-and household consumption (Nedreaas et al., 2022). While marine recreational fishing often focuses on general outdoor recreation goals such as relaxation, experiencing nature, and socia-

lizing, in Northern Norway it is particularly motivated by maintaining culinary and fishing traditions, and ensuring self-sufficiency with fish for food (Selvaag et al., 2021), as the high recreational harvest figures cited above illustrate. Specifically, in Northern Norwegian cod fisheries, recreational fishers are estimated to have harvested between 10 039 and 16 100 tons of coastal cod annually between 1987 and 2021 (ICES, 2024), highlighting the substantial importance of the local recreational fishery in this region.

Estimating the economic value of recreational fisheries is inherently challenging. The total value encompasses not only use values, such as provisioning ecosystem services (i.e., harvest) and cultural ecosystem services like access to pristine nature, relaxation, and preservation of fishing traditions, but also non-use values, including the satisfaction of knowing that healthy fish stocks and marine ecosystems are maintained for future generations. Earlier research on Norwegian recreational fisheries suggests a total economic value of USD 193 million (EUR 164,40 million) covering both use and non-use values (Toivonen et al., 2004), which roughly corresponds to USD 380 million (EUR 323,68 million) in today's terms.¹⁵ More recent work by Gren and Marbuah (2024) estimates a willingness-to-pay (ie consumer surplus) at EUR 493 million for Norwegian recreational fisheries. Narrowing the focus on Northern Norway, Magnussen (2012) reports an estimated surplus of EUR 35-100 million for the recreational fisheries in Barents Sea-Lofoten region. Examining spe-

¹⁵ However, the authors note that this is an underestimation since they excluded non-use value to the recreational fishers (see Toivonen et al. 2004 for details).

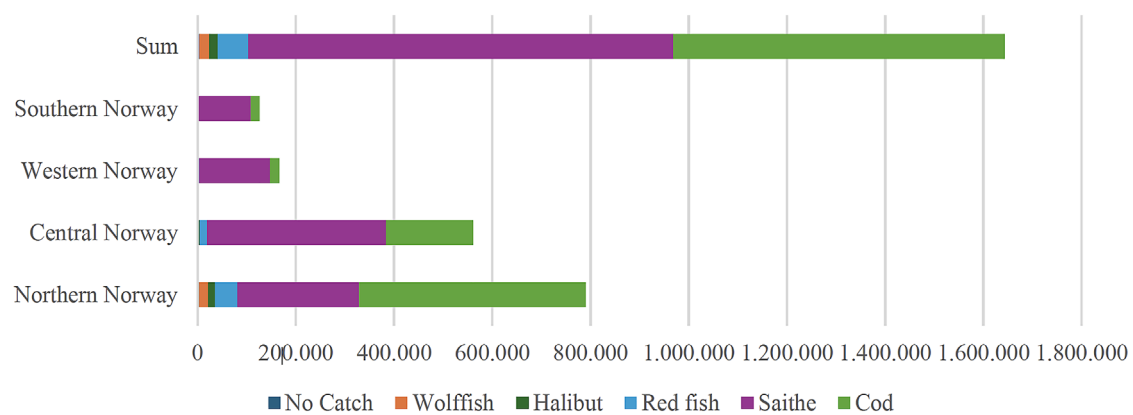


Figure 8. Marine fishing tourism harvest across Norway in 2024. Source: Norwegian Directorate of Fisheries (2025a).

cifically the coastal cod recreational fishery in Lofoten, Ahi and Armstrong (2022) estimate a value of approximately NOK 8.1 billion (EUR 0,69 billion) for recreational use alone, rising to as much as NOK 13.5 billion (EUR 1,15 billion) when non-use values are included. However, as their estimation combines both local recreational fishing and marine fishing tourism, these figures likely overestimate the value of locals' use of the fishery alone.

Marine fishing tourism

Norway has experienced rapid growth of marine fishing tourism along the coast since the 1990s, catering both to domestic recreational fishers and to the increasing demand from several European countries (Borch et al., 2011). As of August 2025, there are 2 229 marine fishing tourism companies registered in Norwegian Directorate of Fisheries' database, of which 730 are located in Northern Norway.¹⁶

In 2024, an estimated 315 000 tourists used the services of Norwegian marine fishing tourism establishments, with 46% originating

from Germany or other German-speaking countries, 16% from other Nordic countries, and 9% from Norway (Grønvik et al., 2025).

In Norway, all marine fishing tourism companies that meet specific criteria are required to register in the Norwegian Directorate of Fisheries' database.

These registered companies report detailed information including total catch, species composition, number of trips, and number of released fish. Figure 8 provides an overview of the total catch reported by the registered fishing tourism companies across regions in 2024. Northern Norway accounted for the largest share with approximately 800 000 fish, followed by Central Norway with slightly less than 600 000.

Among the species, saithe (pollock) and cod harvest dominated by far. Overall, database indicates that in 2024, approximately 1.65 million fish were harvested and kept, while around 1.18 million were released back across 215 443 fishing trips, corresponding to a release rate of 41.7%. (Norwegian Directorate of Fisheries, 2025a).

¹⁶ Detailed information on tourism fishing companies available at Norwegian Directorate of Fisheries' database: <https://www.fiskeridir.no/statistikk-tall-og-analyse/data-og-statistikk-om-turist-og-fritidsfiske/apne-data-fangst-i-turistfiske>

Recent work on the economic impact of Norwegian marine fishing tourism estimates a national direct value creation of NOK 830 million (EUR 70,82 million) and an indirect value creation up to NOK 920 million (EUR 78,5 million), while employing 1 800 people directly and 640 people indirectly (Grønvik et al., 2025). The counties of Northern Norway – Nordland, Troms and Finnmark – account for a substantial share of this value creation. When combined, the marine fishing tourism industry in this region generates approximately NOK 309.6 million (EUR 26,42 million) in direct value creation and provides direct employment for about 670 people (Grønvik et al., 2025), corresponding roughly to 37% of the national totals. It is noteworthy that Nordland, where Lofoten is located, leads both national and regional statistics in terms of value creation and direct employment.

Against the backdrop of a long-term decline in small-scale fishing activities in Northern Norway, fishing tourism has emerged as an important source of income, enabling these coastal communities to continue making a living from fishing (Solstrand and Gressnes, 2014), as the figures above illustrate. However, this economic expansion has also sparked controversy as tourists, local recreational fishers, and the commercial fleet increasingly compete for the same resources and fishing grounds. Within both national and regional debates, key concerns include the presence of illegal/

unregistered fishing tourism establishments,¹⁷ large-scale smuggling of fish across borders,¹⁸ and the potential exploitation of marine resources by the fishing tourism industry.¹⁹ A central field of conflict relates to the exploitation of coastal cod stocks by the fishing tourism industry (Ahi et al., 2023), particularly given the observed decline of these stocks along the Norwegian coast. Estimates suggest that recreational fishers and tourists together may account for more than half of total coastal cod harvest between 62° and 67°N (Fall et al., 2024). In response, the Norwegian Ministry of Trade, Industry and Fisheries introduced additional measures in 2023 aimed at rebuilding the coastal cod stocks in Northern Norway.²⁰ More recently, the Norwegian Institute of Marine Research published a report recommending stricter restrictions on coastal cod harvest for reducing the harvest by 40% in Northern Norway (Fall et al., 2024). Building on these measures, the Norwegian government has also issued new regulations targeting the marine fishing tourists, which came into effect in August 2025, which will be examined in detail in the following sections.

3.2.4 Commercial fisheries

The commercial fisheries have historically played a crucial role in Norway's economic development. Figure 9 illustrates the performance of Norwegian commercial fisheries over the last decade in harvest volume and economic value. Harvest levels have remain-

17 "Uncovered illegal fishing tourism: It pays to fish for free in Norway." (translated from Norwegian): https://www.nrk.no/tromsogfinnmark/avdekket-ulovlig-fisketurisme-i-vest-finnmark-_fant-flere-lovbrudd-hos-flere-kontrollerte-bedrifter-1.16952206 Published on NRK on 04.07.2024

18 "Seized one ton of smuggled fish in a week — suspect organized activity." (translated from Norwegian): <https://www.nrk.no/tromsogfinnmark/turistar-bli-stoppa-pa-grensa-med-mykje-ulovleg-smuglarfisk-1.16898644> Published on NRK on 28.05.2024

19 "Fiskeribladet's editorial: Coastal cod must be protected, and fishing tourists must be told no." (translated from Norwegian): <https://www.fiskeribladet.no/leder/fiskeribladet-mener-kysttorsken-ma-vernes-og-fisketuristene-ma-fa-nei/2-1-1621003> Published on Fiskeribladet on 05.04.2024

20 More on the measures: <https://www.regjeringen.no/no/aktuelt/ytterligere-tiltak-for-a-bygge-opp-kysttorsken-i-nord/id3016511/>

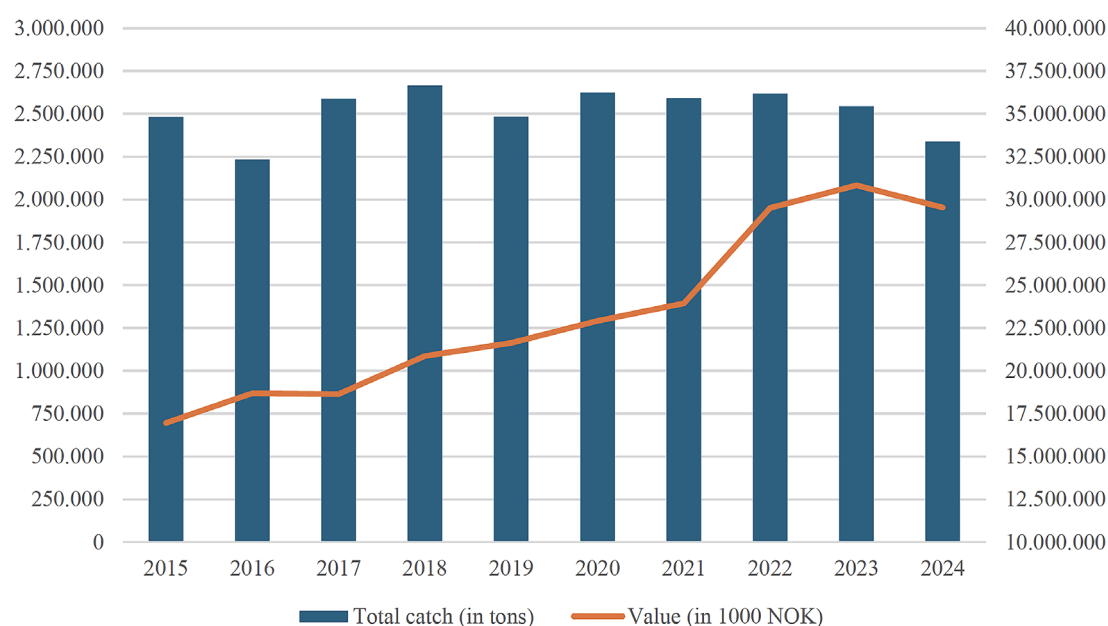


Figure 9. Norwegian commercial fisheries total catch and value (in 1 000 NOK) 2015-2024. Source: Norwegian Directorate of Fisheries (2024a).

ned relatively stable, fluctuating between 2.2 and 2.7 million tons annually, whereas the economic value of landings have increased significantly. In 2015, the value of commercial catches was around NOK 16.9 billion (EUR 1,44 billion), but by 2022-2024 it had nearly doubled, reaching NOK 29.5-30.8 billion (EUR 2,52-2,63 billion) annually.

Since harvest and economic values can fluctuate annually, long-term trends offer the most accurate picture of fisheries. That said, we focus here on the 2024 figures to provide a detailed overview of targeted species and regional commercial fishing activity. Table 4 provides an overview of the main species targeted by the Norwegian commercial fleet in 2024. In total, the fleet landed approximately 2.4 million tons of fish, corresponding to an economic value of NOK 29 billion (EUR

2,47 billion). Pelagic species (capelin, herring, mackerel, etc.) and codfishes (Atlantic cod, haddock, saithe, etc.) dominated the catches. While pelagic species accounted for the largest harvest volumes, the highest economic value was generated by cod and other codfishes. According to data from the Norwegian Directorate of Fisheries (2024a), blue whiting was the most harvested pelagic species, with 388 951 tons, whereas Atlantic cod led the codfishes with 204 431 tons.

In terms of value, Atlantic cod, Atlantic mackerel, and shellfish including molluscs and echinoderms contributed the most, with NOK 7 780 million (EUR 663,82 million), NOK 5 371 million (EUR 459,28 million), and NOK 3 083 million (EUR 263,05 million), respectively.²¹

Table 5 summarizes the key commercial fis-

²¹ See Economic and biological figures from Norwegian fisheries 2024 (Norwegian Directorate of Fisheries, 2024) for details. https://www.fiskeridir.no/statistikk-tall-og-analyse/data-og-statistikk-om-yrkesfiske/statistiske-publikasjoner-innen-yrkesfiske/_attachment/inline/edf81397-0045-4ac1-8593-42069c4e866e:7a401735f248c1b6a0439ee773a15fad780d4905/nokkeltall-2024.pdf

Fish species	Total catch (in tons)	Value of catch, nominal (in 1000 NOK)
Pelagic fish	1 189 298	11 767 387
Cod and other codfishes	510 778	12 237 968
Flatfish, other demersal fish and deepwater fish	86 231	2 382 769
Cartilaginous fish (sharks, skates, rays and rabbit fish)	2 622	10 076
Shellfish, molluscs and echinoderms	379 605	3 083 082
Macroalgae	171 297	54 950
Total	2 339 831	29 536 232

Table 4. Summary of target species in Norwegian commercial fisheries (2024). Source: Norwegian Directorate of Fisheries (2024a).

heries figures across Norwegian counties in 2024, including total economic value, total catch in tons, number of fishers by main occupation²², and fleet size, based on where the vessels are registered for depicting the economic activity tied to coastal communities. While Møre og Romsdal leads national statistics in total value and number of fishers, Northern Norway also stands out as a core fishing region.²³ Together, the counties of Nordland, Finnmark, and Troms account for 920 079 tons of harvest and economic value of NOK 12.8 billion (EUR 1,09 billion), with Nordland fleet reporting the highest national harvest of 642 674 tons valued at NOK 6 billion

(EUR 0,51 billion). The Northern Norwegian fleet consists of 3 168 registered vessels and employs 4 205 full-time fishers, underscoring the region's central role in sustaining Norway's commercial fishers.

When comparing leading regions by landing location, a total of 675 371 tons of fish were landed in the Northern Norwegian counties in 2024, with an economic value of NOK 14.7 billion (EUR 1,25 billion), while in Møre og Romsdal recorded landings of 447 962 tons, valued at NOK 7.6 billion (EUR 0,65 billion) (Norwegian Directorate of Fisheries, 2025c). In terms of target species, in Møre og Romsdal 265 453 tons of pelagic fish were landed in 2024, with mack-

²² According to the Norwegian Directorate of Fisheries (2024a), a full-time fisher is defined as a person who earns a gross annual income of at least NOK 100,000 from fishing or harvesting at sea and who does not engage in other full-time or significant part-time employment outside the fishing sector.

²³ It should be noted that this does not necessarily mean the harvest takes place strictly within the county's geographical area, and the data is based on vessel registry and not landing location. For example, the main offshore fleet is based on the west coast, and vessels from Møre and Romsdal do not exclusively operate in local waters. Offshore vessels typically fish across a range of ocean areas, and many small-scale fishers from the west coast also fish in Lofoten and other northern coastal regions.

County	Value (in 1000 NOK)	Total catch (in tons)	Number of fishers	Registered vessels
Finnmark	3.426.860	124.589	1.346	1.344
Troms	3.388.435	152.816	981	663
Nordland	6.061.144	642.674	1.878	1.191
Trøndelag	1.099.612	76.747	504	339
Møre og Romsdal	7.596.955	505.284	2.133	493
Vestland	7.009.481	573.523	1.520	723
Rogaland	848.979	69.197	421	322
Agder	704.419	36.710	296	211
Telemark	18.610	310	41	36
Vestfold	40.921	565	73	53
Oslo	1.857	40	62	7
Akershus	2.090	38	50	11
Østfold	111.231	4.556	102	77

Table 5. Key figures from Norwegian commercial fisheries across counties (2024).

