

MARTIN ERIKSSON

Regional Development, Transport Infrastructure and Government Policy

The Case of Ice-Breaking along the Coastline of Norrland, Sweden, 1940–1975

ABSTRACT Due to the cold climate, navigation along the coast lines of the northern regions in Sweden, Finland, Canada, Russia and the United States must negotiate winter conditions which cause ports to freeze over. In order to avoid the negative economic effects of such interruptions, ice-breaking and other measures to facilitate winter navigation have been introduced. This article deals with the introduction of ice-breaking along the coast line of the five northernmost counties in Sweden, the Norrland region, from a perspective that examines and analyzes the underlying decision-making processes. It is concluded that the ability of regional interest groups to link their demands for an improved ice-breaker service to important aims within macro policy such as trade policy, growth policy and regional development policy contributed to the outcome of the decision-making processes. The international competitiveness of the export industries in Norrland was therefore regarded as a national concern during the decision-making processes. Another factor that contributed to the outcome of the decision-making processes was the sectoral organization within the government maritime bodies. Large-scale planning and operational experimentation was allowed to take place within the ice-breaker service, which convinced the government that ice-breaking and winter navigation were a feasible transport alternative.

KEYWORDS regional economic history, Norrland, winter navigation, ice-breaker policy, decision-making, regional interest groups, institutional analysis, corporatism, concerted action

Introduction

The economies of the northern regions in Russia, Canada and the Nordic countries are dominated by export of natural resources, for example from the metal and forestry sectors. As the geographies of these regions generally are characterized by a peripheral location, vast distances and a harsh climate, the construction of suitable transport and communications networks has been a decisive factor behind their integration into the world markets (North 1955; North 1958). For instance, Canadian economic historian Harold A. Innis has described the construction of the Canadian Pacific Railroad as one of the most important preconditions for the introduction of Canadian export goods such as timber, iron ore and fur on the world markets (Innis 1923).

One problem shared not only by Nordic countries such as Sweden and Finland but also by the Arctic regions of Canada, Russia and the United States is that navigation must negotiate winter conditions, which cause ports to freeze over. Consequently, the sea trading routes cannot be used or remain idle for several months. This situation restrains exports or even prevents exploitation of certain natural resources altogether, which in turn affects regional growth and development.

In Sweden, this problem was first addressed in the 1920s, when a limited ice-breaker service was organised by the government as a measure to facilitate year-round navigation. The limitations of the ice-breaker service meant however that it could only reach a limited number of ports along the coastal line of the five northern counties in Sweden, the Norrland region. Norrland still had the coastline in Sweden with the longest port closures during winters (Layton 1978). This affected the industrial firms in the forestry and metal sectors, as their transports were dependent on conveyors that can handle heavy goods, preferably bulk ships. When trying to deal with the difficulties associated with winter navigation, industrial firms in the exporting sectors experienced that the alternatives to ice-breaking raised their costs and reduced their international competitiveness. These alternatives included other means of transport, primarily railways, and stockpiling of the products over the winter (Styrelsen för Vintersjöfartsforskning 1972).

During the post-war period, the government ice-breaker service was gradually expanded until the first part of the 1970s, when all ports along the coast of Norrland finally could be kept open throughout the winter season. Today the ice-breaker service is still vital for the basic manufacturing industry firms in Norrland, which account for more than one quarter of the total Swedish export value (Länsstyrelserna i Västerbottens och Norrbottens län 2008: 9).

The expansion of the government ice-breaker service was a long and complex political process, which coincided with the period of rapid sectoral shift in Norrland between 1950–1970, when the service and manufacturing sectors emerged and the role of agriculture diminished (Danell 1995). As industrial production grew during the sectoral shift, demands from regional interest groups in Norrland for an expansion of the government ice-breaker service increased. These demands were integrated in a comprehensive discussion where the future modernization and development strategies in Norrland were contested and formulated (Sörlin 1988: 254).

These strategies were formulated through interaction among the ambitions and visions of the government, the regional elite and their historical context (Nyström 2003; Andersson-Skog 2001). This embedding of the agents in their historical context resulted in an outcome that reflected a blending of national and regional interests. The aim of this article is to examine and analyze the decision-making processes concerning ice-breaking along the coast of Norrland during the period 1940–1975 from this perspective. I will examine the actions of regional interest groups and government agents at different administrative levels against the background of their historical motivations and constraints in order to elucidate the historical process that lies behind the emergence of the contemporary Swedish ice-breaker service.

