

Local Ports as a Chance for Development of the Polish Coastal Areas: Transportation Conditions

Porty lokalne szansą rozwoju obszarów nadmorskich Polski. Uwarunkowania transportowe

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Abstract: With the exceptions of the cities of Gdańsk, Gdynia, Szczecin and Świnoujście, Polish coastal areas belong to poorly developed regions of the country. Changing this situation should be an important goal of Polish economic policy. The central point of this policy is development of the transport system in coastal areas. The presented text represents a trial to demonstrate what could and should be done in particular coastal areas in order to achieve this purpose.

Keywords: Local ports, transport and communication, coastal areas, transportation infrastructure development, development strategy, modernisation

Streszczenie: Z wyjątkiem dużych miast jak Gdańsk, Gdynia, Szczecin and Świnoujście, obszary nadmorskie Polski znajdują się w gronie najslabiej rozwiniętych rejonów kraju. Zmiana tego stanu rzeczy powinna stać się istotnym celem polskiej polityki gospodarczej, zaś centralnym punktem tej polityki jest rozwój systemu transportowego obszarów nadmorskich. Niniejsza praca jest próbą przedstawienia jakie działania mogą, a wręcz powinny zostać przedsięwzięte w poszczególnych częściach wybrzeża, tak by osiągnąć ten cel.

Słowa kluczowe: Porty lokalne, transport i komunikacja, obszary nadmorskie, rozwój infrastruktury transportowej, strategia rozwoju, modernizacja

Introduction

Local ports may be considered one of the most crucial factors for the socio-economic activation of towns and municipalities situated at the seaside, and for their regional environment. Their primary value is location at the meeting point of land and sea, which allows for the development of two types of activities. One condition for these ports' economic recovery, and for the municipalities' development, is local governments' active participation in developing the ports.

It should be mentioned that the very concept of a local port has not yet been clearly defined. Even the Act on Ports and Harbours does not specify the criteria that would allow one to differentiate between small ports and harbours. This is because both terms relate to a body of water and ground together with connected port infrastructure situated within their boundaries. According to the Act on Ports and Harbours, among the ports of fundamental significance for the Polish economy

are the biggest Polish ports, i.e. Gdynia, Gdańsk, Szczecin and Świnoujście, while belonging to the category of small ports and harbours are all remaining objects of this type which are found on the Polish coast.

On the basis of an analysis of the definitions found in relevant literature, as well as suggestions of the European Commission connected with a so-called port directive project, it can be determined that a local port is a port where a few sea port economic functions have been realized and are affecting their closest surroundings. Harbours, on the other hand, are small, single-function economic structures dealing mostly with fishery and yachting.

In this work, Polish ports of a regional character are divided into two groups:

- ◆ Ports situated on the shore by the open sea (Hel, Jastarnia, Puck, Władysławowo, Łeba, Ustka, Darłowo, Kołobrzeg, Mrzeżyno, Dziwnów, and Międzyzdroje), and

- ◆ Ports situated on the shores of internal marine waters, including the Szczecin and Kamieński Lagoons (i.e. Kamień Pomorski, Wolin, Lubin, Stepnica, Trzebież, Nowe Warpno, and Police), and the Vistula Lagoon (i.e. Elbląg, Krynica Morska, Tolkmicko, and Frombork).

The current potential of the local ports may turn out to be a stimulus for the development of coastal communities. The ports may create the impact of an economic boost in their regions, thus becoming a basis for a variety of economic activities, if only local governments were more active in taking advantage of their inherent value.

As economic and spatial structures, and at the same time also nodal points for transport infrastructure, local ports may serve the following basic economic functions:

- ◆ transportation: connected with freight services, transshipments, storage and warehousing of goods;
- ◆ industry: connected with performing industrial activities on port areas (renovating and building small vessels, renovation and production of fishing gear);
- ◆ trade: corresponding with the roles and functions a sea port fulfils in the process of goods' distribution, e.g. sorting, repackaging, implementing contracts to buy or sell goods, providing financial and legal services;
- ◆ Baltic fisheries services, including activities such as handling, storage and processing of fish and the maintenance of cutters and fishing boats which come to the port;
- ◆ tourism and recreation, connected with the handling of international passenger transportation services, servicing passenger ships and coastal passenger crafts, yachting, services having to do with various water sports and forms of recreation (angling, diving, etc.).

