

# Protection and sustainable management of heritage in coastal and fluvial regions



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Environment and resource efficiency

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## Summary

The policy brief presents the main challenges that coastal and fluvial regions are facing with regards to protection and sustainable management of cultural and natural heritage assets. It demonstrates that cultural and natural heritage is a significant asset for local communities and makes an overview of European Union policies and initiatives in the field. It also showcases how Interreg Europe projects fit into the picture by responding to the policy challenges.

## European policy framework

It is estimated that almost half of the EU's population lives within 50 km of the sea. The well-being of these citizens and the economic viability of the coastal areas and river banks depend on the preservation of their natural resources, biodiversity, landscape and cultural heritage assets. These also provide possibilities for transport, trade, tourism and recreational activities. The role of cultural heritage assets (e.g. harbours, dams, light houses, fishing villages, underwater artefacts, etc.) as a strategic resource for development of coastal and fluvial areas is important but often not sufficiently recognised. Nevertheless, many fluvial and coastal regions across Europe seek to strengthen the management of their heritage. These improvements are taking place in the context of the EU Work Plan for Culture (2015-2018) and the Council conclusions on participatory governance of cultural heritage.

Maritime and blue economy development has been considered by over 40 regions within the EU<sup>1</sup>. Amongst the areas with high potential for investments are aquaculture and fisheries, marine knowledge, blue renewable energy, biotechnology, tourism and recreational activities, environmental sustainability, shipbuilding and smart grids. Sea-basin strategies provide a framework for cooperation between the European Union, the Member States and their regions in these areas and, where appropriate, third countries sharing a sea basin. Such strategies seek to address common marine and maritime problems, find joint solutions and maximise common assets for the entire region<sup>2</sup>.

The main objective of EU water legislation is to achieve good status of the EU's water resources. As per the [State of Water Report from the European Environment Agency](#), published on 3 July 2018, groundwaters generally have the best status of the different water bodies. Good chemical status has been achieved for 74% of the groundwater area, while around 40% of surface waters (rivers, lakes and transitional and coastal waters) are in good ecological status or potential.

Key EU policies relevant for coastal and fluvial areas include:

- The [EU Water Framework Directive](#) (WFD), adopted in 2000 is the most comprehensive instrument of EU water policy. Its main objective is to protect and enhance freshwater resources with the aim of achieving good status of EU waters by 2015. The Directive requires surface water bodies (lakes, streams, rivers, estuaries and coastal waters) to be ecologically sound by 2015. The main tools for the implementation of the Water Framework Directive are the River Basin Management Plans (RBMP) and the Programmes of Measures which are drafted in six year cycles. The RBMP is a comprehensive document which should describe the actions envisaged to implement the WFD.

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<sup>1</sup> [https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/swd-2017-128\\_en.pdf](https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/swd-2017-128_en.pdf)

<sup>2</sup> [https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/swd-2017-128\\_en.pdf](https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/swd-2017-128_en.pdf)



- In 2002, the European Commission recommended implementing '[Integrated Coastal Zone Management](#)' (ICZM) in Member States acknowledging the uniqueness of coastal zones. ICZM is a continuous process which aims, by more effective and integrated management, to establish sustainable levels of use and development in coastal zones, and eventually to improve the state of the coastal environment.
- The EU [Integrated Maritime Policy](#) seeks to provide a more coherent and coordinated approach to marine and maritime issues, also considering climate change. The EU [Marine Strategy Framework Directive](#), adopted in 2008, highlights that marine ecosystems must reach a good environmental status by 2020.
- The European Commission's [EU strategy on adaptation to climate change](#) includes a [Staff Working Document](#) addressing adaptation for coastal and marine areas. Furthermore, the EU has defined an articulated framework of cross-cutting and sector policies relevant for the sustainable management and governance of the sea.
- The EU [Habitats Directive](#) supports river restoration across Europe and requires the management of 'features of the landscape, which are of major importance for wild flora and fauna' such as rivers. Coastal habitats and species are also covered by the European Union's two key nature conservation directives: the [Habitats Directive](#) and the [Birds Directive](#).
- Several [international conventions](#), including the OSPAR Convention (Convention for the Protection of the Marine Environment of the North-East Atlantic), Barcelona Convention (Convention for the Protection of the Mediterranean Sea against Pollution), and Bucharest Convention (Convention for the Protection of the Black Sea against Pollution) also enhance regional cooperation.