Theoretical Framework and Points of Departure

This study departs from a set of marked assumptions regarding the relations between the government and interest groups. Firstly, my interest group perspective is based on Scandinavian corporatist theory. Scandinavian corporatist theory implies that the government controls the policy agenda during a decision-making process. The government, however, grants interest groups access to decision-making processes in order to justify government decisions and acquire additional resources for policy-making (Rothstein 1992).

Accordingly, the government offers interest groups forums and procedures for structural consulting through various organisational arrangements (Heclø & Madsen 1987: 12). One type of arrangement is the consulting between the Swedish Maritime Administration and regional interest groups. Previous research has pointed out that a trend towards bureaucratization and professionalization characterized the expanding bureaucracies in the Swedish transport sector in the post-war period. As a result, the transport bureaucracies could determine the developments within their transport sector with considerable autonomy. Here, networks within the transport bureaucracies between government representatives and interest groups were formed (Petterson 1988; Torstendahl 1991). Interest group participa-

tion also took place within the official investigatory commissions regarding ice-breaking and during the so-called *remiss* procedures, where they were invited to comment on committee drafts in reports to the government.

Following previous Swedish transport history research, I have also emphasized the importance of the institutional context for the outcome of decision-making processes (Andersson-Skog 1993; Pettersson 1999; Andersson 2004). I apply the historical structuration perspective within the New Institutional Economics (NIE), which focuses on the interaction of agents and their societal and institutional structure during decision-making (North 1990). According to the NIE, I will try to identify how government institutions—both those within the maritime sector and those related to the Norrland region—influenced the decision-making processes.

In this respect, I assume that policy decisions are concerted actions, where the interests of the government and interest groups overlap and coincide. I have therefore focused on specific initiating events that have triggered change and new developments within the government ice-breaker policy (Hoffman 1999: 353). I interpret such events according to John Kingdon's idea of decision-making as a policy window. Kingdon describes a policy window in a field as an opportunity for a linkage of problems and proposed solutions (Kingdon 1984: 203 f.).

A final delineation in this study is that I focus exclusively on the formal dimensions of the decision-making processes. This means that I can use the archive and record material that has been deposited in different public archives. The informal contacts that may have taken place during the decision-making processes, for instance between members of the regional elite and government officials, will however not be included in the study. The reason behind this exclusion is not that I regard these informal contacts as irrelevant, but rather the lack of historical information. It is for instance worth noting that the absolute majority of the agents that were active during the decision-making processes now have passed away. The long period that has passed since the decision-making processes were concluded also means that possible informants do not remember all the important historical details for such an analysis.

Ice-Breaking and Maritime Policy Change in the Post-War Period

During the 1940s, the Swedish ice-breaking policy was investigated by two government commissions. The first commission, the Ice-breaker Commission of 1941 (*1941 års isbrytarutredning*), did not result, however, in any significant policy recommendations (SOU 1942:53). After the commission had concluded its report, its passive stance was criticised in the Parliament by

representatives from the counties in Norrland. After this intervention, it was decided that the problem of winter navigation along the coastline of Norrland should be investigated by the so-called *Norrland Commission* (*Norrlandskommittén*) (SOU 1948:31: 8 ff.).

The *Norrland Commission* investigated how the region and the government should meet the social and economic challenges that Norrland was going to face in the post-war period. The commission was composed of representatives from the regional elite such as businessmen, industrialists and politicians (SOU 1949:1). In its study of ice-breaking, the *Norrland Commission* criticised the low standard of the maritime infrastructure along the coastline of Norrland (SOU 1948:31: 57). It noted that there were few navigational aids. Furthermore, markers and buoys were mostly floating and only temporary. They were removed before the ice came and not replaced until the break-up of the ice was completed in spring. This was also the case with the lightships, which were used instead of fixed lighthouses along certain parts of the coastline (Layton 1978: 9).

The *Norrland Commission* emphasized that an improvement of the maritime infrastructure was necessary. This conclusion was reached through consulting with shipping interests in Norrland during the preparation of the commission report.¹ The commission therefore recommended that the government should pay more attention to areas such as navigational aids and meteorological forecasts (SOU 1948:31: 88).

Consequently, the situation within those areas improved during the early 1950s. The government authorities responsible for winter navigation such as the National Board of Trade (*Kommerskollegium*), the Navy, the State Meteorological and Hydrological Institute (SMHI) and the State Icebreaker Committee (*Statens Isbrytarnämnd*) underwent a learning process.² Perhaps the most significant improvement took place within SMHI. During the 1950s, ships sometimes entered the waters along the coast of Norrland without information of what ice conditions they could expect (*Västerbottens-Kuriren* 1 December 1951; *Västerbottens-Kuriren* 17 December 1955). This practice often led to dangerous situations and inefficient use of ice-breakers, as they had to intervene urgently to save ships from damage caused by ice.

