European Commission

Fish / 2006 / 09

Assessment of the status, development and diversification of fisheries-dependent communities

Władysławowo Case study report

August 2010

Acronyms

EFF	European Fisheries Fund
EU	European Union
FIFG	Financial Instrument for Fisheries Guidance
Fpa	Fishing mortality precautionary approach reference point
GT	Gross tons
ICES	International Council for the Exploration of the Sea
kW	Kilowatt
LFSC	Local Fish Sale Centre
NUTS	Nomenclature of Territorial Units
SSB	Spawning Stock Biomass
TAC	Total Allowable Catch
WWF	World Wildlife Fund

This report has been prepared through a joint collaboration between Alyne Delaney (IFM, Aalborg University, Denmark) and Tomasz Nermer (The Sea Fisheries Institute, Gdynia, Poland). The authors acknowledge the important role played by local stakeholders in providing both the quantitative data and the qualitative information presented in this report. This support has been critical in generating primary data not previously available for the Władysławowo area.

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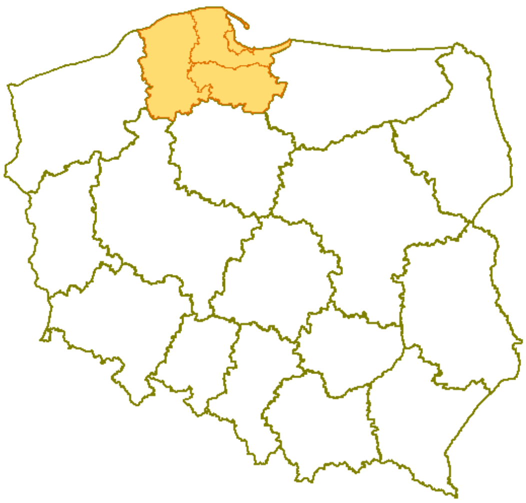
1. Introduction

1.1 General description

Władysławowo commune (municipality) has the feel of an urban area, despite the fact only one of its eight localities has the official status of a town. Located 50 kilometers from the regional capital of Gdańsk, most of the community is spread out on the mainland. A small part of it, however, is located on the 500 meter-wide Hel Peninsula. This location has enabled Władysławowo fishers to take advantage of both open sea fisheries in the Baltic Sea as well as utilize resources in the Bay of Puck. Tourism and fisheries have been the industries which have exerted the most influence on the shape of the community. There is a large ethnic group, the Kashubians, who have settled here and rely greatly on the fisheries for the livelihood, and their presence also impacts the community make-up. Though there was a great deal of out-migration in the EU-accession years, with the slowing global economy, residents began to return in 2008. Compared to the rest of Poland, Władysławowo has poor infrastructure as well as limited industry; consequently, tourism and fisheries are extremely important.

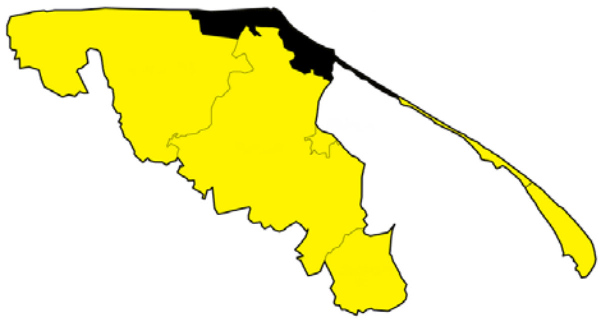
1.2 Location

Władysławowo is located in the Baltic region of northern Poland. In accordance with the classification of statistical territorial units, the area is located within the NUTS2-PL63 zone (the Pomorskie Voyvodship), while the present description refers to a smaller area: NUTS 5 - PL632; 5.325.22.29.11.04.1 (the municipality of Władysławowo).The whole zone covers the area of 39.22 square kilometers. The geographical coordinates delimiting its borders are as follows: 54,8323N and 18,2043E; 54,7543N and 18,5236E. The nearest administrative center related to the community is the city of Gdańsk, which is located 50 kilometers from Władysławowo.



Source: Central Statistical Office

Figure 1. Localisation of NUTS2 – PL32 in Poland Office



Source: Wikipedia

Figure 2. Localisation of NUTS5 (PL632; 5.325.22.29.11.04.1) in Puck County

1.3 Key geographical characteristics of the community

Władysławowo is located at the head of the Hel Peninsula and partly on the peninsula itself. It is interconnected with neighboring communities by two district roads (the 215 and 216), the Gdynia-Hel railway track, and one maritime port which functions as a border crossing that connects the area with Lithuanian, Scandinavian and Latvian ports. The part of Władysławowo facing the Baltic Sea can be a brutal, unprotected area not shielded from winds; the part of the community situated on the Hel Peninsula facing the Bay of Puck is quiet. It is exposed to a lesser degree to atmospheric conditions and to the activity of waves. The local climate is characterised by flows of marine and polar air, which bring about clouds, drops in temperature and humidity during the summer, while in the winter they bring warming, thawing and rainfall. Generally speaking, there are fewer warm days compared to the more western part of the coast, while there are more days with light frost, rainfall and freezing weather.

The municipality tends to have a rather urban character, despite that fact that of its eight localities only one, Władysławowo, has the status of a town. The community is situated on the continent; however, part of it is on the 500 meter broad Hel Peninsula. It lies at a distance of 50 kilometers from the regional capital – the city of Gdańsk. In addition to the fisheries on the open sea, resources located in the Bay of Puck are also utilized. At the sea bottom closest to the area of the commune, one finds mainly various kinds of sand, from fine to coarse varieties. In the vicinity of Cape Rozewie, there is also a small-sized area abounding in more coarse sand with a larger amount of gravel, boulders and stones.

In contrast to the town of Darłowo, which is 20 kilometers the mainland area of Władysławowo, on NE there is a rapid, nearly 70 meter descent of the sea bottom. The fisheries situated on the high sea (in the vicinity of the Gdańsk Deep) are closer to Władysławowo than the Darłowo fisheries to their own. The coast is of varied character; the coastline is diverse and so are the character and the breadth of the beaches. In the vicinity of Cape Rozewie, the Swarzewski Cliff makes a rapid descent into the sea. As a result of prolonged wave action, the beach there is narrow with gravel and stones. Heading towards Władysławowo, the cliff becomes increasingly lower with wider and sandier beaches.

The establishment of the seaside resort Hallerowo in the 1920s was of great significance for the creation of the town of Władysławowo. The construction of the port, which was completed prior to World War II, was also of key importance. After the war, smaller localities such as Wielka Wieś, Hallerowo and the port settlement merged war (1952) to form the commune of Władysławowo. In 1963, Władysławowo was granted city rights, and ten years later, the seven remaining localities became part of the town of Władysławowo. The historical events that shaped the present municipality were not in any way unusual since they were part of a specific social transformation which affected much of Poland, thus the fisheries, which was inhabited, to a large degree, by an immigrant population.

The specific character of this social transformation resulted from political developments that took place in Poland after the war and lasted until the country finally regained its independence and freed itself from Russian control. Since the 1990s, it has been the tourist industry (along with the fishing industry) that has exerted the greatest influence on the shape of the community.

2. Demographic aspects

2.1 Population and population age structure

According to statistics, 15,059 people persons resided in Władysławowo in 2009. The general trend (Figure 3) shows an increase in the population, which is in contrast to the mean trend for the whole country (Figure 4). This may have to do with the attractiveness of the area as a possible dwelling place (the coastline belt lying close to a large agglomeration of cities), combined with a relatively low level of out-migration.

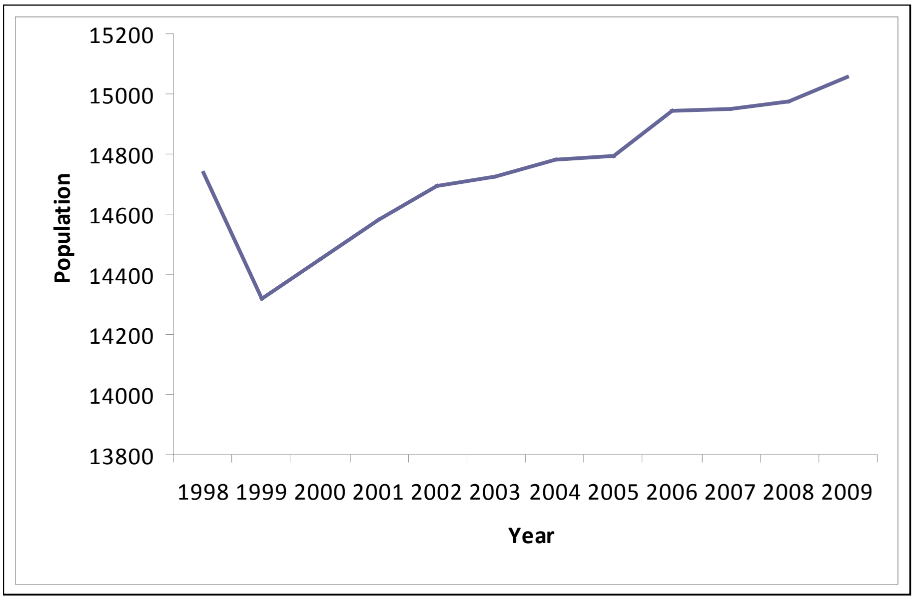


Figure 3. Total population over time (Władysławowo community)