### Discussing the implementation of EU water legislation

The [5th European Water Conference](#) took place on 20-21 September 2018 in Vienna. It provided an opportunity to review progress in implementing EU water legislation and was jointly organised by the European Commission's Directorate-General for the Environment and the Austrian EU Presidency. Representatives from EU countries, the European Commission, the European Environment Agency and other EU institutions had the possibility to learn from each other's experiences in view of the next water planning cycles. The ongoing Fitness Check of the Water Framework Directive, its associated Directives and the Floods Directive, and the evaluation of the Urban Waste Water Treatment Directive (UWWTD) were also discussed.





## Challenges and experiences at regional level

Coastal and fluvial areas in Europe face continuous pressures from urbanisation and economic development that exceeds the carrying capacity of these areas, thus unbalancing fragile coastal and fluvial ecosystems. In addition, EU coastal areas and waterways suffer from environmental problems such as hydrogeological risks, loss of biodiversity and higher vulnerability to the effects of climate change. These environmental pressures usually have negative impacts on the economic activities in these areas. In addition, insufficient coordination among neighbouring municipalities along the same waterway or coastline hinders the creation of joint development strategies. This creates the need for more efficient cooperation between municipalities along coasts and riverbanks on preserving and developing the territory. Fragmented management of protected areas involving different institutions with insufficient coordination between them is also an obstacle for preservation and sustainable use of natural and cultural resources.

### Climate change

Coastal and fluvial regions are directly impacted by climate change. Due to an increase in sea levels caused by global warming, coastal floods in Europe could impact up to 3.65 million people every year in Europe by 2100, compared to around 102.000 today, according to two Joint Research Centre studies.<sup>1</sup> The findings of the scientists highlight serious flood risk for Europe unless timely adaptation measures are taken. The climate change challenge has special significance for regional and local authorities as most of the natural resources (river basins, catchment areas, flood plains, etc.) and socio-economic systems that are likely to be affected by climate change are unique to local and/or regional areas. Capacity to adapt to climate change is therefore determined at local and regional levels, where strategic action is required.



<sup>1</sup> <https://ec.europa.eu/jrc/en/news/europe-needs-coastal-adaptation-measures-avoid-catastrophic-flooding-end-century>



### Strategic planning for adaptation to climate change in the city of Hamburg

River Elb flows through the city of Hamburg and the city is at risk of severe storm floods. Therefore, flood protection of the urban area and the city's inhabitants is a of utmost importance. In 2015 the Senate of the Free and Hanseatic City of Hamburg, a partner in [Land-Sea](#) project, released the Hamburg Climate Plan (HCP) with the aim to further develop the "Climate Action Masterplan" and the "Adaptation of Climate Change Action Plan" in terms of methods and content. To keep the citizens and the city protected, and in response to the expected climate change and the forecasts for the rising sea-level, the Senate decided to introduce a "climate allowance" of 50 cm for measuring the public flood defences. In further response to climate change Hamburg formulated actions in a long-term perspective, i.e. until 2050 such as:

- Using the instruments of urban development and cross-sectoral measures at all levels of municipal policy and involving private urban stakeholders, Hamburg will have developed into a renewable city adapted to climate change.
- The measures needed for storm surge protection as well as flood protection on inland waters have been put in place in order to avoid damage from effects of climate change to the greatest degree possible.

The HCP reflects the opinion that Hamburg will be adapted to the climate change in 2050, so that damages to the city will be avoided as much as possible. To reach this goal in time, it is also important to keep the private sector and the stakeholders interested and involved, and also to ensure continuity of the process regardless of changes in the government.

Source:

[https://www.interregeurope.eu/fileadmin/user\\_upload/tx\\_tevprojects/library/file\\_1523573490.pdf](https://www.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1523573490.pdf)





### ***Landscape vulnerability***

Coastal and fluvial landscapes are vulnerable to the effects of changing patterns in the use of these areas such as industrialisation of some maritime sectors and tourism development. In addition, there is a growing demand of citizens living in the surrounding urban areas to explore landscapes along river banks and coasts. This, together with the pressure of urbanisation creates an increasing challenge for preserving the natural resources of coastal and fluvial areas. The need to look for sustainable ways how landscape along rivers and coasts can link communities was discussed during the thematic [workshop on cultural heritage](#) organised by Interreg Europe Policy learning platform in spring 2018.