Source: Norwegian Directorate of Fisheries (2024a, 2025b).

erel being the dominant species at 130 722 tons. In contrast, cod and cod fishes represent the most important commercial species in Northern Norway. Collectively, 351 502 tons of cod and other codfishes were landed in Northern Norway, with cod being the single most harvested

species. It is also noteworthy that in Nordland alone recorded significant landings of pelagic fish, amounting to 141 624 tons in 2024.²⁴ These strong figures in harvest and economic value are also reflected in the export performance of the commercial fisheries. In 2024, Norway's captu-

²⁴ For further details on target species and landing location see Norwegian Directorate of Fisheries (2025c).

re fisheries exported 1.5 million tons of seafood worth NOK 44.9 billion (EUR 3,83 billion), corresponding to 26% of the total export value and 52% of the total export volume of Norwegian seafood (Norwegian Seafood Council, 2025).

The figures presented so far highlight the economic importance of commercial fisheries and their role in providing employment for those whose main occupation is fishing. However, their impact extends far beyond this, contributing significantly to value creation and employment through the ripple effects generated across related industries. Recent analyses show that the net value creation from Norwegian fisheries amounted to NOK 22.2 billion (EUR 1,89 billion) in 2023, of which NOK 15.7 billion (EUR 1,34 billion) was generated directly by the fisheries themselves, and NOK 6.5 billion (EUR 0,55 billion) stemmed from ripple effects through the supplier industries (Steinsbø et al., 2025). Consistent with the previously presented figures on harvest and economic value across regions, Møre og Romsdal and the counties of Northern Norway counties also lead in extended economic value creation. In 2023, it is estimated that value creation was highest in Nordland and Møre og Romsdal, each generating NOK 4.3 billion (EUR 0,34 billion), while they were followed by Vestland, Finnmark and Troms, together accounting for 85% of the total value creation in Norwegian commercial fisheries (Steinsbø et al., 2025).

3.2.5 Laws and regulations

As the harvest figures and target species previously presented illustrate, Norwegian fish-

eries are highly diverse, with significant pelagic and codfish fisheries and fleets operating both offshore and in the coastal zone. Many of these species are migratory, moving between Norwegian and foreign waters, which makes effective management dependent on international cooperation in addition to national regulations. This diversity of species, vessel types, and stakeholder groups contributes to a regulatory landscape that is both advanced and complex. The management system combines international agreements, national legislation, and stakeholder involvement to ensure sustainable harvests and equitable resource distribution. In the following section, we provide a general overview of Norway's fisheries regulatory framework for local recreational fishers, tourist fishing, and commercial fisheries, covering quotas, licensing, monitoring, and compliance, and then turn specifically to the case of Northern Norway. This region is not only central to the commercial fleet but also plays a key role for recreational and tourist fisheries subject to different regulatory frameworks, making it a special case where different user groups, ecological concerns, and economic interests intersect.

Local recreational fishing regulations

Marine recreational fishing along the Norwegian coast is open to all citizens under the principle of *allemannsretten* (the public right of access).²⁵ However, there are still certain regulations the Norwegian recreational fishers must comply with.

In general, recreational fishers are permitted to use various gears: handheld rods, a motori-

²⁵ For more information see Norwegian Environmental Agency: <https://www.miljodirektoratet.no/ansvarsomrader/friluftsliv/friluftsliv-og-allemannsretten/fiske/>

zed jigging line, nets (max 210 metres, or 165 metres for cod), longlines up to 300 hooks, and 20 traps per person/boat are allowed to use during recreational fishing. However, there are additional technical specifications for certain regions and species regarding gear use. Furthermore, gear must not leave unattended, and fishing must take place at least 100 meters away from fish farms. In addition, certain local restrictions apply, such as those governing the cod fisheries in Lofoten, the cod fishing ban in Oslo Fjord, and light fishing ban in Skagerrak region.

Recreational fishers with boats not in the vessel register may sell their harvest worth up to NOK 50 000 (EUR 4.266,21) per calendar year via a sales organization or approved buyer. This limit applies per person and per vessel and if several people fish from the same boat the NOK 50 000 (EUR 4.266,21) limit applies collectively. Regarding harvesting cod, recreational fishers can sell up to 2 ton/year north of 62° N, while this number reduces to 1 ton/year in the regions south of 62° N. Again, these limits apply per person and per vessel.²⁶

Tourism fishing regulations

The regulation of tourism fishing in Norway has long been contested, driven by stakeholder conflicts over coastal cod exploitation and broader sustainability concerns, reports of overfishing and fish smuggling, and the differing regulatory frameworks applied to various user groups (Borch, 2009; Borch et al., 2011; Solstrand and Gressnes, 2014; Ahi, Aanesen et al., 2023). Consequently, Norway has updated the tourism fishing regulations several

times in the last decades to address concerns pointed out by various stakeholders.

The Norwegian Ministry of Trade, Industry and Fisheries has recently released the new regulations, which apply from August 1st, 2025. The new stricter regulations aim at improving sustainability and having better control over natural resources. According to the regulations that are in effect, tourists are allowed to use only handheld gear, follow the rules on protected species and minimum size requirements, and they cannot sell their catch. The regulations further require mandatory daily catch reporting for all tourist fishing companies for improving data collection and oversight over tourists' harvest. Also, a minimum age requirement of 12 years to use the tax-exempt export quota is introduced with the recent updates to support effective enforcement at border crossings. Therefore, only tourists that 12 years or older and registered to a fishing camp are allowed to take fish or fish products out of the country when leaving Norway. The current export quota of 18 kg per person is also further reduced. From January 1, 2026, the export quota will be reduced to 15 kg per person, with two allowances per year, which will be further reduced to 10 kg per person from January 1, 2027, which is also issued twice a year. For strengthening customs oversight of outgoing fish harvest, enhanced export documentation requirements are also introduced.²⁷

Norwegian Hospitality Association (2025) reports that these are initial steps for a broader change in the system, while several proposals from the Directorate of Fisheries' wor-

²⁶ See Norwegian Directorate of Fisheries (2025d) for more detailed information on various species, gears, regions and the local recreational fishing regulations that apply <https://www.fiskeridir.no/Fritidsfiske>

²⁷ For further details on tourism fishing regulations see Norwegian Directorate of Fisheries (2025e) <https://www.fiskeridir.no/english/sea-angling-in-norway/regulations>

king group are under consideration, and a new public hearing is expected during the autumn of 2025. Some suggestions include introduction of fishing licenses for tourists, possession limits, and stricter requirements for both the registration and reporting of tourist fishing enterprises (Norwegian Government, 2025).

Since the new regulations continue to allow tourists to export fish and fish products (e.g., fillets), it remains uncertain whether they adequately address the earlier concerns about waste, particularly the practice of discarding large portions of the fish and exporting only the most valuable parts (Ahi et al., 2023). However, some of the measures proposed by the Norwegian Directorate of Fisheries' working group may reduce such problems. One example is the introduction of a possession limit, restricting the number of fish tourists may keep at any time, regardless of whether it is whole, gutted, or filleted and preventing tourists from storing unlimited amounts before consuming any (Norwegian Directorate of Fisheries, 2024b), thereby limiting overharvesting and waste. Additionally, the working group recommended a ban on freezing for tourists that are not registered to approved enterprises. In this case, the non-registered tourists would only be permitted to catch what they consume during their stay, preventing large-scale storage, reducing opportunities for illegal export and overall contribute to more sustainable use of marine resources (Norwegian Directorate of Fisheries, 2024b). At the same time, the fishing tourism industry

has expressed concerns over the new restrictions, particularly the reduced export quota, arguing that stricter limits could discourage foreign visitors and negatively affect the economic viability of many tourist fishing businesses.²⁸ From a broader societal perspective, however, former research suggests a more nuanced picture. According to survey results conducted nation-wide, Norwegian recreational fishers generally support tighter export quotas for foreign tourists (Selvaag et al., 2021). Further, research on welfare impacts of regulating different stakeholder groups in Arctic Norway indicates that locals have a significant WTP to avoid stricter regulations applied exclusively to local recreational fishers or to the commercial fleet, while they were willing to pay in favor of stricter regulations targeting only the tourism fishing industry (Ahi et al., 2023).²⁹

Commercial fleet regulations

Since most Norwegian commercial fisheries are regulated through quotas, seasonal and permanent spatial closures, and strict requirements for vessels and gear, this section does not examine each fishery in detail but instead outlines the general regulatory framework. To illustrate how quota allocations and regulations operate in practice, this section also highlights recent regulatory developments in the commercial fisheries of Northern Norway.

Norwegian commercial fisheries quotas are based on scientific advice from both national and international research institutions. Whi-

²⁸ "The Minister of Fisheries tightens the rules for tourist fishing" (translated from Norwegian)

<https://www.nrk.no/tromsogfinnmark/fiskeri--og-havminister-marianne-sivertsen-naess-skjerpar-reglane-for-turistfiske-1.17475846> published on NRK (July 1, 2025).

²⁹ The study had 3 treatment subsamples, and the results presented here are from the base version of the survey, with no treatments. In the treatment versions, the respondents indicated consistent avoidance for regulating only locals or only the commercial fleet across all treatment subsamples, while regulating only the tourism industry was associated with welfare loss in one of the treatments, and welfare gain in the other (see Ahi et al., 2023 for details on treatments).

The Norwegian Institute of Marine Research is the main national advisor, The International Council for Exploration of the Sea (ICES) is the main international advisor on Norwegian fisheries. In line with the United Nations Convention on the Law of the Sea, most national quotas follow from international agreements with other coastal states due to shared fish stocks. Nationally, quotas are used to distribute resources between fleet groups (offshore vs. coastal, or gear types) and are further divided among vessels based on size or capacity. This allocation system not only institutionalizes a divide between the offshore and coastal fleets, but also creates distinctions within the coastal fleet itself, where quota access is determined by different vessel size concepts. In Northern Norway, distributional conflicts have historically been most visible, as both small-scale coastal vessels and larger units depend heavily on cod and other groundfish, making quota allocation a recurring and contested management issue (Standal et al., 2016). Quotas are set annually, and apply to major species like cod, haddock, saithe, herring, and mackerel, while other species such as pollock, wolffish, hake, and brown crab remain outside of quota regulation.

Norwegian fishing vessels are required to report their catches and activities at sea through electronic catch and position reporting sys-

tems (ERS and VMS). Additionally, all landings have reporting obligations and regulatory requirements at the point of delivery. The Norwegian Directorate of Fisheries enforces resource management through electronic tracking, inspection at sea and on land, closely collaborating with the Coast Guard. The Marine Resources Act and the Participation Act provide the legal basis, regulating quotas, harvesting methods, fleet capacity, and enforcement against illegal, unreported and unregulated fishing.³⁰

For the Northern regions above 62° North, which is the focus of this study, new regulations for cod, haddock, and saithe fisheries have recently been introduced.³¹ According to the recent updates on regulations, the total quota for Norwegian vessels are 163 757 tons of cod, 66 697 tons of haddock, and 179 367 tons of saithe above 62° North.³² Among these quotas, youth, recreational and tourist fishing category is allocated 7 000 tons cod, 300 tons haddock, and 2 000 tons of saithe, while the coastal fleet is allocated 3 000 tons of cod.³³ New rules are also introduced regarding the use of Danish seine (snurrevad) when fishing for haddock, to protect juvenile fish. From 2025 on, vessels over 15 meters are prohibited from operating with Danish seine within 4 nautical miles within certain zones from April 1 to June 15, and the use of square mesh

30 See more details on regulations at Norwegian Directorate of Fisheries (2025f). <https://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer>

31 Other fisheries with new regulations in effect from 2025 include snow crab, tusk and ling, and coastal shrimp announced by Norwegian Government (2024a): <https://www.regjeringen.no/no/aktuelt/nyheter/id2006120/?from=01.01.2024&to=31.12.2024&ownerid=709&term=>

32 The quotas for cod and haddock exclude the fisheries in Jan Mayen zone. See Norwegian Directorate of Fisheries (2025g) for more detailed information on the new regulations at <https://www.fiskeridir.no/Yrkesfiske/Regelverk-og-reguleringer/j-meldinger/j-115-2025>

33 In addition to quotas allocated to the commercial fleet and recreational/tourist fishers, a small share of the total quota is reserved for other groups, including research and teaching institutions, bait fisheries, and recruitment purposes (Norwegian Directorate of Fisheries, 2025g).

34 More information available at Norwegian Government (2024b) website: https://www.regjeringen.no/no/aktuelt/regulering-av-torsk-hyse-og-sei-i-nord-i-2025/id3081155/#mce_temp_url#

panels in seine extensions is now required to further improve selectivity.³⁴

The updated regulations also aim coastal cod protection in Northern Norway through strict spatial and vessel restrictions. The latest regulations do not permit vessels between 21-27.99 meters to fish cod, haddock, or saithe with conventional gear inside the baseline, while vessels 28 meters or larger with conventional gear are banned within four nautical miles of the baseline, though limited seasonal and areal exceptions exist. Particularly sensitive spawning areas such as Henningsvær and Borgundfjorden are given additional protection with seasonal closures. Bycatch is also tightly regulated: within fjord lines, cod may constitute no more than 5% of each catch by

weight for vessels using conventional gear. For vessels fishing with conventional gear inside the baseline or within 2 to 4 nautical miles of it, a combined bycatch of cod, haddock, and saithe may not exceed 20% by weight per catch and landing. All such bycatch is counted against vessel quotas.

This snapshot of cod regulations in North Sea and certain fisheries north of 62° N represents only a fraction of the overall system, yet it illustrates the complex nature of Norwegian fisheries management. The regulatory framework must simultaneously protect fish stocks, adapt to different vessel sizes and gear types, and balance the often-competing interests of multiple user groups. Quotas are not only distributed among offshore and coastal



fleets, but also set aside for research, education, recruitment, and community schemes, as well as for recreational and tourist fishing. This diversity of allocations shows how the system extends beyond commercial considerations, integrating ecological objectives with social, cultural, and economic concerns. At the same time, it underlines the potential for conflict between stakeholders, whether between large offshore vessels and coastal fleet, or between commercial, recreational and tourist interests, highlighting the fisheries management's dynamic and multidimensional character.

3.2.6 Results

In the Norwegian case, we examined the scale and value of different fisheries nationally, the key areas of conflict among various stakeholders, and the regulatory frameworks applied, while keeping the focus on Northern Norway where most fishing activities concentrate.

Scale and value creation

The figures indicate that commercial fisheries remain the largest contributor regarding scale and value creation. The commercial fleet harvested approximately 2.3 million tons of fish, with a value of NOK 29.5 billion (EUR 2,52 billion) (Norwegian Directorate of Fisheries, 2024a). The Northern Norwegian fleet harvested 920 079 tons with a value of NOK 12.8 billion (EUR 1,09 billion) in 2024, supported by 3 168 vessels and 4 205 full-time fishers (Norwegian Directorate of Fisheries, 2024a; 2025b). In 2023, the estimated value creation from commercial fishing activities nationally reached up to NOK 22.2 billion (EUR 1,89

billion), where counties of Northern Norway were among the leaders of value creation (Steinsbø et al., 2025).

Marine recreational fishing is a popular activity with estimated participation figures ranging from 33% to 44% of the population (Hyder et al., 2018; Hallenstvedt and Wulff, 2004; SSB, 2024), with an approximate expenditure of EUR 1 115 million (Hyder et al., 2018).

It is estimated that Norwegian residents harvest approximately 45 000 tons of fish for non-commercial, personal, and household consumption (Nedreaas et al., 2022), where the recreational coastal cod harvest in Northern Norway varies between 10 000–16 000 tons annually (ICES, 2024). The value of Norwegian recreational fisheries is hard to estimate since it is a combination of both use and non-use values. However, former research suggests a value in the range of USD 193 million (EUR 164,38 million) (Toivonen et al., 2004) and EUR 493 million (Gren and Marbuah, 2024). When focusing on Northern Norway, the value of recreational fisheries is estimated to be EUR 35-100 million (Magnussen, 2012); where coastal cod fisheries only can be worth as high as NOK 13.5 billion (EUR 1.15 billion) when accounting for both use and non-use values (Ahi and Armstrong, 2022).

