

Case study Gulf of Gdańsk, Poland



Integrating cultural values in Marine Spatial Planning and the Blue Growth

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Land Sea Act project partners worked in six geographical locations in six countries around the Baltic sea – Sweden, Denmark, Germany, Poland, Latvia and Estonia.

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1. Cultural values: definition and approaches

Marine spatial planning (MSP) is a process that aims to allocate marine space between various uses and users, now and in the future. It is a managerial and political instrument that addresses ecology, economy, and society (e.g., Ehler and Douvere, 2009; Ehler et al. 2019) in a given marine area and – often – in the adjacent land. Given this definition, culture (or speaking more broadly, a socio-cultural dimension) should be an essential part of MSP; yet this is often not the case (Gee et al., 2017; McKinley et al. 2019). Most of the current MSP processes are dominated by goals and objectives arising from the economy, ecology, or the combination of these two within a given administration framework (e.g., McKinley et al. 2019), and as a result marine cultural values (or cultural functions) are often reduced to tangible objects that are relatively easy to measure by quantitative methods¹ (e.g., Schucksmith et al. 2014; Gee et al. 2017; Grimm et al. 2019).

Part of the problem is that marine culture is a broad notion, and there is no single or well-established way as to how it should be approached in MSP (Gee et al., 2017). One of the most comprehensive definitions suggests that marine culture is about meanings people put on the sea and their relations with this environment (Gee et al., 2017). Gee and Siedschlag (2019) describe culture as *„the material and immaterial practices that shape the world as we see and experience it”*. Other authors (e.g., McKinley et al. 2019; p. 151) define it as *“attitudes, values, behaviours as well as the structures that frame social organisations and actions”* in the marine and coastal contexts. Quite often cultural values are approached through the lens of cultural ecosystem services (e.g., IRC 2019) that acknowledges the contribution of biodiversity to human well-being. A narrower approach to defining marine culture is the concept of marine cultural heritage that links ‘meanings’ and ‘relations’ with the resources originating from the past. Marine heritage relates not only to tangible sites, historical objects, and landscapes, but also to intangible habits and practices passed on from generation to generation² (Lehtimäki et al. 2020). In any case, marine culture in MSP should not be limited to the tangible objects under the water (in the sea). It should also encompass intangible relations, experiences, and attitudes.

The above list of definitions is not exhaustive, and there are many more approaches to cultural values available in the literature. Perhaps the most comprehensive overview is presented by McKinley and co-authors (see McKinley et al. 2019 for details), where the possible approaches vary from more traditional (like socio-demographics or cultural heritage), through well-established concepts like seascapes, ecosystem services or well-being, to relatively new and innovative solutions like ocean literacy, marine citizenship, or attitudes and perceptions. The spectrum of these approaches represents the forms of data – starting from traditional (or mostly used) quantitative data and ending with typical qualitative data (like narratives or emotions). Culturally significant areas (Gee et al. 2017), landscape quality approaches (Sowińska-Świerkosz and Chmielewski 2016), ‘Sustainable Livelihoods Approach’ (SLA), ‘Social Impact Assessment’ (SIA; Grimm et al. 2019) or ‘Socio-economic Impact Assessment (SEIA; Voyer et al. 2012; Grimm et al. 2019)’ are other examples of the methods most relevant for MSP practice that are not included in the overview by McKinley et al. (2019).

¹ But even these objects are not always properly registered and measured (Lehtimäki et al. 2020).

² This approach might, however, omit the modern or newly created marine culture in the region.

Given the variety of available methods, what might be the reasons for not including the broader spectrum of cultural values in MSP processes? We believe that plurality of definitions and lack of well standardized methods and approaches are among the most important challenges. Other problems may include limited or lack of cultural data that have a spatial dimension, issues with scaling up the existing datasets (that are usually collected at local level), relatively large changeability of values over time, or lack of expertise working with cultural datasets among planners and decision-makers (e.g., Gee et al. 2017; McKinley et al. 2019). In the Polish context, we suggest that lack of knowledge and associated high cost of gathering culture-related data are the most important issues restraining the wider inclusion of cultural values in the actual MSP processes.

Our research undertaken in the Land-Sea-Act is partially an answer to these challenges. By exploring the cultural values in the Gulf of Gdańsk area from a variety of perspectives, we aimed to investigate the interactions between 'the people' and 'the sea' in a complete and holistic way. We looked at (i) what the values at personal, sectoral and community levels are, (ii) how these values can inform decision-making (MSP-support framework), and (iii) how they can be used to enhance economic growth (the Blue Growth framework). Finally, we explored the future of these values in a rapidly changing world.

2. Materials and methods

2.1. Case study description

The water of the Gulf of Gdańsk and the adjacent land were selected as the case study areas for the Land-Sea-Act project. This region is located in the Eastern part of the Polish coast (Figure 1). It covers marine waters of the Gulf of Gdańsk (including the Vistula Lagoon), and the coastal (or marine) communes and municipalities from this area located within the borders of two provinces, i.e., the Pomeranian and the Warmian-Masurian Provinces (only south coast of Vistula Lagoon). The case study does not, however, have strict geographical boundaries as 'a municipality' or 'a commune' is recognized to be 'coastal' not only when it directly borders the sea (or the lagoon) but also when it recognizes itself as being connected to the sea. For example, some communes are members of the 'Association of the Coastal Towns and Municipalities' but they do not have direct access to the coastline; such communes are, therefore, considered coastal for the purpose of this study. This is in line with a neo-medieval interpretation of marine spatial planning promoted for instance by Faludi (2019). In this approach functional relations are more important than administrative borders.

The Gulf of Gdańsk area is further divided into two sub-cases, i.e., the Gulf of Gdańsk, and the Vistula Lagoon regions. The first sub-case stretches from the Western borders of the case study to the mouth of the Vistula River, while the second embraces the Eastern part of the Gulf from the above-mentioned mouth up to the border with the Russian Federation, including the Vistula Lagoon. This division reflects the historical (and cultural) differences between these two regions. The local fishing communities in the Gulf of Gdańsk sub-areas (and especially in the Puck Bay) are historical and with long-lasting bonds with the region, while the communities in the second sub-region have been – to large extent – created after World War II due to changes in borders and related migrations³. The two largest cities in the region (Gdańsk and Gdynia) and the administrative centre⁴ of the province are located within the first sub-case. Indeed, the vicinity of large cities offer the local communities more educational and professional opportunities. The second sub-case is of rural and peripheral character with an administration centre⁵ that has limited (or no) links with the marine environment and – instead – is focused around the great lakes. Vistula lagoon was inhabited by the German population till 1945 and then replaced by Poles and Russians. These two sub-cases were introduced mainly due to methodological reasons (data gathering) in order to ensure that voices and narratives coming from these two different regions (and possibly cultures) would be properly represented in the study sample. Therefore, the recruitment procedure was targeted to include stakeholders coming from both sub-regions (see details in the sub-chapter 2.2).

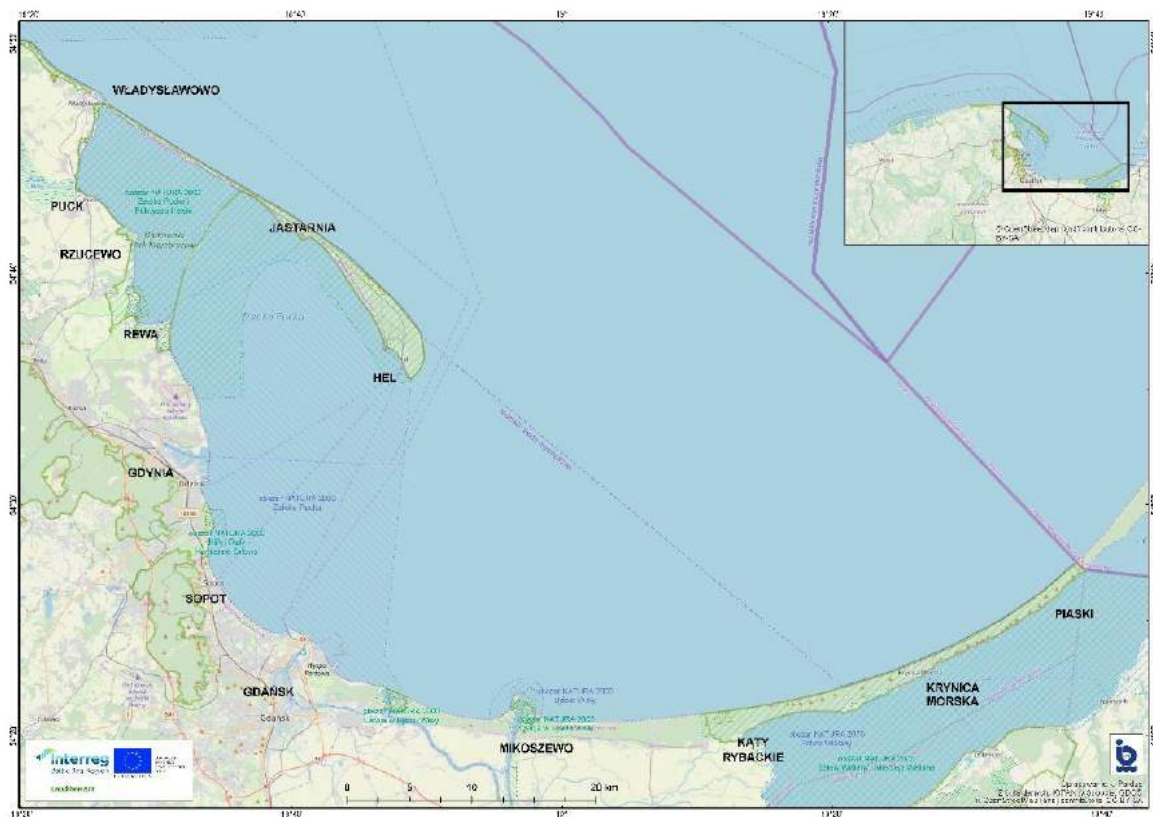
³ Such a division is of course a simplification to some extent as the Western part of the Gulf of Gdańsk has a more diverse history. There are, indeed, communities with a more historical marine culture and traditions but some places (e.g., the town of Hel) share a more complex past of changing communities. This part also includes large cities (Gdynia and Gdańsk), which do not fall easily under this classification.

⁴ Gdańsk is the capital of the Pomeranian Province.

⁵ The city of Olsztyn that is the capital of the Warmian-Masurian Province.

Figure 1 The case study area

Source: created by Joanna Pardus (2019)



That being said, the Land-Sea-Act case study does not have a strict spatial focus. Rather, it underlines the importance of the values of selected stakeholders' groups (or local communities), and their relations with and perceptions of the sea. The narratives of the selected stakeholders were further used to determine existing areas of social and cultural importance, and barriers and opportunities for using 'culture' in stimulating the Blue Growth in the coastal region. Therefore, during the recruitment process and during the actual interactions with the stakeholders, the stakeholders were left the freedom and flexibility to define their links with the sub-regions. In other words, it was ultimately the decision of a given respondent with which sub-regions they affiliate themselves. It was not a rare case that stakeholders coming from one region would indicate their important places within the border of the other sub-region⁶, which demonstrates the functional links between areas divided administratively between two different provinces.

2.2. Stakeholder involvement: the methodological approaches

The major aim of the Polish case study was to reconstruct (cultural) values and opinions that coastal communities put on 'their sea' and on 'their coast'. Therefore, various forms of stakeholder interactions were the most important methods to collect data needed to investigate the issues at hand. We used three well-established social science methods: (i) evaluation of existing documents, (ii) semi-structured

⁶ Some restrictions were put in place during the structured workshops focused on barriers to sustainable development and future scenarios as these workshops aimed to retrieve data for a given sub-region. In addition, the methodology employed did not allow for much additional (or side) discussions due to the time-constraint related to the on-line format of the workshops.

interviews, and (iii) interactive stakeholders' workshops. The first approach was used to collect secondary data and it allowed for investigating how cultural values manifest themselves in the current managerial processes; the second and third approaches were designed to allow for direct stakeholders' input. Such input was needed to identify places of significant cultural values, their use in the tourism sector (the Blue Growth question), and to develop scenarios for the future.

The evaluation of the existing documents was focused on two different sets of already existing data related to (i) MSP processes on the Polish Marine Areas, and (ii) strategic documents of the coastal municipalities and provinces. The evaluation of the MSP processes aimed to investigate how culture (or cultural values) was included in the currently prepared maritime spatial plan(s). In other words, we aimed to reconstruct how wide or how narrow cultural values were treated in MSP proceedings. For the purpose of this study, we evaluated the plan for the whole Polish marine areas (at a 1:200 000 scale) which was the only plan available at the time, when the evaluation was performed. In addition, we examined remarks concerning the plans for three more proceedings, i.e., the whole Polish marine areas (finished), and ongoing processes for the Gulf of Gdańsk and the Vistula Lagoon.

The evaluation of the strategic documents of coastal municipalities and provinces included five provincial strategies and 28 strategies of coastal municipalities and communes, including seven strategies of the municipalities that do not have direct access to the coastline but consider themselves marine⁷. The strategies included developmental strategies, strategies for sustainable development, and tourism-related strategies. These strategies could be prepared by individual municipality/commune or by a few of them with the aim to develop a certain part of the region. The major aims of our analysis were to (i) assess the level of awareness of the cultural values among local and regional decision-makers, and (ii) the forms of use of these values in development and tourism offered in the region(s). In order to systematically analyse the documents, we applied a comprehensive set of culture-related criteria based on the concept of cultural ecosystem services. This set of codes helped to understand 'what' was valued (or used) as well as 'how' or 'why' selected features were deemed important.

As indicated above, we used two well-established social science methods, i.e., the semi-structured interviews and interactive workshops run in various forms. Semi-structured interviews addressed two wide themes: (i) cultural values of the region, and (ii) the development of the tourism sectors. 50 respondents were interviewed within the cultural theme representing the variety of stakeholders' groups in the region (Table 1). 20 interviews with coastal fishers were performed in a face-to-face format; the remaining 30 were phone interviews. This change was the result of the COVID-19 pandemic when face-to-face meetings were no longer possible. The aim of these interviews were to identify (i) individual and collective (community) links and perceptions of the sea and the coast, and (ii) the significant features that are culturally valued by the local communities. These interviews were primarily used to gather data to test the MSP-support framework and prepare maps of culturally significant areas of the case study region(s).

The aim of the second series of the interviews were to collect opinions on the tourism sector in the region. Through these interviews, we investigated (i) the main development directions within this sector, (ii) if they are (or are perceived as) sustainable, (iii) opportunities and barriers for more culture- and environment-based tourism, and (iv) the impact that (mass) tourism has or may have in the future on the natural environment. 30 interviews with four groups of stakeholders (Table 1) were performed within this theme all in the telephone format.