It can be assumed that, apart from the Tricity (Gdańsk, Gdynia, and Sopot) and the Szczecin agglomerations, Polish seaside areas are among the least developed regions in the country. The relative prosperity of resorts situated directly by the sea, such as Międzyzdroje or Krynica Morska, does not change this assessment. Minimizing and eventually eliminating these disproportions requires long-range, intentional and global actions to be undertaken. In brief, it is necessary to choose the right strategy and implement it with consistency.

The core principle of such a strategy must be that of harmonious development. This denotes that the economic, social, and ecological goals are to be considered equal. Positive actions should not be abandoned *a priori* simply because a group of ecologists opposes such actions, for example. There is practical evidence that in a great many cases, nature is able to coexist alongside human intervention. Finally, human beings are also a part of nature, and as such, have the right to live in the highest accessible standard of living.

Given the conditions present in Poland, taking full advantage of the opportunities that a coastal location implies would first require a more efficient network of transporta-

tion connections between the settlements, most especially sea ports. Without cooperation with inland transportation there can be no possibility of harnessing the touristic and recreational values of passenger shipping. The qualities of coastal areas will prove valuable only on the condition that they are ensured efficient connections with the rest of the country. Seaside transportation routes' quality and type, as well as their alignment, should be adjusted to the anticipated functional structure of the local ports and the seaside municipalities' economy, additionally accounting also for their natural values.

Local ports' seaward accessibility must be guaranteed by maritime administration, which means that any scale and execution period shall depend on the condition of the state's budget. This calls for harmonisation of the ports' policies within those financial means. It is necessary not only for the municipalities and port towns, but also for the government to determine a directional sequence of actions to be taken. By no means should this imply a "stiffening" of budget expenditures on the development of infrastructure ensuring access to ports, but rather a need to cooperate with other institutions and agencies when forming long-term plans.

Clarification of the term "coastal areas", and postulates of the state's transport infrastructure development

Landforms of the Polish coastline and the historical processes contributing to its development make it possible to divide it into few coastal regions, whose geographical features, settlements, and economic structures are diverse. Beginning in the east, these regions are called:

- 1) The Vistula Lagoon coast with the Vistula Spit;
- 2) The Gdańsk Bay with Hel Peninsula;
- 3) The coastal fringe of the open sea spreading from Władysławowo to Dziwnówek, in which we can distinguish areas around the lagoon lakes: Sarbsko, Łebsko, Gardno, Wicko, Kopań, Bukowo, Jamno, Resko Przymorskie;
- 4) Areas around the Szczecin Lagoon, the Kamieński Lagoon, and Dabie Lake.

A problem all these coastal areas share is the weakness of land transportation infrastructure, which is a prerequisite of being accessible from the inland parts of the state, and to one another. There are three axes that connect the coast with the rest of the country:

- ◆ The East Axis, which includes the national roads no. 7 and 1; the A1 motorway; and railway lines connecting: Gdynia – Malbork – Warszawa, and Gdynia – Tczew – Bydgoszcz (the so-called coal trunk line),
- ◆ The Middle Axis: national road no. 11 between Poznań – Koszalin – Kołobrzeg,
- ◆ and the Western Axis, with national road no. 3 and railway lines connecting Szczecin – Poznań and Szczecin – Kostrzyn (the nadodrzańska line).

The roads and railway lines of which the above listed axes consist are currently in various stages of development and may be expected to reach the assumed standards of express roads no. 7, 1, 11 and 3, and of high-speed rail links (160-200 kph) in the case of the Gdynia – Malbork – Warszawa line. The modernisation of the railway lines running from the south of the country to the East Coast, i.e. to Szczecin and Świnoujście, is still in their initial stages. The basic transportation lines connecting the coastal areas with one another are:

- ◆ thoroughfares: road no. 22 from the eastern border of Poland to road no. 7; road no. 7 from the Elbląg bypass to Rumia through the Tricity bypass, and road no. 6; road no. 6 from Rumia to Goleniów; and road no. 3 Szczecin – Goleniów – Świnoujście;
- ◆ the railway line connecting Elbląg – Gdańsk – Gdynia – Słupsk – Koszalin – Szczecin.

In fact, all the areas situated to the north of these routes may be labelled as coastal areas that have not been strictly defined. The entire above-mentioned thoroughfare is being modernized, with individual parts at various levels of implementation. The process should be finished after road no. 6 is upgraded to the express road standard. The railway line is currently in a pitiful state, except for the Malbork – Gdynia section – a part of the Gdynia – Warszawa route. The modernisation of road no. 22's section between the Elbląg and Swarżyn junction on the A1 motorway would also be welcome.