However, in 1957 the first ice chart was drawn up by SMHI. Moreover, SMHI and the Swedish ice-breaker command took the initiative to write a new Baltic Sea ice code, which formed the basis for the renewal of the information system on winter navigation in the Baltic Sea (*Östersjökode*). As SMHI had a permanent seat in the State Icebreaker Committee, general knowledge of how to prepare for winter navigation was also quickly spread among shipping companies and other agents concerned (Thompson & Udin 1973: 63 f.).

In 1956, an integrated Swedish Maritime Administration (*Sjöfartsstyrelsen*) was formed through a merger of the different authorities that up to then had been concerned with maritime issues (Government Bill 124/1955). One of the first tasks assigned to the newly organized maritime administration was a reorganization of the ice-breaker service. This coincided with an ice situation that paralysed the navigation along the coast of Norrland. Fig. 1 illustrates the severity of winters during the middle of the 1950s. Some ports were closed for over five months, as ice-breaker traffic was concentrated to the ports in southern Sweden (*Västerbottens-Kuriren* 20 December 1955).

The prevailing ice situation caused an urgent need for consultation between the Swedish Maritime Administration and shipping interests in Norrland. In January 1956 Folke Thunborg, the county governor of Norrbotten, organized a conference on the future of winter navigation along the coast of Norrland. During the conference, regional interest groups concluded that it was devastating for the region to be repeatedly paralyzed by ice during winters. Rather than passively accept those barriers to mobility caused by winter and ice, it was necessary to confront this issue in a more systematic manner.³ A coalition of agents based in the County of Norrbotten was the regional interest group that acted most forcefully in this situation. In communications to the Ministry of Trade, the County Administrative Board of Norrbotten together with the Chamber of Commerce in Norrbotten and

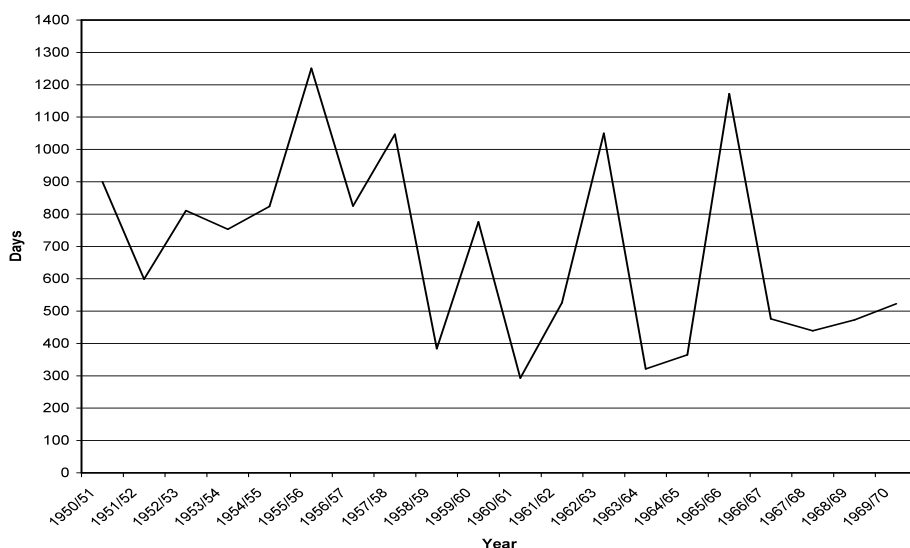


Fig. 1. The total number of days when the ten main ports along the coast of Norrland were closed in the period 1950–1970. The total number of days was calculated by adding the number of days the ports Karlsborg, Luleå, Piteå, Skellefteå, Umeå, Örnsköldsvik, Härnösand, Sundsvall, Söderhamn and Gävle were closed each winter by using data from Kungl. Sjöfartsstyrelsen (1965) and Sjöfartsverket (1974).