⁷ Through their membership in the 'Association of the Coastal Towns and Municipalities'.

Table 1**Study sample for the semi-structured interviews**

Stakeholder group	Culture		Tourism	
	Gulf of Gdańsk	Vistula Lagoon	Gulf of Gdańsk	Vistula Lagoon
Decision-makers	6	4	6	4
Tourism	6	4	6	4
Fishing	11	9	0	0
Local NGOs	6	4	3	2
Environmental NGOs	0	0	3	2
Total	29	21	18	12

Each interview lasted between 45 minutes and three hours. The majority of the interviews were recorded and transcribed; whenever the respondent did not agree to that, a detailed report was prepared after each interview. Reports and transcriptions were then analysed using the content analysis (Krippendorff, 2004) based on the interpretation of the text.

Finally, we organized 24 on-line⁸ interactive workshops that allowed us to deepen our knowledge of the investigated issues (i.e., culture and tourism), and to stimulate interactions and discussions between various stakeholders involved in our case study. Similar to the semi-structured interviews, the stakeholders involved in the workshops represented various social groups (Table 2) in order to collect different narratives addressing the very same issue(s). 20 workshops were a part of the longer process of interacting with the selected stakeholders. Such processes involved email and phone interactions, completing short tasks by the individual stakeholders, and, finally, the workshops themselves. These workshops were predominantly designed to discuss individual inputs on the wider discussion fora.

Eight workshops were organized to address tourism issues in the region. These workshops (and more general interactions grouped around 'tourism' theme) followed the format of Interactive Management methodology (e.g., Warfield and Cárdenas 1993; Hogan et al. 2014). The major aim of these workshops was to identify barriers to sustainable development of the tourism sector(s) in the case study region. Nevertheless, issues related to culture- or environment-based tourism and management of cultural values were also addressed. The workshops were run separately for the sub-cases (i.e., for the Gulf of Gdańsk and the Vistula Lagoon). They allowed us not only to identify the most important barriers to the sustainable development of the tourism sector – in the eyes of participating stakeholders – but also to explore relations and connections between these barriers. Such relations – among others – allow for identifying the most promising fields of social interventions, where limited human and financial resources could be directed in order to achieve the best effects towards the selected goal (Domegan et al. 2016), i.e., more sustainable tourism practices in the case of our study.

Table 2**Study sample for the interactive workshops⁹**

Stakeholder group	Culture		Tourism	
	Gulf of Gdańsk	Vistula Lagoon	Gulf of Gdańsk	Vistula Lagoon
Decision-makers	3	5	2	3
Tourism	4	3	4	3
Local NGOs	5	4	3	3
Culture	3	3	0	0
Total	15	15	9	9

⁸ The workshops were originally planned as longer face-to-face events but the limitations related to COVID-19 pandemic have forced us to modify the approach and move the majority of stakeholders' interactions on-line.

⁹ Each stakeholder participated in more than one workshop in a given series of interactions.

12 workshops were organized within the 'culture' theme; these workshops included issues related both to (i) the marine culture of the region and current managerial practices in the field, and (ii) the expected future of the region (and its cultural values). Eight workshops were, indeed, part of the longer stakeholders' interaction process, while four of them were organized independently with an additional group of stakeholders. All workshops were run separately for the Gulf of Gdańsk and the Vistula Lagoon sub-regions, and were a mixture of focus groups, meetings, and scenario building exercises¹⁰. The latter approach was used to explore the possible futures of the region depending on the interplay between various factors and forces already present in the complex social and economic settings.

All the workshops were run on-line in small groups (4-5 persons on average) and were recorded and transcribed¹¹. The transcriptions were further analysed following the content analysis (Krippendorff, 2004) based on the interpretation of the text.

¹⁰ There is a variety of scenario building workshops and formats available (see Kosow and Gassner 2008 for the overview); for the purpose of this study, we used the simplified method as described in the AMSA/PAME report (2007).

¹¹ Apart from four workshops, these four workshops ended with the structured outcomes (relational graphs) and content analysis of the text is not needed for interpretation of the results.

3. Incorporation of cultural values into managerial processes around the Gulf of Gdańsk: the overview

3.1. Marine spatial planning

Marine culture can be defined broadly or narrowly for the purpose of MSP. As already explained at the beginning of this report, a wide approach is about meanings and relations between 'the people' and their sea (Gee et al. 2017). A narrower approach is the concept of maritime heritage that links meanings and relations with the resources originating from the past (Lehtimäki et al. 2020). Nevertheless, both approaches encompass not only tangible objects under the water (in the sea) but also include intangible relations, experiences, and attitudes.

This was, however, not the case in the Polish MSP proceedings¹², especially in the case of the maritime spatial plan for the whole Polish marine areas (2017-2019). Here, marine culture was reduced to tangible underwater heritage¹³. Moreover, this heritage was defined rather narrowly, and it only included objects such as wrecks or remains of ancient constructions under the sea. The need to protect or to include submerged paleo-landscapes as a part of culture in MSP has appeared only once during the public consultations for the Gulf of Gdańsk. It suggests the concept was relatively new for the Polish MSP but it also constitutes an evidence that the definition of marine culture is (slowly) expanding. Natural and cultural landscapes and historical objects were more often discussed by MSP stakeholders during various consultations phases, but were formally classified as relevant for other planning functions such as 'tourism' or 'nature conservation'.

Moreover, some of the culture-related calls (e.g., concerning the protection of the lighthouses and associated cultural landscapes) were rejected because they formally lay outside the scope of the marine spatial plan. The lighthouses were considered terrestrial, and so was the related cultural landscape. Although it may formally be correct, it is in practice difficult (if not impossible) to make a clear distinction between the land and the sea¹⁴. Clearly, the view of the sea from the lighthouse and the view of the lighthouse from the sea are but two sides of the same coin. Similarly, developments on the sea (e.g., artificial islands or offshore wind parks) impact the land, and the view from the land of the sea is often

¹² MSP in Poland is an on-going process. The only completed (and accepted in 2021) maritime spatial plan is the plan for the whole Polish marine areas (at a 1:200 000 scale). This plan is complemented by smaller plans prepared in higher resolution for the areas of high intensity of spatial conflicts such as lagoons, coastal areas or waters of ports. Out of all these plans, the processes relevant for the Polish Land-Sea-Act case study include the plans for the Gulf of Gdańsk and for the Vistula Lagoon. Unless stated otherwise, all the information refers to all three planning experiences.

¹³ It should, however, be noted that at the time when this plan was prepared, such an approach to maritime heritage was a common one. Only at a later stage, such limited approach to marine culture started to be considered insufficient, and new approaches were considered and developed. Some (elements) of these approaches are already visible in other (more detailed) plan being developed for the Polish marine areas.

¹⁴ And, indeed, these interactions between the land and the sea are clear when stakeholders were to identify their cultural values (see chapter 4 for more information).

valued by local communities and tourists. Indeed, one of the most critical issues in the Polish MSP is that it covers only marine areas but disregards land-sea interactions, which are especially important for the marine culture. It is an essential challenge for the ongoing and future MSP processes to define how marine spatial plans should approach various cultural values outside their legal jurisdiction. In our opinion, this challenge is crucial for the MSP of smaller, coastal areas, where local and traditional communities tend to develop tighter bonds with the environment. It might be particularly relevant for the coastal fishers in the Gulf of Gdansk. Their stakes towards the sea are not only related to their sources of income but also to their identity, history, and language. These intense feelings of local identity and marine ownership were visible during the previous marine-related managerial initiatives (e.g., Piwowarczyk and Wróbel 2016).

Limited jurisdiction of MSP is, however, only a part of the problem. Lack of relevant data is another important challenge for planning the underwater heritage. It is true not only for the widely defined marine culture but also for the underwater material objects (i.e., the narrowest definition). Indeed, the Gulf of Gdańsk is the only part of the Polish marine areas, where systematic mapping of maritime heritage has been performed. We argue that future revisions of the maritime plan(s) will only be efficient in the cultural contexts, if such systematic mapping is performed for much larger areas. Perhaps the data scarcity is the main reason why the plan for the whole Polish marine areas does not provide many detailed stipulations concerning management and protection of the underwater cultural heritage. Its overall approach is to avoid any negative effects on underwater heritage; this applies to any activities to be undertaken on the sea. The plan further stipulates that archaeological inventory should precede any investments that affect the cultural heritage. Interestingly, although the plan does advise in-situ protection of the underwater cultural values, it leaves some managerial flexibility in case of the vital (national) interests. Such interests could include – for example – the developments of the ports or the constructions of a nuclear power plant. In such situations, it is possible to excavate the historical objects from the sea upon the decision of the territorially competent director of the maritime office. It is also within the competences of the maritime administration to introduce further and more specific restrictions if such restrictions are deemed necessary.

As already mentioned, lack of data and knowledge base is even a more critical problem for the intangible values. Indeed, they are not only inadequately recognized by the current planning processes but their protection is often viewed as being a part of the terrestrial planning. However, some hopes are related to the newly started (late 2020) MSP of the Vistula Lagoon. At least in its inventory stage marine cultural heritage was treated broadly regardless of its location 'at sea' or 'on land'. Such an open approach, indeed, raises optimism but it alone will not solve the problem of the lack of relevant data on such intangible items as "*intimate connections*" mentioned by Gee and Siedschlag (2019, p. 61). Moreover, since maritime spatial plans in Poland have so far been prepared based on the public tendering mechanism, it might also be the decision of the winning consortium how to approach culture in a given MSP process¹⁵.

The lack of well-established routines to collect (intangible) cultural data for the purpose of MSP was identified as another important obstacle. For example, during the Land-Sea-Act project workshops on cultural values¹⁶, both the planners and marine experts showed an awareness that cultural values are not limited to wrecks and historical sites. They were able to identify and describe the sea's contribution to traditional craft, art, and local traditions, including the Kashubian language. However, they were much less confident 'if' – and perhaps more importantly, 'how' – these cultural values could (and should)

¹⁵ Of course, some stipulations can be included in the tender itself but that would – most likely – require more established routines in data collection or at least more established acceptance for wide understanding of marine culture.

¹⁶ This was an additional workshop not described in sub-chapter 2.2 that aimed to gather deeper understanding how marine culture is perceived by the marine experts and maritime planners. Its goal was to 'set the scene' for the Land-Sea-Act research rather than collect actual data for the analytical frameworks used to collect primary data.

become a part of MSP processes. Indeed, the character of data representing these values is much different than that of physical and ecological data with which planners and natural scientists usually work. The workshop participants pointed out that such data is somewhat subjective and lacks – in general – a spatial dimension; hence they are not applicable to spatial management. This issue, however, does not apply exclusively to cultural values. Other data and information from other stakeholders face similar challenges (e.g., Zaucha 2012). Even though methods to translate qualitative data into their spatial representation exist (e.g., Gee et al. 2017; McKinley et al. 2019), the planners will have to build the capacity to run and use these methods.

Similar challenges referred to the stakeholders' involvement and participation in the Polish MSP context. In other words, the stakeholders need to understand what the rules for MSP are (see Piwowarczyk et al. 2019 for the evaluation of misconceptions of MSP) and how their 'values' and their 'perceptions' of the sea could be impacted by the solutions established by the maritime spatial plan(s). The most prominent example detected within the Land-Sea-Act research is the marine and coastal landscape. Many stakeholders involved in the project showed a high appreciation of the places and the views they enjoy in their daily lives but do not feel that MSP can protect (or alter) the places. Moreover, many others had no knowledge of what MSP was; even if various MSP processes were relatively advanced where and when this study was implemented. As a result, most of the stakeholders either did not participate in the relevant proceedings (both because of lack of knowledge or personal choice) or limited their participation to the economy of their respective sectors. Therefore, it is important for the planners and the stakeholders to sit together and learn how to map such places of cultural importance, and how to provide them with the spatial delineations essential in the MSP context.

4.1. Coastal municipalities

The analysis of the strategic documents¹⁷ of the Polish coastal towns, municipalities and provinces used the structured framework of cultural ecosystems services. We used a relatively broad approach to our analysis, e.g., we assumed that a certain asset exists, even if the reference was indirect or quite general or vague. This approach allowed us not only to document the frequency of the 'hits' (understood here as the number of references to a given asset,) but also the quality of these hits and existence of actual sense of the place. The summary of the frequency analysis is presented in Table 3.

Table 3

Cultural ecosystem services in the strategic documents of the Gulf of Gdańsk

Evaluation criteria	Number of references in all analysed strategic documents			
	Gulf of Gdańsk (10 documents)	Vistula Lagoon (11 documents)	Municipalities with no direct access (7 documents)	Provinces (5 documents)
Leisure, recreation and tourism	73	94	56	56
Aesthetic experience	42	32	29	18
Inspiration for culture, art and design	5	1	0	3
Cultural heritage	100	41	32	44
Spiritual experience	5	0	2	1
Symbolic meaning	7	0	0	0
Cognitive development	14	2	3	4
Existent and bequest values	1	0	1	0
Total references	246	170	123	126

¹⁷ These strategic documents included the general developmental strategies, the sustainable development strategies (if existing), and other documents/strategies that could be linked related to the tourism sector.

The general overview of the references to marine and coastal ecosystem services is rather promising. It seems that the coastal municipalities are rather aware of the benefits that they obtain from the natural (coastal and marine) ecosystems. It is also not surprising that it is leisure, tourism and recreation that is most commonly mentioned in these strategic documents. Indeed, the tourism sector is an important branch of the local economy and Blue Growth in the region. The high position of cultural heritage in the list is somewhat unexpected, especially that it is referenced more frequently than aesthetic experience which comes third. Other cultural ecosystem services seem to be of no or limited value for the local and regional authorities. It is quite surprising in case of the Gulf of Gdańsk region as it has the ambition to be the center of marine science and research, and a hub for logistic and maritime industry.

However, more qualitative analysis reveals that these references are, indeed, rather general. The actual links with marine ecosystems are rather superficial, and these links are not associated with any specific place within the administrative borders of a given 'town' or 'municipality'. In the strategy section concerning *'the vision'*, the seaside location was almost always underlined as an important asset, and – where relevant – the municipality strived to be a prosperous seaport, center for marine and regional culture, a health resort, or a combination of these functions. These goals were, however, often left with little or no explanation, and it was difficult to connect such visions with further operational objectives or, indeed, with other parts of the strategies. Overall, we can conclude that the general notion of 'the sea' was viewed as a source of tourists' attractions, mainly in terms of water sports and relatively passive recreation on the beach. Only very rarely and only in relevance to coastal fisheries, was the sea mentioned as an important 'cultural asset' for local communities; this community-creating function was, however, only visible in the strategies of smaller places, where no other developmental opportunities existed.