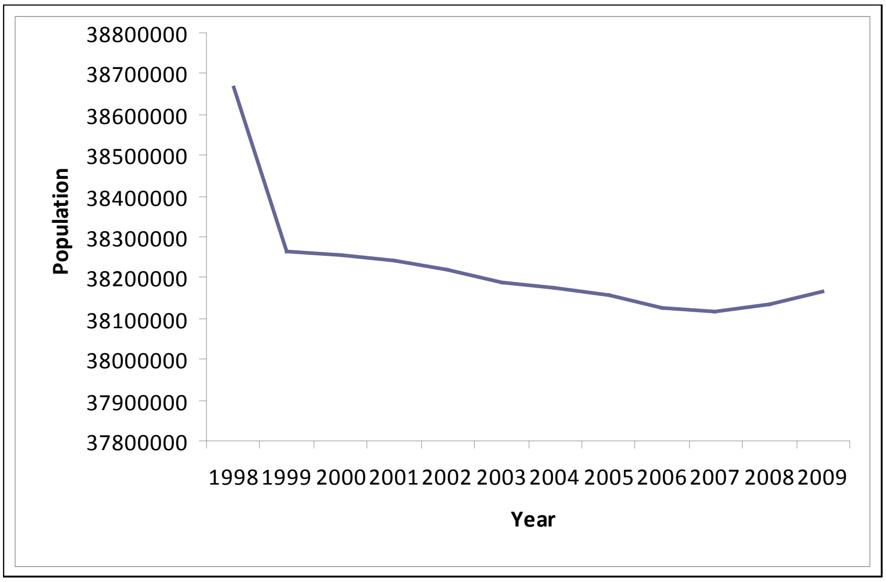


Figure 4. Total population over time (Poland)

The number of persons of productive ages has increased (from 59 % in 1998 to 65 % in 2009) in Władysławowo. It has decreased for the youth (33 % in 1998, 25 % in 2009) while it has slowly grown for those in their post-production years (7 % in 1998, 10 % in 2009). This kind of trend is characteristic of a regressive pattern.

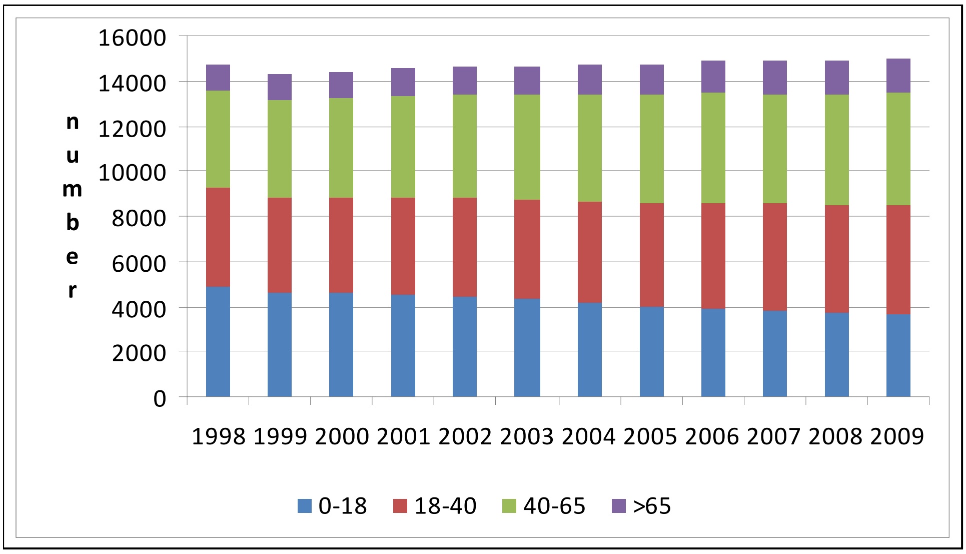


Figure 5. Community age structure

2.2 Ethnicity and migration

The Kashubians are the main ethnic group living within the confines of the commune. They are an indigenous ethnic group that has dwelt in this area since the 13th century. The Kashubians are a typical borderland population that has for ages lived in a territory that belonged to different countries. Many Kashubians were Germanised or Polonised over the years, either voluntarily or compulsorily. Many well known German and Prussian military figures were of Kashubian descent but either they did not identify with their native culture or their bond with it was completely lost within one generation (e.g., Johann David Ludwig York von Wartenburg). Some of the important factors shaping the ethnic structure of the local society have been: 1., the immigration of persons in accordance with the settlement program for ex-soldiers after World War II (by the terms of which land was granted to volunteers and deserving ex-soldiers); 2., the transfer of the population from the central part of Poland; 3., the resettlement program for the population from the eastern borderlands of Poland as part of the Vistula Resettlement Operation, and 4., the re-emigration of Poles from France. Presently, one can observe a seasonal inflow of people from the inland of the country, who are not permanent residents of the region. This particular group is focused on renting tourist accommodations during the summer season. Off-season, the accommodations remain unoccupied.

The internal migration balance for the 10 year period under discussion is variable without any definite trend, although the negative changes noted in recent years may have been caused by rising prices for real estate or by lack of employment, external migrations that occurred when labor markets were opened in EU countries, have been minor and the first indications of return migration was noted as early as 2008.

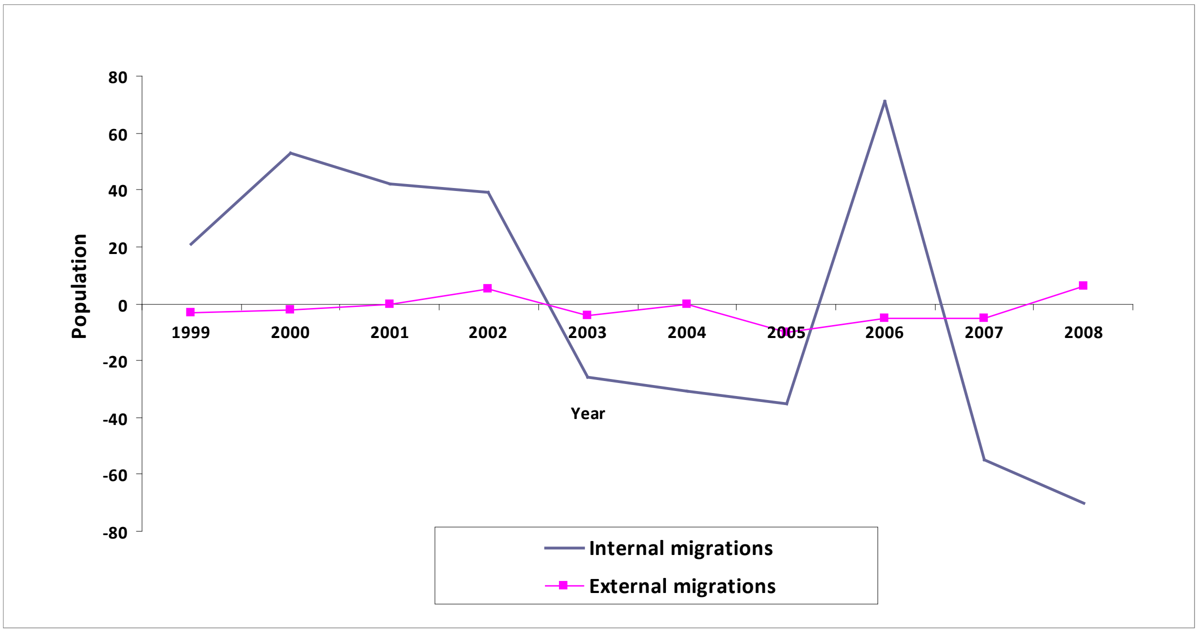


Figure 6. In/out migration from and into the community over time

3. Economic aspects

3.1 Importance of economic activities

In Poland, gross added value for individual sectors of the economy on the level of NUTS 5 is cloaked in statistical secrecy for reasons of confidentiality. The available quantitative data refer to the number of individual businesses according to the type of their activity. The data below unequivocally indicate that the most important sector of economy for Władysławowo is tourism, which is shown by a significant number of businesses such as hotels and restaurants.

Table 1. Domestic business entities registered according to the PKD classification in 2004

Type of business activity	Public sector	Private sector
Agriculture, hunting, forestry	0	40
Fishery	0	60
Mining	0	0
Processing industry	1	108
Production and distribution of electrical energy, gas and water	2	1
Building trade	2	177
Wholesale and retail trade	1	475
Hotels and restaurants	0	2,385
Transport, storage services and communications	0	124
Finacial brokerage	0	45
Real-estate management-rentals and other services	9	155
Public administration, national defence; obligatory social insurance	4	4
Education	10	19
Health and social service	3	44
Activities related to communal , social, individual And other type of services	2	117

Being an integral part of the maritime character of a seaside town, the fishing and processing sectors constitute a major element of the community's economy and they provide significant employment. However, in recent years the sector has seen a slow decline which can be attributed to a decrease in fishing quotas and to the introduction of other restrictions. Since 2004, the number of businesses engaged in fishing dropped by 20%. Furthermore, the processing sector, as seen in other communities in the EU, is gradually becoming less dependent on local resources; hence imported fish are being processed, not locally landed fish. Fishing continues throughout the whole year with the exception of closed seasons, which in the case of cod, the most important species in this area, falls in the months of July and August. During this period, the local fleet engages mainly in tourist and angling activities. The heaviest tourist traffic takes place during the summer season.

3.2 Employment and unemployment

Figure 7 (below) shows the employment trends, and the number of employed at their major workplace (excluding individual farming), and the number of the registered unemployed persons. The data related to the employment structure in the individual sectors of the economy are unavailable for Władysławowo.