Finally, marine fishing tourism has grown rapidly along the Norwegian coast in the recent years reaching up to 315 000 tourists in 2024, generating a direct value of NOK 830 million (EUR 70,82 million) and 1 800 direct jobs nationally, and NOK 309.6 million (EUR 26,42 million) in direct value creation and 660 direct jobs in Northern Norway (Grønvik et al., 2025).

Stakeholder conflicts

Former research show that one of the major conflicts in Northern Norway's fisheries arise from competition over the same stocks, most notably the coastal cod, which is targeted by the commercial fleets, local recreational fishers, and the growing marine fishing tourism industry. In addition, distributional conflicts within the commercial fleet itself due to the heavy reliance on cod and other groundfish have long made quota allocation a recurring management issue (Standal et al., 2016). Furthermore, the rapid expansion of tourism fishing has intensified tensions as tourists are perceived to increase pressure on declining stocks (Borch, 2008). Illegal and unregistered fishing enterprises, along with the smuggling

of fish across borders have further fuelled mistrust and debates about sustainability (Ahi et al., 2023).

Regulatory framework

The Norwegian fisheries regulation operates within a complex governance system combining international agreements, national legislation and domestic allocation mechanisms. At the international levels, quotas for migratory species such as cod, herring, and mackerel are determined through negotiations between Norway and other coastal states. Domestically, these quotas are distributed between different fleet groups (i.e., offshore and coastal) and further subdivided among vessels using allocation keys related to different vessel size concepts. In addition to



the commercial fleet, specific quotas are also reserved for recreational and tourist fishing. This highlights how the regulatory framework integrates multiple user groups, extending beyond purely commercial concerns.

Various regulations apply also to recreational and tourist fishing, reflecting their scale and growing importance. Local recreational fishers must comply with limits on gear use and sales, while tourist fishing is controlled through registration to approved enterprises, reporting requirements, and export quotas that are gradually being reduced. These measures are particularly motivated by concerns over the pressure on vulnerable stocks such as coastal cod and the need to ensure that non-commercial fisheries remain sustainable alongside the commercial fleet.

3.2.7 Discussions

Norway's fisheries represent one of the country's most important marine industries, combining substantial value creation with deep social and cultural significance. However, although they are highly regulated there remain contested spaces where ecological sustainability, economic development, and traditions must be balanced.

The Northern Norwegian case illustrates these dynamics vividly. Commercial fishing remains a major economic activity, generating billions in value creation and sustaining local communities through ripple effects (Steinsbø et al., 2025). Yet they are also bound by quota restrictions and gear regulations aimed at protecting stocks, which fishers may perceive as limiting profitability. In the past, the distributional conflicts between offshore fleet and small-scale coastal fleet have also emerged in the region as both segments rely on cod and other groundfish.

Recreational and tourist fisheries add further layers of complexity in the region. Recreational fishing is deeply rooted in culture and tradition, and reflects self-sufficiency-oriented practices, especially in Northern Norway, where harvest levels per fisher are among the highest in the country (Selvaag et al., 2021).

The region also has experienced a rapid growth of marine fishing industry in the last decades, which has sparked controversy due to additional pressure on declining coastal cod stocks, while reports of unregistered fishing enterprises and large-scale smuggling across borders have fuelled calls for stricter regulation (Ahi et al., 2023). The regulatory bodies have responded by introducing more stringent controls, particularly for tourist fishing, such as reduced export quotas, mandatory reporting, and proposals for possession limits and licenses. While these measures aim to safeguard sustainability and ensure fair distribution of resources, they also generate new debates on equity, as tourism operators warn that stricter limits may reduce foreign demand and undermine businesses dependent on visitors.

These findings underscore the core challenges of fisheries management in Northern Norway: achieving ecological sustainability with multiple, and often conflicting economic and cultural interests. Quotas and regulations must protect vulnerable stocks such as coastal cod, yet at the same time they must remain sensitive to the livelihoods, traditions, and opportunities tied to these fisheries. Consequently, the Northern Norwegian case highlights the multidimensional nature of fisheries governance, where ecological concerns, economic imperatives, and traditions all intersect within a geographically limited but globally significant marine region.

3.3 Sweden

Author: Malin Johansson, Maria Pettersson, and Jesper Stage, Luleå University of Technology

Rate average 1 EUR- SEK 11,057 (30.09.2025)

3.3.1 Description of the case

Sweden has thousands of rivers and nearly 100,000 lakes, as well as a long coastline. Recreational fishing is one of the most popular outdoor activities, with more than a million Swedes engaging in the activity every year.

Sweden does not compile dedicated fishing tourism statistics at the national level but does compile statistics on domestic recreational fishing and has done so intermittently since the 1970s and annually since 2013. Early surveys were conducted as part of national inquiries in 1973, 1990, and 1995, followed by additional surveys in 2000, 2006, and 2011. Since 2013, the Swedish Agency for Marine and Water Management has overseen annual surveys carried out by Statistics Sweden, making recreational fishing part of Sweden's official statistics. This provides continuous data on participation, fishing effort, catch, and associated expenditures. A 2024 report (Swedish Agency for Marine and Water Management, 2024) used these data to estimate economic statistics for recreational fishing for the years 2013 to 2022, and this chapter draws heavily on that report.

The analysis in that report focuses on two sets of indicators (see Tinch et al., 2015, or Blomquist et al., 2022, for detailed background on the two sets of indicators used). First, the economic activity generated by recreational fishing is measured through turnover, value added, and employment effects. Second, the economic value of the recreational

fishing is measured by estimating the consumer surplus—the difference between what anglers are willing to pay and what they actually pay—using a travel cost model first applied to Swedish recreational fishing in Carlén et al. (2019, 2021). Together, these indicators provide both a measure of the direct impact on the economy and an estimate of the welfare generated for participants.

3.3.2 Research question, method and data

The Swedish case study examines the following research questions:

- What is the economic impact of Swedish recreational fishing?
- What is the economic value of Swedish recreational fishing?
- How is recreational fishing regulated, and what frameworks apply?

The study relies on the already mentioned report from the Swedish Agency for Marine and Water Management (2024), supplemented by local case studies from two Swedish rivers reported in Lidberg et al. (2025).

3.3.3 Economic impacts and values The economic impact of recreational fishing

Unlike formal industries such as hotels or retail, recreational fishing is not recognized as a separate sector in official economic statistics. This makes valuation more complex. Instead of producer-side data, the analysis relies on consumer expenditures collected through the annual survey of Swedish anglers. These expenses include fishing equipment, travel, accommodation, food, restaurant visits, permits, and guide services. Larger purchases such as boats and motors are excluded.

The expenditures are aggregated to estimate

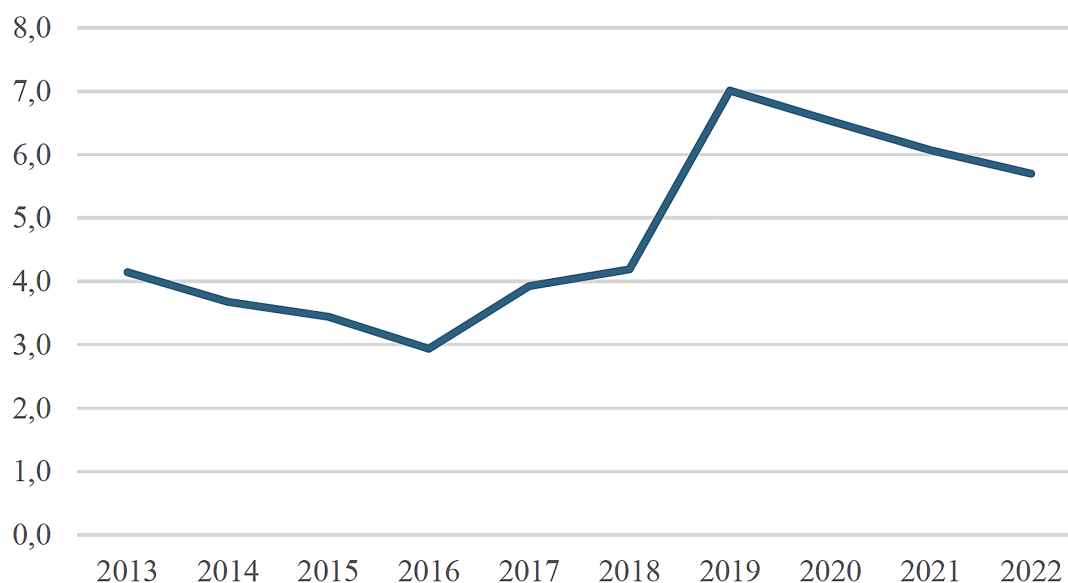


Figure 10. Annual turnover, billion 2022 SEK

Note: Based on data from Swedish Agency for Marine and Water Management (2024). That report provides rounded off values in nominal SEK from the respective years; in this figure, these values have been recalculated into constant 2022 SEK for easier comparability across years. The original report also includes error bars for 95 % confidence intervals which have not been included here, as no numerical information for these error bars is provided in the original report.

three indicators: turnover, value added, and employment effects. Turnover reflects direct spending by anglers. Value added corresponds to the contribution to Sweden's GDP, while employment effects measure the number of full-time equivalent jobs generated.

Participation has remained high over the past decade. In 2022, about 1.2 million Swedes aged 16–80 went fishing, accounting for 12.1 million fishing days and a catch of 28,000 tons, of which 59% were released back into the water.

Spending has increased significantly over time, from SEK 4.1 billion (EUR 0,37 billion) in 2013 to SEK 5.7 billion (EUR 0,52 billion) in 2022 (+38%; all monetary values in this chapter are given in 2022 SEK). Annual turnover has fluctuated between SEK 2.9 and 7.0 billion (EUR 0,2–0,63 billion) but have clearly increased during the period. The

2022 turnover equates to average numbers of SEK 4,700 (EUR 0,43) per angler or SEK 500 (EUR 45,22) per fishing day.

Retail consistently accounts for the majority of expenditures, averaging about 63% of turnover. In 2022, this represented SEK 3.4 billion (EUR 0,31 billion). Services such as accommodation, restaurants, guides, and permits represent smaller shares of spending but often create higher economic value per krona. Regional differences are notable: Norrland has shown the strongest growth and remains a leading fishing destination, while inland areas in general generate the largest share of turnover due to their popularity and the intensity of fishing activity.

The value added from recreational fishing has also increased, rising from SEK 1.1 billion (EUR 0,10 billion) in 2013 to SEK 1.4 billion (EUR 0,13 billion) in 2022 (+31%). The

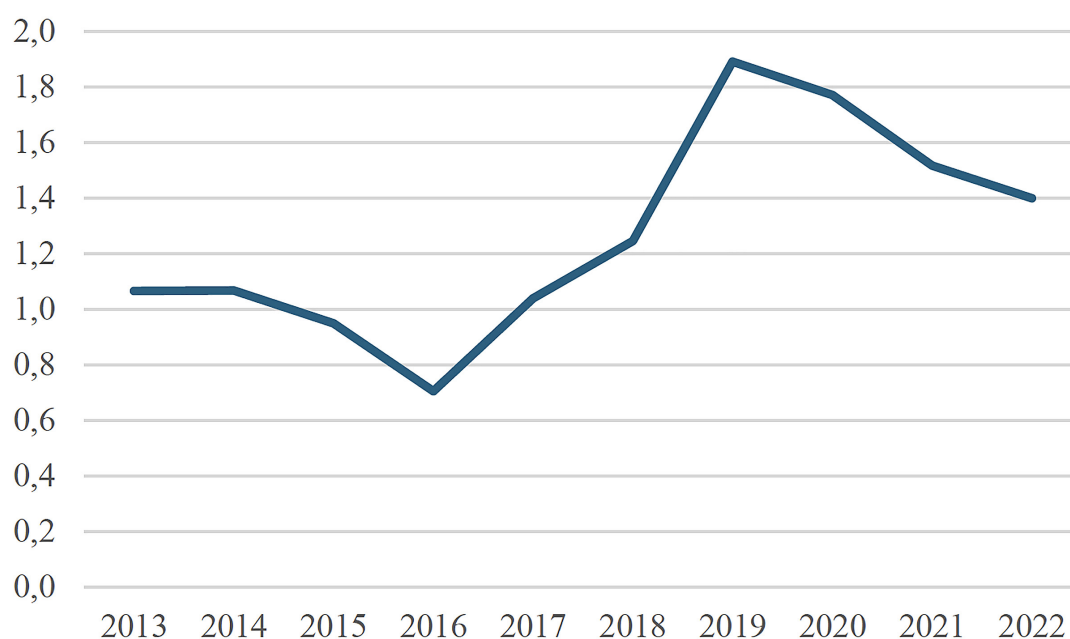


Figure 11. Annual value added, billion 2022 SEK

Note: Based on data from Swedish Agency for Marine and Water Management (2024). That report provides rounded off values in nominal SEK from the respective years; in this figure, these values have been recalculated into constant 2022 SEK for easier comparability across years. The original report also includes error bars for 95 % confidence intervals which have not been included here, as no numerical information for these error bars is provided in the original report.

lowest figure was in 2016 (SEK 0.7 billion (EUR 0,06 billion)), while 2019 marked the highest (SEK 1.9 billion (EUR 0,17 billion)). Retail generates the largest total contribution to value added, but service-related categories (particularly hotels, restaurants, and guide services) have higher shares of value added relative to turnover.

Recreational fishing supports thousands of jobs across Sweden. Estimated employment effects ranged from 1,300 full-time equivalents (2016) to 3,400 (2020), with 2,800 jobs in 2022. Since 2018, the hotel and restaurant sector has overtaken retail as the largest employment generator, reflecting the higher labor intensity of services. Guide services and fishing permits also play a growing role,

sometimes exceeding retail in employment impact despite their smaller share of turnover.

Economic effects are unevenly distributed across Sweden. Inland areas account for the majority of turnover, value added, and jobs, with Norrland showing significant growth in recent years. Among sea areas, the Central Baltic Sea consistently records the highest turnover and value added. Cost structures also differ: in Norrland, travel accounts for a larger share of spending, while in southern and coastal regions, guides and permits take up more of the budget.

Of the SEK 5.7 billion (EUR 0,52 billion) in total turnover in 2022, men accounted for SEK 4.8 billion (EUR 0,43 billion) and women SEK 0.9 billion (EUR 0,08 billion). By age, anglers aged 31–50 years contributed the highest turnover

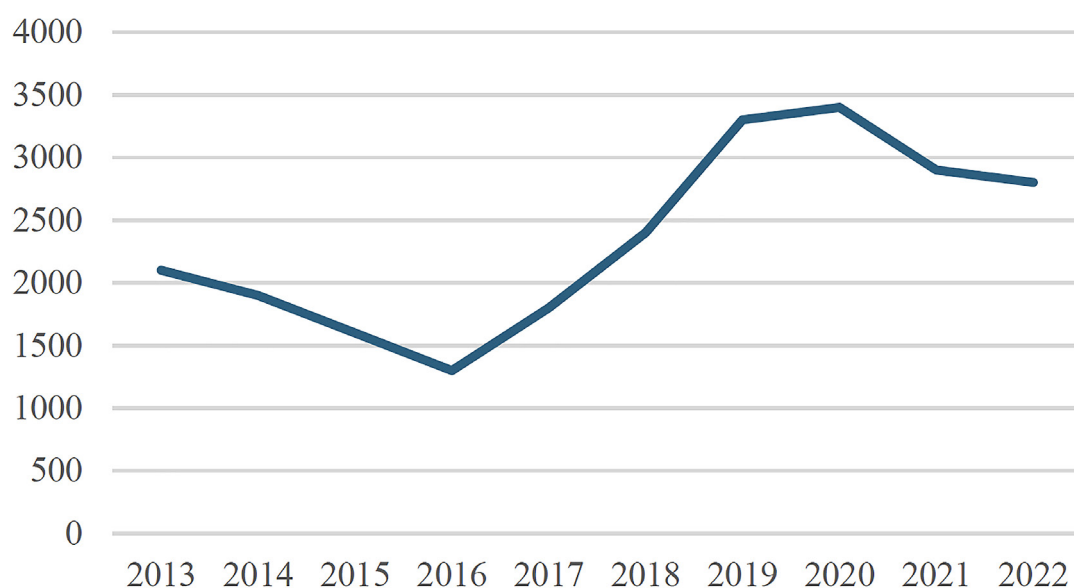


Figure 12. Overall employment generated

Note: Based on data from Swedish Agency for Marine and Water Management (2024). That report provides rounded off values, which have been used in this figure (12). The original report also includes error bars for 95 % confidence intervals which have not been included here, as no numerical information for these error bars is provided in the original report.