In case of leisure, recreation, and tourism – as mentioned above – some of the most common references used phrases such as 'beautiful sandy beaches', 'water sports', 'development of marinas', 'sailing', 'yachting' or 'coastal biking and Nordic-walking routes' but these activities were hardly ever related to some specific places or specific investments that need to be undertaken. There were of course some notable exceptions. For example, the developmental strategy of the Tolkmicko commune, apart from some general statements linking its tourism activities to the Vistula Lagoon waters, listed some specific features that should be protected because they are of great interest for tourists. This document included the name(s) of the beach(es) and local restaurants that are known for local cuisine or cuisine based on fresh fish. Another strategy from the Gulf of Gdańsk region mentions the best places for kitesurfing or the most interesting dunes and peat bogs to visit in the area. However, these are exceptional cases rather than something typical for the majority of the documents.

The references to aesthetic experience were often reduced to some general statements concerning the 'beauty of the beaches', 'beautiful views', 'enjoyable sunsets', 'large green areas' or 'combination of natural and cultural landscapes'. Similar to the references concerning opportunities for tourism and leisure, some strategies were more specific than others, but, indeed, more general approaches prevailed. What was quite common for the majority of the strategies we analyzed – and what links to the aesthetic experience – was the quite detailed description of the various nature protected areas (mainly on the land but also in the sea). These are the areas that should (and usually do) have a great potential for scenic views that can trigger emotional responses. The documents, however, did not go beyond listing these places or perhaps some general statements that these natural conditions are important assets for local development. No specific data on how these assets are used were available. Finally, there were no direct references to the seascapes. This is perhaps not surprising as the municipalities and communes (and even the provinces) have no jurisdiction over the sea, but we would expect a better recognition of the land-sea interactions and the dependence on the sea for the well-being of local communities.

Finally, the analyzed strategic documents – both in their visions and operational goals – often included an ambition to protect the cultural heritage of the region. The following phrases – 'local culture', 'local folklore', 'regional products', 'local cuisine', 'folk architecture', 'cultural heritage', 'open-air museums',

'Kashubian culture', 'Mennonites' – were the most common manifestations of cultural heritage. However, these phrases were most often used as 'slogans' or 'buzzwords', and more specific content rarely followed¹⁸. As clearly seen from the above phrases, the heritage that these documents referred to showed only indirect links to the marine environment, and even these indirect links were not fully (if at all) recognized and utilized. Local cuisine, the heritage of the Mennonites and the Kashubian culture were the three features that were discussed in more detail than other cultural elements; indeed, a few strategies actually proposed collecting local recipes and publishing a cookbook¹⁹. Although not as frequently, the strategic documents were still able to acknowledge typical marine cultural heritage. Some documents did identify coastal fisheries, small fishing boats and fishing-related traditions as an important part of the local identity and tourist offer; one of them suggested creating '*living history lessons*' that would involve the old fishers (or other knowledgeable people) to teach about this traditional activity. The same strategy mentioned opportunities to create underwater cultural parks but no details about the potential parks were, however, provided.

Overall, we can conclude that the strategic documents of coastal municipalities, communes and provinces do not fully acknowledge the potential and use of marine culture heritage. It is beyond this study to answer what might be the reasons for this situation. Since there is some evidence²⁰, that the municipalities and communes do recognize their interests on the sea, it simply might be a matter that the strategic documents are not recognized as important tools to govern and stimulate local development. It is, however, also true that other results of the Land-Sea-Act project (see sub-sections 5 and 6) underline that culture and (marine) environment are not properly used as an instrument for development and growth²¹.

¹⁸ There was one document that was somewhat different, and it listed many quite specific places. However, the places were mainly listed, and their meanings or the significance was barely discussed.

¹⁹ Editing the cookbook was not in the strategy of the commune of Puck but this commune did issue such a publication before.

²⁰ For example, obtained through observation of public consultation meetings, joint actions, or lobbying initiatives.

²¹ Interestingly, one of the strategies (LSR 2015) states – based on independently run public consultations – that about 35% of the participants in their consultations pointed that one of the weaknesses of the Gulf of Gdańsk region is the insufficient promotion and development of the Kashubian traditions and culture. Another weakness identified in the same study (supported by 38% of the participants) was the lack of local fish markets. Such markets were understood not only as a link between the local fishers and customers but also as small family-run fish-processing factories that would use old traditional ways to prepare high quality fish products.

4. Culturally significant areas: the framework to support MSP

Identification of culturally significant areas is the core of the MSP-support framework that aims to assist marine and terrestrial planners to adopt a wider approach to marine (or coastal) cultural values. By doing that, it would be possible to enhance social sustainability of the planning processes themselves, and – at the more general level – the sustainability of coastal communities.

In order to identify such areas, we adapted a framework proposed by Gee et al. (2017) that was later revised to fit local conditions in our case study area. Some additional changes were introduced later given that the majority of stakeholders' input (i.e., through the semi-structured interviews and workshops) were performed either by phone or digitally²², which impacted what kind of data, and in what format it could be gathered.

The major goal of the semi-structured interviews and workshops was to collect information on places, features and events that were deemed culturally important for coastal citizens. During these events we did not define the word '*culture*', allowing our respondents to define for themselves what they meant by that. Similarly, we also let them decide what they considered '*marine*' or '*coastal*'. At the end, however, indications that were lying outside the case study area or of typical terrestrial character (like lakes or regional attractions with no links to the sea) were excluded from the final sample unless the respondent clearly demonstrated its marine or coastal links. Also places or events that could not be attributed with spatial dimension²³ were not included in the final database.

The systematic analysis of the identified places, features and events was performed in order to assign to them a set of attributes (or characteristics), i.e.:

1. What exactly is being valued, e.g., a city or part of it, a beach, a viewing point or specific tourist attraction.
2. Why it is being valued, e.g., for its landscape, for the view, for the use of sport, relaxation or for the nice atmosphere.
3. Who it is important for, i.e., it is important at individual, sectoral or community levels.
4. What are its relations with the sea, i.e., is the object sea-related, land-related or are land-sea interactions important to sustain the feature(s) in the long term.

Finally, the places and the features were placed on the map of the case study area to identify, which parts of the region represent the highest concentration of culturally significant areas.

The participants involved in the Land-Sea-Act were able to identify a variety of features that they deemed culturally significant starting from favourite restaurants, piers or (marine) museums, through beaches, viewing points, walking or cycling routes and ending up with the city's districts or coastal towns that – as a whole – were considered special. The examples of these places and features can be seen on the photos below.

²² This was a result of the COVID-19 pandemic and associated restrictions. Only the pilot interviews and the interviews with the representatives of the fishing sector were performed in a face-to-face format.

²³ This was usually the case when a given respondent refused to locate the place on the map or did not know the detailed location(s). This was quite common for the interviews with the fishers, whose narratives often did not have good spatial recognition.

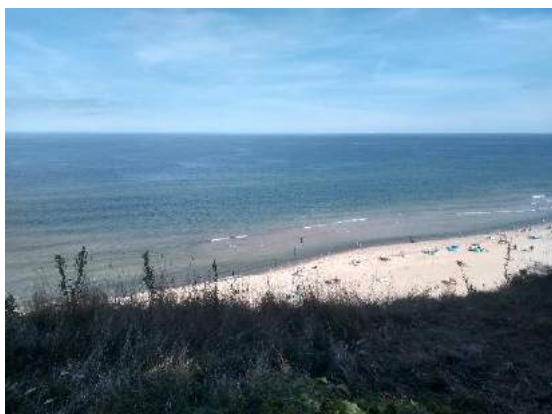
The Gulf of Gdańsk sub-case study area



Port in Władysławowo



Dunes close to Hel



Jastrzębia Góra – the view from the cliff on the beach



Beach close to Rozewie



Viewing point close to Chłapowo



Hel: the view of the harbour

The Vistula Lagoon sub-case study area



Birdwatching point close to Tolkmicko



*One of the most popular viewing points
'Wielbłądzi Garb'*



The views on the Green Velo cycling route



The beach in Mikoszewo-Sztutowo



The beach in Suchacz



Welcome to Krynica Morska!

Each of the places that the respondent listed was described with one or more reasons why the place was exceptional. All together we identified 26 various reasons (or features), and the frequency of their occurrence is presented in Figures 2 and 3. The category 'Other' comprises these features that were identified by a small number of respondents, and includes, for example, observation of wildlife, birdwatching, quality of local cuisine or religious experiences.

Figure 2 The most common values assigned to the places in the Gulf of Gdańsk

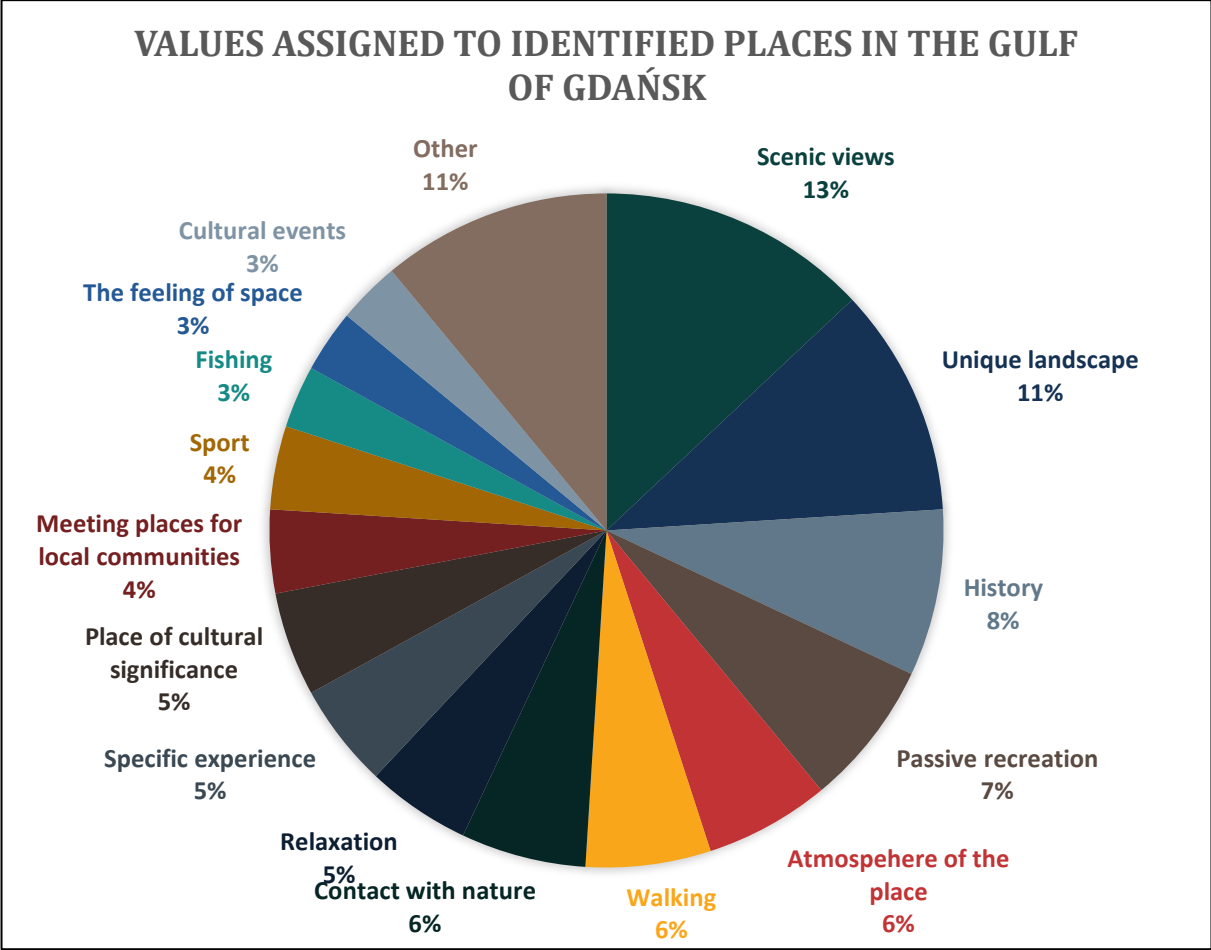
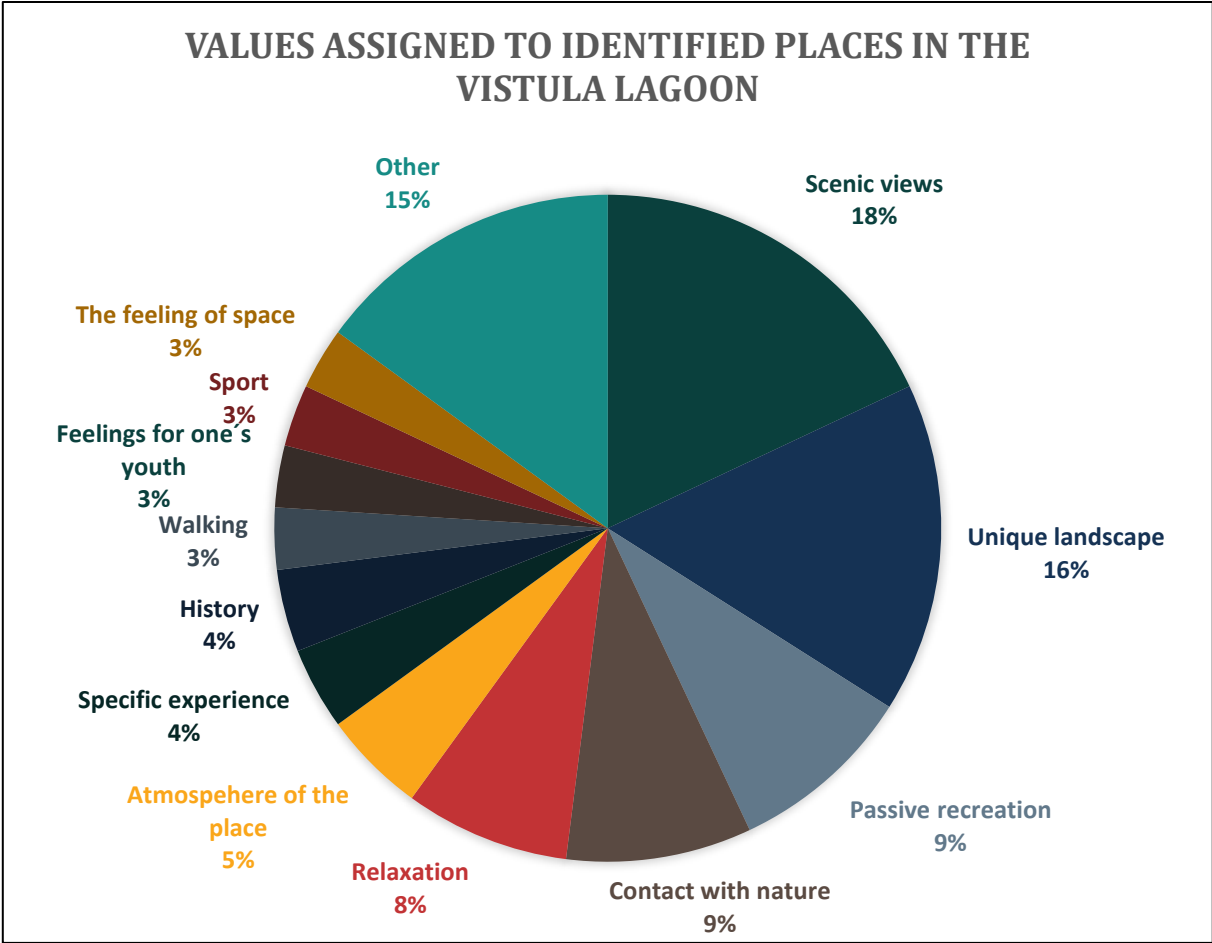