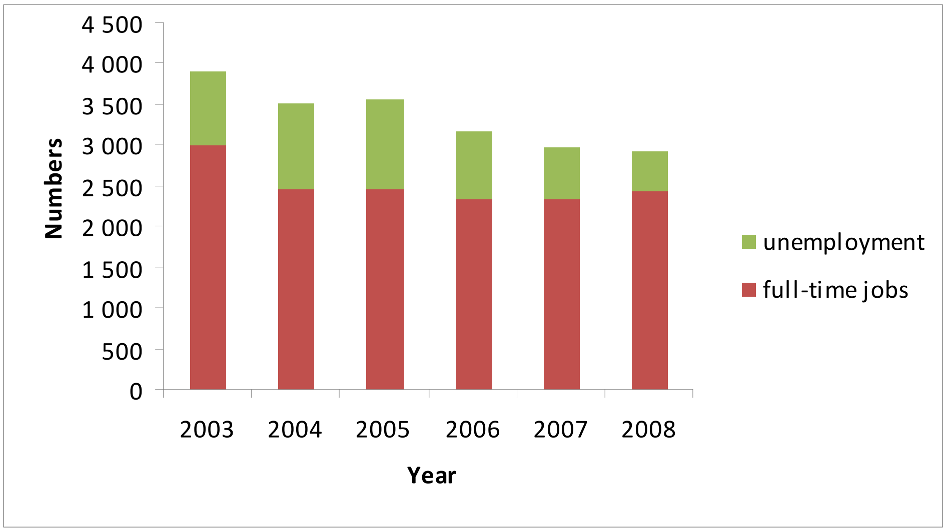


Figure 7. Employment and unemployment

The level of unemployment is better exemplified by the share of the registered unemployed in the overall number of persons in their productive years. In the course of five years, the unemployment rate dropped from 9-11% to around 5%. During the period of time under consideration, the rate of unemployment in Władysławowo was lower than the mean rate in Poland, which is a telling factor as far as the job market and its opportunities for Władysławowo are concerned. Tourism, services and the fishing sector are the main sources of employment.

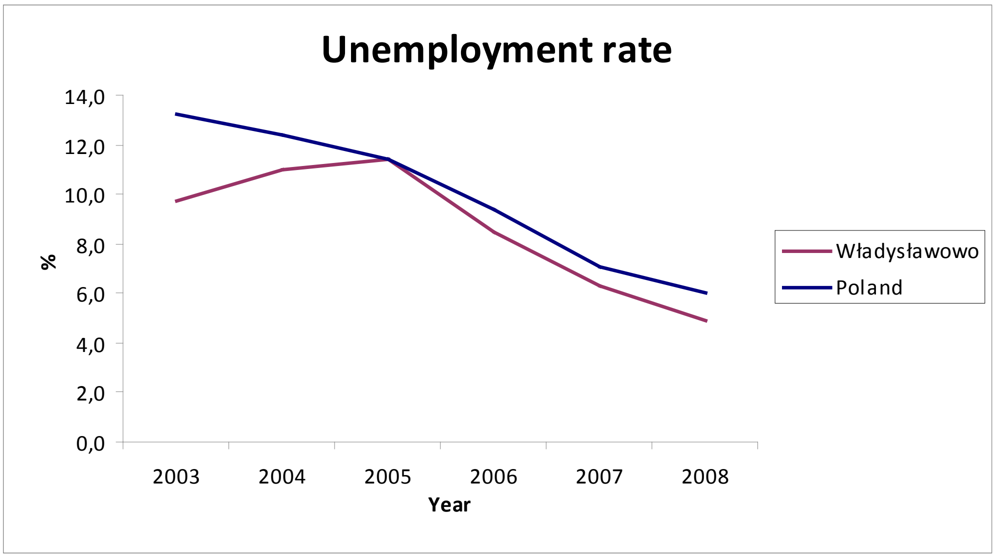


Figure 8. Unemployment rate

The current assessment of the trend in the share of employment in the fishing sector compared to other sectors only takes into account the level of employment on fishing vessels and in the fish processing industry. The support sector has not been included in the statistics. The declining trend is the direct result of the withdrawal of the fishing fleet. Presently, only 30% of all employed persons in the fishing sector are fishermen that actually work at sea. In the course of four years, employment on vessels and cutters dropped by 50%.

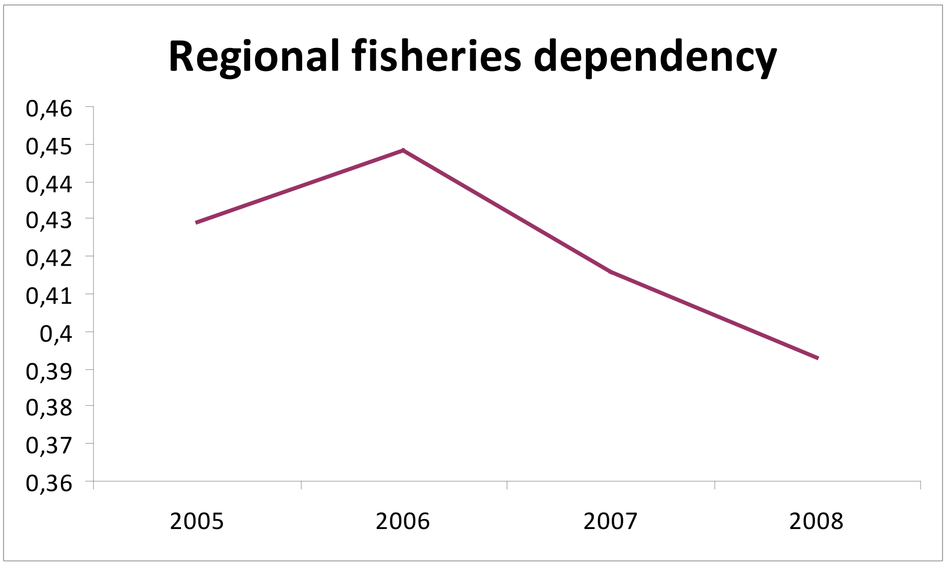


Figure 9. Regional fisheries dependancy

3.3 Infrastructure

The overland roads included in the town's communication system

- District road no 215, interconnecting Władysławowo and Sulicicie near Krokowa, is 22 kilometers long. It is in extremely poor physical condition.

- District road number 216 (DW216) runs through the whole Pomorskie Voyvodship, including the counties of Wejherowo and Puck, interconnecting the northern part of the voyvodship with the Tricity (Gdynia-Sopot-Gdańsk) agglomeration. The Tri-city ring road is interconnected with the A1 motorway and is the nearest express way to be found in the area - located 40 kilometers from Władysławowo.

Railway

Władysławowo gained access to the railway network when a railway track to the Hel Peninsula was built.

The town lies on a one-track, non-electrified railway track (no 213) that interconnects the towns of Reda and Hela. During the summer season express trains also call at the station.

Aviation infrastructure

The nearest civil airport is located 60 kilometers away in Gdańsk Rębiechowo (GDN)

Education

There are three junior high schools and high schools in the town and commune of Władysławowo.

3.4 Local development plans

Local development plans show the socio-economic condition of the municipality, how it formulates its objectives, and also includes a description of a strategy aimed at achieving economic development. The plan estimates the anticipated effects of interventions and their influence on the course of the developmental process. It also indicates the areas where structural funds and the funds of the commune should be allocated.

Among the objectives to be realised within the investment plan, two programs play a dominant role: the Baltic Sea water protection plan and the program for the alleviation of problems related to the communication system in the town of Władysławowo. The Baltic Sea water protection plan concerns the comprehensive regulation of water and sewage systems. It is being realised by the Union of Communes at Władysławowo and was expected to be completed between the years 2004-2008. Its realisation entailed the completion of several goals in the area of sewage management.

The program for solving the communication problems in the commune of Władysławowo is a comprehensive program for the construction and modernization of several communal roads including their electrical installations and rain-water drainage. The program embraces forty-nine streets with a varying range of needs. The program will be realised in two stages. The first was planned for the years 2004-2006. The individual priorities for the Władysławowo commune were defined more comprehensively in the following way:

- The local technical infrastructure (the main activities in this area were targeted at developing the sewage, water, gas and road networks)

- The local social infrastructure: the construction of social security facilities, the acquisition of a communal flat and the organisation of addiction-prevention programs. Additionally, the commune intends to support the investments made by the town inhabitants' self-governing body.

- The local infrastructure for environmental protection: the expansion of the sewage system aimed at the protection of surface and ground water, the implementation of a communal waste management system and the redevelopment of the heating system installations in some buildings.

- The local tourist infrastructure: the construction of the infrastructure, the support for the native culture of the Kashubian people.

None of the afore-mentioned strategic domains and activities is guaranteed to ensure the efficient functioning and development of Władysławowo.

There are many types of socio-economic activities which are not included in the above domains. The Local Development Plan, however, launches projects in the so-called strategic domains, also referred to as "the locomotives of development", that is to say, in the ones that condition the development of the other spheres.

4. Fisheries and aquaculture sub-sector

Władysławowo is, behind Kołobrzeg, the largest fishing port on the Polish coast. In 2009, the total amount of fish caught by the fishing fleet registered in that port was 30.3 thousand tonnes (23% of the whole Polish catch on the Baltic Sea), of which 80% was sprat and 11% was herring. The total value of the catch amounted to around six million Euros - with the sprat catch constituting the major part of it (about 50%), next to the cod catch (25%). In 2009, Władysławowo was the largest fishing port in terms of the tonnage of the fishing fleet.