Västerbotten argued that winter navigation was as dependent on the ice-breaker service as on infrastructure such as lighthouses, radio beacons and nautical charts. These agents illustrated the primitive state of the maritime infrastructure along the coast of Norrbotten and demanded new government investments to improve that area.⁴

After 1958, government investments in the maritime infrastructure along the coastline of Norrland increased significantly (Government Bill 1/1958, appendix 12: 143). For instance, the ten lightships operating in 1955 had been replaced by fixed caisson lighthouses up to 1971. The number of lighthouses was also increased to 38 from being only 14 in 1874. The quality of nautical charts was also improved. Finally, a network of about 20 radio beacons became operational in the 1950s and 1960s and in 1962 the Decca Navigator System came into operation in the Gulf of Bothnia (Layton 1978: 10). This was followed by the employment of technology such as satellite images in the forecasts and radio facsimile transmission to receive ice charts on the high seas (Seinä, Palosuo & Grönvall 1997: 4).

The main reason behind this new emphasis on winter navigation in government policy may be related to the formation of the Swedish Maritime Administration in 1956, which led to increased strength and bargaining power for the maritime sector within the political system and government bureaucracies. It also meant that large-scale planning and operational experimentation was allowed to take place within the ice-breaker service. As the government became convinced that ice-breaking and winter navigation were a feasible transport alternative, the opportunities for allocation of new budget funds to the ice-breaker service and the maritime infrastructure increased (Eriksson 2009).

The changes within the government maritime sector also facilitated investments in new ice-breakers. As Table 1 illustrates, Sweden only had three ice-breakers until 1957. Among those, the HMS *Atle* was ageing and not operationally effective, whereas the HMS *Thule* was designed for operations in the sound between Sweden and Denmark. For that reason, there was an urgent need for new ice-breakers that could serve the sea routes along the coastal line of Norrland in the middle of the 1950s.

This situation was substantially improved with the introduction of the HMS *Oden*, the HMS *Tor* and the HMS *Njord* during the period 1957–1969. The construction of these ice-breakers was initiated by the State Ice-breaker Committee. The State Ice-breaker Committee was formed in 1947 for structural consulting between the maritime administration and interest groups. Through regular consulting, the draft proposals for the HMS *Oden*, the HMS *Tor* and the HMS *Njord* were drawn up jointly between the maritime administration and representatives of the business associations within

Name	First winter	Decommissioned	Built by	Horsepower
Atle (I)	1925	1966	Lindholmen	4 000
Ymer (I)	1933	1976	Kockums	9 000
Thule	1954	1988	Karlskronavarvet	5 040
Oden (I)	1957	1988	Wärtsila	10 500
Tor	1964	2000	Wärtsila	12 000
Njord	1969	2000	Wärtsila	12 000
Ale	1974	–	Wärtsila	4 750
Atle (II)	1974	–	Wärtsila	22 000
Frej	1976	–	Wärtsila	22 000
Ymer (II)	1977	–	Wärtsila	22 000
Oden (II)	1988	–	Götaverken	24 800

Table 1. The Swedish ice-breaker fleet 1925–1988. Source: Fischerström (1997).

the forestry sector. In these proposals, the ice-breakers were projected as trade policy instruments aiming to strengthen the international competitiveness of the forestry industries in Norrland (Eriksson 2009: 145 f.).

These arguments corresponded well with how the government interpreted the contemporary situation of the forestry industries. The government encouraged large investments in production technology to counter the increased competition on the expanding international markets by North American firms in the late 1950s and early 1960s (Melander 1997). Ice-breaking was therefore considered to be a complement to other growth measures directed towards the forestry sector in the government decisions to fund those ice-breakers (Eriksson 2009: 148 f.).

Ice-Breaking as Industrial and Regional Subsidy

The modernized and expanded ice-breaker fleet could however only serve the ports in the counties of Gävleborg and Västernorrland, where major forestry firms such as *Skandinaviska Cellulosa Aktiebolaget* (SCA), *Iggesund* and *Mo och Domsjö AB* (MoDo) were located. The northernmost ports along the coast of Norrland still had to be closed during winters. The triggering event behind the rapid expansion of the Swedish ice-breaker fleet after 1970 was the introduction of an expansive regional and industrial development policy (Government Bill 185/1964; Government Bill 75/1970). The Swedish transport policy was therefore adjusted from a market-oriented system to a system that allowed government compensation to those firms estimated to be in need of compensation for their transport costs (Government Bill

84/1970).

In this context, the government viewed ice-breaking as an indirect transport subsidy to the heavy manufacturing industry sector. The government support to ice-breaking was seen as a complement to the direct transport subsidies introduced in 1971. The aim behind the introduction of the transport subsidy was to subsidize the cost of transportation for certain goods-producing companies in northern Sweden in order to strengthen their ability to compete in markets in southern Sweden or abroad (Pettersson 1999).