Figure 3 The most common values assigned to the places in the Vistula Lagoon



As we can observe, the most common reasons for the places to be culturally significant – in the eyes of our respondents – were the views and the landscape. These features received slightly more recognition in the Vistula Lagoon region than in the Gulf of Gdańsk; however, the differences do not seem that significant. Not surprisingly, passive recreation scored highly in both areas. This feature represents the most traditional way of using the sea ('sun', 'sand' and 'sea'), which proved to be valued from both the personal perspective and also through the profit it generates for local communities (i.e., tourism sector). Overall, the most popular features seem to be similar for both areas, perhaps with some exceptions. Features related to history, traditional fishery, cultural events, or places serving as meeting points for local communities appear to be more commonly mentioned in the Gulf of Gdańsk. Most of these features were mentioned by the respondents coming from the Vistula Lagoon as well, but their frequency was much lower than in the Gulf of Gdańsk. It might, indeed, represent the difference in cultural history of both places. The Gulf of Gdańsk can be characterized by an old fishing culture and historical fishing communities while the marine or fishing culture in the Vistula Lagoon is relatively newer. The first one seems to be slowly disappearing due to changes in the environment and in the local fisheries²⁴. The second one seems to be reinventing itself to fit modern times and the new social relations in the sub-region²⁵. Interestingly, values related to contacts with nature seems to be more important for the respondents coming from the Vistula Lagoon; 9% versus 6% in the Gulf of Gdańsk. Significantly more respondents (3%) in the Vistula Lagoon suggested they had a strong feeling for some places; these

²⁴ At least that was quite a common narrative in the interviews from the region coming from both inside and outside the fishing sector.

²⁵ Or at least that assumption could be made based on the results of our workshops; see sub-chapters 5 and 6 for more details.

emotions originated from their childhood and youth. This feature was much less common in the Gulf of Gdańsk. Perhaps these feelings were somehow included in, or transferred into, features related to tradition or ties with the community. In many narratives presented by the respondents from this sub-region, we could recognize some elements of nostalgia for old times and traditions that are now slowly passing away.

This assumption can be partially confirmed by the analysis of the levels of importance of the identified features for both sub-case study areas. Although in both sub-cases (Figure 4 and 5), personal emotions play the most significant role (55% and 62% respectively), many more places in the Gulf of Gdańsk gained social recognition. In other words, many more places are recognized as contributing to societal coherence. Interestingly, places important for the fishing sector (in the economic sense) were relatively rare in both sub-cases. It might be partially the result of difficulty identifying important fishing grounds during the semi-structured interviews with the representatives of the fishing sector. However, it also seems that in the context of this study, the fishers were more inclined to consider themselves more a social than economic group, and at least some values were transferred from 'fishing' to 'society'.

Figure 4 Levels of importance of the identified places in the Gulf of Gdańsk

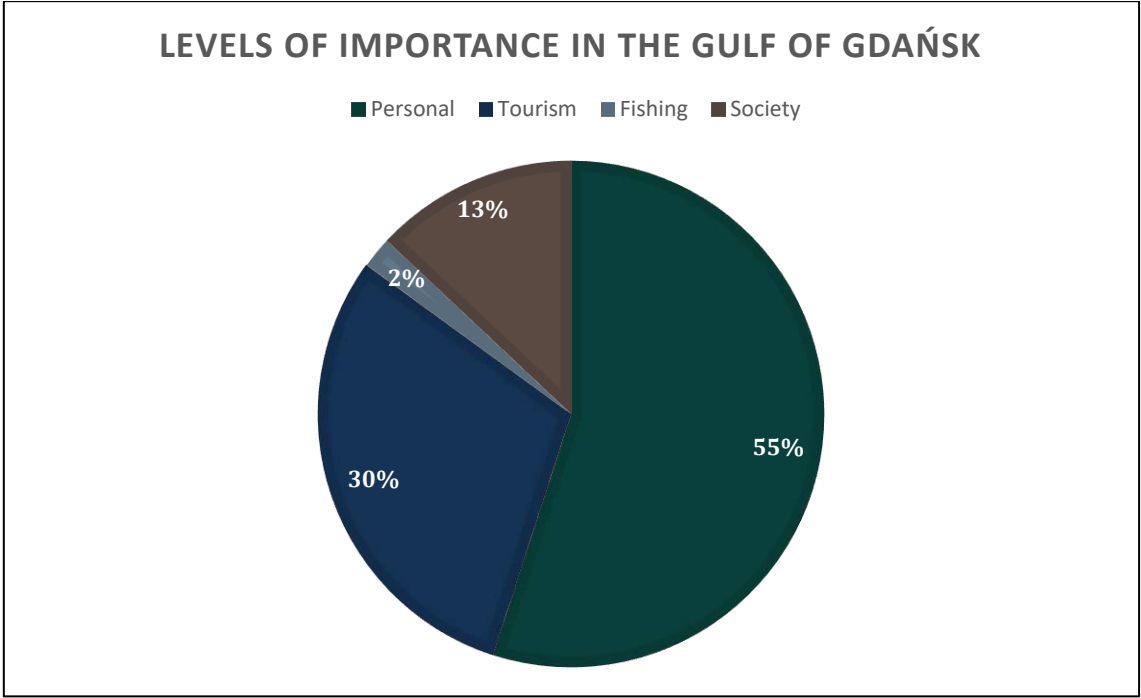
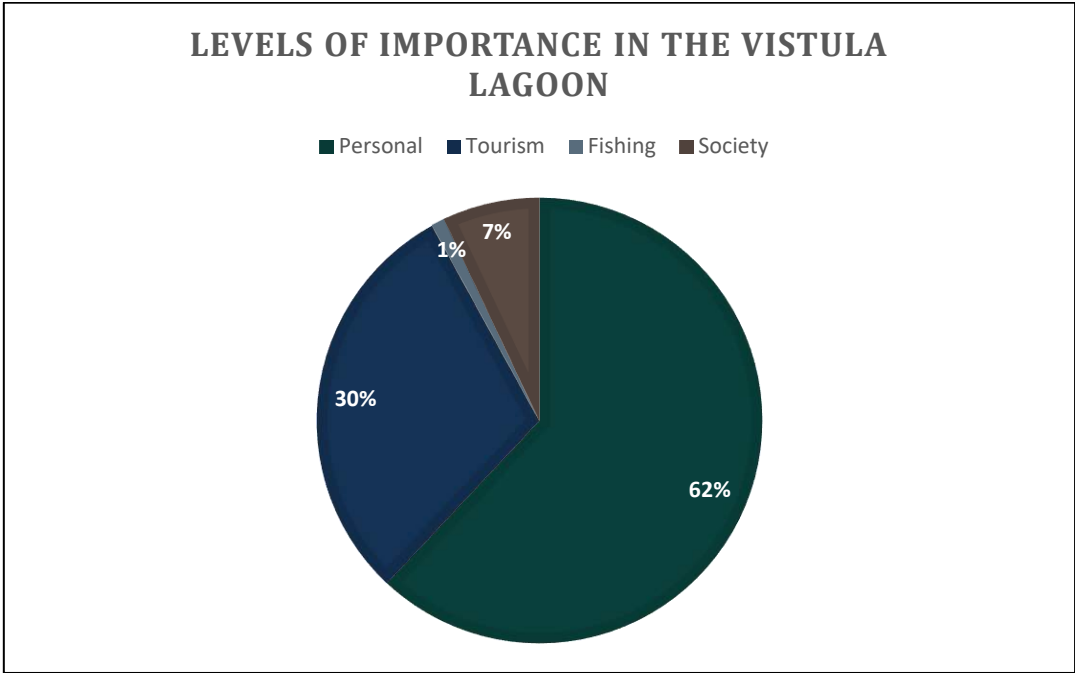


Figure 5 Levels of importance of the identified places in the Vistula Lagoon



Finally, land-sea interactions seem to be extremely important when we discuss culture from the perspective of local communities (Figure 6 and 7). Only a small fraction of culturally significant areas are located solely on the sea or on the land. The majority of features include some sort of interactions between land and sea. It is both when ‘the land’ influences ‘the sea’ (e.g., in the case of the observer enjoying the view of the sea from the land) or when ‘the sea’ influences ‘the land’ (e.g., in the case when the sea creates the coastal or fishing character of a town or a village). Mixtures or combinations of these four possible interactions were also common, i.e., the category ‘Other’ in Figure 6 and 7). Indeed, the places located on the sea and not interacting with the land constituted only 9% in the Gulf of Gdańsk and only 1% in the Vistula Lagoon. These are the places that – in the current legal state in Poland – would only be of interest to the maritime spatial plan. Such an approach, however, does leave outside the planning processes the majority of areas that can be considered culturally significant which can possibly lead to future conflicts and tensions.

Figure 6 Interactions with the sea in the Gulf of Gdańsk

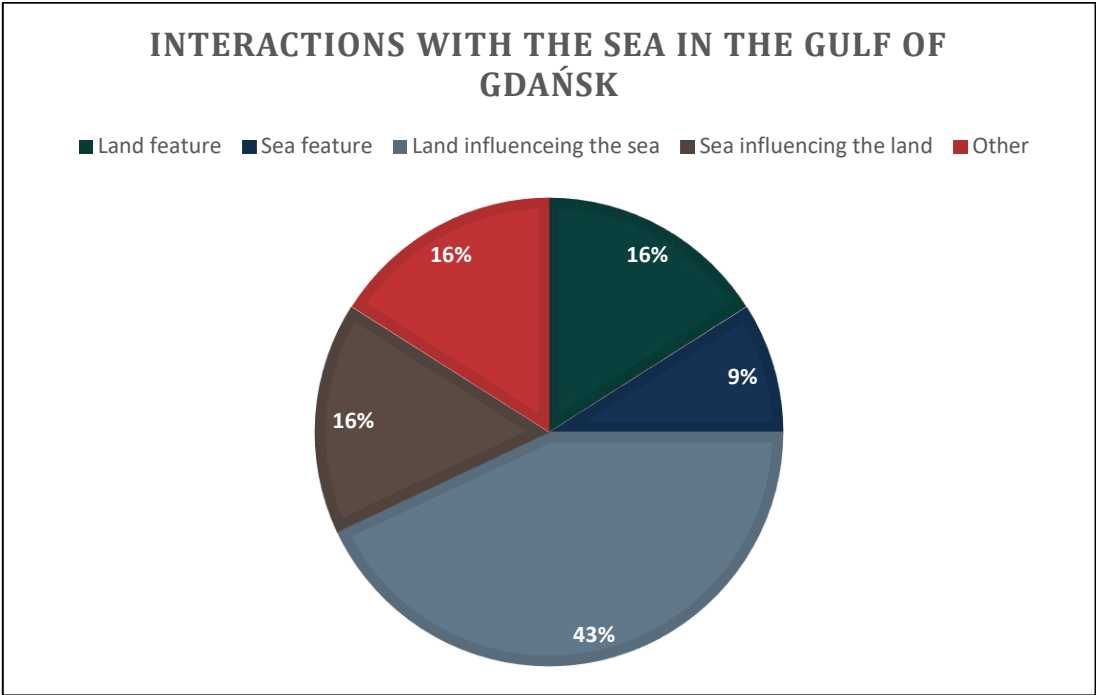
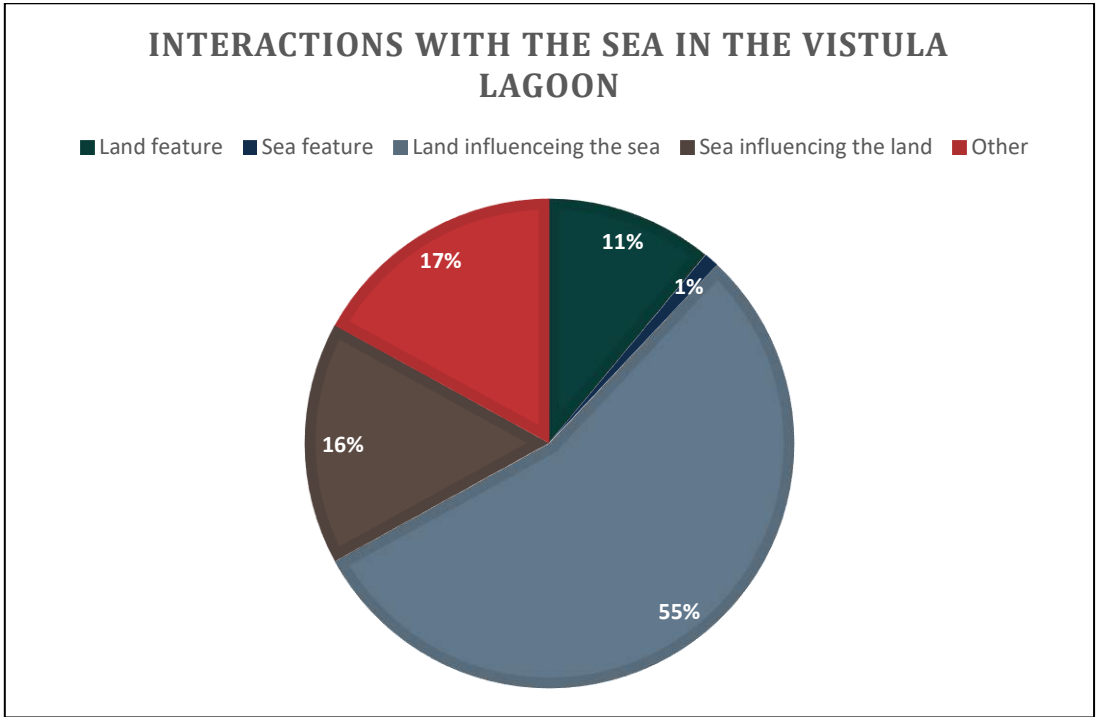


Figure 7 Interactions with the sea in the Vistula Lagoon



We believe that even the statistics presented above could already inform the MSP processes through directing the planners' attention to 'what' is being valued by the local communities. However, it would be even more interesting to put these 'places' (or these 'values') on the map in order to identify, where the areas that are most commonly valued occur and cluster. The results of such analysis are presented in the next four figures (figures 8-11). Figure 8 presents places and features recognized as culturally important by the representatives of the local communities around the Gulf of Gdańsk (two sub-case studies). As already demonstrated by the analysis of land-sea interactions in figures 6 and 7, it is clear that the majority of values are being put on the interplay between 'the land' and 'the sea'. Interestingly, the more enclosed the water basin is (i.e., the Puck Bay or the Vistula Lagoon), the more the values actually extend to the marine waters (Figures 9-11); this is mainly due to the view that was mentioned by the respondents or using the sea for the water sports (less often). Many places that are deemed important are situated on the land (coastal landscape or coastal towns) but their character – as assessed by our respondents – is shaped by the sea. In other words, these very values would not have existed (or cannot be maintained) if it weren't for the marine influence.