4.1 Details of the local fishing fleets

At the end of 2009, there were sixty-one fishing vessels registered at Władysławowo. Their total tonnage was 3.6 thousand GT while the engines' power was 13 thousand kW. Among them were eight vessels that did not fish (inactive vessels in 2009). The fleet based at Władysławowo consists of fishing vessels, boats and cutters of various sizes ranging from 5 to 30 meters. On account of the close proximity of the sprat and herring fisheries, the structure of the fishing fleet is characterised by the dominance of units specialising in pelagic fishing, including pelagic trawls fishing fodder sprats. Smaller sized vessels, such as 12 meter boats and 12 to 24 meter cutters, specialise mainly in fishing demersal fish (cod and flounder). The gill net vessels (five) belong to the segment that has been recovering its importance after the implementation of the ban on drift nets in 2008. For the vessels registered at Władysławowo, the seasonal nature of fishing is similar to the average number for Poland. Most of the unloading takes place during the winter-spring and early summer season. During the closed season for cod, salmon and bull trout, in summer, the 12-24 long line units suspend fishing activities for all-intensive purposes, while the 12-24 gill nets and 12-24 otter trawls, that mainly fish cod, reduce their activities.

Table 2. Fleet segments

Segment (length class)	Number of vessels	main gears used	Number of crew (average)	Main species fished	Main fishing locations (ICES areas)	Trip length (average days)
00-12	13	passive gears	2	cod, flounder	III d	1
12-24	4	gill nets	4	cod	III d	2
12-24	5	long lines	4	sea trout flounder	III d	1
12-24	11	otter trawl	4	cod, flatfish, herring, sprat	III d	1
24-40	1	otter trawl	6	cod, flatfish, herring, sprat	III d	1
24-40	19	pelagic trawl	6	sprat, herring	III d	1

Primarily as a result of the fishing fleet reduction plan, co-financed from the FIFG funds, the number of vessels registered at the port of Władysławowo between 2004-2009 dropped from 101 to 61(-40 %). The highest reduction of the fishing fleet was seen in the category of 24-40m otter trawls that specialize in cod and flatfish fishing. Apart from the scrapping program, another important factor that enhanced the reduction of the number of vessels in this category was also the new system of dividing the fishing quotas for cod. The reduction of the number of fishing licenses caused the vessels specialising in cod to either completely suspend their activities or to retrain to catch other kinds of fish, for example, by moving to the pelagic sector. The vessels based at Władysławowo are quite old with the average age (in 2009) being 32 years. The units in the 12-24 long lines and 12-24 gill nets category are the oldest. Their average age exceeded 50 years in 2009. The 12m fishing boats are the newest (22 years).

The port of Władysławowo is managed by the “Szkuner” company, the last of the five state fishing companies that were once engaged in fishing on the Baltic Sea. There is a Local Fish Sale Center (LFSC) managed by one of the producers in charge of the fishing vessels owned by "Szkuner". The idea was for the LFSC to be a go-between in the direct sale of fish. It was to be responsible for the quality and assortment of the fish unloaded at Władysławowo. However, the majority of fish unloaded and sold directly continues to occur outside of the existing center in the form of individual transactions between the sellers and buyers.

Table 3. Of trends in fleet segment numbers

Segment	2004	2005	2006	2007	2008	2009
00-12 passive gears	11	12	15	15	15	13
12-24 gill nets	9	10	9	8	9	4
12-24 long lines	3	2	3	2	1	5
12-24 otter trawl	25	20	21	19	19	11
24-40 otter trawl	31	13	16	12	8	1
24-40 pelagic trawl	21	15	9	14	20	19
Non-active	1	2	1	5	3	8
TOTAL	101	74	74	75	75	61

Table 4. Of trends in fleet segment power

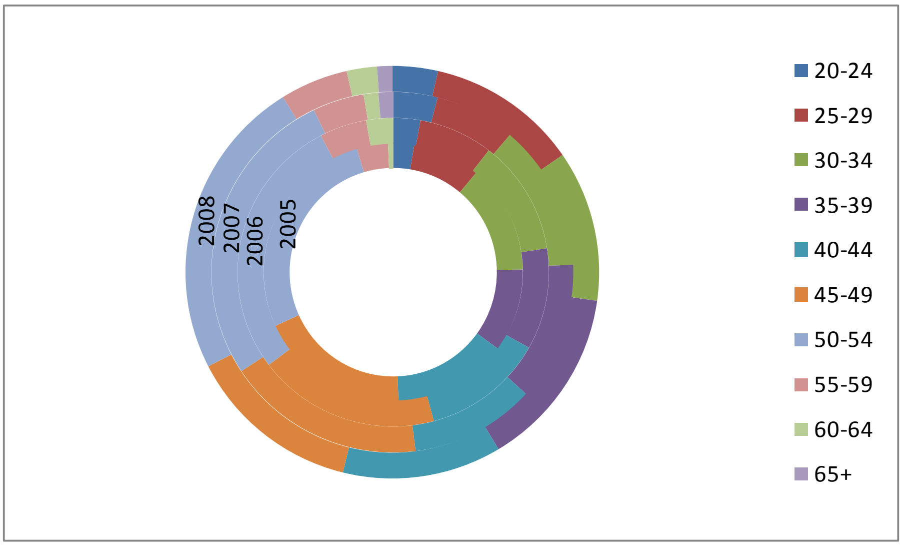
Segment	2004	2005	2006	2007	2008	2009
00-12 passive gears	372	395	695	658	714	506
12-24 gill nets	976	1,222	1,148	1,153	1,348	436
12-24 long lines	315	218	499	242	73	864
12-24 otter trawl	5,697	4,509	4,731	4,301	4,176	2,629
24-40 otter trawl	7,545	3,235	5,045	3,290	2,084	219
24-40 pelagic trawl	7,983	6,462	3,775	5,993	8,135	7,331
Non-active	11	201	0	736	308	967
TOTAL	22,900	16,243	15,894	16,373	16,837	12,951

Table 5. Of trends in fleet segment tonnage

Segment	2004	2005	2006	2007	2008	2009
00-12 passive gears	66	68	106	104	103	86
12-24 gill nets	304	361	335	294	347	133
12-24 long lines	90	61	165	69	21	196
12-24 otter trawl	1,396	1,144	1,175	1,069	1,040	516
24-40 otter trawl	2,969	1,267	1,780	1,176	753	95
24-40 pelagic trawl	2,683	2,239	1,348	2,033	2,730	2,325
Non-active	3	51	1	216	63	304
TOTAL	7,510	5,190	4,909	4,961	5,057	3,655

Source: fishing vessel register, own calculations

Figure 10 shows the age breakdown of fishermen employed on fishing vessels based at the Władysławowo port. From 2005-2008, employees aged from 50 to 54 made up the greater part of all persons employed (26%). The percentage of fishermen in this age category decreased during the same period from 27% to 24 %. A relatively large group of the employed were below 44 years (54%). The highest percentage of those employed on vessels graduated from vocational schools (about 65%), while only few of them graduated from post-grammar schools (most of these school were those with a fishing industry profile) and schools of higher education.



Source: Sea Fisheries Institute, RRW-19.

Figure 10. Age structure of crew members employed on vessels registered at Władysławowo

4.2 Fish stock status

In terms of the volume of fish, herring and sprat (small pelagics) and cod are the key fish varieties for Władysławowo fishers.

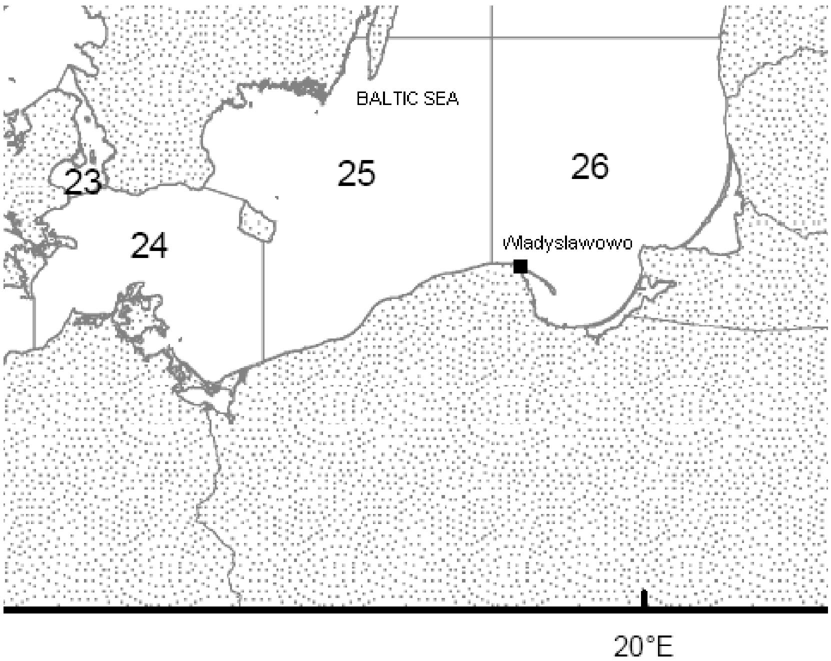


Figure 11. ICES areas related to Wladyslawowo fisheries (www.ices.dk)

The sprat exploited by the fishing fleet based at the port of Władysławowo belongs to the same stock whose range embraces the whole of the Baltic Sea (statistical sub-divisions ICES 22 – 32). Viewed from the perspective of many years, the stock status of sprat has fluctuated considerably, having reached the maximum biomass in the 1996-1997 seasons.