The idea of ice-breaking as a complement to regional and industrial policy was most strongly expressed by the Port Commission of 1965 (*1965 års Hamnutredning*). In its report, the Port Commission of 1965 proposed an expansion of the government ice-breaker service to all ports in Norrland (SOU 1971:63). The primary factor behind this proposal was the substantial contemporary government investments in the basic industries located in the County of Norrbotten. The investments in state-owned enterprises such as the steel plant *Norrbottens Järnverk AB* (NJA) and the forestry conglomerate *AB Statens Skogsindustrier* (ASSI) were part of the regional development policy. However, those investments were accompanied by concerns regarding the transport situation of the firms. If the shipping season was not extended, the firms would probably not be internationally competitive. After consulting with both State-owned enterprises such as ASSI and NJA and private firms such as MoDo and SCA, the Port Commission of 1965 therefore recommended that the government should meet the transport demands of those industries (SOU 1971:63: chapter 5).

However, the recommendations from the Port Commission of 1965 were not fully implemented. Instead, the final triggering event occurred when a new steel plant, *Stålverk 80*, was planned in Luleå during 1973–1974 (Jonsson 1990). This meant that the transport problems of the heavy manufacturing industry had to be considered once again, which resulted in the investment in one additional ice-breaker, the HMS *Ymer* (Government Bill 1/1975, appendix 8: 300). When the first severe ice winter of the 1970s occurred in 1978–1979, it turned out that this ice-breaker was the marginal resource needed to keep all the ports along the coast of Norrland open (Sjöfartsverket 1979).

Concluding Discussion and Analysis

This study has shown that the contemporary Swedish ice-breaker service may be traced historically to an intense interaction among the government, regional interest groups and their societal context in the post-war period. Essentially, the ice-breaker service emerged through the ability of regional

interest groups in Norrland to relate their demands to different areas within government policy.

This pattern appeared already in the 1940s, when industrialization was seen as a key instrument for modernizing the regional economy in Norrland and overcoming the hardships caused by small-scale farming. Against this background, ice-breaking was considered to be a suitable growth instrument whose potential needed to be investigated further.

From the 1950s, the outcome of the decision-making processes may be related to a combination of institutional factors emanating from both the sectoral and national levels. As for the sectoral level, the Swedish Maritime Administration experienced organizational and financial changes that benefited the expansion of ice-breaking and the maritime infrastructure along the coast of Norrland. Here, increased bureaucratization and professionalism were combined with a generous financial situation for the maritime sector. This situation may be compared with the political attitude towards the railway sector, where businesslike reforms and a criterion of profitability related to a market-oriented transport policy restricted the agenda (Andersson-Skog 1993).

During these decision-making processes, the drafts or comments prepared by the maritime administration and regional interest groups also corresponded strongly to the general aims of macro policy. This meant that their demands were viewed as legitimate by the agents at the national level such as the Ministry of Trade and Ministry of Communications at the time of decision-making. Up to around 1970, the ice-breaker service along the coast of Norrland was considered as an instrument for increasing the international competitiveness of the heavy basic industries in the Norrland region. Even though the institutional context at the national level changed after 1970, as icebreaking was regarded as a vital transport subsidy for the heavy basic industries in the Norrland region, this pattern was sustained over the whole examined time period.

In this study, I have interpreted this style of decision-making as concerted actions, where the interests of the government and regional interest groups were merged. As for interest group participation, it is worth noting that all significant agents in Norrland such as municipalities, county boards, chambers of commerce and heavy manufacturing industries were in favour of an expansion of the ice-breaker service. This reflects a general feature in the emergence of the modern Norrland region during the post-war period. The industrial exploitation of natural resources through the heavy manufacturing industry was identified as a driving force behind social and economic modernization, which meant that it dominated the regional political agenda. The heavy manufacturing export industries were

therefore promoted to such an extent that they would eventually dominate the economy (Westin 2006).

The economic interests connected to the exports from the heavy basic industries were, in turn, so strong that they also appealed to the government. In this way the future of Norrland was negotiated through a political process of compromise, where the interests of the region and the government were mixed and merged to such an extent that we sometimes cannot distinguish between them (Nyström 2003: 24). In this respect, it is important to note the mutual ideological understanding between trade union leaders and Social Democratic politicians in Norrland on one hand and the national Social Democratic government on the other hand that existed during the post-war period. According to those agents, the interwar depression had meant devastating social and economic effects for Norrland. A strong government intervention in the heavy manufacturing sector as well as the introduction of general welfare programs was therefore considered to be a guarantee for a progressive modernization in Norrland by policy makers at both the national and regional level. One area that needed to be improved to realize those ideas was the government ice-breaker service, which obviously was expanded rapidly (Norrbottnens socialdemokratiska partidistrikt 1972).