Based on the concentration of cultural values, geographical conditions and the narratives of the semi-structured interviews and workshops, we distinguished five clusters for further research and analysis (Figure 8), i.e., (i) the open waters (which to large extent lay outside the formal boundaries of our case study but were frequently mentioned by the stakeholders as a part of it), (ii) Puck Bay and the Hel Peninsula (where most of the old fishing community are located), (iii) the Tri-city area (where urban or large agglomeration influence is most visible), (iv) the Eastern Gulf of Gdańsk (including the open waters of the Vistula Spit), and (v) the Vistula Lagoon itself. We believe that more such detailed division could be useful for actual management processes and future complementary data collection, i.e., receiving the higher resolution of information. Although our interactions with stakeholders were quite intensive (i.e., we involved almost 100 individuals through formal interviews and workshops²⁶), we still believe that our study should only be considered as a start of systematic mapping of social values in the region. Giving the predominance of personal values in our samples (figures 4 and 5), we would suggest eliciting more social or sectoral values. That could be done, for example, through dedicated workshops with homogenous groups of participants that would allow hierarchies of sectoral interests and values to be built. Our workshops – on the contrary – included a more diverse group of people to stimulate the generation of ideas.

Finally, If MSP is to fully embrace cultural and social sustainability, it needs to come out onto the land, or at least find approaches or tools that would allow for embracing social values that depend on the sea. This might be, indeed, a substantial challenge for the Polish MSP processes that are strictly (i.e., by legal stipulations) limited to the sea. There might be perhaps some room for more open approaches during the stocktaking phases, when interactions between land and sea are at least analysed. The scope and detail of this analysis is not set by law and each planning team – at least to some extent – can arbitrarily decide what data should be gathered and interpreted and with what methods. We believe that, indeed, in the stocktaking phase there are some opportunities for standardization of the MSP approach to culture; such standardization could additionally be a part of public tendering²⁷ and, therefore, be binding for the planning team.

²⁶ This is, indeed, a relatively large sample when qualitative research is considered.

²⁷ Since marine authorities in Poland do not have the capacity to perform planning by themselves and with their own staff, each maritime spatial plan is a subject to public tendering.

Figure 8 Clusters of culturally significant areas: the qualitative approach; the green lines illustrate the actual places as described by the respondents

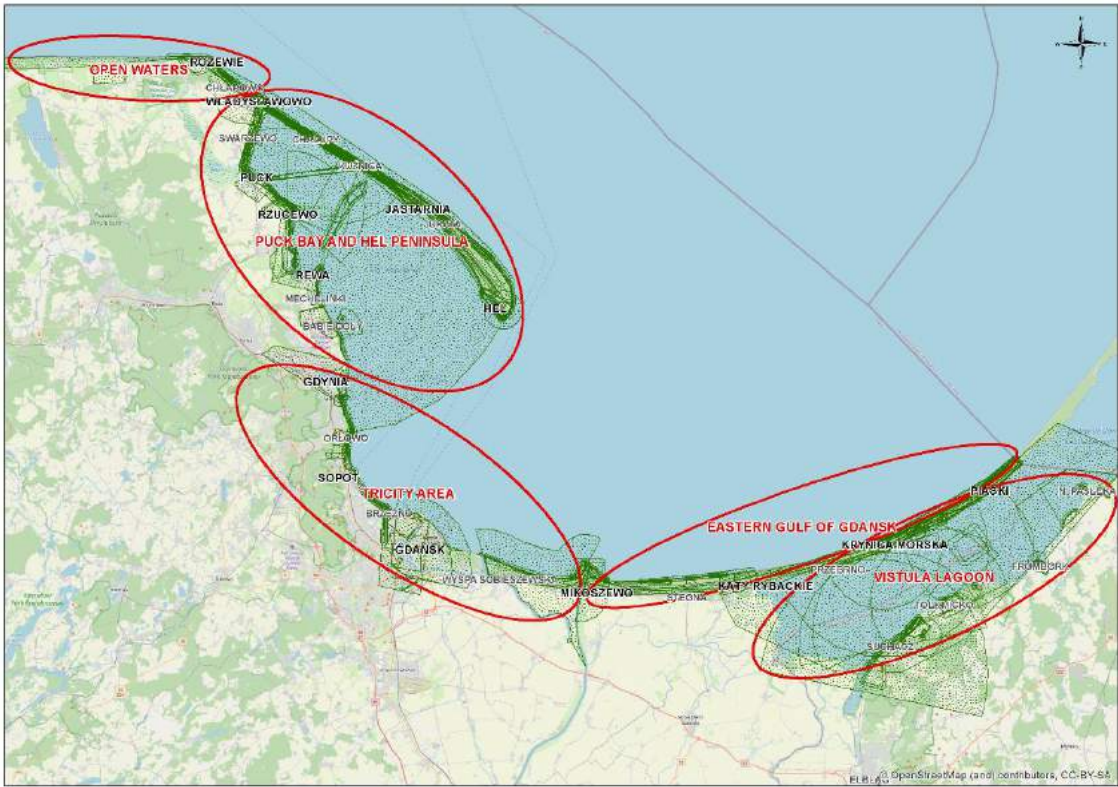


Figure 9 Culturally significant areas in the Puck Bay; the green lines illustrate the actual places as described by the respondents



Figure 10 Culturally significant areas in the Vistula Lagoon; the green lines illustrate the actual places as described by the respondents

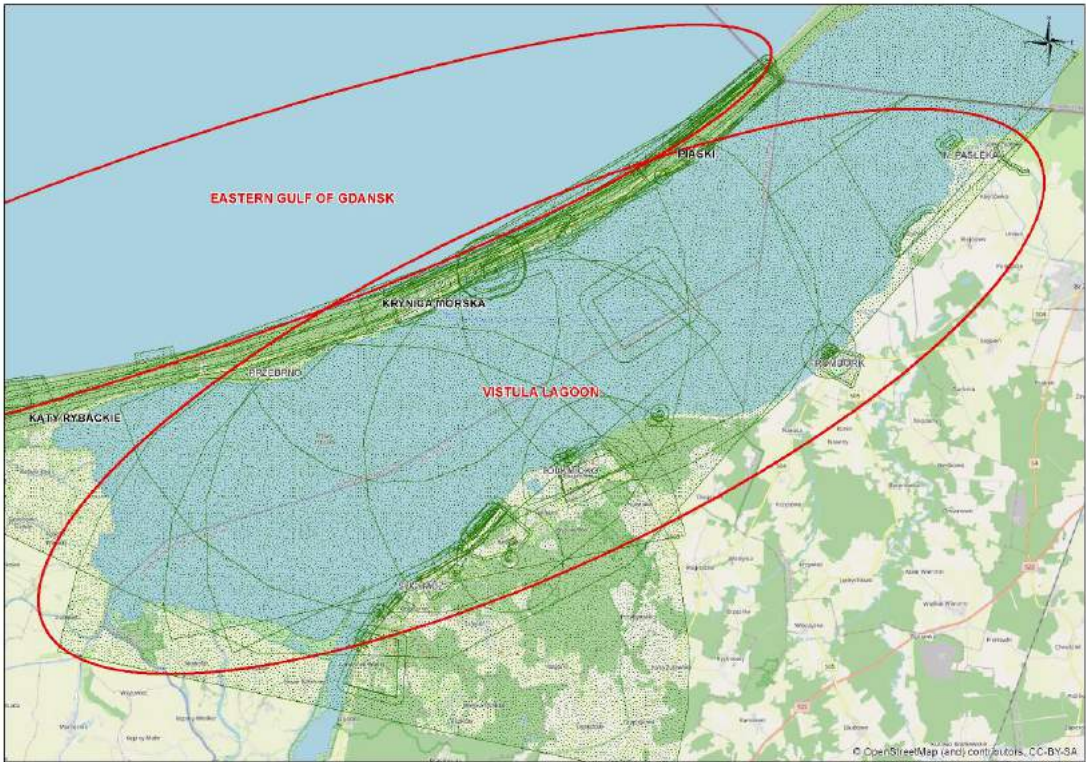
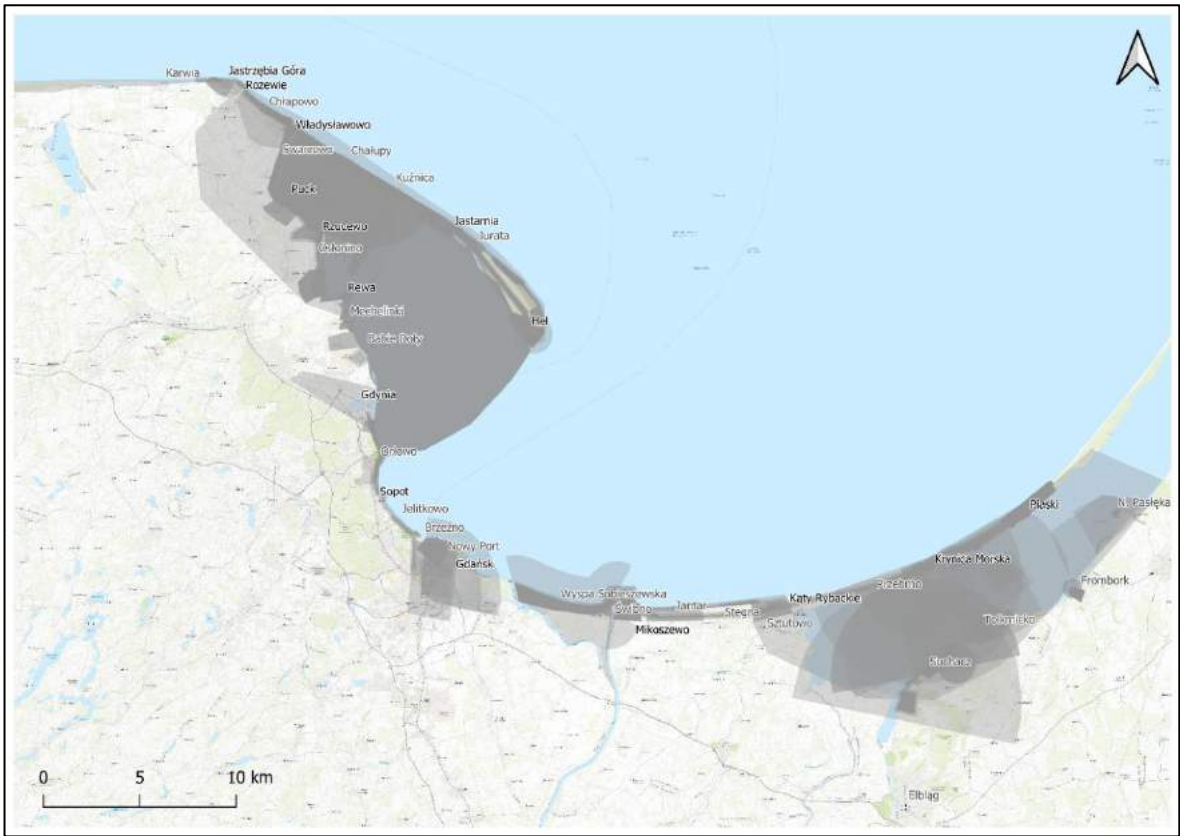


Figure 11 The intensity of cultural values in the case study area



5. Opportunities and barriers for the Blue Growth: sustainable tourism in the Gulf of Gdańsk region

The tourism industry in the whole Gulf of Gdańsk region is well developed, perhaps apart from the Southern parts of the Vistula Lagoon. Development of this sector is still, however, listed among the developmental goals in the strategies of both provinces, i.e., the Pomeranian and the Warmian-Masurian. Tourism is also an important source of income for many local communities, but it is concentrated in summer months with the offer focused – to large extent – on ‘sea’, ‘sand’ and ‘sun’ assets. There are, however, voices questioning if current practices and directions of development are sustainable. These voices suggest that current practices not only threaten the state of the natural ecosystems but also – in the long run – the economic foundations of the tourism sector itself (e.g., Kistowski et al. 2005; Węśławski et al. 2010).

So, is tourism – in the eyes of local communities and local businesses in the Gulf of Gdańsk – sustainable? For the sake of our analysis, we have adopted the most popular definition of sustainable development put forward by the World Commission on Environment and Development (WCED 1987). It describes sustainable development as development that allows the present generations to meet their needs (and sustain their well-being) in a way that will ensure the same possibilities for the forthcoming generations. The most popular three-pillar model (Thatcher 2014) lists three dimensions of sustainable development, i.e., (i) environment (its quality and protection), (ii) economy (prosperity and growth), and (iii) society (equity and well-being). These three components need to be integrated and jointly implemented as otherwise sustainable development cannot be achieved (e.g., Flint 2003; Purvis et al. 2019). With a great relevance for this study, many authors suggest that the three-pillar model fails to address culture, and, therefore, they postulate adding it as the fourth pillar of sustainability (Duxburry and Gillette 2007; Soini and Birkeland 2014). This new pillar should clearly acknowledge cultural identity, tangible and intangible heritage, cultural industries, and ethnic pluralism (Nurse 2006).

But is the need for sustainable tourism practices visible for and accepted by the members of the local communities and the representatives of the tourism sector(s)? Or do they still seek opportunities for economic development at the expense of nature and (local) culture? Is nature-based or culture-based tourism a reply to or a remedy for current short summer holidays and the strong need to earn for the whole year during these three months? Is marine culture at all visible in the actions and opinions of decision-makers, communities and businesses active in the case study area(s)? We sought answers to these questions through semi-structured interviews and workshops focused on the problems of tourism.