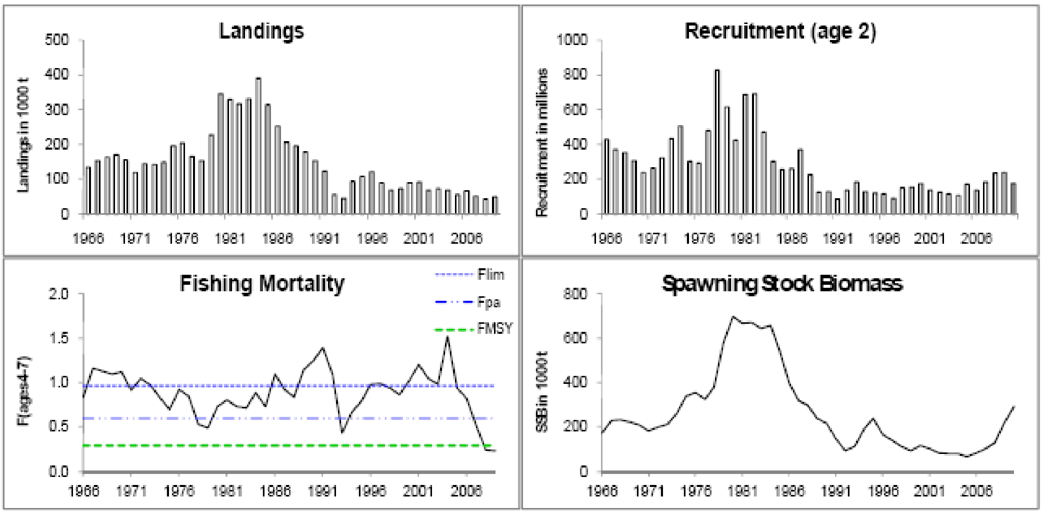
In subsequent years, the intensive exploitation of the stock and the successive low year classes have contributed to the decrease of the stock. Between 2002 and 2003, the value of the biomass was no different from the mean value for the period of many years. The 2002 and 2003 year classes caused an increase of the biomass in 2005, but the weak or mediocre generations from the years between 2004 and 2007 contributed to a decrease of the biomass in 2006 and 2009. Before 1990, the mortality of fish stock fluctuated from 0.2 to 0.35 then dropped considerably in the early 1990s. Between 1995 and 2002, it reached the range of 0.3 to 0.4 and afterwards it increased to the level of 0.45 to 0.55.

Since the mortality of fish stock exceeded the level of Fpa (0.4) in 2009, the stock was classified as running the risk of being overexploited.

The biomass of the herring spawning stock (the area ICES 25-29, 32) showed a noticeable decline from the middle of the 1970s through the turn of the century. It fell from the level of 1.8 million tonnes in 1974 to 360-370,000 tonnes from 1999-2001. Since that time, the biomass has increased steadily, and according to the most recent data, it reached the level of 560,000 tonnes in 2009.

Until 1982, cod mortality was very stable, nearing 0.2. In subsequent years, fishing intensity grew considerably, reaching the level of 0.35 in mid 1990s and 0.45 towards the end of the century. In the most recent years, the mortality of fish stock decreased to the level of 0.20-0.25 between the years 2005-2008. Since the mortality of fish stock has exceeded the level of Fpa. (0.19), in 2009, the stock was classified as running the risk of being overexploited. The stock status of cod from the eastern stock shows signs of a gradual recovery after its decline in the 1990s.

This recovery can be attributed with the reduction of mortality of fish stock (limitation of fishing effort), as well as with favorable environmental conditions (inflow of salty water from the North Sea) and with the successful spawning in 2007 and 2008. The volume of fisheries for the fishing fleet based at Władysławowo has been presented in the paragraph 4.4.



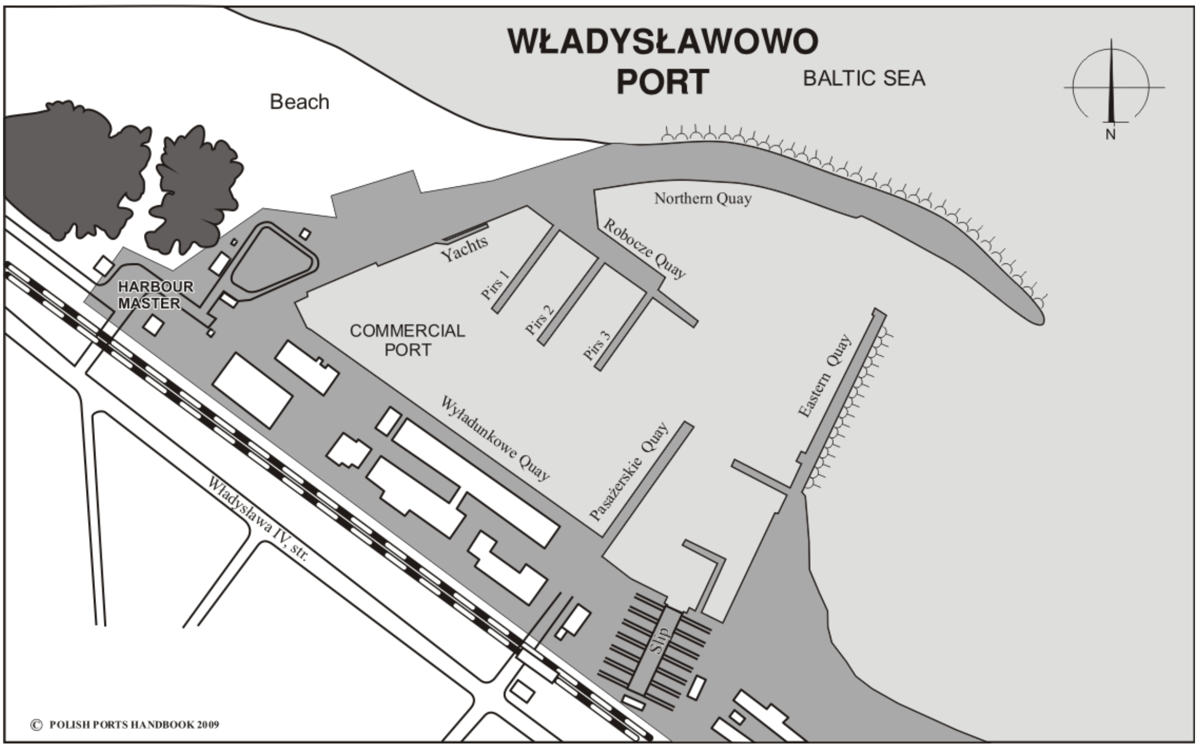
Source: ICES advice 2010. www.ices.dk

Figure 12. Cod in SD 25 32.Summary of stock assessment (weights in 000 tonnes)
Top right: SSB and F over the years.

In the case of cod, there is a long-term management plan incorporated into the official directive (EC) No. 1098/2007. The objective of the plan was to keep the mortality rate on the level of F= 0.3, which has been accomplished. According to the guidelines, the TAC level for 2011 should double, however, due to political negotiations it continues to grow by around 15 % per year.

4.3 Fisheries infrastructure

The fishing port at Władysłwowo is managed by “Przedsięiorstwo Połwów i Usłg Rybackich Szkuner” (PPiUR „Szkuner”), a state owned company. It is the largest port in Poland in terms of the number of the registered vessels.



Source: Wortal Morski

Figure 13: Wladyslawowo harbor

General information on the Harbor

The port is sheltered by two breakwaters: the eastern is 340 meters long and the northern is 620 meters long. The main and internal entrances are around 60 meters wide. The admissible draught of entering vessels may not exceed 4.0 meters. Depths within the port vary from 4 to 6 meters. Details of the quays, piers and jetties are as follows:

- Fishery base: Fishing vessels moor at jetties 1, 2, and 3 and occupy a part of the passenger pier and discharge quay.

- Berthing of yachts and cruise ships: The berth for yachts is a yacht quay in the western part of the port. The berth is to be assigned by a representative of the harbor radio service. In the summer season, the northern berth is occupied by cruise ships.

- Repairs: The repair shipyard carries out repairs and the overhaul of fishing vessels and other lesser vessels. The shipyard uses the fitting-out quay as well as a repair jetty and a slip jetty. A marine railway is available for vessels up to 30 m in length and dead-weight tonnage of up to 220 tons.

- Deviation dolphin: Located on jetty 3. Determination and compensation of deviation using the dolphin is available to vessels of up to 25 m in length.

- Harbor facilities and equipment: The port is equipped with stacking yards, a railway siding and a traveling crane of 18 tons as well as a slipway for yachts of up to 12 meters in length. It is possible to connect to a power source and there is also a bilge water and an oiled water discharge point. Diving and towing services are also available.

Fisheries infrastructure

- The Local Direct Fish Sale Center – owned by the Szkuner Company, managed by the Fish Producers Organization at Władysłwowo.

- Eight ice generators

- Fresh water intake point

- Power source point

- Fuel is delivered by means of a fuel bark or by a tank lorry

- "Szkuner" owns two tunnels for box washing with a capacity of 4 thousand boxes per day, which is utilized according to need.

- Individual fishermen may leave their fishing equipment in rather small-sized premises found in a deposit warehouse owned by "Szkuner" outside of the port

- Fish are unloaded directly to refrigerator lorries with the use of the equipment installed on vessels and then shipped to customers outside of the port.