While the basic transportation network connecting both the defined coastal areas and its individual parts is in the midst of a well-advanced modernisation process, the network integrating them on an internal level still leaves a lot to be desired, though the possibilities here are varied, depending on which of the four above-mentioned sections one considers. In the cases of three of these, the communication functions, i.e. regular cruises between the ports, which would relieve passenger transportation by road and railway lines, may be exercised by short shipping services. These include:

- ◆ the Vistula Lagoon area,
- ◆ the Gdańsk Bay area, and
- ◆ the Szczecin Lagoon area.

Undoubtedly, such circumstances are very favourable, as the passenger traffic to the coast clearly displays a highly seasonal character. Due to the conditions of the roads, it requires an enormous effort and substantial risk to reach certain resorts by car. Additionally, increasing the capacity of respective roads is difficult in the technical and environmental sense, as well as economically unsound. Thus, a seasonal employment of shipping services may serve as both a tourist attraction and a solution to the problem of inaccessibility. When it comes to the Vistula Lagoon, it is not only possible to ensure a passenger connection from Tolkmicko and Frombork to Krynica Morska, which is already under construction, but at least one single weekend line between Elbląg and Krynica Morska is also feasible. A qualitative change might be introduced by developing ferry routes between Elbląg and Krynica Morska, Elbląg and

Kąty Rybackie, Tolkmicko and Krynica Morska, or one of those connections. The implementation of this idea would be possible on the condition that adequate beachheads have been built in Kąty Rybackie and Krynica Morska. Elbląg is already fitted with one.

These investments may also create the chance to establish ferry connections with Russian ports by the Lagoon. A ferry line from Tolkmicko would, however, require the missing Suchacz – Kadyny section to be built, so that it would no longer be necessary to travel through the Elbląg Upland. Creating such connections would reduce traffic on road no. 502 between Nowy Dwór Gdański – Stegna, and road no. 501 between Stegna – Piekło, which are barely passable in July and August, but perfectly sufficient in the low season.

The road networks of the Elbląg and Braniewo districts are of sufficient parameters, but they require repairs in numerous places. An increase in traffic would be expected after a local visa-free regime were granted to movement from Kaliningrad. Although a great majority of travellers will use road no. 22 through the new crossing point in Grzechotki, road traffic is also bound to increase on roads of the Elbląg Upland.

The proposed investments may also enable an accelerated transformation of the region in question – from a region of failing former State-Owned Farms characterised by structural unemployment into a region of diverse local economic activities profiting also from services and tourism. When it comes to maritime transport, a decisive factor for the region's development may be solely the construction of a canal through the Vistula Spit, which will give a fast and direct connection between the ports by the Lagoon with the Baltic Sea and also to ships three times bigger than those which may presently travel through the Lagoon, i.e. with a carrying capacity of 2.5–3.5 t DWT, and to Baltic cruise vessels. Additionally, two basins, the Vistula and Gdańsk Lagoons, would be integrated.

The Gdańsk Bay areas display totally different characteristics. Here, the strong influence of the Tricity agglomeration is evident, and is soon to have the best transportation connections with other locations in the country and abroad. The economic structure is also different here, and consequently different capital resources and, last but not least, the ability to exert clout on authorities are present. The level of the region's industrialization is going to increase further after a nuclear power plant is installed in Żarnowiec. Outside the Tricity, the key problem with transport is land access to the Hel Peninsula, namely modernisation of road no. 216 Rumia – Władysławowo – Hel. It should be noted that on a larger scale, such actions will probably be impossible in the Władysławowo – Hel section. Fortunately, a rail link is in place, which should be maintained rather than wound up, as it happened in the case of the line along the lagoon's coast between Elbląg – Tolkmicko – Frombork – Braniewo. In this case, final improvements could be made in times of greater economic prosperity, on the condition that the lands occupied by the tracks are not used for other purposes. It is necessary to keep the

Gdynia – Hel railway connection, as with the ongoing development of modernisation the necessity to issue an administrative restriction on automobile access to the peninsula will eventually require attention.

From Władysławowo to Dziwnówek, over 200 km of coast spread out, open to the Baltic Sea. The area between the shore, the vicinity of road no. 6, and the Gdynia – Szczecin rail link is the third of the coastal areas marked out earlier in this work. In an industrial and social sense, it is one of the least populated and hence least urbanized and poorest regions in Poland. Suffice it to say that there is but one town with more than 40,000 inhabitants – namely, Kołobrzeg, and two towns with 14,000 and 16,000 inhabitants – Ustka and Darłowo.