(SEK 2.6 billion (EUR 0,24 billion)), followed by the younger and older groups at around SEK 1.5–1.6 billion (EUR 0,14 billion) each.

The consumer surplus from recreational fishing

In economics, the consumer surplus measures the additional benefit people receive from a good or activity, over and above what they actually pay. It represents the difference between what consumers are willing to pay and the price they pay in reality.

For recreational fishing, the consumer surplus reflects the welfare value anglers gain from fishing experiences – peace, relaxation, enjoyment, and the catch – minus their actual expenditures. It is not captured in GDP but is a crucial indicator of the broader social and recreational importance of fishing.

This concept is especially relevant for poli-

cy and management. A high consumer surplus suggests that fishing provides significant social benefits, which should be considered alongside ecological and economic aspects in decision-making. Management actions that maintain healthy fish stocks and accessible waters can help sustain this welfare value over time.

The consumer surplus has fluctuated during the past decade, reflecting changes in fishing effort, catch conditions, and costs. In 2022 it was estimated at SEK 1.6 billion (EUR 0,14 billion), with an average of SEK 109 (EUR 9,86) per fishing day. Over the ten-year period, the annual average was SEK 1.5 billion (EUR 0,14 billion) in total. The overall level is relatively stable, with variation tied to both economic factors (e.g., travel costs) and ecological conditions (e.g., fish availability).

The distribution of consumer surplus differs strongly across groups. Men account for ne-

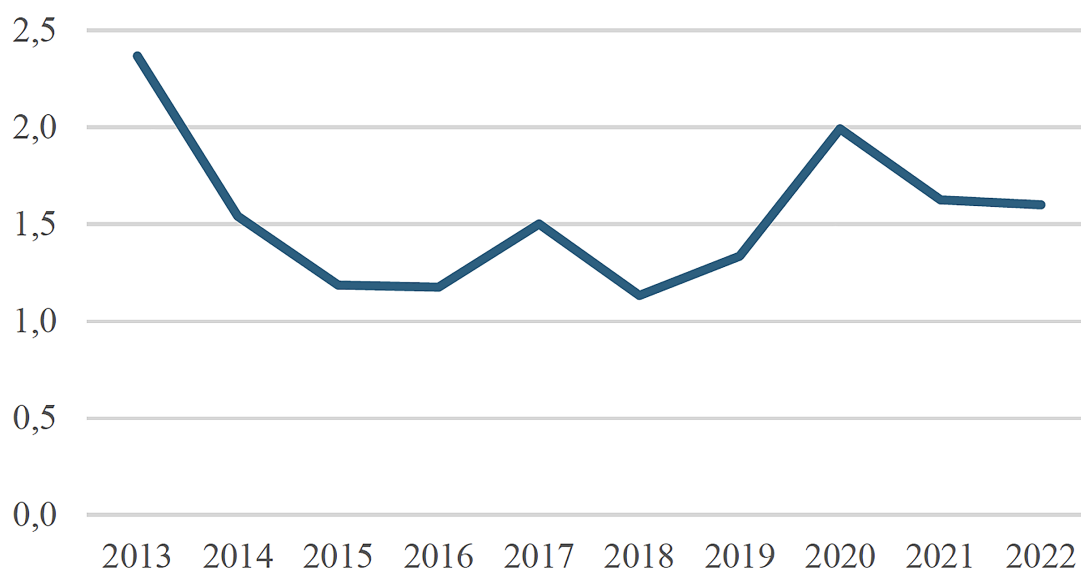


Figure 13. Annual consumer surplus, billion 2022 SEK

Note: Based on data from Swedish Agency for Marine and Water Management (2024). That report provides rounded off values in nominal SEK from the respective years; in this figure (13), these values have been recalculated into constant 2022 SEK for easier comparability across years. The original report also includes error bars for 95 % confidence intervals which have not been included here, as no numerical information for these error bars is provided in the original report.

arly 88% of the total surplus. They both fish more often and record a higher surplus per day (SEK 126 (EUR 11,4) vs. SEK 60 (EUR 5,43) for women in 2022). Younger anglers (16–30) show slightly higher surplus per day (SEK 125 (EUR 11,31)) than older anglers (99 SEK (EUR 8,95) for ages 51–80). However, because older anglers spend more total days fishing, the overall surplus is evenly spread across age groups (~SEK 0.5–0.6 billion each (EUR 0,05 billion each)). Inland residents have a significantly higher surplus per day (SEK 127 (EUR 11,49)) than coastal residents (SEK 85 (EUR 7,69)). Similarly, those outside metropolitan areas experience greater value (SEK 120 per day (EUR 10,85 pr day)) than those in large cities (SEK 78 (EUR 7,05)).

The welfare value of fishing also varies geo-

graphically: Norrland stands out with the highest surplus per fishing day (SEK 143 (EUR 12,93)) and the largest total surplus (~SEK 0.7 billion (EUR 0,06 billion) in 2022). Stora sjöarna (Great Lakes region) and Götaland & Svealand follow, each contributing several hundred million kronor annually. Coastal regions in the south, such as the Southern Baltic and Öresund, generate much lower values – less than SEK 80 (EUR 7,24) per fishing day. Overall, inland and northern areas dominate, together accounting for nearly two-thirds of Sweden's total consumer surplus from fishing.

3.3.4 Acts and regulations

As Sweden is a member of the EU, the incorporation of Swedish waters into the broader framework of the Common Fisheries Policy means

that Swedish fisheries operate under a dual regulatory regime. This regulatory system covers different types of fishing activities, from large-scale commercial trawling in the Baltic Sea to recreational fishing in local rivers.

The European framework centres on the Common Fisheries Policy, primarily governed by Regulation (EU) No 1380/2013. This regulation establishes that fishing and aquaculture activities must be environmentally sustainable in the long term while achieving economic, social, and employment benefits and contributing to food supply availability. The policy applies a precautionary approach to fisheries management and implements the ecosystem-based approach to ensure negative impacts on marine ecosystems are minimized.

The Fisheries Act (1993:787) serves as Sweden's primary fisheries legislation, establishing a comprehensive framework that distinguishes Sweden's approach. The Act governs fishing rights and fishing operations in Swedish territorial waters and the exclusive economic zone, while certain provisions also cover Swedish fishing vessels in international waters. The Swedish regulatory framework distinguishes between public waters and private waters – apart from the public water areas, water is, as a rule, privately owned in Sweden. The right of ownership, or rather control, to water follows the ownership of the property. Swedish citizens may fish freely in public waters (coastal waterways and the Great Lakes, which are 300 meters off the shore, are considered public waters, in accordance with the Public Water Boundaries Act (1950:595)), whereas fishing in private waters requires permission from the property owner. However, Swedish citizens retain limited fishing rights in certain private waters as specified in the annex to the Act, which defines

permissible fishing methods and locations. This dual approach separates waters under direct state administration from those controlled by private rights holders. The Fisheries Act introduced the possibility to distribute fishing resources between commercial and recreational fishing through gear restrictions, with detailed limitations later codified in section 9a of the Act.

Regulatory authority is delegated to the Swedish Agency for Marine and Water Management to issue detailed fishing regulations. The agency can issue both conservation measures for all fishing activities and resource allocation decisions for commercial fisheries. The Fisheries Ordinance (1994:1716) provides detailed implementation of these delegations, with particularly important regulatory authority also granted to the County Administrative Boards. This creates a regulatory framework that addresses different aspects of fisheries management.

The Swedish Agency for Marine and Water Management issues these specific regulations through its statutory collection, covering commercial fishing, recreational fishing, and aquaculture activities. Recreational fishing in marine waters requires no license, while freshwater fishing operates under a complex system involving basic access rights to the public waters (though specific permits may be required for certain methods or species), and local permits from conservation area associations or landowners for private waters. The regulations also establish detailed rules for salmon fishing, including seasonal closures, minimum sizes, and gear restrictions that vary between northern and southern Sweden.

The Act on EU Regulations on the Common Fisheries Policy (1994:1709) (GFP Act) serves

as the implementation mechanism for EU fisheries policy in Sweden. The Act provides necessary provisions for implementing the EU's common fisheries policy in Sweden, covering regulations on conservation and management of fishery resources, support measures within the framework of the common fisheries policy, and market regulation of fishery and aquaculture products. The Act delegates authority to the government or designated agencies to issue supplementary regulations needed for implementing EU regulations.

The Act on Fisheries Conservation Areas (1981:533) enables fishing rights belonging to or constituting two or more properties to be combined into fisheries conservation areas, with the rights holders forming associations

to coordinate fishing and conservation activities and promote their common interests. The formation process requires applications to the County Administrative Board, which evaluate proposed associations against criteria including suitability regarding the nature and extent of the water area and fisheries and other circumstances. The Act establishes procedures for association governance, including board composition and member voting rights on fishing assemblies, where each member typically has one vote. This system of local management through conservation area associations aims to provide flexible frameworks for accommodating both local recreational fishing and fishing tourism.

Sweden's fisheries legislation creates regional



variations in legal application. The presence of indigenous Sami communities in northern Sweden adds legal complexity, with traditional fishing rights recognized under the Reindeer Husbandry Act (1971:437) and an international convention creating exceptions to general fishing regulations. (The 2020 Supreme Court decision in the Girjas case (NJA 2020 s. 3) significantly clarified Sami fishing rights, establishing that the Girjas Sami village holds exclusive rights to grant fishing and hunting permits in its reindeer herding area based on *urminnes hävd* (immemorial possession). While this landmark ruling applies specifically to Girjas, it establishes important legal precedent that may influence future cases involving the other 50 Sami villages in Sweden.) Central Sweden's large lakes operate under public water regulations as specified in FIFS 2004:37, while southern coastal waters are governed by different regulatory frameworks under FIFS 2004:36. These regional differences reflect Sweden's approach of adapting fisheries management to local conditions while maintaining national conservation standards.

The primary challenge facing Swedish fisheries regulation is the complexity created by having separate laws for national and EU provisions. The Swedish Agency for Marine and Water Management has identified application problems where both the Fisheries Act and GFP Act may govern the same activity, creating enforcement complications and regulatory uncertainty. The agency has noted that current regulations create unnecessary compliance burdens due to overlapping authority and different penalty systems.

The Swedish government issued a committee directive (2022:92) calling for comprehensive modernization of the fisheries legislation. The

directive mandates consolidating the Fisheries Act and GFP Act into a single cohesive framework with a clear systematic structure adapted to new EU fisheries control regulations. The directive specifically addresses criminal provisions, seizure rules, and resource allocation between commercial and recreational sectors. The investigation was extended through directive 2025:44, and work continues on the comprehensive modernization.

3.3.5 Case study of the Mörrum and Byske rivers

The national recreational fishing survey described in 3.3.1 and 3.3.2 does not distinguish between tourist fishing and other recreational fishing, and since it is carried out through random sampling of Swedish households it does not include foreign fishing tourists visiting Sweden. Moreover, the regions used in the survey are quite large. This means that knowledge of the economic impacts of individual fishing destinations has been quite limited. A recent study commissioned by the Swedish Board of Agriculture and the Swedish Agency for Marine and Water Management (Lidberg et al., 2025) set out to quantify the effects of salmon and sea trout fishing tourism in two rivers, the Mörrum river in southern Sweden and the Byske river in northern Sweden, in terms of turnover, value added, and employment. These are both high-end fishing destinations that are known to attract many tourists, but the study was designed in such a way as to be easily replicated in other fishing destinations and so that the results would be easily comparable with those from the national survey.

The study was based on surveys sent to all anglers who purchased fishing permits in the two rivers: in Mörrum during the 2023 and

2024 seasons, and in Byske during 2024. In both destinations, a single actor manages almost all fishing permits and could therefore ensure that all anglers purchasing permits could be reached. Respondents were asked about their fishing activities, their travel and companions, and in particular their spending subdivided into categories similar to those used in the national survey. They also reported whether they had engaged in other activities beyond fishing. Respondents were divided into three groups: local anglers, who live permanently or part-time in the study area; domestic fishing tourists from elsewhere in Sweden; and international fishing tourists.

The results clearly show that fishing in these rivers is driven by tourism rather than local participation. In Byske, nearly half of all respondents were international visitors, primarily from Finland, while in Mörrum international visitors came mainly from Denmark and Germany and represented around forty percent of all anglers. In both destinations, about ninety percent of respondents, whether domestic or foreign, indicated that fishing was the main reason for their visit. Demographically, the survey population consisted overwhelmingly of men, with an average age just above fifty, and more than sixty percent of respondents had higher education.

Anglers spent on average about ten days per season fishing in these rivers, though local anglers tended to spend more days fishing than tourists. Most fishing was carried out as fly fishing, and catch-and-release was the dominant practice. Typically, anglers retained between 0.2 and 0.4 salmon and 0.1 to 0.3 sea trout during a season, while releasing about one salmon and one sea trout. This indicates that fishing activity, while economically

significant, placed relatively modest pressure on the fish populations per individual angler.

Interestingly, a substantial proportion of visitors also engaged in other activities. Around forty percent reported that they visited restaurants, went hiking, or took part in other outdoor pursuits such as cycling or hunting. Only a minority reported attending cultural activities such as concerts, museums, or theater. This suggests that while fishing is the key attraction, tourism linked to fishing spills over into other sectors of the local economy, particularly food and hospitality.

Expenditure data confirm that these fishing destinations generate much higher levels of spending than the Swedish national average for recreational fishing. The average spending per fishing day was over SEK 2,100 (EUR 189,92) in both destinations in 2024. This compares with the national average, mentioned previously, of roughly SEK 500 (EUR 45,22) per day. International visitors generally spent somewhat more than domestic tourists, particularly on accommodation and food. Local anglers spent the least, but their daily spending was still above the national average. Among



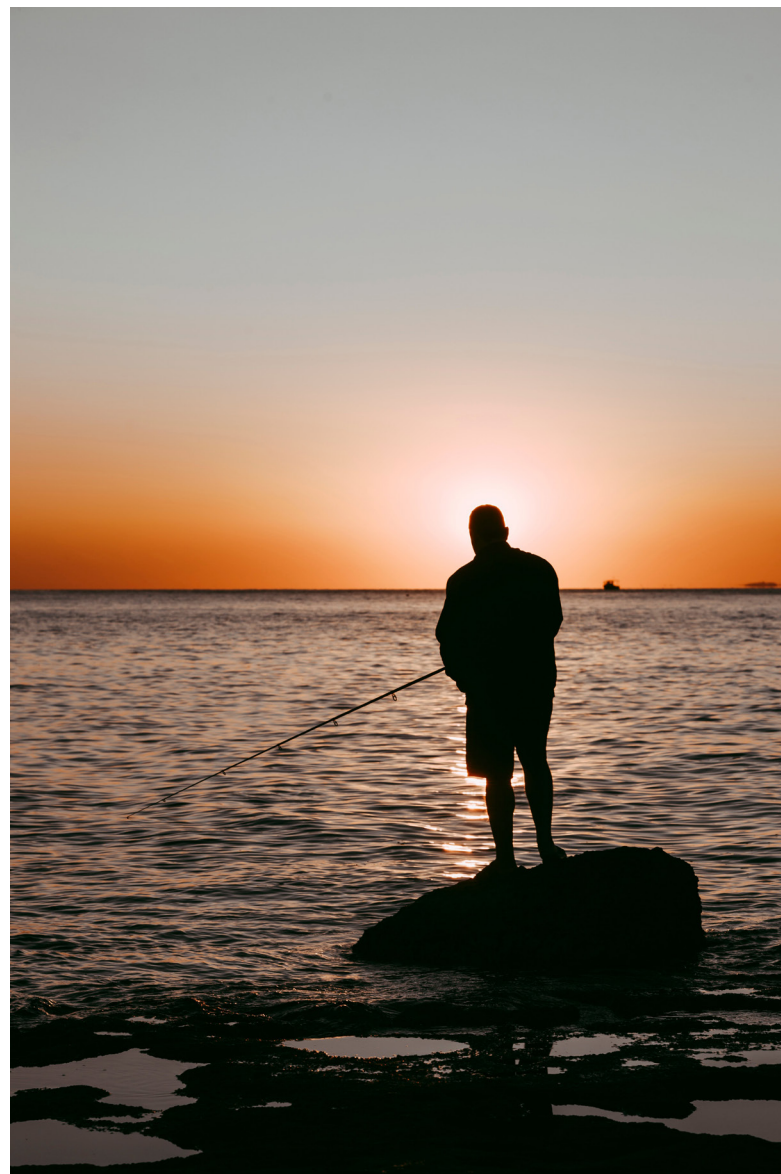
spending categories, retail purchases such as fishing equipment and clothing were the largest, though in Mörrumsån the high price of permits made these a significant expenditure item as well. Accommodation and food were naturally important for tourists, while guiding services represented only a small share of expenditure.