- "Szkuner" is supplied by its own fleet or by the fishermen who lease the fishing vessels owned by the company. Fish not intended for consumption are unloaded by a rotary pump owned by a Danish company that receives fodder cargo. Sorting is carried out by very inefficient equipment installed on vessels. The port of Władysłwowo is the only one on the Polish coast to utilize deposit warehouses that actually belong to the entity managing the port. The coolers and freezers owned by "Szkuner" can hold 280 tonnes and 2200 tonnes respectively.

4.4 Details of the local catching sub-sector

Despite a considerable decrease in the tonnage and the number of vessels based in the port of Władysławowo, the volume and the value of the fisheries for the vessels that have remained in business have not changed considerably (comparing 2009 to 2004). A particularly noticeable increase, almost two times greater than the preceding year, occurred in 2009. This occurrence resulted from a considerable increase in sprat fishing, including fish for fishmeal production (fodder fisheries). Also because of the afore-mentioned change in the allocation of fishing quotas for cod, the volume and value of unloaded cod decreased considerably. Moreover, the prices of these fish dropped, which can be attributed to a noticeable increase in the volume of unloaded fish by foreign vessels that sold these for lower prices. As a result of a lack of efficient fishmeal production plants, the whole sprat fodder catch is reloaded to foreign vessels or unloaded directly at Danish ports. This is why only a small amount of the sprat caught by pelagic trawls has been unloaded at Władysławowo.

In additional to handling and servicing its own fleet, the Władysławowo port also handles fishing vessels from other Polish ports (15) as well as foreign cutters (mainly from Latvia). The volume of the cargo unloaded at Władysławowo in 2009 by foreign vessels amounted to 1.8 thousand tonnes. Due to the port's attractive location, some of the vessels based at Władysławowo engage in recreational fishing and angling in the summer season.

In terms of being serviced, there is some discontent among those in the local catching subsector as they feel foreign vessels are given priority over them. These foreign boats often receive higher prices than the local fishers; they also fill a small niche which Polish fishers were forced out of through decommissioning schemes.

Table 6. Of trends in landings volume – vessels registered in Wladyslawowo port only

VOLUME (tons)	2004	2005	2006	2007	2008	2009
sprat	21,319	17,984	14,946	13,650	10,797	24,300
herring	4,834	2,125	1,874	3,266	2,618	3,424
cod	1,964	2,176	2,684	2,246	2,376	1,524
flatfish	414	267	218	638	609	1,048
others	26	10	16	46	19	31
Total volume	28,558	22,562	19,739	19,847	16,419	30,327
VALUE (000` Euros)						
sprat	1,853	1,449	1,535	1,859	1,585	2,953
herring	906	483	512	952	781	866
cod	1,916	2,544	3,280	2,911	3,065	1,562
flatfish	161	116	97	293	262	327
others	60	22	69	223	51	145
Total value	4,896	4,615	5,494	6,238	5,744	5,852

Source: own calculation on the basis of FMC in Gdynia data

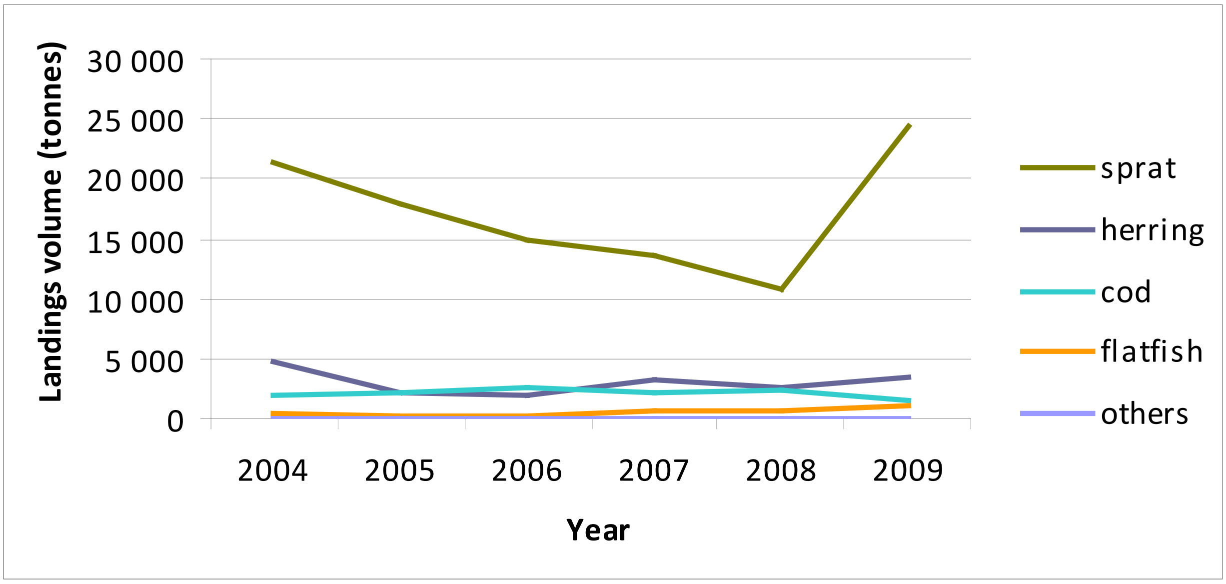


Figure 14. Landings volume (tonnes)

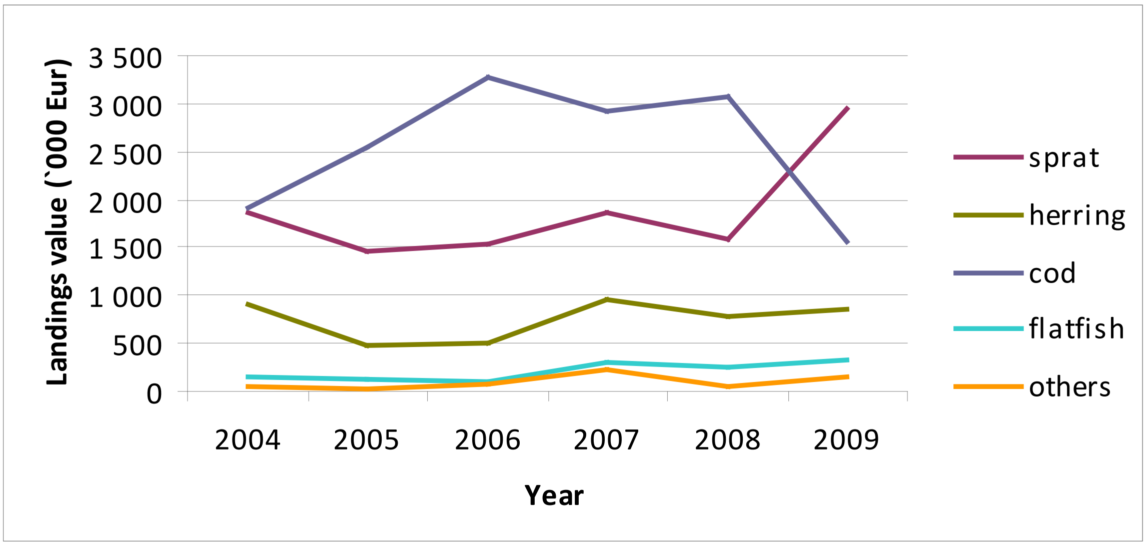


Figure 15. Landing values (`000 Euro)

Table 7. Trends in price of species

Euros/kg	2004	2005	2006	2007	2008	2009
sprat	0.09	0.08	0.10	0.14	0.15	0.12
cod	0.98	1.17	1.22	1.30	1.29	1.02
herring	0.19	0.23	0.27	0.29	0.30	0.25
flatfish	0.39	0.44	0.44	0.46	0.43	0.31
sea trout	2.09	2.23	3.87	4.34	4.55	5.27
salmon	1.53	1.71	4.32	4.22	4.64	4.41
others	2.30	2.31	4.25	4.82	2.72	4.61

4.5 Details of the local processing sub-sector

Within the commune of Władysławowo, there were seven fish processing companies employing a total of 680 persons. Due to confidentiality issues regarding data, detailed information on individual firms, such as their turnover and total production figures, are unavailable. Two figures below show the total volume (Figure 16) and value (Figure 17) of the processed fish.

The production trend in the period shown in the diagram is negative, while its value continued to grow through 2007, after which time there was a noticeable drop.

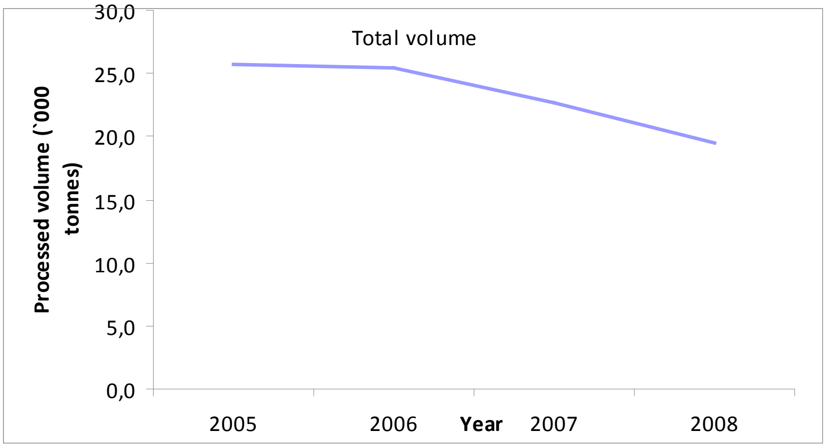


Figure 16. Processed volume

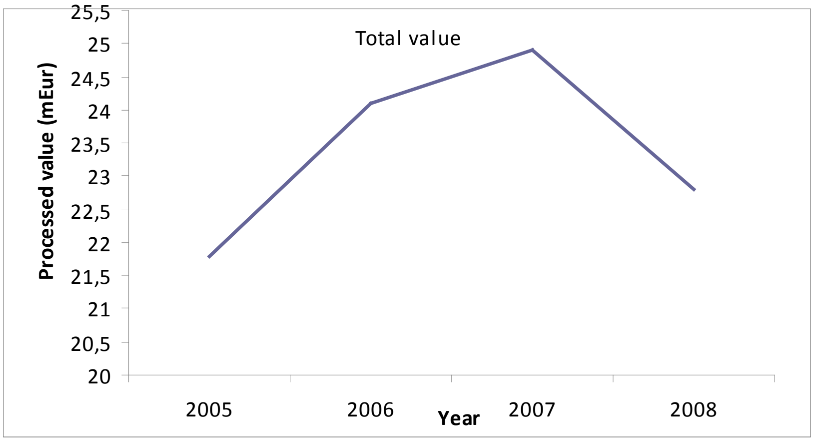


Figure 17. Processed value

The local processing subsector appears to give higher prices for the catch of foreign boats, which causes discontent among local fishers.