Population growth, expansion and tourism development in landslide-prone areas is raising landslide risk. In addition, an increase of landslides associated to extreme rainfall events is expected in the future due to climate change. Landslides are a major hazard in some areas with steep river banks and coastlines and can result in large damage to infrastructure (roads, railways), buildings, agricultural land, etc. Varna region in Bulgaria represented in [Land-Sea](#) project by the regional administration, is one of the regions in Europe facing this problem. The region is looking at this issue and acknowledges that planning of landslide prevention needs to become more closely integrated into the overall policy framework of the region including in the framework of effective coastal management. Landslide prevention is an issue for Molise region (Italy), also a partner in [Land-Sea](#) project.

### ***Pressures on fishing communities***

Fishing communities in the EU suffer from the effects of climate change, tourism development and the transformation of the European fishing industry. At the same time, they play an important role in preserving tangible and intangible cultural heritage of coastal areas and contribute to local economic development. Partners from [CHERISH](#) project look at the key challenges faced by the fishing communities and their role in preserving the maritime identity and traditions of coastal regions. Many coastal regions have started to search for more sustainable solutions and new strategies for their fishing communities. For example, cultural and economic role of the local fishing communities is well recognized in the Local Action Plan for the District of Paphos (Cyprus) 2014-2020 (Development Co. Paphos Aphrodite Ltd is a partner in [CHERISH](#) project).

### ***Solutions and good examples from European regions***

The current Interreg Europe programme provides support to partners which intend to work together on challenges faced by coastal and fluvial regions like protecting land-sea and deltas 'ecosystems, preserving cultural heritage, achieving better balance between exploitation and preservation measures, developing eco-tourism, addressing the challenges faced by the fishing communities, etc.

Moreover, Interreg Europe projects offer insights and inspiration on how to improve policies for protection and sustainable management of maritime and fluvial areas. Two examples stemming from Interreg Europe projects are presented below:





### Recreating flood protection in transforming area to include multi-functional public space to stimulate regeneration of a deprived area, [PERFECT](#)

Beam Parklands is a 53-hectare park in east London and part of the legacy of the Ford factory. It is on the floodplain of the River Beam, a tributary of the River Thames, floods regularly and is one of the most deprived areas of the UK. Between 2009-2011, the Land Trust, which is an independent Charitable Trust that manages open spaces on behalf of, and in partnership with, local communities, took over the site and transformed the area. The park was largely neglected in the 20thC due to a derelict smallpox hospital which closed in 1989. This area had become a magnet for anti-social behaviour and there were low levels of accessibility for some nearby communities. The Land Trust acquired Beam Parklands on a long-term lease from the former owners the London Borough of Barking and Dagenham and the Environment Agency. An important feature of the project is the financial scheme that includes a blend of EU, private and national funds.

As a result of the intervention the primary role of the site of flood protection was recreated and, as a result, the park can store up to 45,000m<sup>3</sup> of water. In addition to flood storage, the Land Trust and local authority wanted to provide a high-quality, multi-functional public space for the local population. The park provides recreation and education opportunities, enhances the local environment amenity, and contributes to the conservation of important habitats and wildlife. It is also part of the growing All London Green Grid. The footpaths and bridges have been designed to withstand flooding and the habitats present are able to cope with flood events. Specific benefits resulting from the intervention include:

- 570 homes/60 businesses protected
- £600,000/yr flood risk benefits
- £800,000/yr benefits to local community
- 1000+ residents at community events
- 500 children in educational activities
- Extra 12 hectares for biodiversity
- Natural capital account asset value £42m exceeding maintenance costs of £1m

The practice gained recognition for the positive outcomes that it brought and was became the winner of 2011 CIWEM Living Wetlands/Brownfield Awards.

[www.interregeurope.eu/perfect/](http://www.interregeurope.eu/perfect/)



### River Suir Heritage Audits, [SWARE](https://www.interregeurope.eu/sware/)

Heritage audit is a simple but effective way to provide an overall picture of a heritage area and can underpin a holistic approach to heritage management. Such an audit has been carried out for River Suir in Ireland.