The largest towns between the Tricity and Szczecin are Słupsk (approx. 100,000 inhabitants) and Koszalin (110,000 people). Farming and forestry still dominate the region's economy, while directly adjacent to the sea, fishery and recreation (understood as laying on the beach) rule. Nonetheless, the transformation of this state of affairs is already in process. It can be seen in the reduction of fisheries and emergence of a new-to-Poland marine service: sea angling. In the 2014 season there were about 140,000 people recorded angling from fishing vessels. Passenger shipping and sailing are also becoming popular. Finally, there has been substantial progress in the field of fish processing, where imported fish is a basic raw material. This means, in turn, an opportunity for the ports of this coastal region to attend to the product's transshipment.

Generally, it can be claimed that despite the decline of the Baltic Sea fishery, the opportunities a seaside location offers now to the region are better than in the past. To take full advantage of this chance, it is necessary to urge bolder steps regarding the modernisation of the road network between national road no. 6, and the coast, as well as maintaining and upgrading still existent railway connections. Of an especially great importance here is the quality of roads in the east-west orientation, which directly connect the ports in the area in question, such as:

- ◆ road no. 213 Puck – Słupsk, together with side road of road no. 214 to Łeba, and of road no. 210 to Ustka; the latter is to become an axis of the the Słupsk – Ustka settlement complex;
- ◆ road no. 203 Ustka – Darłowo – Koszalin;
- ◆ section of road no. 11 Koszalin – Kołobrzeg;
- ◆ road no. 102 Kołobrzeg – Trzebiatów – Dziwnówek – Międzyzdroje;
- ◆ road no. 103 Trzebiatów – Kamień Pomorski.

Modernisation of these roads is crucial for the development of passenger shipping along the coast, as the top speed of the vessels currently in use is so low (usually not faster than 10 knots) that it cannot possibly be attractive to tourists, unless ensured a faster means of transport for the return journey, e.g. a bus. Even after faster means of transport are introduced, which is bound to take place sooner or later, this option may be seen as precarious, as:

- ◆ an abrupt change in weather may occur,
- ◆ a return trip by bus enables tourists to visit attractive places outside the coastal area.

It is also important to improve the technical state of roads connecting the coast with the main rocade road in the area, namely national road no. 6, such as the road no. 109 Płoty – Mrzeżyno. It must be stated here that modernisation of the road network should be given priority not only because of the opportunity for making use of the seaside location, but also to increase civil development and enable the modernisation of traditional branches of industry such as farming in general.

Within the realm of strictly maritime transport, it will be necessary to modernize tonnage of passenger vessels, so that they are faster and more comfortable for travellers. The weakness of ship-owners' capital proves how difficult it will be to achieve this goal without public aid. This help may come from any of the following three sources:

- ◆ the European Union (e.g. the Marco Polo programme),
- ◆ the State Budget, and/or
- ◆ local governments.

The last ones, though, seem likely to disregard the problem, which can be inferred from the withdrawal of partial reimbursement of tickets for commuters travelling daily from Gdańsk, Sopot and Gdynia to Hel or Sobieszewo Island. The authorities of Elbląg have also resigned from similar actions concerning weekend cruises between Elbląg and Krynica Morska after the 2010 season.

The last of the discrete coastal areas comprises the western part of the West Pomeranian Voivodeship (*Zachodniopomorskie*) by the Pomeranian Bay, the Szczecin Lagoon, and the Kamieński Lagoon. It spreads between two agglomerations – Szczecin to the south and Świnoujście to the north, and also encompasses Wolin Island, as well as the Polish part of Uznam Island. The Oder River cuts the region into two parts, with the only fixed crossing points situated in Szczecin. Hence, the first requirement of activating this area, or rather boosting the development of its poorest eastern parts between Kamień Pomorski and Goleniów, is the Police – Święta ferry crossing, as projected many years ago. After it is built, this vital factor in the development of proximities to the German border may finally start impacting the area's growth. Poland's admission to the Schengen Areas created favourable conditions for cross-border cooperation, but how they will be used depends solely on the ingenuity of local authorities and the business sector. This applies especially to the areas on the Oder River's left bank and Świnoujście. In the latter, a road tunnel under the Świna River is required. Only then will the Świnoujście agglomeration, and a small part of Uznam Island, be able to influence the development of Wolin Island and the previously-mentioned eastern part of the region.