There was no consensus among the Land-Sea-Act respondents if tourism in the region is sustainable or not. Indeed, the opinions on this issue were quite varied. This is true for both sub-case studies, i.e., the Gulf of Gdańsk and the Vistula Lagoon. We can conclude, however, that overall, the Gulf of Gdańsk communities showed greater concerns towards the impact of tourism on the natural environment and

towards the carrying capacity of their region. This is perhaps not that surprising as the areas around Puck Bay are one of the most popular summer destinations in Poland, and the COVID-19 pandemic has increased this popularity even more. Despite that, the majority of respondents involved in semi-structured interviews (12 out of 18) believed that tourism is still sustainable. Some of these respondents (5 out of 12) suggested, however, that there is not much room left for further development, and this sector is currently reaching its limits. Other respondents (5 out of 12) did not share these concerns indicating that current managerial practices are enough to safeguard the good quality of the environment. Some of them further noted that they were aware of some previous problems (e.g., concerning excessive littering or parking on dunes or in forests) but – in their opinion – these problems were either already overcome or are currently being addressed. Single opinions indicated that the region is not homogenous enough to be easily assessed. These respondents suggested that some places (i.e., communes or municipalities) develop in a sustainable way while other do not. Interestingly, only one respondent (representing decision-makers) supported the view that the tourism sector is not sustainable as nature conservation (and especially regulations concerning NATURA 2000 areas) block further development leaving plenty of unused business opportunities for the region.

These findings from the semi-structured interviews are further reinforced by data gathered during the Interactive Management workshops. During these workshops, invited stakeholders were discussing barriers to sustainable tourism sector. Working with the trigger question: *'What are the barriers and challenges to sustainable development of the tourism sector in the Gulf of Gdańsk region?'*, they were able to identify 70 various barriers that were grouped into 12 barrier categories based on their similarities (Table 4). Although many of these barrier categories (and individual barriers) are still referred to obstacles *'to develop'*, it was clear that there was common understanding that tourism development has its limits, and probably tourism – as it is right now – is about to reach them. Indeed, three out of 12²⁸ barrier categories were focused on problems related to the state of marine and coastal ecosystems, while a few others²⁹ – although not directly related to environmental issues – indirectly addressed the nature-tourism interactions. For example, the barriers within the category 'Large infrastructure' discussed shortcomings in rail, road, and marine transportation systems. These shortcomings were further linked to negative impacts on the environment. Poorly developed train systems on the Hel Peninsula make it impossible for more tourists (both those that plan to stay for one day or longer) to use this transportation mode. More connections between the Peninsula and the Tri-city area using the sea would limit traffic jams and decrease the problem of illegal parking. Such change – our respondents believed – would not only have positive effects on the terrestrial ecosystems of the region and on the air quality but it would also improve the living conditions of the local communities in summer.

²⁸ These categories include 'Pressures from investors and tourism sector', 'Environmental management and protection' and 'Environmental awareness and education'.

²⁹ These are at least some barriers included in the categories such as 'Large infrastructure', 'Seasonality', 'Society' and 'Long-term thinking'.

Table 4**List of barrier categories of barriers to sustainable development of the tourism sector in the Gulf of Gdańsk sub-case study area**

Barrier category	Explanation of the category	Number of barriers/ number of votes
Large infrastructure	Barriers refer to shortcomings in existing infrastructure or lack of proper solutions concerning coordination between road, rail, and marine transport;	5 / 16
Infrastructure for tourism and recreation	Barriers refer to insufficient small- and large- scale infrastructure designed for the purpose of tourism and recreation;	4 / 12
Pressures from investors and tourism sector	Barriers refer to mass tourism and associated investment and their impact on the natural environment of the Gulf of Gdańsk and its coasts;	6 / 19
Environmental management and protection	Barriers refer to no or limited consideration put on the state of the natural ecosystems in the region; they also cover issues related to bad quality of the environment and environmental law enforcement;	8 / 16
Cooperation and coordination	Barriers refer to insufficient cooperation between various entities in the region; they include not only cooperation between decision-makers, businesses, and citizens but also problems within these various stakeholders' groups;	8 / 15
Environmental awareness and education	Barriers refer to insufficient ecological knowledge, awareness, and education, including information on benefits of pro-environmental tourism;	4 / 10
Knowledge and education	Barriers related to insufficient educational efforts targeted at local language, local businesses, and tourists;	4 / 10
Promotion strategies and creation of the tourism brand	Barriers refer to insufficient development of the tourism brand based on local/regional/marine values and no or limited promotion of small and local businesses from the area;	5 / 10
Seasonality	Barriers refer to problems arising from the short summer season and depopulation of region after the high tourism season;	6 / 13
Society	Barriers refer to social processes that affect local communities living in small coastal towns and villages;	7 / 13
Long-term thinking	Barriers refer to preferences given to short-term strategies and lack of long-term plans;	5 / 11
Tourist offer	Barriers refer to limited tourist offer and products other than utilizing sun, sand, and sea;	8 / 11

Many of the interviewed respondents did complain that summer season is '*difficult to survive*' because of mass tourism. They accepted these inconveniences being aware of the importance of summer months to local economy but – still – many of them claimed that they only liked their region outside high season. Another example is the barrier 'Overriding long-term strategies by short-term economic profits' that comes from the category 'Long-term thinking'. Here, the workshops' participants suggested that management of the tourism sector is not performed properly. Short-term gains and big and powerful companies are preferred, and little is done to enhance local businesses and local citizens. There are hardly any programs designed to support those small entities, and, indeed, these people and these small companies – in the eyes of our respondents – would make smaller towns staying 'open and alive' during the whole year. Only people with strong ties to a given place would truly care to sustain local assets (both cultural and environmental) for future generations. Large companies or people outside the region can simply move somewhere else with their businesses and, therefore, they are less concerned about the long-term future. Having said that, it is fair to mention that some respondents in semi-structured interviews pointed out that current legal regulations make it difficult for the municipalities or communes to favour their own citizens. Sometimes the proposal to use some municipal land would be best in financial

terms (but not the best in terms of long-term development goals) needs to be accepted due to public tender requirements. The apartment-hotels are another example of challenges for local communities. While they are, indeed, blocks of flats, they pretend to be '*hotels*' but do not provide the same opportunities for local communities like taxes or employment.

In addition to the barrier categories that directly address the environmental issues, three³⁰ environment-related barriers were included in the top nine barriers with the highest number of votes (Table 5). These three barriers were included in two categories, i.e., 'Pressures from investors and tourism sector' (two barriers) and 'Environmental awareness and education' (one barrier). No barriers representing drawbacks in environmental management and protection were among highly voted challenges; that can perhaps be explained by a high number of (similar) barriers in this category which led to the distribution of votes. Indeed, this barrier category was the second most highly voted group (together with 'Large infrastructure'). 'Pressures from investors and tourism sector' received the most votes (Table 4), which can suggest that local communities around the Gulf of Gdańsk are becoming more and more aware of the problems related to tourism and over-exploitation of the marine and terrestrial ecosystems. If barriers with four votes are considered, two more environment-related barriers will appear, i.e., 'High concentration of tourists during the holiday season' (from 'Pressures from investors and tourism sector') and 'Degradation and pollution of the waters of the Bay of Puck' (from 'Environmental management and protection').

Table 5

List of barriers to sustainable development of the tourism sector with the highest number of votes: Gulf of Gdańsk sub-case study areas

Name of the barrier	Barrier category	Number of votes*
Poor sanitation/waste bins infrastructure, etc.	Infrastructure for tourism and recreation	7 votes
No ongoing program to use local cultural traditions as a brand of the region	Promotion strategies and creation of the tourism brand	6 votes
Need to improve rail transport	Large infrastructure	5 votes
Non-integration of public and individual transport subsystems	Large infrastructure	5 votes
Strong and wild investment pressure on coastal areas	Pressures from investors and tourism sector	5 votes
Low awareness and ecological sensitivity	Environmental awareness and education	5 votes
Let's go for quality not quantity	Society	5 votes
There is no fashion in the region to protect the values of natural and cultural heritage	Tourism offer	5 votes
Imbalance between the capacity of the coastal environment sensitive to infringement and the demand for space given to tourism	Pressures from investors and tourism sector	5 votes

* Barriers with 5 votes and more are presented in this Table;

³⁰ This number would increase to five if barriers with four votes were included in the summary presented in Table 5.

Finally, when the highly voted barriers are further explored, it is clear that also barriers from other categories include elements of sustainable development and protection of the natural ecosystems³¹. It might indicate that tourism development – in its current form – is reaching its limits, and the local communities are recognizing the need to undertake ‘some actions’ that would allow to balance ‘growth’ and ‘environment’. It is somewhat interesting that many respondents would still consider tourism as somehow sustainable. There might be at least a few explanations for that. Our respondents might believe that this sector is only approaching the tipping point, and only after reaching this point the tourism sector will start to develop in an unsustainable way. The current situation might still fall under what they would consider as ‘sustainable development’. This speculation is supported by the outcomes of the semi-structured interviews where five out of 18 respondents expressed this view. The respondents might also believe that some of these pressures originate from outside the tourism sector, and only if mismanaged in the future would they drive tourism off the sustainability path; there is, indeed, some evidence of this approach in some of the stakeholders’ narratives and discussions. To end with, the stakeholders might not have detailed knowledge of the concept of ‘sustainable development’³², or have or use a different definition of it³³. They might also show a stronger preference for the weak sustainability approaches³⁴, which would also justify their opinions on the topic. No matter what the final explanation could be (and that would, indeed, require more research), the results of our study for the Gulf of Gdańsk sub-area raise hope that problems of protection and management of the environment are becoming more visible in stakeholders’ concerns and their narratives.

So, what is the perception of the tourism sector’s sustainability in the case of the Vistula Lagoon sub-case study area? The opinions of stakeholders involved in the semi-structured interviews were equally diverse. 5 out of 12 respondents suggested that tourism in the Vistula Lagoon is developing in a sustainable way. However, in contrast to the results from the Gulf of Gdańsk, all these interviewees pointed that out that despite their optimism and favourable assessment, tourism will almost always have some negative impact on the natural environment. Such impact can hardly be avoided, and, therefore, any further development of this sector should be done with care, and it needs to consider the future effects on the ecological assets of the region. Three more respondents believed that tourism in the Southern part of the Vistula Lagoon is still sustainable while in its Northern part (in the Vistula Spit) it is far beyond what ‘can’ and ‘should’ be called environmentally friendly or even sustainable. The same number of respondents (n=3) did not divide the Vistula Lagoon region into two parts (Northern and Southern), and their view on the issue was rather pessimistic. The tourism sector – in their eyes – was not developing in a sustainable way as even now it negatively impacts the region’s environment. The Vistula Lagoon region is underdeveloped in terms of sewage or litter infrastructure, and larger number of tourists only deepen the problem. These respondents suggested that possible economic gains from the increased number of tourists will not compensate for the possible and probable losses. They were not, in general, against the development of the sector in question, but they did believe that certain actions (or investments) need to precede further development. Only one respondent represented the economic approach to tourism suggesting that this sector is not sustainable because of the too powerful restrictions

³¹ For example, the barrier ‘There is no fashion in the region to protect the values of natural and cultural heritage’ or previously mentioned barriers in ‘Large infrastructure’ category, i.e., ‘Need to improve rail transport’ or ‘non-integration of public and individual transport subsystems’ (Table 5).

³² Despite long-lasting efforts to promote and educate on the ideas of sustainable development, such limited knowledge among the stakeholders would not be surprising in the Polish contexts (e.g., Łuszczuk 2011; Dacko and Płonka 2017; Płonka and Dacko 2019).

³³ It is true that sustainable development is a rather open and vague concept (Hopewood et al. 2005; Waas et al. 2011). Some approaches or definitions of this concept are even used to support the current economic practices (status quo), although, indeed, they are outside the major or most common narrations (e.g., Hopewood et al. 2005).

³⁴ Weak sustainability approach assumes that natural capital can be substituted with man-made capital while the strong sustainability supports the opposite view, i.e., man-made capital cannot substitute nature (Naumayer 2013). And, indeed, it seems that – at the political and legislative levels – the notion of weak sustainability still prevails (e.g., Baumgartner and Korhonen 2010; Jones et al. 2016). It would not be, therefore, surprising that this approach is also chosen by the communities around the Gulf of Gdańsk, especially that many of them are – to large extent – dependant on tourism for their income and well-being.

related to nature conservation (NATURA 2000 areas) that limits or prevents proper development. Interestingly, whenever the issues of mass tourism or negative environmental impacts appeared, the example of Puck Bay (part of the Gulf of Gdańsk) was brought forward, what suggests that this area is considered overexploited and relatively '*devastated*' by many representatives of the Vistula Lagoon region. They clearly pointed out they would like their region to attract more visitors (especially for longer stays) but – at the same time – they need to avoid becoming '*the next Puck Bay*'. These voices were, indeed, more common for the respondents representing the Southern parts of the region, and it was also these respondents that were more critical towards the tourism practices in and around the Vistula Spit. The opinions of the respondents coming from the Vistula Spit were more similar to these expressed by the communities around the Gulf of Gdańsk (or Puck Bay for that matter), i.e., they noticed how crowded their hometowns become in high season, they did not entirely support that massive inflow of tourists, but they were more willing to pay this price due to the profits it creates. However, they also generally agreed that they like (and use) their region and its environmental assets outside the high season when only small number of tourists come to visit.

These relatively high concerns towards sustainability or the environment are surprisingly less visible in the results of our Interactive Management workshops. Unlike the Gulf of Gdańsk sub-area, none out of 11 barrier categories directly approach the issue of nature conservation (Table 6); on the contrary they all seem to focus strictly on '*development*'. It is difficult to speculate why it is so. The trigger question used was the same for both sub-areas, i.e., '*What are the barriers and challenges to sustainable development of the tourism sector in the Vistula Lagoon region?*' and the group composition did not favour the representatives of the less developed Southern parts of the region. But perhaps the workshops' participants adopted a more general (or, indeed, narrower) view of the region and – to much extent – disregarded the small but well-developed Vistula Spit, and – instead – they focused on these areas, which could actually benefit in the long term from well-thought out, well-planned and sustainable tourism development strategies. We would argue that this long-term thinking is visible in many barriers put forward by the workshops' participants and in their discussions around these barriers.