These expenditures translate into substantial regional economic impacts. By combining survey data with input-output statistics for Swedish industries, the researchers estimated the effects on turnover, value added, and employment. On a per-day basis, the value added generated by tourists ranged from SEK 1,100 (EUR 99,48) to 1,400 (EUR 126,62), some ten times the national average for recreational fishing. Employment effects per day were small in absolute terms, but still several times higher than the national average. Local anglers generated lower figures per day but still above the national norm.

When annual totals are considered, the scale of the contribution becomes clear. In 2024, fishing in Byske was estimated to generate a turnover of approximately SEK 13 million (EUR 1,18 million) and a value added of over SEK 7 million (EUR 0,63 million). In Mörrum, turnover was also about SEK 13 million (EUR 1,18 million), while value added was close to SEK 8 million (EUR 0,72 million). Despite differences in the mix of visitors – Byske had a larger share of internationals while Mörrum had more domestic tourists – the overall scale of the economic contribution was thus very similar.

The study highlights several broader insights. The international visitors are of particular interest, because they are previously underexplored in Swedish research and because

they would likely have spent their money in other countries if they had not chosen to visit these rivers. However, the results indicate that their overall spending levels are similar to those of domestic tourists. Moreover, the researchers found very high variance in spending among different anglers. While some spent modestly, others spent very large sums, suggesting that targeted marketing to attract high-spending segments could yield significant benefits. Finally, many anglers reported catching fewer fish than expected and many of those who had fished in the same area before noted that stocks had declined compared to previous years.



Overall, the study concludes that recreational salmon and sea trout fishing in the Mörrum and Byske rivers generates substantial regional economic effects that far exceed national averages per fishing day. Most of this is driven by domestic and international fishing tourists rather than local residents. Spending is concentrated in retail, accommodation, and food services, but also benefits other local businesses. Non-fishing activities further spread the benefits to the broader visitor economy. At the same time, the results highlight the need for sustainable fisheries management, since declining salmonid populations pose a long-term risk to the tourism that underpins these benefits.

3.3.6 Conclusions and discussion

Recreational fishing is both a widespread leisure activity and an economic contributor in Sweden. The analysis presented in this report shows that the sector's significance extends far beyond the catch itself, encompassing measurable financial impacts and considerable welfare value for participants.

In 2022, anglers in Sweden generated an estimated SEK 5.7 billion (EUR 0,52 billion) in turnover, equivalent to about SEK 4,700 (EUR 425,07) per participant or SEK 500 (EUR 45,22) per fishing day. From this turnover, about SEK 1.4 billion (EUR 0,13 billion) was value added, representing the direct contribution of recreational fishing



to Sweden's GDP. In employment terms, recreational fishing supported around 2,800 full-time jobs, mainly in retail, hospitality, and guide services.

The sector's economic effects have grown over the past decade. Both turnover and value added show long-term increases, and employment has become more concentrated in service-oriented sectors such as hotels, restaurants, and guided fishing. While retail remains the largest channel of spending, services generate more value added per SEK and create proportionally more jobs.

The welfare dimension, captured by consumer surplus, demonstrates that recreational fishing provides benefits beyond direct economic transactions. In 2022, the estimated surplus was about SEK 1.6 billion (EUR 0,14 billion), or SEK 109 (EUR 9,86) per fishing day. Over the last decade, annual values have fluctuated averaging around SEK 1.5 billion (EUR 0,14 billion). The distribution of this consumer surplus reveals important social patterns. Men account for the vast majority of the total consumer surplus, largely due to higher participation and more fishing days. Younger anglers enjoy slightly higher value per day, while older anglers accumulate a similar total due to greater effort. Inland residents and those in northern Sweden record higher values per day from their fishing.

Recreational fishing contributes significantly to rural and northern economies, creating jobs and income in areas where alternative industries may be limited. Service activities linked to the fishing, such as guiding and fishing tourism, potentially represent growth opportunities with high value added and employment effects. At the same

time, maintaining healthy fish stocks and accessible waters is essential to preserve the economic impacts and values generated by recreational fishing.

The regulatory analysis reveals a complex dual system where both national Swedish law and EU regulations govern recreational fishing, creating potential barriers to the sector's economic development. The ongoing legislative modernization effort (directive 2022:92) to consolidate the Fisheries Act and GFP Act represents a critical opportunity to reduce compliance burdens that may discourage both domestic and international fishing tourism. Given the substantial economic impacts demonstrated in destinations like Mörrum and Byske – where fishing generates some ten times the national average in value added per day – regulatory clarity becomes not just a legal necessity but an economic imperative. The current system's complexity, with overlapping authorities and different penalty frameworks, may particularly affect international visitors who contribute importantly to local economies yet are the most vulnerable to unclear access rules and permit requirements. Streamlining these legal frameworks could unlock further tourism potential while maintaining conservation standards.

Reliable indicators strengthen the basis for management strategies and public investment decisions. The annual national survey provides a strong foundation for monitoring the sector.

Future work may benefit from the kind of deeper regional analysis displayed in the case study. Such work will help ensure that management strategies remain fact-based and aligned with ecological, social, and economic sustainability.

3.4 Finland

Authors: Heidi Pokki and Jani Pellikka, Natural Resources Institute Finland (Luke)

3.4.1 Description of the case

Recreational fishing is a popular leisure activity in Finland and 1.5–2 million Finns go fishing every year (OSF 2025). The most common fishing methods are hook and line, ice fishing in winter, spinning and trolling, and popular target species are perch, pike, pikeperch, salmon and whitefish. The annual catch of recreational fishers has been over 30 million kilos in the recent years (OSF 2025). Catch obtained by recreational fishers makes up a substantial amount of the total fish supply in Finland (31,000 tons) and is almost half of the size of commercial catch (Figure 14).

Recreational fishing and fishing tourism

has a significant role in nature-based tourism sector both economically and recreationally. In 2018, it generated hundreds of millions of euros in consumption and almost half a billion euros in recreational value (Pellikka et al. 2021). The Finns make commonly trips that include fishing among other activities, and travelling between regions for fishing is rather common especially among most active anglers and for fishers living in Uusimaa (Pellikka et al. 2021). The most popular domestic destinations locate in Lapland and the lake areas of Eastern Finland (Pellikka et al. 2021). Recreational fishers are willing to travel to reach attractive fishing grounds (Pokki et al. 2018) and most of them are also ready to spend money on services provided related to domestic fishing tourism; recreational fishers spent EUR 36 million for accommodation,

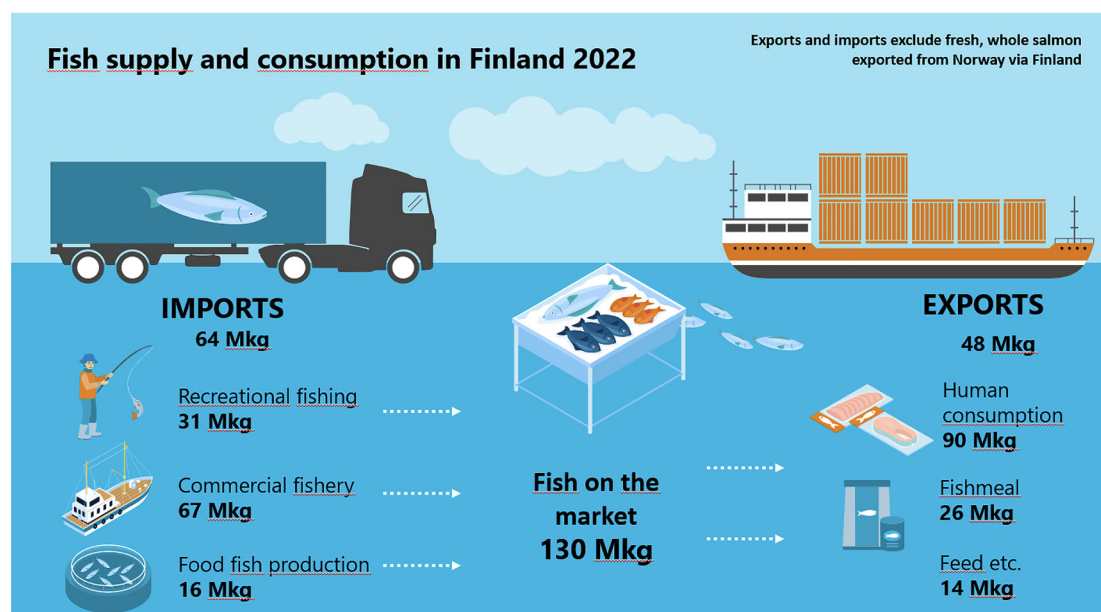


Figure 14. Fish supply and consumption in Finland 2022 (Natural Resources Institute, Luke).

restaurants and other services in 2022 (Pokki et al. 2024). Fishing as a recreational activity creates well-being and value to the fisher, and the money spent on fishing trips creates income and employment for the local economies. The connection between recreational fishing and tourism, and the value of recreational fishing and its local economic impacts has been studied nationwide in a few studies in recent years (Pokki et al. 2024a; Pokki et al. 2020).

Fishing tourism in Finland has traditionally relied largely on salmonids, and the spending of fishing tourists has been particularly high in Lapland, as fishing tourists need catering and accommodation services in remote destinations where the supply of services is otherwise limited (Tiitinen 2007). However, the fishing tourism based on salmon has been more limited in Lapland in the recent years as there has been a salmon fishing ban on the River Teno which has affected the livelihoods of tourism entrepreneurs in Utsjoki.

This case describes the volume of domestic tourism related to fishing in Finnish regions using statistical data and gathering previous research. Additionally, the previous research on economic value of recreational fishing, as well as the regional economic impacts of recreational fishing are presented. The study also presents various consumer profiles that have been identified among travelling recreational anglers in Finland (Pokki et al. 2024b). Regulatory framework related to fishing tourism is also considered and other challenges associated with Finnish fishing tourism are discussed. Furthermore, existing literature will be used to explore how fishing tourism could be developed and its value creation increased.

3.4.2 Research question, method and data

Research questions for the Finnish case study are:

- What is the volume of domestic tourism related to fishing in different regions?
- What is the economic value of recreational fishing?
- What are the regional economic impacts of recreational fishing, including employment effects?
- What kind of consumer profiles Finnish recreational fishers have?

This report compiles data from previous studies to give an overview on the recreational fishing tourism by Finns in recent years. The volume of domestic tourism related to fishing was studied by Pokki et al. (2024a) using data from biannual recreational fishing survey carried out by Natural Resources Institute Finland (Luke) on fishing activities in 2022. In addition, the monetary value of recreational fishing was calculated with travel cost method using data from the same recreational fishing survey.

Economic impacts and employment effect were also estimated in the same study using input-output method (Pokki et al. 2024a). Luke has also studied the consumer profiles of recreational fishermen using latent class analysis (Pokki et al. 2024b).

Studies presented in this report utilize data primarily from the Natural Resources Institute Finland's (Luke) recreational fishing statistics (OSF 2025), data from the survey 'Recreational Fishing with Lures in Fisheries Management Areas' (Pellikka et al. 2024), and materials produced by the fishing tourism development working group (Ministry of Agriculture and Forestry 2023).

3.4.3 Recreation fisheries

In the Finnish context, fishing tourism is typically defined as travelling with the main purpose of fishing and which is expected to generate tourism income for entrepreneurs. A fishing trip can be either independent/self-guided or guided, and it often includes tourist services, such as accommodation, restaurant services and transportation. Fishing tourism can be part of local economic activities and can have a significant impact on the region's economy and culture. (Lämsman, Kuusela & Niemelä 2017; Kauppila et al. 2011; Tiitinen 2007) Fishing tourism has been particularly important for communities where salmon fishing in free flowing rivers attract tourists from all over Finland in the summer fishing season. For example in Utsjoki, the fishing tourism has previously been the main driver of tourism and the regional economic impact of salmon fishing in River Teno was EUR 4 million in 2018 (Knuuttila et al. 2020).

Recreational fishing, on the other hand is a broader concept than fishing tourism and refers to a wide range of activities in which the purpose is to catch fish or other aquatic organisms mainly with a hook and line for pleasure, recreational, relaxation or household use (Pawson et al. 2008). It includes also fishing as secondary activity of the trip and subsistence fishing. In different practical case studies, domestic fishing tourism has been seen part of the recreational fishing; a situation in which a recreational fisherman has to travel to fish and often outside his or her own region (Pellikka et al. 2021).

In this case study, we broaden the outlook on fishing tourism and its value creation

by examining the fishing tourism regionally instead of local case concentrating on a single fishing destination. In our case we define fishing tourism to include all types of recreational fishing when travelling further away from home (i.e. to different regions, etc.), in which case it generates costs and consumption.

Economic value of fishing tourism can be viewed from several perspectives. Value of catch made by recreational fishers can be measured economically, but it does not give full picture of all economic activities that recreational fishing creates. Majority of the economic value created comes from the recreational experience, and the economic activities, the fisher creates while going on a fishing trip. Recreational use value is the monetary measure of the welfare benefit individuals receive from participating in recreational activities, such as fishing, which are not directly bought or sold in markets.

It reflects the consumer surplus – the difference between what individuals are willing to pay for the recreational experience and what they actually pay (Milovanska-Farrington 2025). Whereas regional economic impact the recreational fisheries creates accounts for both direct and indirect effects of the money spent on recreational fishing trips and consuming different items and services on the trip.