There was no previous comprehensive study available for River Suir on habitat mapping and monument inventories which was an issue for sustainable management of natural and built heritage along the river corridor. Therefore, the authorities decided to address this gap by initiating gathering of baseline data which is a collection of information on natural, built, cultural and industrial heritage of the area. At the beginning of each year between 2012 and 2016, the baseline data was collected, and the information was used to inform future development and identify potential for recreation and river-based activities. Beneficiaries from the activity were local communities, recreational river users and Inland Fisheries Ireland.

In addition, the focus of these audits, which were monitored and evaluated throughout the year, was to engage with local communities and gather local knowledge about the river and to get communities activated in relation to the River Suir. The main feature of the audit on an annual basis is a desktop study on the survey area. The study area is generally a 50m corridor/catchment on each side of the river bank although significant features that lie outside of this area can be included if deemed necessary. The fieldwork is ideally carried out during May and June, which allows the opportunity to revisit the area if needed during the final reporting stages. Consultants are procured on an annual basis to carry out a 20-30 km section of the river. This tends to cost between €21,000-€24,000 per year.

Each year new findings are presented, e.g. in 2016 almost 300 monuments were recorded along the study area of which only 59 had been previously recorded at national level. The ecological information and habitat mapping is building up a comprehensive picture of the River Suir which has multiple uses. Communication is key both in-house and with local communities and stakeholders and the process of conducting the study can activate the local community itself to examine projects. The heritage audit can provide helpful insight and inspiration for other regions interested in applying holistic approach to heritage management along a river.

[www.interregeurope.eu/sware/](https://www.interregeurope.eu/sware/)





## What can regions do next?

- The challenges faced by coastal and fluvial regions need to be addressed while balancing development with protection of heritage assets. Finding this balance requires high level of awareness among citizens and policy makers of the vulnerability of the assets and the careful approach which goes with it. In addition, many coastal and fluvial regions look at natural and cultural heritage as separate policy issues which hinders sustainable heritage management. Partners from [HERICOAST](#) project find a solution in adopting a holistic concept of landscape and heritage management which could contribute to overcoming these divides. The concept is tackled in a [toolbox](#) on Improving Heritage Policies in Coastal and Fluvial Regions developed by [HERICOAST](#) partnership.
- There is a need to adopt new models of heritage management that take into account regional, spatial and historical characteristics of the territory and are focused on a holistic approach that contributes to overcoming separation of cultural and natural heritage. The experience with River Suir Heritage Audits ([SWARE](#) project) described above is a positive step in applying such a holistic approach to heritage management along a river.
- Regions need to evaluate and explore the potential of heritage as strategic resource for redevelopment of coastal and fluvial regions. Used carefully and with consideration, heritage can become a tool to improve social cohesion and give impulse for improved quality of life. The [good practice from Castile and Leon's](#) management of the Castile Waterway ([HERICOAST](#) project), characterised by the transformation of an old waterway into a sustainable tourism destination with public access to leisure and recreation activities as well as cultural offers, convincingly illustrates this potential.
- Regional cooperation is essential for addressing a number of challenges that coastal and fluvial regions are facing. For example, there is a potential for learning through experience sharing and development of innovative policy ideas with regards to adaptation to climate change. In the tourism sector, local and regional authorities need to cooperate in order to create joint products such as cultural routes and create higher-value jobs without harming the marine and fluvial environment.
- Coastal and fluvial areas are facing various environmental challenges, including floods. Wherever possible, public authorities need to consider the natural environment, including green infrastructure solutions in planning flood prevention measures. The activities on recreating flood protection in Beam Parklands and transforming the area ([PERFECT](#) project) can serve as a positive example for other regions and cities.

## Sources of further information

- EEA, [European waters: Assessment of status and pressures](#), 2018
- [European Climate Adaptation Platform](#)
- EC, [Report on the Blue Growth Strategy](#), Towards more sustainable growth and jobs in the blue economy, 2017
- EC, [Innovation in the Blue Economy: realising the potential of our seas and oceans for jobs and growth](#), 2014
- EC, [EU strategy on adaptation to climate change](#), 2013
- EC, [Staff Working Document](#) Adaptation to climate change impacts on human, animal and plant health, 2013
- [HERICOAST Toolbox](#) – Improving Heritage Policies in Coastal and Fluvial Regions, 2018

*#natural heritage*  
*#cultural heritage*  
*#coastal and fluvial areas*  
*#cooperation*



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