Having said that, it is fair to acknowledge that the environment and its protection was not completely absent in the list of barriers for the Vistula Lagoon, even if the categories' names do not clearly show that (Table 6), and even if the environmental issues do not appear in the highly voted barriers (Table 7). Similar to the Gulf of Gdańsk region, barriers within the category 'Large infrastructure' addressed the issues of excessive traffic and its impact on the natural ecosystems. Investments in sewage systems and in sewage plants were considered extremely important. Building modern infrastructure for tourism and recreation (and particularly for yachting and sailing) was also believed to have a positive impact on the state of the natural environment, and especially on the quality of the Lagoon's water. The workshops' participants did also discuss the need to protect natural ecosystems (such as meadows or forests) and too intensive agriculture. However, none of these barriers actually made into the set of barriers with five or more votes (Table 7). Indeed, even if we consider 14 barriers with four or more votes, these barriers still remain outside the new set. Instead, more recognition is given to the barriers that consider nature conservation as an obstacle for more tourism-related investments. For example, two barriers with four votes each, i.e., (i) 'Laws on nature protection, development of ports and marinas, technical belt of the seashore - possibly rigid interpretation of these provisions applied by state institutions', and (ii) 'Location of the Vistula Lagoon region in several environmental protection zones', relate to obstacles such as the necessity to obtain extra permits, delays arising from these additional procedures, the need to cooperate with a variety of institutes that nature conservation regimes impose on tourism sector.

Table 6

List of barrier categories of barriers to sustainable development of the tourism sector in the Vistula Lagoon sub-case study area

Barrier category	Explanation of the category	Number of barriers/ number of votes
Management and administration	Barriers refer to issues arising from the division of the Vistula Lagoon region between two administration centres, i.e., the Pomeranian and the Warmian-Masurian Provinces;	5 / 13
External development priorities	Barriers refer to problems arising from legal stipulations or national developmental conditions that lay outside regional or local jurisdiction and influence;	5 / 12
Cooperation for the development of the region	Barriers refer to lack or limited cooperation between the local communes and municipalities to stimulate regional development; they also embrace insufficient lobbying (at regional and national levels) to pursue investments important for the (tourism) development in the area;	8 / 17
Financial and non-financial support	Barriers refer to lack of sufficient financial and non-financial resources that could be used to stimulate various investments and soft activities important for the whole Vistula Lagoon region;	7 / 12
Large infrastructure	Barriers refer to shortcomings in existing road, rail and marine transport, and limited investments in development of the sewage systems in the region;	7 / 10
Infrastructure for tourism and recreation	Barriers refer to insufficient small- and large- scale infrastructure designed for the purpose of tourism and recreation; these barriers were mainly discussed in relation to the Southern part of the Vistula Lagoon;	8 / 13
Perception of the region: facts and myths	Barrier refers to common – but false – opinions about the region that present the Vistula Lagoon as relatively worse place to spend holidays when compared with other holidays destination (and especially Puck Bay/Gulf of Gdańsk);	5 / 9
Tourism potential – development of the regional brand	Barriers refer to lack of development and promotion of the regional brand based on the Vistula Lagoon;	5 / 14
Promotion of the attractions in the region	Barriers refer to insufficient promotion of the whole Vistula Lagoon region, and no or limited promotion targeted on cultural, historical and environmentally valuable places;	7 / 15
Social engagement	Barriers refer to limited involvement of local communities in decision-making and business development;	6 / 11
Social relations	Barriers refer to larger social processes occurring in the region, such as depopulation, outflow of young people and aging;	6 / 9

Table 7

List of barriers to sustainable development of the tourism sector with the highest number of votes: Vistula Lagoon sub-case study areas

Name of the barrier	Barrier category	Number of votes
Lack of a development strategy of the region as a comprehensive solution for all counties around the Vistula Lagoon	Cooperation for the development of the region	7 votes
Inability to create network packages of tourist products and their promotion. Inability to apply territorial marketing to build a territorial brand of the Vistula Lagoon	Tourism potential – development of the regional brand	6 votes
Land ownership problems for investment planning	Management and administration	5 votes
Insufficient funds for the development of the tourism sector	Financial and non-financial support	5 votes
Reluctance and lack of commitment of area leaders to start the social planning process of local and regional development of functional areas, including sustainable tourism, and consistency in action	Social engagement	5 votes

* Barriers with 5 votes and more are presented in this Table;

Another important issue discussed during the Vistula Lagoon workshops – that is highly relevant for the environment in the region – is the shipping canal through the Vistula Spit. This investment is highly controversial in terms of its impact on the natural environment; both on the Lagoon and the open waters of the Gulf of Gdańsk. It is, however, considered quite important for long-term regional development. And, indeed, five barriers referred to this canal. All of them considered it as important asset for the region and they completely disregarded well-known environmental concerns. One of these barriers ('Lack of a comprehensive approach to the state budget intervention, e.g. in the process of investing in the shipping canal through the Vistula Spit and investments in the Elbląg Canal, the port of Elbląg. The development of the quays of the Vistula Lagoon, the Elbląg River, the Elbląg Canal as a coherent functional area'; 4 votes) was considered relatively important and made it to the set of barriers with four or more votes.

Finally, looking at the variety of barriers generated for sustainable tourism in the Vistula Lagoon region, we can conclude that many of them focus on cooperation between the local municipalities and communes and the need to develop a modern and diverse tourism offer; the offer that in the long run could compete with better recognized and more valued places such as Puck Bay, Ostróda Chanel or the Great Masurian Lakes region. The ideas for tourism development presented during the workshops did not aim to utilize 'sun', 'sand' and 'sea'³⁵, but rather strived to use the cultural and historical heritage of the region more consciously. Many other proposals addressed water sports, including yachting, sailing, wind- and kitesurfing. Concrete natural features were less frequently mentioned, although there was a general consensus that the nature in the region is beautiful and offers greatly needed relaxation and peace.

How about nature-based and culture-based tourism and the visibility of the marine culture? How do both sub-regions see this potential of their respective areas? Unfortunately, our semi-structured interviews' respondents from the Gulf of Gdańsk region painted a relatively grim picture. Although the majority of them (n=17)³⁶ agreed that the area has a specific and traditional Kashubian and marine culture, they were less certain whether this culture is still '*a living experience*', and even more importantly if it can be

³⁵ As the most common and mass-tourism related assets for coastal tourism development.

³⁶ The one outstanding respondent did not consider himself qualified enough to assess cultural identity of the whole region; yet this person did acknowledge some important cultural and maritime characteristics that could be used for tourism and could form local identity.

promoted into self-standing tourist products. In other words, the respondents felt that it is unlikely that the current tourism model can be transformed into more sustainable one using the cultural features of the region. Indeed, the majority of our interviewees (n=8) believed that culture-based activities have no real future in sustaining the tourism sector. They were either convinced that 'true' culture (be that marine, fishing, or Kashubian) is declining and, hence, there is no actual potential to use it. They also opposed the idea that the disappearing culture should be transferred into – what they sometimes called – 'a museum' or 'Disneyland' for tourism and tourists. They were also uncertain if there would be enough market for this type of tourism as 'sand', 'sea' and 'sun' is what tourists usually seek here. This latter concern was in line with the second most common view among our respondents. The representatives of this group (n=7) believed culture-based tourism has been, indeed, developing quite well for the last few years. This development includes festivals, shows, rise of local cuisine, old crafts, etc., and involved many local citizens. Indeed, some of these events were not planned as tourist attractions but have become one despite being the manifestation of local identity and were organized by and for local communities. These respondents did, however, underline that – after years of neglecting the culture and strong preferences for mass tourism – it is questionable if these events can become a product on their own; a product that can actually attract tourists to come outside the high season or stay despite unpredictable weather, especially when the current COVID-19 pandemic is over. These respondents were also uncertain if there are enough tourists interested in this kind of tourism, or otherwise if this region can compete with more traditional cultural destinations. Nevertheless, they were convinced that cultural tourism should be developed and – at the very least – it can complement traditional tourism offerings. The remaining respondents (n=3) presented a completely different point of view. One of them suggested that cultural tourism can, indeed, be an alternative to mass tourism; this respondent was optimistic both about development of such an offer, and a current and future demand for these kinds of attractions. It will take time and resources to build a proper brand but – this person believed – the first step has been already made. The other two respondents saw no real future for culture – or folklore – tourism but they saw a great potential in music- or theatre-related events that could bring different type of visitors to the area.

The Interactive Management workshops' participants partially confirmed this diagnosis. Out of 70 identified barriers, ten were directly or indirectly related to cultural identity and – what could be broadly described as – cultural tourism. Three of these barriers were voted as the most important ones³⁷ (i.e., (i) 'There is no fashion in the region to protect the values of natural and cultural heritage', (ii) 'Let's go for quality not quantity', and (iii) 'No ongoing programme to use local cultural traditions as a brand of the region'). And, indeed, the first one out of these three was considered one of the most influential³⁸ barriers to the sustainable development of the tourism sector. In other words, the workshops' participants jointly decided that this particular barrier aggravates other problems and overcoming or limiting its impact would decrease the negative impact of some other identified problems and challenges.

The situation is not greatly different when environment-based (or nature-based) is considered. Within this study, the participants considered environment-based tourism as activities such as wildlife watching (especially birds), fishing, hiking, cycling, kayaking, horse-riding³⁹, visiting places of exceptional natural features, views or landscape(s), storm watching, or photography. In this context, the majority of respondents (n=8) participating in the semi-structured interviews believed that the Gulf of Gdańsk has no real potential for environment-based tourism. They did agree that the landscape and nature are beautiful and unique (and they themselves as individuals valued that a lot) but these are not the very features that make tourists choose the Gulf of Gdańsk as their destination. Nature and (marine)

³⁷ Each of these barriers received 5 votes.

³⁸ Examples of other most influential barriers for the sustainable tourism in the Gulf of Gdańsk include 'Strong and wild investment pressure on coastal areas', 'No cross-sectoral cooperation' or 'Low awareness and ecological sensitivity'.

³⁹ Assuming that these are performed in places with exceptional natural features, relatively wild and not too much altered by human activities.

environment were – in the eyes of this group – important for the atmosphere of this destination but cannot be considered as a self-standing attraction. Rather it constitutes the background for all other activities that tourists undertake here. The second largest group of respondents (n=6) believed that environment-based tourism could be an alternative for the current mass tourism, but this is unlikely to happen in the near future. They felt there are enough natural assets that could be used to attract tourists but that is not enough. In order to make it a real alternative (and not simply an addition) to the current offer, nature-based products and offers should be developed in a comprehensive way. They also believed that although the nature around the Gulf of Gdańsk is unique, it is not wild enough anymore so that this 'wilderness' could become an attraction in its own right. In the eyes of this group, products for such tourism are needed, but they are not only unavailable but also there are no plans or even considerations how to develop them. In addition, some respondents pointed out that even if such plans could be prepared, it would be impossible to implement them. They would most likely be blocked by environmental legislation or pro-environmental organizations as they would require investments within the protected areas. Finally, four outstanding respondents provided two very different positions on this topic. The first opinion (n=2) was that it is too late to develop nature-based tourism as the natural ecosystems are already too degraded. Lack of fish in Puck Bay and the constant alternation of the coast (especially around camping sites) were their two most important arguments. The second position (n=2) was that there are enough protected areas and nature-based attractions in the region. They could certainly be better advertised but they provide all the attractions that are possible and needed.

The results of the Interactive Management workshops do not provide many additional insights into this issue. As previously discussed in this chapter, one of the major concerns raised during these workshops was the pressure arising from the tourism sector. This is perhaps why there were no discussions about how to further develop current tourism in the environmental context; rather the narratives suggested limiting the stress on the environment. We can speculate that the workshops' participants could consider that nature-based tourism could, indeed, increase negative effects rather than reducing them, and that is why the most common ideas for alterations were focused on the culture and culture-related innovations.

Somewhat surprisingly, the semi-structured interviews' respondents from the Vistula Lagoon were more optimistic. That might stem from the fact that a large part of the region (apart from the Vistula Spit) is still underdeveloped and – therefore, not used by the mass tourist industry. Our respondents from this sub-case study – as a cohort (11 out of 12⁴⁰) – believed that culture-based tourism is definitely the future of the region. They were sure that the complex history of the areas around the Vistula Lagoon can become the unique tourist brand. Development through culture would – in the opinion of this group – prevent expansion of mass tourism (like in Puck Bay or in the Vistula Spit) and enhance protection of the natural environment through attracting more demanding and more educated visitors. However, only two respondents in this group were convinced that this development direction is now being utilized; these people suggested that every year there are more cultural events, and the old traditions are being revoked and new traditions being developed. They also pointed that the Vistula Lagoon is the place where coastal fishery is still operating, and fishing traditions (although not as old as in the case of Puck Bay) can become a part of cultural experience. The coastal communities from the Vistula Lagoon region seemed to be more open for mixing 'new' and 'old', for joining folklore with concerts of popular music, and reinventing cultural identity. They seemed to accept that there is no one common culture and common experience of the region as the local communities are relatively new to the region, and the representatives of old place-attached culture (including Germans) are all gone. And so is their culture. Having a strong optimism in

⁴⁰ This last person agreed that the Vistula Lagoon is an extremely interesting region in terms of cultural and historical heritage, but showed serious doubts that this heritage can compete with 'sun', 'sea' and 'sand', and passive (or even active) recreation by the seaside. This respondent did see the potential of culture to become a complementary attraction but not as a primary or alternative way of development.

what the region has to offer, they were much less confident that there are resources (both financial and human) that could help to utilize such a heritage. They saw almost no cooperation between coastal municipalities and communes, no proper promotion of the region, no long-term plans as to how these ideas can become reality. They also somewhat feared that there might be a strong opposition to bring the relatively new history back, especially connected to German settlements in the region. Finally, these respondents pointed out to the need for (large scale) investments like sewage plants, development of rail system or even need for more family-run hotels or camping sites in the Southern parts of the region.

The same issues were discussed during the Interactive Management workshops focused on the sustainability of the tourism sector. The results of these workshops offer additional – but important – reasons (or explanations) for this little interest in the Vistula Lagoon development. The Vistula Lagoon region is divided between two provinces (the Pomeranian and the Warmian-Masurian), and, therefore, any joint actions require additional cooperation and sharing of investment costs. Moreover, for both provinces the Lagoon is considered a periphery, and investments are directed to more central or more featured regions, such as Puck Bay or the Great Masurian Lakes. Indeed, barriers related to this division were quite common. 14 out of 69 identified barriers to sustainable development of the tourism sector either directly or indirectly approached this administration division. Many workshops' participants also agreed that this division is the root cause for many other challenges that the Vistula Lagoon region and its coastal communities have to face now and in the future.