From the resource management and decision-making point of view the economic value can be analysed in two ways: with economic activity analysis or social cost-benefit analysis (Scheufele & Pascoe 2022). These two methods are complementary but serve diffe-

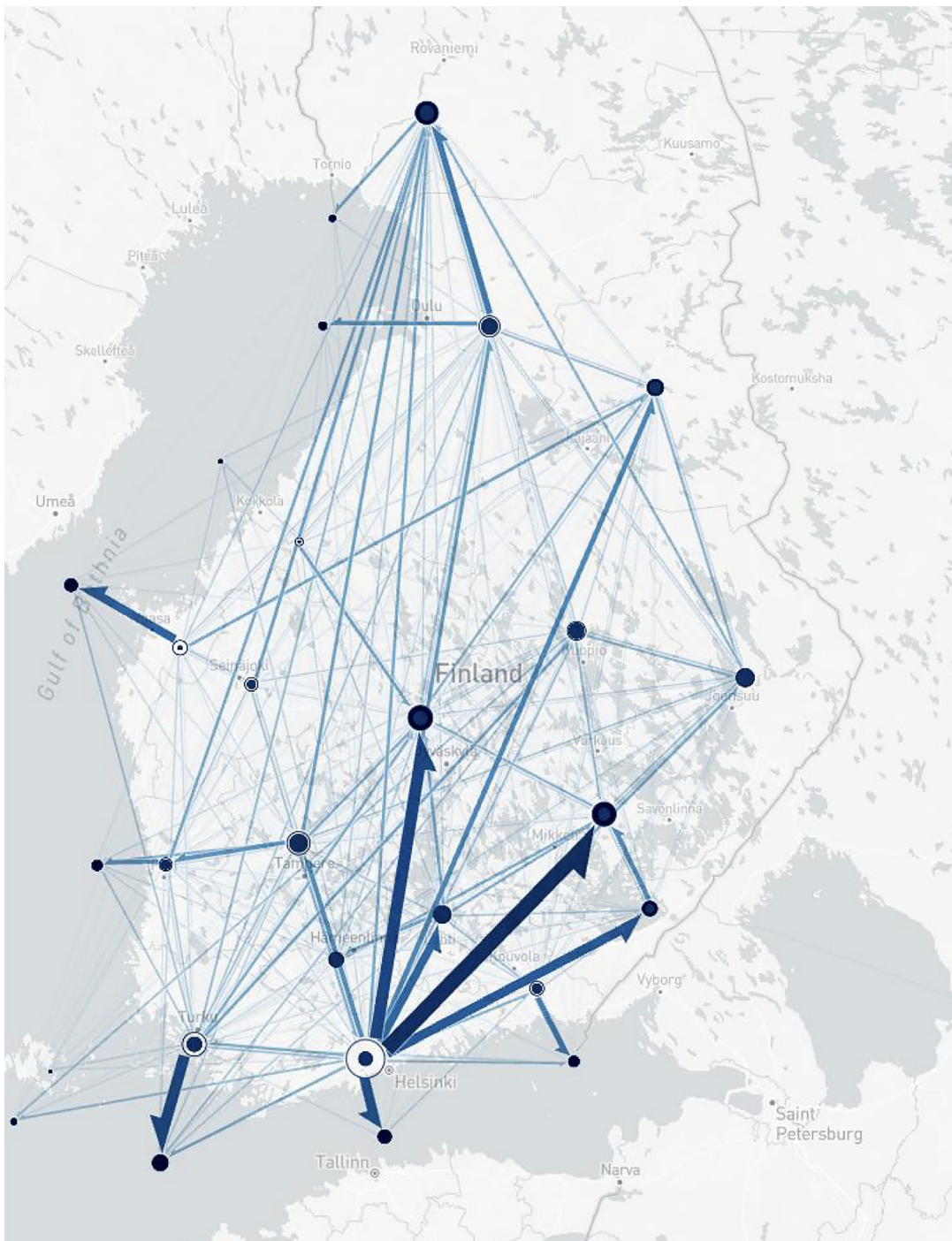


Figure 15. Fishing destinations of persons who have paid the fisheries management fee in 2018. The thicker the arrow, the greater the number of passengers. The whiter the circle, the more the 'net number' of fishermen travelling (Source: Pellikka et al. 2021).

rent purposes, and economic value is defined in each method differently. In the Finnish case, we are looking at the economic value of travelling recreational fishers from both complementary angles.

In practise an economic activity analysis is used to evaluate recreational fishers' money spending and to assess what kind of contribution the fishers' expenditure makes to a

region's overall economy. If the aim is economic efficiency and to assess the resource allocations' overall impact on social welfare, the appropriate approach is to use economic value as defined in microeconomic theory, typically through social cost–benefit analysis and estimating non-market benefits created by recreational fishing experience (Scheufele & Pascoe 2022).

Volume of domestic tourism related to fishing in different regions

The nationally comprehensive recreational fishing statistics is published every two years by Natural Resources Institute Finland (Luke) including statistics on the number of fishers, the number of fishing days, catches and fishing gear used. Some of the information is also published at the regional level. Approximately one-third of Finns engaged in recreational fishing and there were around one million household-dwelling units in Finland that had fished in 2022 (OSF 2025).

Recently also the volume and costs of fishing trips made by Finnish fishermen was studied by Luke using data collected on biannual recreational fishing survey (OSF 2025). In total more than 9 million day trips and 3.8 million overnight trips were made by the fishers from 600 000 household dwelling units. The breakdown by region is shown on the map in the Results section (Figures 16 and 17). In overnight trips fishers spent 5.2 million fishing days in total in 2022 (Pokki et al. 2024a).

The number of fishing trips made by Finns have been studied nationwide also by Pellikka et al. (2021). The collected data contain also information of the fisher's residence and fishing destinations (regions) and enables at the coarse level describing the travelling directions related to fishing (e.g. in 2018, Pellikka et al. 2021):

As seen from the figure 15, fishers often travel to fish outside their own region, especially fishers from Uusimaa, of which as many as 52% fished only outside their home region in 2018. The most popular destinations in 2018 were Lapland (118,500 visitors), South Savo

(80,000), Central Finland (64,000) and the most popular sea areas for recreational fishers were the Gulf of Finland and the Archipelago Sea.

Consumer profiles identified among recreational anglers

Consumer profiles have previously been studied relatively little in Finland in relation to recreational fishing. Finnish recreational fishers have been profiled by Pellikka and Eskelinen (2019) according to i.e. fishing activity, gear used, travelling, age group and spending on fishing. Versatile Gillnet enthusiasts are the ones who spend the most and casual anglers spend the least time on fishing. Active generalist fishers have the main focus on gillnet fishing. In the profiles of casual and active anglers, the activity is strongly focused on rod fishing. Active anglers travel the most in Finland and abroad.

Fisher's spending seemed to be strongly related to fishing gear-type profile and fishing activity. The fishers classified to profiles "Active anglers" and "Gill net enthusiasts" spent the most money, active anglers more on travel, and both on fishing equipment and services, among other things. "Casual anglers" and gear-type "generalists" spent less money but formed a large potential customer segment. (Pellikka & Eskelinen 2019)

Economic value of recreational fishing

The economic value created by a recreational fishing or fishing tourism from the perspective of money spent has been studied in several cases in Finland (Pellikka & Eskelinen 2019, Pellikka et al. 2021, Pellikka et al. 2023).

According to Pellikka et al. (2021) fishers that paid the fisheries management fee (that allow using large variety of fishing gear, see chapter 3.4.5. for details)) spent a total of EUR 185.5 million on the running costs of fishing in 2018. The largest expense item was fuels, EUR 60 million. Accommodation accounted for 20% of running costs, groceries for 18% and fishing permits for 12 %. Those fishers that were fishing in several regions spent expectedly more money on average than those who fished only in one. However, there were significant differences between the destination regions in the use of money allocated to them. The largest amount of money was spent on fishing in Mainland Finland in Lapland, and the least money was spent in Ostrobothnia. The economic value of a fishing day in 2018, estimated with travel costs method, was 104 euros per fishing day in Finland as a whole and higher in the marine areas (140 euros per day) than in the inland (Pellikka et al. 2021).

The spending of money in fishing seems to be strongly related to the fisher's profile, age and travelling (Pellikka et al. 2023). In general, those who have paid the fisheries management fee spend more money on fishing than others. Occasional anglers have become more common in Finland, but they spend less money than, for example, active anglers. Data on spending for recreational fishing trips is also useful for defining the economic value for an average fishing trip or a fishing day. In 2020 the economic value of an average day fishing trip in Finland estimated with travel cost method was 52 euros while the overnight trip was 137 euros (Pellikka et al. 2023). In

the most popular salmon rivers, the value of a fishing trip (accounting for the time cost of travel) was 338 euros in Teno River in 2011 and 121 euros for short (2 days or less) and 159 euros for longer visits in Tornio River in 2016 (Pokki et al. 2018, Pokki et al. 2020).

Regional economic impacts of recreational fishing

The effects of recreational fishing on the regional economy at the level of the whole country have previously been studied regarding year 2013, when the direct income effect in the regions was in total EUR 4.7 million and the total income effect (accounting for also indirect effect) was EUR 8.8 million, while the employment effect was 74 FTEs (Vatanen 2015). In addition, the regional economic impacts of fishing tourism have been studied in the Tornio River (Pohja-Mykrä et al. 2018) and the Teno River, especially in relation to salmon fishing (Knuuttila et al. 2020). Previous studies have shown that the economic impacts of recreational fishing and fishing tourism can be very significant from the perspective of the local economy, especially in the most popular salmon fishing destinations. For example, the regional economic impact of fishing tourism on the Tornio River has been estimated to be EUR 10.8 million (Pohja-Mykrä et al. 2018) and the impact of salmon fishing in the Teno River on the local economy of Utsjoki was more than EUR 4 million in 2018 (Knuuttila et al. 2020). However, recent challenges with the salmon fish stocks and related fishing restrictions have affected drastically the fishing tourism in Teno and also to some extent Tornio River. Salmon fishing in the Teno River

has been prohibited since 2021 due to weak Atlantic salmon run and the weak salmon run in the River Tornio in the summer of 2023 led to a shortened fishing season (Pokki et al. 2024a). More detailed information on the regional economic impacts of the whole country at the regional level would help to understand the magnitude of the economic significance of recreational fishing and domestic fishing tourism in different parts of Finland.

3.4.4 Commercial fisheries

As the Finnish commercial fisheries does not play an important role in promoting recreational fishing or fishing tourism, this case study concentrates solely on recreational fishing. Fisheries managers face the challenge to decide how to allocate the available fish resources between competing uses, such as commercial and recreational fishing. The debate on who is allowed to fish for the scarce salmon resource in the Gulf of Bothnia is most active in Finland at times of poor state of salmon stocks. This issue is most relevant, and it has a particular impact on recreational fishing and fishing tourism in the Tornio River and the Simojoki River. Allocation of fish resources (more specifically salmon) between commercial fishermen and recreational fishers has been studied from an economic point of view previously by Storhammer et al. (2011), but more updated information would be needed for the fisheries management. The state of salmon stocks in Finnish salmon rivers has been worrying in recent years, especially with regard to the Teno River and the Tornio River, and well managed salmon stocks and sustainable fishing in both marine areas and rivers is a basic prerequisite for fishing tourism in the north.

3.4.5 Laws and regulations

Fishing is generally regulated by catch quotas, time limits and fishing gear restrictions, which safeguard the conservation of fish stocks with the aim of maintaining sustainability of fishing (Muje et al. 2019). The Fishing Act (379/2015) defines fishing rights, fishing methods and fisheries control in Finland, and contains provisions on fishing restrictions, closed seasons and minimum sizes for catch. The fisheries management fee is a fee for recreational fishers charged by the state and the revenues are used for the management of fishing waters, securing the sustainability of fish stocks and the control of fishing. Paying the fee enables recreational fishers (including international fishing tourists) at age 18–66 (in 2025) to use large variety of gears or technique in addition to the ones than are allowed freely to everyone (i.e. hook and line fishing, ice fishing and fishing Baltic herring with a rod and vertically moved hooks attached to a line). A relevant rule from the perspective of fishing tourist is that the paying of the fisheries management fee allows lure fishing (with one rod and one lure) most water areas in Finland. For other forms of fishing (e.g. net fishing) and special sites (e.g. some stream areas), the permits must be paid for (joint) water owners.

According to Government Decree (716/2024), a catch report must be submitted from 2025 onwards for certain endangered fish species (e.g. salmon, trout, eel), including released fish. Fishers, including international fishing tourists (or their guides/service provider), can report their catches electronically through the Omakala mobile application or the online service (<https://omakala.fi>).

Fishing tourism companies need a permit

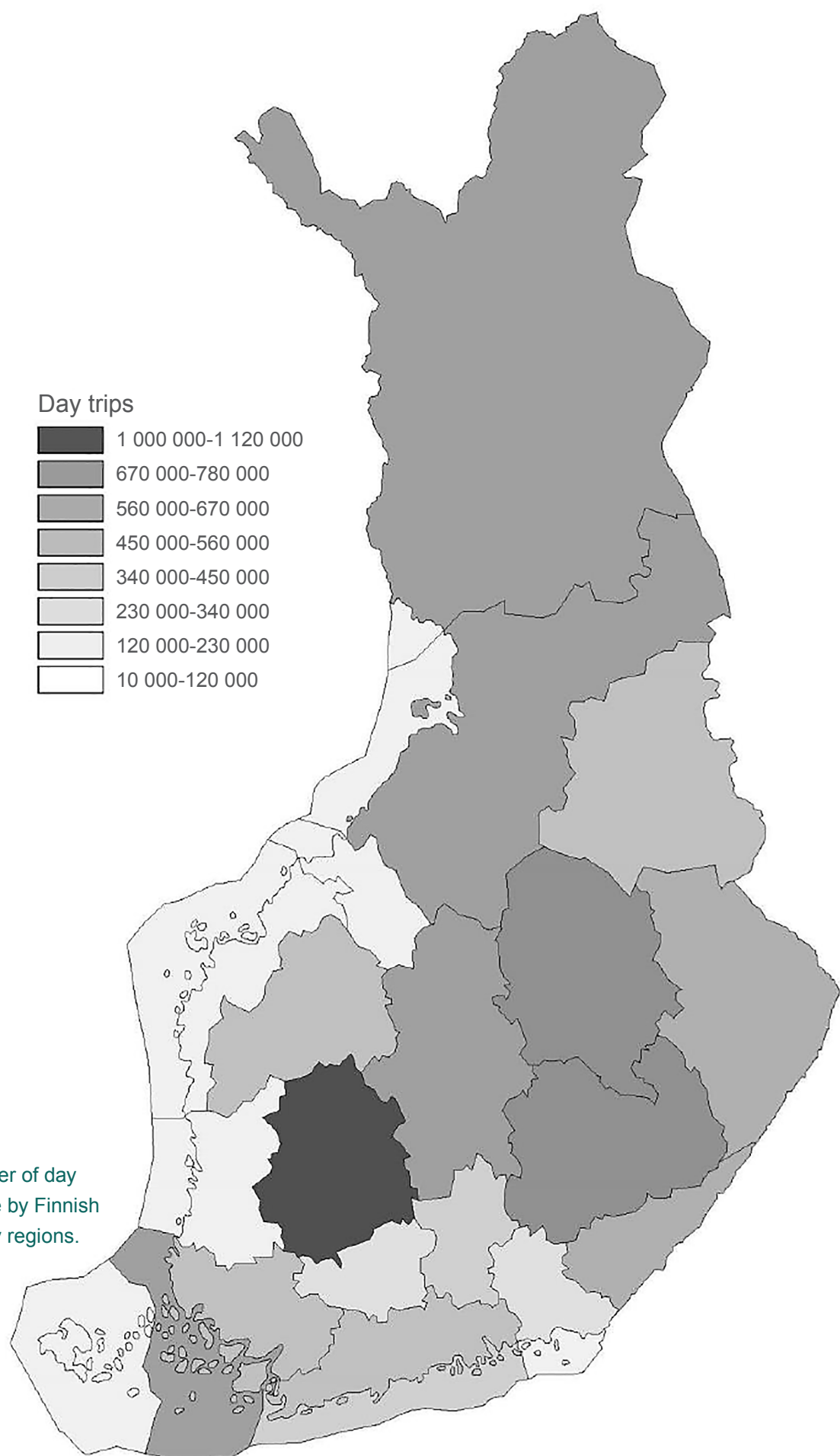


Figure 16. Number of day fishing trips made by Finnish fishers in 2022 by regions.