4.6 Details of the local aquaculture sub-sector

There is no aquaculture sub-sector in Władysławowo.

4.7 Details of the local ancillary sub-sector

The businesses found in the ancillary sub-sector in the shipyard include: the net producer *Gryf*, individual net manufacturers (one is registered), one company involved in repairing hydraulics, and another company supplying engine oils.

5. Governance

5.1 Key local institutions

Fishery organisations:

The Union of Sea Fishermen

The organisation was put on the register of recognised organisations in 2004, after Poland's accession to the European Union. It was established based on the Fishing Market Organization Act and the Financial Aid to the Fishing Industry Act dated January 22nd 2004.

The Union of Sea Fishermen is the oldest fishing organisation in Poland. It was established in 1946, a year after the end of World War Two. In those years, representatives from the Union of Sea Fishermen together with representatives from the Maritime Fishing Institute and the Sea Fishermen's Bank were management board members of the Fishery Supply Center, an organisation which supplied various materials to the whole of Pomerania, Poland.

The statutes of the organisation, dating back to the late 1940s, set the following goals:

- Uniting all fishers in one trade organisation
- Protection of and support for cultural, educational and commercial interests of its members
- Training for young fishermen
- Co-operation with all the institutions and authorities endeavouring to develop sea fishing

Presently, the Union of Polish Fishermen realises goals which are similar to those determined by other legally recognised organisations in the fishing sector. In 2009, the union banded together ship-owners owning thirty-three cutters based at Władysławowo.

The Union of Fish Producers

This organisation was put on the register of recognised organisations in 2004, after Poland's accession to the European Union. It was established based on the Fishing Market Organization Act and the Financial Aid to the Fishing Industry Act dated January 22nd 2004.

The company's main goal is to carry out balanced fishing and to improve sale conditions of the products procured by co-partners. These goals are achieved, among others, by means of the following:

- Production planning with respect to supply and demand for fishery products on the market and the stabilisation of prices
- Utilisation of fishing methods which secure a balanced exploitation of living sea resources
- Concentration of supply and improvement of sale conditions and advertising
- Establishing and promoting standards for high quality fishery products
- Collection and management of statistical data regarding production and sales
- Protection of the interests of co-partners
- Development of mutual assistance and co-operation among fishermen
- Management of fishing quotas – after agreement from respective authorities has been obtained

The company elaborates an operational program for each calendar year. The programme is afterwards presented to a respective minister for approval. The company's operational programme defines precisely the goal and the schedule for activities indispensable to its realisation, including: fishing schedules, plans for launching fishery products onto the market and plans aimed at increasing product quality.

In 2009, the union banded together ship-owners owning seven cutters based at Władysławowo.

The *Szkuner Company*

The Fishing and Fishery Services Company *Szkuner* began its activity as of January 1st 1955. It was established based on a decree issued by the Navigation Minister on December 1954.

The *Szkuner Limited Liability Company* engages not only in fishing and fish processing, but it also offers ship-repair services to cutters and smaller vessels and supplies cutters with nets, ice and packaging.

The *Szkuner Limited Liability Company* is presently the sole trader of the State Treasury engaged in fishing on the Baltic Sea. In 1950s, *Szkuner* utilized small-sized fishing cutters (15-17 meters long). In subsequent years, larger vessels were gradually acquired while the smaller cutters were sold off to individual fishermen. Between 1956 and 1968, *Szkuner* engaged in fishing on the North Sea. Over time, the number of fishing cutters increased from thirty-one to fifty (1982 was a record breaking year – with fifty-two vessels). Presently, the company owns eight fishing cutters of the B280, B403 and B410 type. These vessels are the newest, biggest and most modern in the whole Polish cutter fleet on the Baltic Sea.

The North Kashubian Local Group of Fishermen

The North Kashubian Local Group of Fishermen is an incorporated entity. It was established on April 3rd 2009 based on a bill regarding support for the balanced development of the fishing sector with the use of resources from the European Fishing Fund.

The organisation unites, apart from Władysławowo, the communes lying in the seaside belt stretching from the towns of Puck to Jastarnia.

Its main objective is the multi-functional activisation of the areas which are dependent on fishing with financial support from the European Fishing Fund (the fourth axis of the Polish operational programme "Ryby" 2007-2013) based upon the Local Development Strategy for Fishing Areas. As of June 2010, the Ministry of Agriculture had not chosen any Polish strategy for realisation. The anticipated completion of the first phase of collection has been set for July 2010. In case the group fails to receive the financial support from the 4th operational program, it may seek financial aid from other programmes or engage in business activity.

Other organisations and associations within the community:

- The Guild of Varied Crafts (also from outside of Władysławowo)
- The Trade and Services Union (with its branch office in Władysławowo)
- The Inter-communal Union of the Bay of Puck
- Nordalot (a tourist association)

5.2 Public intervention

The table below shows an assessment of the amount and the utilisation of funds in the fishing sector. The funds came from FIFG (Financial Instrument for Fisheries Guidance) and were also co-financed from Poland's budget. The projects were realised between the years 2004 and 2008. Presently, the collection of applications continues within the framework of EFF (European Fisheries Fund).

Table 8. Public funds in Wladyslawowo fishing sector (2004 – 2008)

Public investment (EUR)	Source of funding	Investment cost (private)	What was the investment intended to achieve?	What were the outcomes (or expected outcomes)
13,758,624	FIFG + POLbudget		Scrapping of fishing vessels	Adapting the fleet to the estimates for fish stock status
333,069	FIFG + POLbudget		Transfer of the vessels to other countries or a change in their use	Adapting the fleet to the estimates for fish stock status
515,098	FIFG + POLbudget	726,475	Modernisation of existing fishing vessels	Improvement of the quality and efficiency of work
5,697,772	FIFG + POLbudget		Fishing infrastructure of the port	Modernisation of wharves
759,682	FIFG + POLbudget	938,457	Fish processing and fish market	Creation and development of the sector
19,093	FIFG + POLbudget		Socio-economical activities	Protective measures for the persons leaving their job
45,853	FIFG + POLbudget		Finding and promoting new markets for fish products	Anticipated increase in the consumption of fish products
163,231	FIFG + POLbudget	2,905	Activities of organisations engaged in legal transactions	Refunding of administrative costs
1,235,282	FIFG + POLbudget		Temporary suspension of activities and other financial compensation	

6. Stakeholder analysis

Focus groups were held with community and fisheries stakeholders to review the data compiled and trends uncovered for the report and to discuss the future of the community. Some of the attendees of the focus groups and interviewees included:

Adam Drzeżdżon – Major of the town, burma@wladyslawowo.pl, 48 058 674-54-00
Jacek Świdziński – vice Major of the town, burmb@wladyslawowo.pl, 48 058 674-54-00
Mirosława Białkowska – President of "Szkuner" company, szkuner@szkuner.pl, 48 058 674 05 85

Kazimierz Dettlaff – President of “Union of Fish Producers”, 48058 677 74 60

7. Qualitative interpretation and analysis

For the qualitative analysis, focus groups were held with community and fisheries stakeholders to review the data compiled and trends uncovered for the report and to discuss the future of the community.

During the first part of the meeting, the objectives of the project were briefly presented and also the role of the individual project participants was explained. During the focus group, most of the available data were confirmed as accurate by the attending stakeholders. However, the participants did not express their opinion on some of the data due to a lack of information on the subject.

Demographics

Data regarding employment were consistent with the official data; however, it has been suggested that unemployment may have been even lower than that in the presented data, if one accounts for limited seasonal work. This, of course, does not provide full-time employment.

Development plans

Focus group participants noted that there was no direct link between the data regarding the local plans for the development of the commune with those of the fishing industry. During the discussion on the division of fishing vessels, one participant observed that the division of large vessels into pelagic and gill nets was artificial and that either kind of fishing equipment might be utilised on these vessels.

Supplemental information related to Public intervention has been presented in point 5.2. As far as this subject is concerned, on the one hand, fishermen claim that the funds for scrapping are too small, while, on the other hand, the local government claims that fishermen would have incurred losses related to the decline of cod stock even without the fishing quotas having been imposed, and that their situation could have been far worse had it not been for the funds from the European Union.

Infrastructure

The view on the state of the infrastructure of the fishing industry, as presented earlier, when presented in qualitative interview settings, was generally held to be accurate. However, not all the available infrastructure seems to be utilised on a permanent basis.

