



Policy impact on estuary management: the Severn Estuary case study

A new study has examined how recent policy developments, such as the EU Habitats and Water Framework Directives, have resulted in wider and more integrated management of river estuaries, using the Severn Estuary in the UK as a case study.

The Severn Estuary is the largest coastal plain type estuary in the UK and supports an extensive range of biodiversity. In addition, it is home to large urban, industrial and agricultural areas, and is an important port and tourist destination.

The study explains that before the mid-1980s there was extensive UK environmental legislation in place, but it was based on relatively separate policy areas for different sectors, namely conservation, landscape protection, pollution, flood and coastal defence and land use planning. This led to various sectors and administrative bodies working in relative isolation. However, the increase in European and national environmental legislation in the mid-1980s and early 1990s was a key driver for improved environmental management and planning of the Severn Estuary. Environmental management moved away from that based on narrowly focused regulations and is now based on a more holistic and integrated approach, encompassing previously different policy areas.

Regulatory requirements have led to significant environmental improvements, particularly in the areas of pollution control, waste management and the detailed environmental assessments associated with conserving habitats. Some improvements, particularly affecting pollution control and waste management, have come from local, site-specific monitoring programmes. The European Habitats Directive¹ and Water Framework Directive² have promoted actions taken within the estuary-wide context. This has encouraged new styles of working, particularly greater collaborative efforts with partners and wide-ranging consultations with stakeholders.

In light of the development of the many plans and strategies to support the various policy streams, the study assessed whether the resulting complex planning framework has improved environmental management of the estuary. On a positive note, the chemical quality of the water has improved. However, the extent of some habitats has been reduced, for example, mudflats have been eroded in some areas. In addition, there has been a decline in many populations of internationally important bird species, for example, the European goose, although other, nationally important bird species have increased in number.

Nevertheless, there are many uncertainties related to the environmental trends; these are partly associated with the limited scientific evidence, based on robust, long-term, geographically extensive data, needed to inform policy development and interpretation. In addition, some changes are being driven by external factors, such as climate and lifestyle, rather than the direct influence of environmental policy.

These uncertainties and external drivers, together with the complex and dynamic nature of the estuarine system, have made it difficult to determine the cause and effect relationships between policy and environmental improvements at the estuary scale. For example, it is unclear whether recent improvements, particularly in water quality in some areas of the estuary, have occurred because of policy initiatives or the decline of heavy industry.

A number of current environmental issues, identified from recent stakeholder consultations, pose challenges for the evolving governance of the Severn Estuary, for example, the proposed Severn Barrage for tidal power generation. These challenges can be met through robust governance and adaptive and balanced decision-making practices, able to tackle the complexity of the estuarine system.

1. See: http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

2. See: http://ec.europa.eu/environment/water/water-framework/index_en.html

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