When nature-based tourism is considered, the respondents coming from the Vistula Lagoon region were more careful in their opinions. As a group (n=12), the respondents were supportive for environment-based attractions, but they clearly stated that such development would only be beneficial if it does not require too large alteration and does not cause a great impact on the natural environment. They pointed out that mass tourism (such as around Puck Bay and in the Vistula Spit) is based on natural features but – in the long run – it destroys the very same resources it uses. This was not the development and future they wanted for their region. Cycling in the beautiful scenery, hiking routes, birdwatching, and combining these with the cultural attractions were the most commonly suggested alternatives to current unplanned development. However, many of these respondents were concerned that building such a brand is even more difficult than promotion through culture as it might have unexpected consequences, i.e., promotion of nature might enhance mass tourism. A relatively large group of the Vistula Lagoon interviewees (n=5) was convinced that these could be very likely consequences of promoting nature without designing high quality products for selected – i.e., demanding and educated – tourists. Another group (n=5) did not share these concerns but supported the view that nature-based tourism can only be successful if there are good quality and well-maintained infrastructure (e.g., cycling and hiking routes with camping sites), and such infrastructure is obviously missing. Even the most featured attractions are sometimes difficult to reach. They, therefore, did not see it as a feasible option for the future. The reasons that were put forward were – basically – the same as those put forward when culture-based tourism was discussed. However, the Interactive Management workshops' participants focused much more on culture-based than nature-based tourism. We may, therefore, conclude that cultural heritage is seen as better developmental solution. It should, however, be underlined that in many narratives⁴¹ cultural heritage is inherently connected to the natural environment, and the latter should obviously be protected and be a part of the current and future regional offer.

⁴¹ It is true for both the semi-structured interviews' respondents and the participants of the Interactive Management workshops.

6. Futures of the region

The primary goal of the scenario building workshops was to explore – together with the workshops' participants – the possible and plausible future(s) of the Gulf of Gdańsk and the Vistula Lagoon sub-regions. In this study, the participants needed to complete a series of steps to agree and reach the future scenario(s). In the first step, they were asked to list the factors and forces that – in their opinion – could impact the future of the Gulf of Gdańsk or of the Vistula Lagoon. The comprehensive list of factors and forces was then presented to the participants who were supposed to select these elements that they deemed (i) most important for the future changes or developmental directions, and (ii) most uncertain concerning their impact on the area(s). The selection process was based on the voting system, and when all the votes were added a list of most important factors was created for two sub-cases separately (see Table 8 for the Gulf of Gdańsk and Table 9 for the Vistula Lagoon).

Table 8

List of most important factors and forces that can impact the future of the Gulf of Gdańsk sub-area;

Factors and forces	Number of total votes including assessment of importance and uncertainty*
The use of Kashubian culture	8
The disappearance of traditional small-scale fishing and fishing tradition in Norda	8
Officially integrated environmental protection	8
Investments that will have a radical impact on the natural environment of the Gulf of Gdansk	8
European Union funds and other sources of co-financing/degree of activity of local governments and other beneficiaries in obtaining funds	8
Deepened political divisions.	8
Development of public transport and road infrastructure	8
Lack of a clear brand for the entire area and lack of a coherent, effective system for the promotion of local/regional services and products	7
Rebuilding fish populations in the Baltic Sea	7
Real protection of the purity of the Baltic Sea and the natural environment	7
Excessive expansion - conflict with natural and landscape values and close proximity to the Tri-City	7
Ways, the authorities act	7
Development of sports and sailing tourism	7

* Factors and forces with seven or more votes are presented.

Table 9

List of most important trends, factors and forces that can impact the future of the Vistula Lagoon sub-area;

Factors and forces	Number of total votes including assessment of importance and uncertainty*
Construction of the Vistula Spit shipping canal	12
Development of tourism: the future of the Vistula Lagoon region as an area of high tourist attractiveness will depend on the direction of development of this branch	11
Establishing real cooperation between local governments and other institutions and owners managing the areas around the Vistula Lagoon	10
The need to invest in a Lagoon railway	10
Lack of a common vision of the region among municipalities and division between two provinces	9
Changes in land use through changes in the local spatial development plan	9
Chaotic, intensified constructions, not taking into account the landscape context and historical tradition	9
Dying out of local fisheries	8
Cycling: development and current constraints	8
Searching for contemporary local identity	8
Supporting the right types of entrepreneurship	8
Development of tourist infrastructure	7
Searching for new forms of promotion of cultural heritage	7
Lack of funds for the renovation of monuments	7
Degradation of the Baltic Sea	7
Climate	7

* Factors and forces with seven or more votes are presented.

These most important factors and forces (included in Tables 8 and 9) were then presented for a group discussion during the on-line workshops. The group – in a discursive way – was to reach consensus and choose the two factors that would be used to create or to evaluate future scenarios. Separate scenario building workshops were run for the Gulf of Gdańsk and for the Vistula Lagoon. At the end of each workshop, a most feasible scenario (or scenarios) was designed; such scenario described the future of the region as seen by the workshops' participants. It was based on the factors they selected but it also considered other forces and trends the participants can observe in the reality around them that can interact with the two driving forces of their choice. These most likely scenarios are presented below.

The Gulf of Gdańsk sub-case study area:

SCENARIO NUMBER 1: selected factors: (i) 'The use of Kashubian culture', and (ii) 'Development of public transport and the road infrastructure';

The most likely scenario for the interactions of these two factors were entitled by the workshop participants as the '*Mass Kashubian culture*'. The main characteristic of this possible future include:

- Relatively high economic growth in the region.
- The region fulfils the role of a logistics centre for goods imported from China.
- Commercialization of both nature and culture.
- Tourism is based on one-day visitors; the place is not considered suitable for longer stays.
- Great negative impact on the natural environment.

SCENARIO NUMBER 2: selected factors: (i) 'The use of Kashubian culture', and (ii) 'Real protection of the good state of the Baltic Sea and its natural environment';

For this pair of factors, the workshops participants were not able to choose, which scenario is most plausible given the current developments and possible early signs they are aware of. They, therefore, suggested two possible '*futures*' depending on yet unknown developments. They called these scenarios the '*New non-Kashubian order*' and the '*Park of Kashubian Indians*'.

The '*New non-Kashubian order*' (2a):

- Development of water sports, sailing and beach tourism.
- Development of mass tourism (and associated cuisine offering fast food such as pizza, kebabs, or Chinese food).
- Development of nature-based tourism.
- Inflow of people from other regions in search of income.
- Inflow of external investors that leads to lack of earnings/profits for local communities.
- Development of predominantly non-traditional fishing; locally caught fish are exported while imported (and lower quality) fish are sold on the local market(s).
- Disappearance of the cultural identity of the region.
- Seasonal attractiveness of the region.
- Depopulation of local communities.

The '*Park of Kashubian Indians*' (2b):

- Lack of opportunities for economic development for local communities.
- Impoverishment of local societies.
- Disappearance of the natural attractiveness of the region; tourism is based on urban attractions only.
- Short-term tourists' visit prevail, no or limited number of long-stay visitors.
- No availability of local products, including fish that are the basis of Kashubian cuisine.
- With time, complete change of local communities; abandoning relatively traditional lifestyles and values.

SCENARIO NUMBER 3: selected factors: (i) 'Development of tourism based on sailing and other sports', and (ii) 'Restoration of fish stocks in the Baltic Sea';

The scenario building workshop participants did not name the scenario they selected as most feasible to happen in the future for this pair of factors. It seems, however, that '*conflict*' or '*competition*' is, indeed, quite common in the scenario narratives. Therefore, we have decided to call this future as '*Competing ambitions*'.

- Development of sailing infrastructure, including marinas.
- Increasing number of sailing-related events.
- The region becomes even more popular among tourists.
- Increased popularity of the region negatively impacts the quality of the marine environment in this area.
- Excessive use of the coastal zone negatively impacts marine and coastal ecosystems.
- Frequent conflicts between economic development and scientific advice on the protection of the environment.

So, what is the future of the Gulf of Gdańsk in the eyes of the workshops' participants? The selected scenarios paint rather a grim picture. No matter if they predict economic growth or, indeed, a decrease in economic opportunities, all scenarios suggest deterioration of either local/regional culture or the state of natural environment. If we further compare the results of the scenario building exercises with the barriers for the development of sustainable tourism, it seems that these scenarios represent the situation when 'everything goes wrong'. The analysis of the semi-structured interviews and the Interactive

Management workshops demonstrates, however, that there are possible paths for more favourable end points and a more favourable future. Additional research would be required to answer why the current predictions are so pessimistic; we can perhaps speculate that the slow disappearance of coastal fisheries, increasing mass tourism (and increased concerns about their impact on the marine and coastal ecosystems) combined with the psychological effects of pandemic might lead to these uninviting prospects.

The Vistula Lagoon sub-case study area:

SCENARIO NUMBER 1: selected factors: (i) 'Construction of the shipping channel through the Vistula Spit', and (ii) 'Searching for contemporary local identity';

The main characteristics for the most feasible future for this pair of factors are presented below. Since the participants did not name the scenario, we suggest calling it '*Endangered growth*'.

- Local modern identity is the foundation of regional development.
- The attractiveness of the region is increasing but lack of infrastructure is the main limiting factor for further development.
- Limited funding available for the region restricts further environmentally friendly development.
- Tensions between local, regional and national governments.
- In ports, water pollution is increasing, and the state of the marine environment is decreasing.

SCENARIO NUMBER 2: selected factors: (i) 'Establishing real cooperation between local governments and other institutions and owners managing the areas around the Vistula Lagoon', and (ii) 'Development of tourism: the future of the Vistula Lagoon region as an area of high tourist attractiveness will depend on the direction of development of this branch of the economy';

The main characteristics for the most feasible future for this pair of factors are presented below. Since the participants did not name the scenario, we suggest – based on the content and end points – calling it '*The rule of the big and the rich*'.

- Large dominant players set the developmental directions; great disregard for local communities.
- Large inflow of external (out of the region) funds and investors.
- Decreasing life quality of local communities.
- Large income disparities.
- Small group of people is getting richer; it has a negative influence on the whole region.
- Chaos in planning and in the directions of development.
- Aesthetic and environmental degradation of the region.

The stakeholders in the Vistula Lagoon, similar to those representing the Gulf of Gdańsk, have a relatively pessimistic view of the future. It seems that they fear the marginalization of their region and of their identity either by regional/central governments (in the first scenario) or by big and rich players coming from outside the region (in the second scenario). The first scenario is, however, somewhat more optimistic. It assumes that new modern marine identity is created, and that the region is still quite attractive in terms of ecological and cultural heritage. What is still missing are the funds for development. This scenario can be perhaps considered – based on its similarity to the results of the Interactive Management workshops – the continuation of the status quo, with increasing tensions between various levels of government. The second scenario shows development at the expense of local people by rich external players that are interested in profits and not sustaining the prosperity of the region. This issue is also clearly visible in the 'New non-Kashubian order' scenario put forward for the Gulf of Gdańsk.

Indeed, what seems similar for both sub-case studies is the concern of losing influence over the future of the region. This lack of power manifests itself in losing local identity, unification of the tourist offers, depopulation and lack of opportunities for '*good life*' in smaller towns and villages. Although, indeed, these processes can be observed in the studied areas, the project participants were able to put forward some ideas as to how to change the status quo (e.g., in the semi-structured interviews or in the Interactive Management workshops). Should high confidence in a bad (or perhaps even the worst possible) future be the result of the current changes in local communities, including a decline in fishery and increased pressures from (mass tourism) or whether it is simply the psychological effects of the pandemic⁴² would require further research. However, what is clear from this research is the need for the empowerment of local communities and a larger influence on the decision-making process concerning own regions both at individual and local administrative levels.

⁴² These particular workshops were performed in June 2021 so after over a year of pandemic regime and associated restrictions.

7. The way forward

Our research explored the vast topics related to cultural values in the Gulf of Gdańsk. It seems, however, that the conversations how to best include culture and social sustainability in MSP and other managerial processes have only just begun. Based on the work performed in the Land-Sea-Act project, we can issue some general recommendations for the discussions of marine culture in the Baltic Sea region. The most important points are summarized below:

1. The representatives of coastal communities hold a variety of values towards marine and coastal ecosystems. These values can play an important role in creating and sustaining local/regional identity and the well-being of local communities, and, therefore, they should be an important element of the decision-making processes. Based on our research, we would recommend using the wide approach to marine culture, i.e., not limiting it to (underwater) maritime heritage. In fact, we would argue that marine spatial planning should also aim “to plan emotions” that are related to actual places. Both historical and contemporary values should be recognized and included. Adopting a narrow approach will definitely lead to social exclusion and would threaten – in the long run – the region’s sustainable development.
2. When directly approached, the members of the local communities are in general able to attach the spatial recognition for their cultural values. At the same time, they most often do not recognize that such information is an important contribution for MSP. Early and proactive cooperation between planners and stakeholders should be carefully planned and continued throughout the planning processes to adequately include a social component in MSP. From this perspective, we would argue that the MSP pre-planning (or even pre-pre-planning) phase is of crucial importance; such a pre-planning phase should involve stakeholders even before the MSP processes are fully conceptualized in order to allow these stakeholders to be a part of this conceptualization⁴³.
3. Working with social and cultural values, requires planners to involve a variety of stakeholders, and especially those less organized who – in the past – did not often participate in planning and managerial initiatives. Such an open approach would definitely require new tools/instruments that currently are not used in most MSP processes. We also argue that the wide approach would also require changes in the planning culture(s).
4. Marine or coastal cultural values are, indeed, quite intense at the border between the ‘land’ and ‘the sea’. It is, therefore, necessary for the governance processes, including MSP, to encompass land-sea interactions either as formal regulations or through softer guidelines.
5. Cultural values are time- and place-relevant. Their elicitation often requires using qualitative methods. There is, therefore, a dire need to design, test and validate new and existing methods to work with cultural values, and develop standardized approaches that could be easily used and adapted by planners.
6. There is definitely a need for capacity building initiatives that would assist planners to work with qualitative data and with the new methods that allow to collect and utilize such information. But the awareness and capacity would not be enough if they are not accompanied by matching funds and – perhaps – by changes in legislation.

⁴³ Such a phase is also necessary to better recognize (and incorporate) needs of some social and economic actors, especially those who are less organized and less powerful, and often marginalized. For more details on the importance of the pre-planning phase see Piwowarczyk et al. (2019).

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The project Land-Sea-Act (#R098 Land-Sea-Act Land-sea interactions advancing Blue Growth in Baltic Sea coastal areas) aims to bring together stakeholders involved in coastal management and planning, to find solutions to Maritime Spatial Planning and Blue Growth challenges around the Baltic Sea and to elaborate Multi-level Governance Agenda on Blue Growth and Spatial Planning in Baltic Sea Region. The project will guide national, regional and local authorities, as well as stakeholders of various sectors to:

- improve transnational cooperation and facilitate knowledge exchange to foster Blue Growth
- raise awareness, knowledge and skills to enhance Blue Growth initiatives and integrated development in coastal areas
- balance development of new sea uses with coastal community interests by improving coastal governance

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