Overnight trips

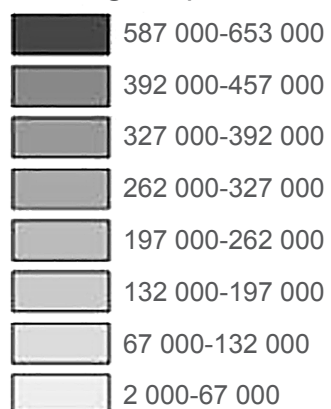
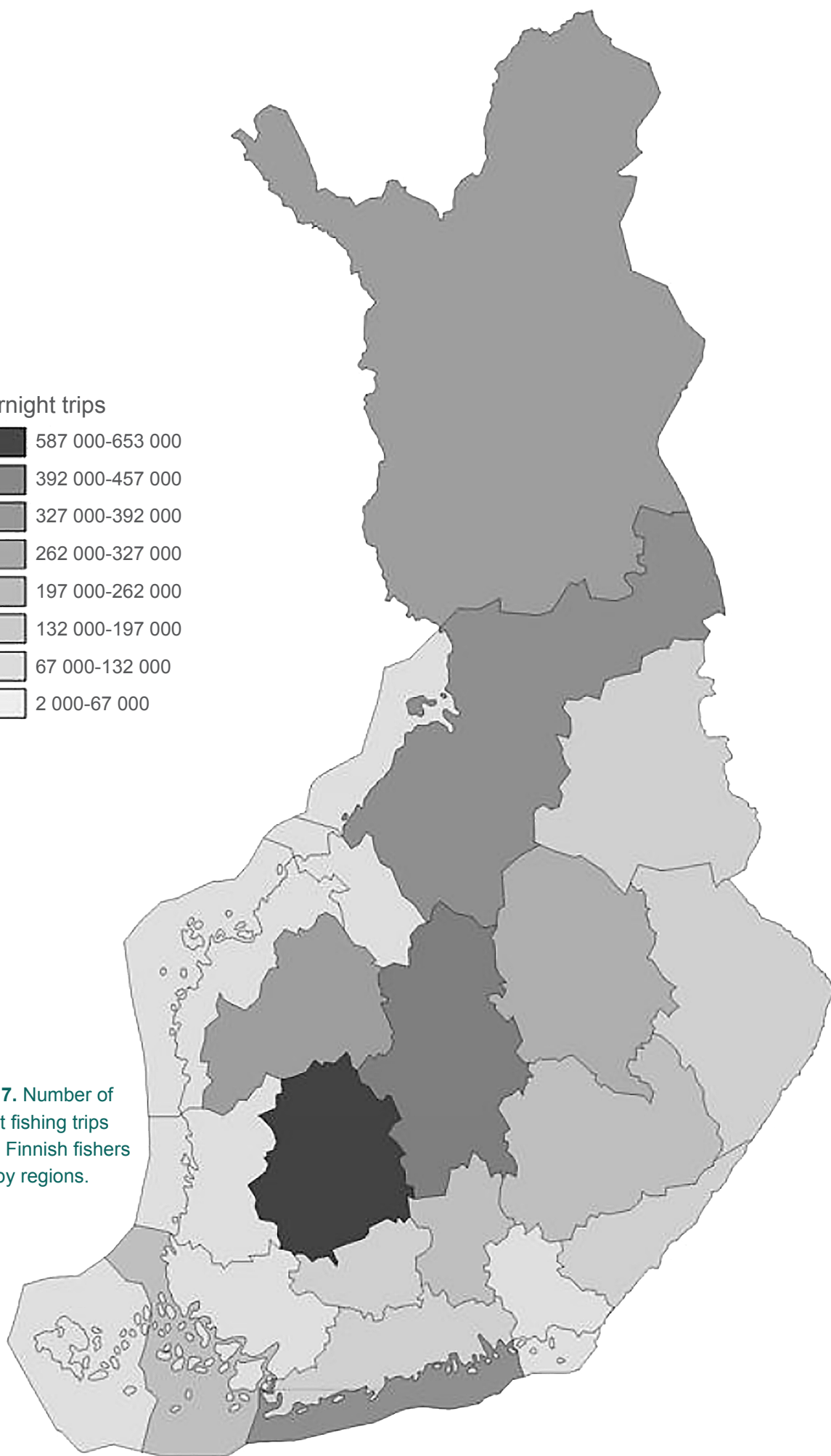


Figure 17. Number of overnight fishing trips made by Finnish fishers in 2022 by regions.



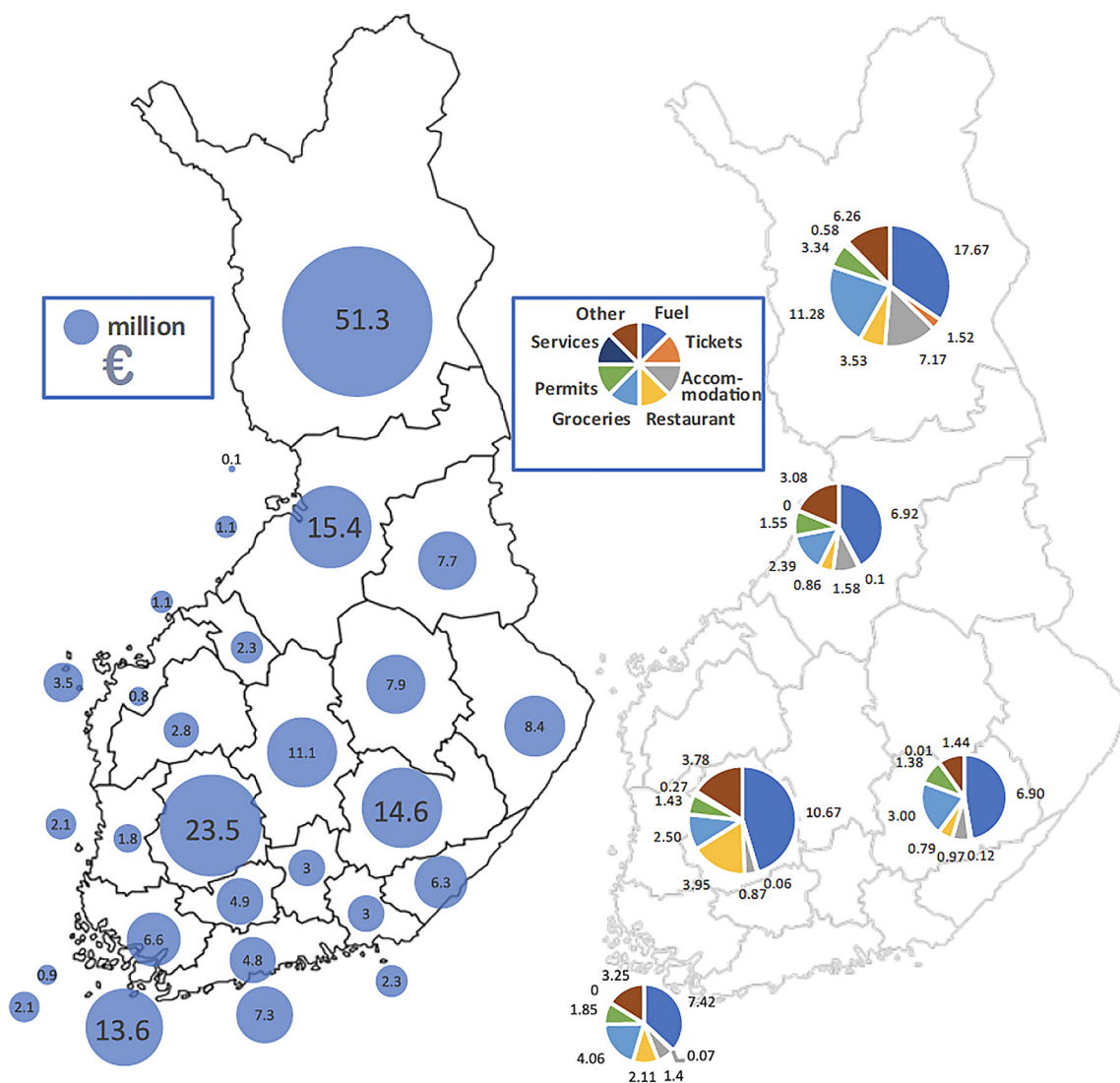


Figure 18. Household expenses (MEUR) on recreational fishing in 2022 (Pokki et al. 2024a).

from the owner of the water area, the state or the fishing area. If the permit is not granted, the ELY Centre may grant a limited permit that allows a maximum of six clients at a time.

The plans for the 2019 fisheries areas have defined many areas as suitable for fishing tourism, which is positive for the fishing tourism industry.

However, the ELY Centre's customer restrictions and the rigidity of the permit procedure

are seen as obstacles to growth. (Ministry of Agriculture and Forestry, 2023)

3.4.6 Results

Volume of domestic tourism related to fishing in different regions.

The regional distribution of fishing trips (day and overnight trips) made by Finnish recreational fishers in different regions and marine areas in 2022 are presented in Figures 3

and 4. Most trips were made in Pirkanmaa region; 1.1-million-day trips and 653,000 overnight trips. Majority of the trips were made by fishers living in Pirkanmaa region. The second highest number of day trips were made to North Savo (690,000 trips), South Savo (683,000 trips) and the sea area of Southwest Finland (586,000 trips).

After Pirkanmaa, the highest number of overnight fishing trips were made to Central Finland (421,000 trips) and the Uusimaa sea area (361,000 trips). (For more detailed data see Pokki et al. 2024a).

Consumer profiles identified among recreational anglers

In Luke's study on recreational fishers in the fisheries management fee register, six different consumer profiles were identified: High-spending Avid fishers, Moderately High-spending Active fishers, Occasional Travel fishers, Active Local fishers, Occasional Local fishers and Unidentified Spending Patterns (Pokki et al. 2024b). There were differences between the profiles in terms of fishing activity, fishing methods and spending, among other things. In particular, there were differences between the profiles in terms of the amount of money spent on travel and fishing equipment.

Looking at the cost structure of different profiles, the common feature was that travel costs were a significant expense across all consumer profiles. Fishers in the profiles spending the most money on fishing, also used fishing services (guided tours and program services) most often, although the fishing services were in general rarely purchased. High-spending profiles (High-spending Avid fishers, Moderately High-spending Active fish-

ers) were also ready to invest more in fishing equipment and boats.

Running costs of fishing were modest in profiles "Active Local Anglers" and "Occasional Local Anglers" and seems to be an indication of independent fishing. However, "Active Local Anglers" were willing to invest in a boat and fishing equipment. In the highest-spending profile, fishing was considered the most important leisure activity and the spending per persons among this type of profile increased from 2018 to 2022. In addition, the relative share of travel costs in overall spending increased in most profiles from 2018 to 2022.

Money spent by recreational fishers

Trips related to recreational fishing accumulated 210 million euros of costs for 440 000 households in 2022, which makes 480 euros per household and 205 euros per fisher (Pokki et al. 2024a). Figure 5 shows the total household expenses on recreational fishing by region (map on the left) and distribution of consumption into different cost items in the five most important regions of Finland in terms of spending (1. Lapland, 2. Pirkanmaa, 3. North Ostrobothnia, 4. South Savo, 5. Southwest Finland).

The most fishers spent in Lapland (MEUR 51.3), Pirkanmaa (MEUR 23.5) and South Savo (MEUR 14.6). In general, majority of the spending went on fuel and groceries, while accommodation expenditure was highest in Lapland.

Economic recreational value of fishing

In 2022, the average consumer surplus for fishing trip made by Finnish recreational fishermen was EUR 61 per day trip and EUR



Figure 19. Economic impact of recreational fishing in 2022 (Natural Resources Institute, Luke).

115 per overnight trip. From the point of view of recreational value, the most significant regions were Pirkanmaa, North Ostrobothnia (including marine fishing), Central Finland, North Savo and Lapland (including marine fishing) in 2022 (Pokki et al. 2024a). However, this study used only one travel cost model for the whole country, and thus it lacks the variation of the consumer surplus per visit in different regions and the value is affected mostly by the number of visitors in the region. Economic value of fishing tourism was previously analysed using region specific travel cost models, and the value was found to be highest for the mainland in Lapland, EUR 50 million while the value was EUR 89 million in the entire sea area in 2018 (Pellikka et al. 2021). In 2022, the total recreational value of Finnish recreational fishermen on daytime and overnight trips totalled EUR 990 million

(Pokki et al. 2024a), while it was estimated to be EUR 890 million in 2018 (Pellikka et al. 2021).

Regional economic impacts of recreational fishing

Regional economic impacts of recreational fishing in 2022 in Finland are presented more broadly in the Natural Resources Institute Finland's report (Pokki et al. 2024a) and are summarized as follows. From the perspective of the regional economy, the regions in which fishers have spent the most money on recreational fishing appear to have the most economic and employment impacts. The largest value added of EUR 9.3 million was generated in the region of Lapland, which is central to fishing tourism, while the value added of recreational fishing in the region of Pirkanmaa, which is the most significant in terms of the volume of fishing trips, was EUR



4.4 million. Recreational fishing in Southwest Finland was the third most significant region in terms of economic and employment impacts, when the effects of fishing in the sea area are also taken into account. Recreational fishing created 1021 jobs in Finland and created EUR 54 000 value added in the Finnish economy (Figure 19). Value added was approximately 30 euros per fisher in 2022. In addition, the value of recreational catch was EUR 99 000, but as recreational fish is not defined as a productive industry, the value added, and employment effect were not calculated separately for the catch.

3.4.7 Discussions

Previous sections presented the economic value and significance of fishing tourism by Finns the way we broadly defined fishing tourism in Finland, including also recreational fishing where fishing can be the auxiliary activity of a fishing trip. Although recreational fishing and fishing tourism are clearly activities generating economic benefits and employment regionally, is there still untap-

ped potential in fishing tourism? Finland has good conditions for fishing tourism thanks to its diverse waterways, fish species and clean and peaceful nature (Ministry of Agriculture and Forestry 2023). Foreign tourists bring in significant income, especially when using guide services, although recent times have not been easy for the tourism sector. The number of domestic customers in fishing tourism has increased, partly due to urbanisation and during the COVID19 pandemic (Ministry of Agriculture and Forestry, 2023). How could the regulatory framework relate to fishing tourism be further improved and how could fishing tourism be developed to gain higher value for the sector?

The development of fishing tourism in Finland is largely based on the activities of individual entrepreneurs, and the growth of the sector is hindered by the lack of resources and sufficient expertise. Cooperation with other operators in the tourism industry and national marketing could improve the visibility and attractiveness of the sector. Entrepreneurs

need support for investments and training in customer service and marketing, among other things to improve business profitability.

Activities of fishing tourism entrepreneur are often multidisciplinary due to the seasonal nature of fishing, and the lack of year-round activities also makes it difficult to hire skilled employees. Entrepreneurship is often based on own fishing hobby, but the development of the industry requires wider recognition and support (Ministry of Agriculture and Forestry 2023).

The challenges related to the regulation of recreational fishing are various. The populations of several species, such as salmon and trout, have declined, which has led to strict fishing restrictions. Different water areas have different rules, which can confuse fishermen and make it difficult to follow the rules. Submitting catch reports can be difficult, especially for occasional or older fishermen, even though electronic tools are nowadays available. The monitoring of large water areas is challenging due to scarce resources. In addition, warming waters and changing ecosystems affect the living conditions of fish and may also change the need for regulation rapidly.

Fishing tourism has faced challenges in recent years due to the COVID19 pandemic, weakening economic situation and war between Ukraine and Russia, which has reduced the number of foreign tourists. In addition, the poor state of fish stocks and fishing restrictions, such as salmon fishing bans on the River Teno and restrictions on the River Tornio and sea areas, have hampered operations (Pokki et al. 2024a). However, increase in the number of pink salmon especially in odd years in the River Teno may also create new opportunities for fishing tourism in Utsjoki (Orell & Erkinaro 2023).

Satokangas, Soppela, & Ranta (2022) studied

the state of fishing tourism in Finland and its development needs. They concluded that in order to develop fishing tourism, the structure of the sector should be strengthened, and permit practices and regulation should be clarified. A uniform permit system would make it easier for tourists to participate. Moreover, a better understanding of tourism target groups and targeted marketing would also promote fishing tourism, as the needs of international customers differ from those of domestic customers. The sustainability and responsibility of fishing and the good management of fish stocks are basic prerequisites for the vitality of fishing tourism. Regions can also specialize on promoting different fish species and fishing methods, which means that there is not necessarily competition for the same customer groups.

In fishing tourism, value is not determined solely by the catch caught, but value is created by experiences, services, accommodation and ancillary activities. Intensified cooperation with other tourism operators, e.g. Nature tourism or food tourism could increase the value of fishing tourism (Satokangas, Soppela, & Ranta 2022). Future development of fishing tourism could also be supported by improving the services of new fishing destinations, attracting new enthusiasts, and strengthening the awareness and brand of Finnish fishing tourism (Pokki et al. 2024a). The effective development of fishing tourism could also take into account the different value base of fishermen, so that fishing services can be targeted at the right customer segment. For example, consumption- and service-oriented fishermen interested in a high catch rate could be directed to nearby destinations, and active fishermen looking for peace or novelty could be directed to more distant destinations (Komppula et al. 2020).

4 Discussion

This study has demonstrated that angling and other forms of recreational fishing in the Nordic countries represent a significant economic sector with multiple roles. They generate direct economic value, support rural and remote communities, contribute to the development of tourism, and carry important cultural significance. Yet, the country-specific cases show that conditions, opportunities, and challenges vary considerably depending on national traditions, regulatory frameworks, ecological conditions, and market structures.