The third and essential infrastructure investment is the implementation of the western ring road of Szczecin. It is

also of major importance to upgrade the following roads' standards:

- ◆ to the east of the Oder River: road no. 107 Dziwnówek – Kamień Pomorski – national road no. 3; road no. 106 Kamień Pomorski – Nowogard; road no. 112 Goleniów – Stepnica; road no. 113 Goleniów – Święte leading to the planned ferry crossing;
- ◆ on the Oder River's left bank: road no. 114 Tanowo – Police – Nowe Warpno; road no. 115 Szczecin – Hintersee.

If Szczecin is to develop naturally to the north, it may be expected that the entire area between the Oder River and the German border will transform from a rural one into an urbanized one. The orography of the coast around the Szczecin and Kamieński Lagoons offers good conditions for shipping to be activated not only between Szczecin and Świnoujście, but also between the local ports from Dziwnówko through Dziwnów, Kamień Pomorski, Wolin, Nowe Warpno, Stepnica, and Trzebież to Police. The open border also allows for cruises to German ports. Since buying alcohol on ships is no longer granted duty-free treatment, it is necessary to ensure that cruises to these ports are attractive if the demand on such voyages is to increase. To ensure this, it is up to the discretion of the relevant municipalities' authorities. Such shipping is likely to be of seasonal character, yet it may increase the region's level of attractiveness overall. However, shipping between Szczecin and Świnoujście may take shape along a communication route, and what's more, function for most of the year due to the climate. To date, neither the railway, nor the bus services are able to ensure as fast a connection as hydrofoils. The major potential issue here is ensuring the carrier's profitability due to a high cost of carriage. Hydrofoils produced in Russia are fuel-inefficient. And so, it is necessary to replace those ships with those that are equally fast but require less gas, or to provide financial subsidies to the ship-owners from the local authorities.

Aims of modernisation

The modernisation of transportation infrastructure is a fundamental condition that must be fulfilled to ensure the successful development of the coastal regions strategy, the aim of which may be described as follows:

The basic aim is to achieve a higher level of civil development and citizens' prosperity. This aim may only be achieved through a boost of economic productivity, which is dependent upon the success of the economic structure's transformation, where former sectors such as farming, forestry and fishery are losing ground to tourism, recreation, health services and certain sectors of production based on advanced technologies. By no means does it imply the disappearance of traditional branches of industry, but rather their modernisation, which is especially true in the cases of farming and food processing.

With the exception of the Tricity and Szczecin agglomerations, the coastal areas are equipped with the following

advantages of which to make use in their pursuit of these objectives:

- 1) for the next 20 years or so, an exceptionally favourable ratio of employee qualification to cost of work is to be anticipated;
- 2) the ageing population of Europe is going to seek additional recreational and health services, as may already be observed;
- 3) by European standards, the coastal areas offer access to a relatively clean natural environment.

The weakest point of these areas is most certainly their climate, which reduces the intensity of the tourism sector's work to only few months a year, though civil progress may extend the length of this period. Even by the Mediterranean Sea the winter months impede tourism.

The modernisation of the transportation network is the key condition to accomplish the goals defined of this paper for the coastal areas strategy, though it is not the only one. It is also necessary to adjust energy and water supply networks and sewage treatment systems to meet new needs, and to solve the problem of waste treatment. In other words, a fundamental breakthrough in the field of technological infrastructure, understood as all the equipment used for transportation of: goods and people, energy, water, and information, must be made.

Of no less importance is the development of social infrastructure, that is, educational establishments and health care facilities of all kinds. When taking into account the differences between the income levels of Polish citizens and those of the citizens of rich European countries, it is clear that Polish coastal areas may gain a competitive advantage over the ones situated to the west and north of Poland, if only because of better labour skills.

The implementation of the strategy, if it is to lead to the fulfilment of the above-stated goals, will require the full cooperation of all levels of public authority, from municipal councils to the government and parliament. This cooperation should apply to all infrastructural investments, most of which are the government's responsibility; namely, national roads, railway links, infrastructure ensuring access to ports, and electricity transmission networks. Vital tasks are also assigned to local governments, which are the entities responsible for spatial planning – a basic tool in coordinating the infrastructure's development, and the owners of some of the infrastructure's components, such as voivodeship and county roads, communal ports, etc.

It is therefore correct to postulate in favour of developing rules for a system of support for selected areas of activity. So far, such support has been given by EU initiative only to the fishery to limit its potential. It seems necessary to ensure similar support to the owners of short sea ships, especially passenger ships, and to the development of port infrastructure in conjunction with the individual ports' strategies.

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