Catching sector

The 40 % decline in vessels from 2004-09 has meant a need for worker retraining and changing to other fisheries, particularly to the pelagic sector. Such a change has meant harder work and less pay; consequently, many of the younger fishers have migrated to work on boats out of the area. The boats are, on average, quite old (32 years). When looking at the subgroup of 12-24m, the average age is actually over 50 years.

Processing subsector

There has been a decrease in profit generated by the processing sub-sector. This results from the fact that in Władysławowo, it is the Szkuner Company which engages in processing to the greatest extent, and it bases its activity on the fish that come from the Baltic Sea. The remaining companies, whose share in the community's fish processing is smaller, base their production on imported fish, and they process fewer fish. Furthermore, the most fish is still unloaded directly with personal arrangements made between fishers and buyers.

In terms of the catching and processing sub-sectors, prioritising the servicing of foreign vessels increases the frustration of Polish catching sub-sector. Foreign vessels fish in the rich fishing grounds of Polish economic zone and fill a niche created by the scrapping of large parts of the Polish fleet. Moreover, the prices the foreign boats receive for their catches are often higher. These facts do not allow Polish fishers to think positively about the future of the Polish cod business. Fishermen even consider that some actions are tainted by expediency in the destruction of the Polish sector, and at worst, the Polish public administration does not intend to support the aspirations of Polish fishermen with a fair distribution of quotas.

In summary, the issues surrounding foreign vessel landings in the area are as follows:

- Cod caught in the Polish economic zone of a foreign vessels do not go to the local and the Polish market.

- Foreign vessels are more modern, better equipped and have much higher quotas.

- There is an increase of employment of Polish fishermen in foreign vessels, but for less pay.

- Foreign vessels are not controlled at 100%, as is the case with Polish ones.

- Baltic cod stocks are at a high level and despite the possibility of a significant increase in fishing quotas in accordance with the cod management plan, the amount of increase is low and is determined by politicians.

Ancillary sectors

A supplement to the information on the ancillary sector was been presented in point 4.7 the net producer – *Gryf*, individual net manufacturers, one company involved in repairing hydraulics, and another one supplying engine oils.

Governance

The forum where organisations engaged in the fishing business meet at the Round Table for Fisheries, conducted by WWF, and is convened according to need when a problem arises. In the past, there used to be a Crisis Staff for the Fishing Industry; but this no longer functions. There is no forum where the authorities of the local government can meet the members of the organisations concerned with fishing. The reason for this may lay in the perception on the part of the local government that tourism and not fishing is the major development force for the municipality. There is also no forum where the local government can get in touch with other sectors. Consequently, interaction only takes place when meetings devoted to particular issues are called.

7.1 Key events and drivers of change

There were a number of important events and developments, both within and without Władysławowo, which have impacted the community. External drivers include:

- The decline of cod stock in the 1990s
- Accession to the European Union (fishing quotas but also additional payments). Some fishermen, who received money for scrapping or aid directly from the Operational Programme, used these funds to invest in the tourist industry. The persons engaged in fishing industry

supplied projects for grants which are now being evaluated. There has been a positive influence from the funds from the Operational Programme on the investments in the communal infrastructure.

- The worldwide economic crisis of the end of 2009

Internal drivers include community:

- The establishment of an unsuccessful international company by *Szkuner* in the 1990s; thereafter the company accumulated debts during the recession in fishing (since that time, profits from tourism have begun to be the major source of income for the commune).

- Fishermen received money for vessel decommissioning

Moreover, the events taking place within and without the community create numerous financial circumstances which are both interdependent and interrelated. Due to the imposition of fishing quotas and the necessary transition of many crewmembers to the pelagic sector, crew find that the work is less attractive than it once was: it is now more intensive, is harder and pays less. Consequently, young fishermen who served their apprenticeship in Poland have sought to go abroad (e.g., to Scotland, the Netherlands, Denmark) in search of better pay in recent years. The condition of the profession has also been badly affected by a tendency for young people to move to other occupations.

7.2 Adaptation

There are a number of significant hurdles for local people to adapt to new conditions. Of primary difficulty is the education of personnel; since the fishing industry provides relatively low wages, people with higher education seek jobs on land. There is also a lack of alternative employment for those forced out of fisheries. Investment to date in the fisheries sector has largely been focused on modernising infrastructure and decommissioning vessels, with less attention to the human capacity development aspects.

Moreover, retiring and collecting funds from the Operational Programme is another specific form of adaptation for fishermen. However, the advantages of such a solution seem to be dubious since people tend to retire rather than move to better jobs (which is related to the age of the persons who leave the fishing industry).

According to the local government, it is the businesses engaged in tourism, rather than those engaged in fishing, that may get hit by upcoming changes to the greatest extent.

7.3 Future development of the community

Ideally, in the near future, the fishing sector should stabilise with steady numbers of boats, landings, and value-added activities. The measures taken in connection with the privatisation of the Szkuner Company will affect the future well-being of the whole community. The spheres unrelated to fishing will continue to develop but not necessarily in a dynamic way. The representatives of the municipality do not expect economic development in the near future. An increase of fishing quotas brings about a tendency for vessels to be scrapped. The decline of cod stock, the freezing of fishing quotas and the decline of the pelagic fish stocks will have negative consequences (the latter one will result in the necessity to fish further out to sea). A change in the fish distribution system needs to be implemented, which would level out the prices of fish sold in shops and cutters.

Which way is the sector heading?
Presently, the sector is heading in the direction indicated by the European Union, meaning capacity and pressure on the stocks is being reduced. The community of Władysławowo, however,

possibly moves in no specific direction since there is a lack of awareness of development directions and strategic plans.

The fishing industry could find itself in a positive situation if the following conditions were fulfilled:

- Decisions regarding the Baltic Sea zone are taken by the states lying on the Baltic See

- Fishing quotas are increased, combined with preserving protected areas which are closed during the spawning season.

- Greater decision-making powers are granted to the fishing sector

- Unions with their own auxiliary funds – incorporating local fishing vessels are established, to which fishing quotas would be granted the way it is done in similar organisations in the European Union (first on a global level then on the level of the union itself).

- The funds from the Operational Programmes are made available and they are utilised by the sector

7.4 The role of public intervention in the past and in the future

In recent years, Władysławowo, has been on the receiving end of a number of public interventions. These have been allocated not only on infrastructural projects, but also for the scrapping of vessels, modernisation of boats, for improvement of human capacity, as well as for the starting up of fisheries-related organisations. Scrapping and marketing projects were also undertaken with private investment.

- ***Vessel scrapping*** Nearly 40% of the boats was scrapped to reduce capacity and adapt the fleet to match stock estimates. Funded through FIFG and Polish matching funds.

- ***Fleet modernisation*** Modernisation of the fleet was undertaken to improve the quality and efficiency of work. Funded through FIFG and Polish matching funds.

- ***Socioeconomic Activities*** Funds were also made available to support individuals leaving the sector. Funded through FIFG and Polish matching funds.

- ***Activities of organisations engaged in legal transactions*** were also supported, particularly The North Kashubian Local Group of Fishermen, an incorporated entity. It was established in 2009 based on a bill regarding support for the balanced development of the fishing sector with the use of resources from the European Fishing Fund.

Public intervention in Władysławowo has, for the most part, been successful in reaching the desired outcomes. Władysławowo, however, is a community with poor infrastructure and limited employment opportunities for its residents. Furthermore, fishing capacity has been reduced by 40 % quite recently. An integrated, long-term plan is needed for the future, particularly one which includes the different scales of government.

7.5 Conclusion

In conclusion, this report has revealed a number of important trends and factors with regards to the fisheries sector and the wider economy in Władysławowo. The area is very strongly dependent on the fishing sector, most notably on the whitefish sub-sector. Importantly, unlike some other communities in the EU, the local processing subsector is still highly dependent on locally landed fish from the Baltic. A very few processors rely on imported fish, but these firms are small and have a limited impact. This dependence on the fishery subsectors is the result of both the historical strength of the fishing sector, but also the difficulties in developing other economic activities due to the location of Władysławowo and its poor infrastructure connections. The fishing sector itself has faced a number of significant threats in recent years, most importantly rising production costs, declines in quotas, the scrapping of vessels to meet TAC levels, and the loss of young fishers. This has resulted in corresponding declines in vessel numbers and capacity and some pressure on ancillary services. The conclusion that has been drawn from this by the local respondents is that the scrapping of the Polish fleet did not yield any results, and only deepened the frustrations of Polish fishermen. The catch limits for 2012 will be further unjustified economically, which will cause further degradation of the sector in Poland. It is also felt that administrative decisions are currently often taken without any knowledge of or consultation with the fishing sector.

While there are some limited efforts to develop non-fishing sector activity — and these should be supported — the community is likely to remain highly dependent on fishing in the future. This means that a number of threats facing the fishing sector must be addressed. The recent de-commissioning left the average age of the 12-24 boats at over 50 years; young crew continue to seek work abroad rather than fishing at home; infrastructure remains poor. Migration has been high in the early years of EU membership, but since 2008, reverse migration has been noted. Further development therefore is needed to ensure the community has a bright future.

Responsibility for future actions is a shared one. Some actions can and must be taken by the private sector and its representation — as they have already with marketing-related initiatives. However, government and EU-support is also required in the future to mitigate risks and ensure the continuance of a sustainable viable sector generating significant levels of value-added and employment in such an area as this with few other economic opportunities. Władysławowo’s future can be a good one, provided the threats it faces are adequately addressed.