Undoubtedly, the emphasis on the public sector and the heavy manufacturing industries in the Norrland policy has also resulted in a lop-sided economy, as other sectors in the economy of the region were left relatively undeveloped. From a macro-economic point of view, it might be argued that the economy of Norrland is showing signs of structural economic problems associated with this bias in development strategy. In this article, I will not further discuss how these deficiencies might be related to phenomena such as the “resource curse,” the “staple trap” or the “Dutch disease” (Mehlum, Moene & Torvik 2006; Innis 1970). However, I argue that the hitherto successful reliance on export of natural resources has had a decisive cognitive impact on the elite in Norrland. Over time, the chosen strategy and bias towards the exploitation of natural resources has narrowed the options and created vested interests among the regional elite that are reluctant to develop complements to the exports of natural resources and the public sector in the regional economy. This reliance on a single development strategy bears a strong resemblance to the concept of “path-dependency” as it has been used in the NIE tradition (North 1990). From this perspective, perhaps the most important challenge for the future renewal of the economy and society of Norrland is the introduction of new ideas for sustainable growth and development that would make the region fully competitive in the global economy.

NOTES

- ¹ Härnösands Landsarkiv, Norrländska Hamnförbundet, Handlingar 1946–1951 [‘The Provincial Record Office, Härnösand, The Port Federation of Norrland, documents 1946–1951’].
- ² Riksarkivet, Kommerskollegium, Sjöfartsbyrån, Administrativa sektionen, vol. FI:171 [‘The Swedish National Archives, Archive of the Navigation Bureau within the National Board of Trade, vol. FI:171’].
- ³ Härnösands Landsarkiv, Landshövdingars i Västernorrlands län arkiv, vol. FI:25, [‘The Provincial Record Office, Härnösand, The Archive of the County Governors in Västernorrland, vol. FI:25’].
- ⁴ Riksarkivet, Kommunikationsdepartementet, konseljakt den 21 april 1966, ärende 45 [‘The Swedish National Archives, The Ministry of Trade, Cabinet Meeting Documents 21 April 1966, item 45’].

REFERENCES

Archives

- Riksarkivet, Kommerskollegium, Sjöfartsbyrån, Administrativa sektionen, vol. FI:171, “Kommerskollegium till Handelsdepartementet angående åtgärder till främjande av statens isbrytarverksamhet den 9 oktober 1951” [‘The Swedish National Archives, Archive of the Navigation Bureau within the National Board of Trade, vol. FI:171, Communication from the National Board of Trade to the Ministry of Trade regarding measures to improve the government ice-breaker service, 9 October 1951’].
- Riksarkivet, Kommunikationsdepartementet, konseljakt den 21 april 1966, ärende 45, “Länsstyrelsen i Norrbottens län angående isbrytarberedskapen och seglationsförhållandena i Bottenviken den 10 december 1956;” “Skrivelse Norrbottens och Västerbottens Läns Handelskammare den 2 mars 1956” [‘The Swedish National Archives, The Ministry of Trade, Cabinet Meeting Documents 21 April 1966, item 45, Communication from the County Administrative Board in Norrbotten regarding the ice-breaker readiness and the navigation conditions in the Bay of Bothnia, 10 December 1956; Communication from The Chamber of Commerce in Norrbotten and Västerbotten, 2 March 1956’].
- Härnösands Landsarkiv, Landshövdingars i Västernorrlands län arkiv, vol. FI:25, “Protokoll fört vid länsstyrelsens sammanträde i Luleå den 16 januari 1956 för dryftande av vintersjöfarten längs Norrbottenskusten” [‘The Provincial Record Office, Härnösand, The Archive of the County Governors in Västernorrland, vol. FI:25, Minutes of the discussion on winter navigation along the coast line of Norrland at the County Administrative Board in Luleå, 16 January 1956’].
- Härnösands Landsarkiv, Norrländska Hamnförbundet, Handlingar 1946–1951, “Protokoll fört vid sammanträde i Sundsvall den 15 januari å Sundsvalls Enskilda Banks Aktiebolags sessionssal mellan delegater för de norrländska handelskamrarna och Svenska hamnförbundet för dryftande av vissa med vintersjöfartens ordnande längs Norrlandskusten sammanhängande problem m.m.” [‘The Provincial Record Office, Härnösand, The Port Federation of Norrland, documents 1946–1951, Minutes of the discussion regarding problems connected with winter navigation be-

tween delegates from the chambers of commerce in Norrland and the Swedish Port Federation at the session room of the Bank of Sundsvall, 15 January 1949’].