Iceland

In Iceland, recreational fisheries constitute a valuable industry, with salmon angling in rivers and sea angling in the Westfjords both contributing substantially to local economies. International visitors are willing to pay premium prices for access to high-quality rivers, creating significant revenues for landowners, angling associations, and related industries. At the same time, this demand raises questions about equity and accessibility for domestic anglers. The case of Súðavík illustrates how sea angling can be an important driver of rural sustainability, generating jobs, processing activities, and tax revenues in a small community. However, the ecological risks posed by aquaculture—particularly genetic mixing and escapes of farmed salmon—threaten the long-term sustainability of wild salmon stocks and, by extension, the industry itself. To harness growth opportunities without jeopardizing ecosystems, Iceland requires more effective regulation, stronger mar-

keting strategies, and closer integration of recreational fishing with other branches of nature- and culture-based tourism.

Norway

Norway highlights the tension between global export capacity and deeply rooted local traditions. Northern Norway remains a stronghold of cod and other groundfish, but conflicts between commercial fleets, small-scale coastal fishers, local residents, and the rapidly expanding marine angling tourism sector are intensifying pressure on limited stocks. The decline of coastal cod has sharpened these disputes, prompting new regulatory measures, including reduced export allowances, mandatory registration, and stricter quotas for tourist fisheries. These policies reflect the inherent difficulty of balancing ecological sustainability, fairness, and economic development. While commercial fisheries continue to dominate in scale, recreational and tourism-based fishing contributes significantly to welfare, income diversification, and community resilience. The Norwegian case illustrates both the opportunities and governance challenges that arise when reconciling competing stakeholder interests in ecologically sensitive systems.

Sweden

In Sweden, recreational fishing is among the most popular outdoor activities, with over one million annual participants and a turnover of SEK 5.7 billion (EUR 0.52 billion) in 2022. The impacts extend well beyond direct retail sales, as associated services—guiding,

accommodation, and hospitality—generate proportionally greater value added and employment, supporting approximately 2,800 full-time jobs. Moreover, the estimated consumer surplus of SEK 1.6 billion (EUR 0,14 billion) underscores the broader welfare and social benefits of the activity. Nevertheless, a complex regulatory environment, where national legislation intersects with EU regulations and local management, creates barriers for both domestic and international anglers. Case studies from the Mörrum and Byske rivers highlight the significant local economic impacts when stocks are healthy, but the recent decline of salmon and sea trout populations demonstrates the urgent need for sustainable management to secure long-term value creation.

Finland

The Finnish case illustrates both significant opportunities and a fragile trajectory. Finland has some of the highest participation rates in Europe, with recreational catches reaching up to half of the national total. The domestic market has grown, particularly due to urbanisation and the COVID-19 pandemic, while international visitors – especially salmon anglers – contribute important but volatile revenues. However, the sector is fragmented, dominated by small-scale entrepreneurs with limited capital, highly seasonal operations, and little coordinated strategy. The salmon fishing ban in the River Teno has shown the vulnerability of the sector to ecological decline, although the increase in pink salmon may present new opportunities. To strengthen the industry, Finland would benefit from streamlined licensing systems, targeted marketing,

stronger collaboration with other tourism activities, and recognition of diverse angler needs. Nevertheless, sustainable use of fish stocks remains the fundamental prerequisite for the future of fishing tourism.

Comparative Insights

Across the Nordic countries, recreational fishing demonstrates strong economic, cultural, and social value, while simultaneously presenting challenges in governance and ecological management. Iceland exemplifies the opportunities and vulnerabilities of a high-end market; Norway illustrates stakeholder conflicts in an ecologically sensitive region; Sweden highlights the welfare and social benefits of mass participation; and Finland underscores the risks of fragmentation and ecological sensitivity in a sector dominated by small-scale operators.

A common thread is that the value of recreational fishing lies not only in the physical catch but also in the associated experiences, cultural dimensions, services, and the maintenance of healthy ecosystems. For policymakers, the key challenge is to develop governance frameworks that reconcile ecological sustainability with economic growth and social equity.

Conclusion

Overall, angling and recreational fishing in the Nordic countries should be regarded not merely as leisure pursuits but as strategically important resources. Their future viability will depend on the preservation of healthy fish stocks, equitable access, and

stronger connections with other sectors of the economy. If managed successfully, recreational fisheries can become an increasingly important pillar of regional development, cultural identity, and the green transition across the Nordic region.

4.1 Policy and Recommendations

It is worth noting that while the Nordic countries share many features in common, each also has characteristics that create distinct national profiles. Each country can learn from the others to strengthen tourism and recreational fishing. It is proposed that a working group be established with representatives from Iceland, Norway, Sweden, and Finland – and, where relevant, Denmark, the Faroe Islands, and Greenland – to advance recreational fishing in the Nordic region, including by transferring successful practices from one country to the others.

A comparative analysis of angling and fishing tourism in Iceland, Norway, Sweden, and Finland reveals common challenges, strengths, and weaknesses. Although all four countries emphasize the economic, cultural, and social importance of recreational fishing, their approaches differ regarding regulations, market development, and links to local communities. This diversity creates opportunities for coordinated strategies and knowledge exchange across countries.

Iceland Iceland's strength lies in its ability to attract foreign anglers and channel fishing revenues directly into rural development. Salmon rivers, typically managed by angling associations, generate significant income and support livelihoods in remote areas. However, salmon angling in Iceland depends heavily on

vulnerable wild stocks, which are threatened by the expansion of marine aquaculture. It could be opportunities for other small communities in Iceland to offer sea angling for foreign tourists and in that case learn from Sudavik and also from Norwegians how best to develop it. Iceland could learn from Sweden how systematic data collection and valuation provide a solid foundation for policymaking and investment. Similarly, Finland's more diverse approach—offering multiple species and integrating fishing with complementary services such as nature experiences and food tourism—could help Iceland reduce its over-reliance on river angling while expanding its tourism base.

Norway Norway combines strong commercial fisheries with vibrant recreational and tourist fisheries, particularly in Northern Norway. The country's regulatory framework already accommodates multiple user groups, including quotas for commercial, recreational, and tourist fishing. This could serve as a model for Finland, whose regulatory system appears fragmented and weak, especially for small entrepreneurs. At the same time, Norway could learn from Iceland how to link fishing revenues more directly to agriculture and rural development. Sweden's emphasis on valuing consumer surplus could also help Norway better assess the social and welfare benefits of recreational fishing.

Sweden In Sweden, angling is one of the most widespread forms of outdoor recreation, with over one million participants annually. The estimated consumer surplus of SEK 1.6 billion (EUR 0,14 billion) demonstrates that the value of recreational fishing extends

far beyond the catch itself. However, fishing tourism aimed at foreign visitors is less developed than in Iceland or Norway. Sweden could therefore benefit from Iceland's success in marketing angling as a luxury product internationally and from Norway's experience in integrating sea angling into broader coastal development. Targeted marketing and bundled services could enable Sweden to increase international demand while maintaining access for domestic anglers.

Finland Finland has one of the highest participation rates in recreational fishing in Europe, with fishing deeply embedded in daily life. The economic impacts are considerable, particularly in Lapland and eastern lake regions, yet the sector is fragmented and largely based on small entrepreneurs with limited resources. Finland could adopt lessons from Norway's organized multi-user regulatory framework to simplify and clarify rules for both domestic and foreign anglers. From Iceland, Finland could learn strategies to attract and generate value from international visitors, while Sweden's approach to integrating fishing with other forms of tourism could strengthen Finland's market visibility and appeal.

Shared Lessons A common theme across the Nordic countries is that the value of recreational fishing derives not only from catch volumes but also from the quality of the experience, complementary services, and the sustainability of stocks. Iceland demonstrates the potential of high-end markets, Norway underscores the need for balance among competing interests, Sweden highlights the welfare and social value of mass participation, and

Finland emphasizes the opportunities created by high participation, which nonetheless call for clearer organization and stronger support.

Taken together, these cases suggest that a blend of systematic data collection and valuation, clear regulation, targeted marketing, and diversified service offerings can strengthen the resilience and long-term value of recreational fishing across the four countries. By learning from one another, the Nordic countries have the opportunity to position recreational fishing not only as a cultural tradition but also as a key pillar of sustainable rural development and the green transition.



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Appendix 1

Laws and Regulations, Iceland (Alþingi (n.d.))

■ **Act on the Management of Fisheries No. 116/2006** This Act establishes that the exploitable fish stocks in Icelandic waters are the common property of the Icelandic nation. Its objective is to ensure the conservation and efficient utilization of these resources, thereby supporting stable employment and sustainable settlement across the country. The allocation of fishing quotas under this Act does not constitute ownership rights nor grant irrevocable control of fishing rights to individual parties.

■ **Act on the Directorate of Fisheries No. 36/1992** According to this Act, the Directorate of Fisheries (Fiskistofa) is responsible for carrying out administrative tasks in the field of fisheries, including salmon and trout fishing, aquaculture, and related activities, as further defined in legislation. The Directorate operates under the Ministry of Industries and Innovation.

Its responsibilities include the implementation of the Act on the Management of Fisheries and supervision of fishing activities, as set out in relevant legislation. The Directorate is also tasked with administration and oversight under the Act on Salmon and Trout Fishing, the Act on Fish Farming, and related laws. In addition, it must collect, process, and publish information relating to fisheries, salmon and trout fishing, aquaculture, and other assigned areas. Further tasks may be assigned to the Directorate by law or by ministerial decision.

■ **Act on Salmon and Trout Fishing No. 61/2006** The purpose of this Act is to regulate fishing rights in freshwater and ensure the rational, sustainable use and conservation of freshwater fish stocks. It also governs the establishment of angling associations and related matters. The provisions apply to all fishing from freshwater fish stocks within Icelandic jurisdiction, except where otherwise specified by this Act.

■ **Act on Fish Farming No. 58/2006** The purpose of this Act is to promote fish farming in freshwater. Its implementation must always aim to minimize disruption of freshwater ecosystems and wild freshwater fish populations, ensuring that their sustainable use is not endangered.

The scope of the Act covers all freshwater aquaculture within Icelandic jurisdiction. Its implementation must be consistent with the Act on Salmon and Trout Fishing, the Act on Aquaculture, and the Act on the Prevention of Fish Diseases.

■ **Act on the Marine and Freshwater Research Institute No. 112/2015** This Act provides for the operation of an independent research and advisory institute the Marine and Freshwater Research Institute which falls under the authority of the Minister.

The purpose of the Act is to strengthen scientific knowledge of the environment and living resources in both marine and freshwater ecosystems, while promoting their sustainable and profitable use.

■ **Act on Special Fees for Illegal Marine Catch No. 37/1992** Under this Act, any of the following is considered illegal catch:

- Catch that exceeds the quota or hook quota allocated to a vessel, or any other maximum catch limit imposed on a vessel.
- Catch obtained outside permitted fishing days, unless it constitutes unavoidable bycatch.
- Catch obtained using unauthorized fishing gear.
- Catch obtained in areas where such fishing is prohibited.
- Catch subject to a fee as specified in Article 7, granting the Directorate of Fisheries the authority to collect such a fee.

■ **Act on Aquaculture No. 71/2008** The purpose of this Act is to establish conditions for the development of aquaculture, thereby strengthening employment and rural communities in Iceland, promoting responsible aquaculture, and ensuring the protection of wild fish stocks. To this end, the Act emphasizes maintaining production quality, preventing potential damage to wild stocks and their ecosystems, and safeguarding the interests of those who utilize these resources.

In implementing the Act, every effort must be made to minimize disruption of wild fish ecosystems and avoid jeopardizing their sustainable use. The Act applies to the farming of freshwater fish and marine species within Icelandic jurisdiction. Its implementation must be coordinated with the Act on Salmon and Trout Fishing, the Act on Fish Farming, and the Act on the Prevention of Fish Diseases.

■ **Act on the Prevention of Fish Diseases No. 60/2006** The purpose of this Act is to protect aquatic ecosystems, freshwater fish, and marine organisms raised in land-based or marine aquaculture facilities by preventing the spread of diseases and parasites.

The scope of the Act covers freshwater fish and the importation of fish and roe within Icelandic jurisdiction. Its implementation must be consistent with the Act on Salmon and Trout Fishing, the Act on Fish Farming, and the Act on Aquaculture.

■ **Act on the Fish Farming Fund No. 72/2008** The Fish Farming Fund is an independent state-owned fund administered by the Minister. Its role is to provide loans or grants to projects aimed at strengthening aquaculture, improving fishing facilities, supporting research in rivers and lakes, and increasing the value of catches from them.

■ **Act on the Icelandic Food and Veterinary Authority (No. 30/2018)** The Icelandic Food and Veterinary Authority (MAST) is a government agency under the Ministry of Industries and Innovation. The agency oversees food administration and is tasked with protecting consumers, safeguarding animal health and welfare, ensuring plant health, and maintaining the safety, wholesomeness, and quality of food products.

■ **Act on the Establishment of Matvælarannsóknir hf. No. 68/2006** This Act authorized the Government of Iceland to establish a limited liability company, Matvælarannsóknir hf., to operate the Fisheries Research Institutes and the Food Research Centre at Keldnaholt.

The company's purpose is to conduct research and innovation in the field of food production for the benefit of Icelandic industry.

■ **Regulation on the Activities on Angling Associations. No. 345/2014**

Appendix 2

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- The report profiles Finnish recreational fishers based on a large survey of those who paid the fisheries management fee in 2018. Nearly 1.5 million Finns engage in recreational fishing, and the study identifies five main fisher profiles. These profiles differ in fishing methods, activity levels, travel habits, and use of communication channels. Active rod fishers are the most mobile and spend the most money, while gear-focused fishers are more locally oriented and involved in community activities. The study highlights the diversity of recreational fishing in Finland and the various ways people participate in the activity.

- Pellikka, J., Pokki, H. & Moilanen, P. 2021. Vapaa-ajankalastuksen virkistysarvo ja vetovoima-tekijät. Luonnonvara- ja biotalouden tutkimus 60/2021. Luonnonvarakeskus. Helsinki. 40 s.
- The report examines the recreational value and attractiveness of recreational fishing destinations in Finland. It analyzes trends in domestic recreational fishing, the travel patterns of Finnish anglers, and their spending in different regions. The study found that most recreational fishers live in Uusimaa, but many travel to other provinces, especially Lapland, Southern Savonia, and Central Finland. In 2018, fishers who paid the fisheries management fee spent an average of €971 per year, totaling €185.5 million nationally (excluding boat and equipment purchases). The total recreational value of Finnish recreational fishing was estimated at €528 million in 2018. The most attractive destinations are those offering predatory fish and popular summer cottage areas.
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- The report investigates lure fishing (angling with a rod and lure) in Finland's fisheries management areas, focusing on the use of waters under the general fishing rights system. The study is based on a nationwide survey conducted in autumn 2023 among those who paid the fisheries management fee. Respondents reported their lure fishing activity and related spending in different management areas between
- September 2022 and August 2023. The results show that a total of 3.8 million lure fishing days were recorded in these areas, with the highest numbers in the Helsinki-Espoo area, and significant activity also in Päijänne, Airisto-Velkua, Inari, and Pielinen-Karjala regions. The findings help determine compensation paid to water area owners for the use of their waters for lure fishing under the general fishing rights.
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- A case study on Tornio River salmon fishing, which looked at the regional economic impacts of fishing tourism in Tornio River and spending of recreational fishers. Regionally, fishing tourism can have significant impacts; for example, fishing tourism in the Tornio River area alone brings €10.8 million to the local economy and creates 35 person-years of employment.
- Pokki, H., Artell, J., Mikkola, J., Orell, P. & Ovaskainen, V. 2018. Valuing recreational salmon fishing at a remote site in Finland: A travel cost analysis. *Fisheries Research* 208: 145–156. <https://doi.org/10.1016/j.fishres.2018.07.013>.
- Valuation study on salmon fishing in the Teno River.
- Pokki, H., Jacobsen, J.B., Olsen, S.B. & Romakkaniemi, A. 2020. Understanding angler profiles in cases of heterogeneous count data—A travel cost model. *Fisheries Research* 221: 105377.
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- Pokki, H., Pellikka, J., Eskelinen, P. & Moilanen, P. 2020: Regional fishing site preferences of sub-groups of Finnish recreational fishers, *Scandinavian Journal of Hospitality and Tourism*.
- The article examines how different subgroups of Finnish recreational fishers prefer various fishing sites across regions, using survey data and travel cost models to analyze their behaviors and preferences. It finds that the most attractive destination is Lapland, but most fishers prefer their own residential province, and these insights help fisheries managers improve fishing opportunities and predict visitation patterns.
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