Västerbottens-Kuriren 1 December 1951.

Västerbottens-Kuriren 17 December 1955.

Västerbottens-Kuriren 20 December 1955.

Literature

- Andersson, F. (2004). *Mot framtiden på gamla spår? Regionala intressegrupper och beslutsprocesser kring kustjärnvägarna i Norrland under 1900-talet* [‘Towards the future on old tracks? Regional interest groups and decision-making processes concerning coastal railways in Norrland in the twentieth century’], diss., Umeå: Umeå University.
- Andersson-Skog, L. (1993). *Såsom allmänna inrättningar till gagnet, men affärsföretag till namnet. SJ, järnvägspolitiken och den ekonomiska omvandlingen efter 1920* [‘As public service by usage, but business enterprises by name. The State railway, the railway policy and economic change since 1920’], diss., Umeå: Umeå University.
- (2001). “Compensating the periphery. Railway policy and regional interest groups in northern Sweden,” in *The State, Regulation and the Economy. An Historical Perspective*, eds. L. Magnusson & J. Ottosson, Cheltenham: Edward Elgar, pp. 126–147.
- Danell, T. (1995). “Regionala särdrag i norrländskt näringsliv under efterkrigstiden” [‘Regional characteristics of the economy of Norrland during the post-war period’], in *Samhällseffekter av Umeå Universitet* [‘Social effects of Umeå University’], eds. E. Holm & U. Wiberg, Umeå: CERUM, pp. 23–44.
- Eriksson, M. (2009). *Trafikpolitik och regional omvandling. Beslutsprocesserna om isbrytningen längs Norrlandskusten 1940–1975* [‘Transport policy and regional transformation. The decision-making processes concerning ice-breaking along the coast of Norrland, Sweden, 1940–1975’], diss., Umeå: Umeå University.
- Fischerström, S. (1997). *Isbrytare. Med statens isbrytare under 80 år* [‘Ice-breakers. With the state ice-breakers during 80 years’], Falkenberg: Marinlitteratur.
- Government bills 124/1955, 1/1958, 185/1964, 75/1970, 84/1970, 1/1975.
- Heclo, H. & Madsen, H. (1987). *Policy and Politics in Sweden. Principled Pragmatism*, Philadelphia: Temple University Press.
- Hoffman, A. J. (1999). “Institutional evolution and change. Environmentalism and the U.S. chemical industry,” *The Academy of Management Journal*, 42, pp. 351–371.
- Innis, H. (1923). *A History of the Canadian Pacific Railway*, London: King & Son.
- (1970). *The Fur Trade in Canada. An Introduction to Canadian Economic History*, Toronto: University of Toronto Press.
- Jonsson, S. (1990). *Vägen mot SSAB. NJA och den svenska handelsstålindustrin 1955–1977* [‘The road to SSAB. NJA and the Swedish steel industry 1955–1977’], Luleå: Norrbottens Museum.
- Kingdon, J. (1984). *Agendas, Alternatives and Public Policies*, New York: HarperCollins College Publishers.
- Kungl. Sjöfartsstyrelsen (1965). *Redogörelse för Sveriges statliga isbrytarverksamhet 1964/65 utarbetad av statens isbrytardirektör* [‘Yearly report on the activities of the Swedish State ice-breaker service 1964/65 prepared by the State Ice-breaker Director’].
- Länsstyrelserna i Västerbottens och Norrbottens län (2008). “Analys av norrbottniska och

- västerbottniska naturresursers betydelse för hållbar tillväxt” [‘Analysis of the significance of natural resources in the counties of Västerbotten and Norrbotten for sustainable growth’], <http://www.ac.lst.se/files/os5ye6PP.pdf>; access date 16 April 2009.
- Layton, I. G. (1978). *Breaking the Ice Barrier. Swedish Experience of Winter Navigation in the Gulf of Bothnia*, Umeå: Umeå University, Department of Economic and Social Geography.
- Mehlum, H., Moene, K. & Torvik, R. (2006). “Institutions and the resource curse,” *The Economic Journal*, 116, pp. 1–20.
- Melander, A. (1997). *Industrial Wisdom and Strategic Change. The Swedish Pulp and Paper Industry 1945–1990*, diss., Jönköping: Jönköping International Business School.
- Norrbottens socialdemokratiska partidistrikt (1972). *Politik för Norrbotten. Ett länsprogram från Socialdemokraterna* [‘A policy for Norrbotten. A county program from the Social Democrats’], Luleå.
- North, D. C. (1955). “Location theory and regional economic growth,” *The Journal of Political Economy* 63, 3, pp. 243–258.
- (1958). “Ocean freight rates and economic development 1750–1913,” *Journal of Economic History* 17, 4, pp. 537–555.
- (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- Nyström, M. (2003). “Västerbottens meste politiker” [‘The greatest politician of Västerbotten’], *Västerbotten*, 1, pp. 3–25.
- Petterson, O. (1988). *Byråkratisering eller avbyråkratisering? Administrativ och samhällsorganisatorisk strukturovandling inom svenskt vägväsende 1885–1985* [‘Bureaucratization or de-bureaucratization? The changing administrative and social organizational structures of Sweden’s road construction and maintenance system, 1885–1985’], diss, Uppsala: Uppsala University.
- Petterson, T. (1999). *Att kompensera för avstånd? Transportstödet 1970–1995. Ideologi, ekonomi och stigberoende* [‘Compensating for distance? The transport aid 1970–1995. Ideology, economy and path dependence’], diss., Umeå: Umeå University.
- Rothstein, B. (1992). *Den korporativa staten. Intresseorganisationer och statsförvaltning i svensk politik* [‘The corporatist state. Interest organizations and public administration in Swedish politics’], Stockholm: Norstedts Juridik.
- Seinä, A., Palosuo, E. & Grönvall, H. (1997). *Merentutkimuslaitoksen jääpalvelu 1919–1994* [‘The Finnish ice service of the Finnish Institute of Marine Research 1919–1994’], Helsinki: Finnish Institute of Marine Research.
- Sjöfartsverket (1974). *Redogörelse för Sveriges statliga isbrytarverksamhet 1973/74 utarbetad av statens isbrytardirektör* [‘Yearly report on the activities of the Swedish State ice-breaker service 1973/74 prepared by the State Ice-breaker Director’].
- (1979). *Redogörelse för Sveriges statliga isbrytarverksamhet 1978/79 utarbetad av statens isbrytardirektör* [‘Yearly report on the activities of the Swedish State ice-breaker service 1978/79 prepared by the State Ice-Breaker Director’].
- Sörlin, S. (1988). *Framtidslandet. Debatten om Norrland och naturresurserna under det industriella genombrottet*, [‘Land of the future. The debate about Norrland and its natural resources at the time of the industrial breakthrough’], Stockholm: Carlssons.
- SOU 1942:53, *Betänkande med förslag till ordnande av statens isbrytningsverksamhet* [‘Report with proposals for the organization of the State ice-breaker service’], Stockholm.

- SOU 1948:31, *Betänkande med förslag angående isbrytningens ordnande längs Norrlands-kusten m.m. avgivet av Norrlandskommittén* ['Report by the Norrland Commission regarding the organization of ice-breaking along the coastal line of Norrland'], Stockholm.
- SOU 1949:1, *Norrlandskommitténs principbetänkande del 1. Norrländska utvecklingslinjer* ['The Principle Report of the Norrland Commission, Part 1. Development Trends in Norrland'], Stockholm.
- SOU 1971:63, *Vintersjöfart. Betänkande från Hamnutredningen* ['Winter navigation. Report from the Port Commission'], Stockholm.
- Styrelsen för vintersjöfartforskning (1972). *Vintersjöfart i Bottenhavet. Erfarenheter av SCA:s distributionssystem*, ['Winter navigation in the Gulf of Bothnia. Experiences from the SCA distribution system'], Solna: Styrelsen för vintersjöfartforskning.
- Thompson, T. & Udin, I. (1973). "Isen i Östersjön. Rutinistjänst och forskning" ['The ice in the Baltic Sea. Routine ice service and research'], *Ymer*, 1973, pp. 61–82.
- Torstendahl, R. (1991). *Bureaucratization in Northwestern Europe, 1880–1985. Domination and Governance*, London: Routledge.
- Westin, L. (2006). "Trading natural resources for public grants. Development rhetoric, image, and social capital in north Sweden," in *Social Capital and Development Trends in Rural Areas*, vol. 2, eds. K. Ito, H. Westlund, K. Kobayashi & T. Hatori, Kyoto: Marginal Areas Research Group, pp. 71–83.