

## RIVER BASIN MANAGEMENT AND SPATIAL PLANNING: PROSPECTS FOR INTEGRATION AND CROSS-BORDER COOPERATION?



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In late 2011, the International Centre for Local and Regional Development (ICLRD) published a research study on river basin management and spatial planning in the context of cross-border and all-island cooperation. The study, *'Responding to the Environmental Challenge? Spatial Planning, Cross-Border Cooperation and River Basin Management'*, is available at [www.iclrd.org](http://www.iclrd.org). This paper draws on the findings of that report.

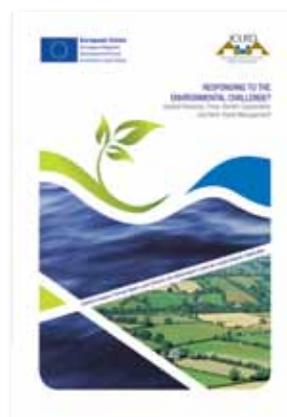
### Introduction

The integration of environmental and spatial considerations into decision-making is one of the key challenges facing planning and development on the island of Ireland. At a time when established development paradigms are increasingly being questioned and the role of planning policy and practice in steering spatial development is held up to increased scrutiny, it is important that considerations of environmental sustainability are given full consideration.

River Basin Management Plans produced across Europe under the EU Water Framework Directive (WFD), launched in 2000, are now entering the implementation phase. The process of implementation requires an integrated cross-sectoral approach as the recommended programmes of measures impact on a number of sectors including agriculture, rural housing, environmental protection and urban planning. A spatial approach founded

on principles of territorial cooperation is also required as the implementation of a river basin perspective requires coordination across jurisdictional boundaries at all spatial scales. The cumulative impact of development pressures from a range of sectoral

sources further reinforces the need for an integrated spatially sensitive approach. The logical consequence is, therefore, that spatial plans and strategies should have a key role to play in the river basin management process.

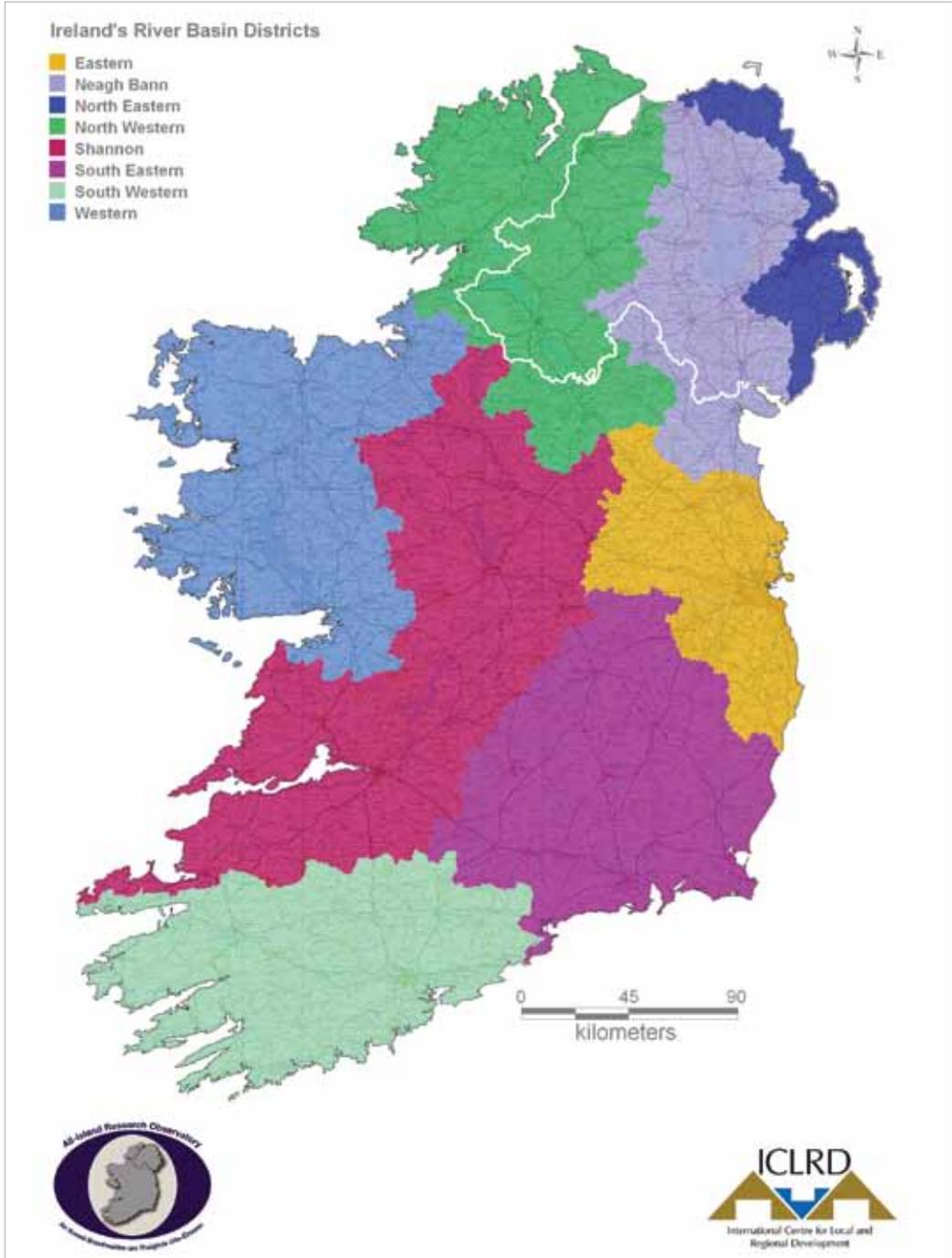


Over one hundred River Basin Districts have been established across the EU; with over one-third being International River Basin Districts as they cross international borders (McNally, 2009). For each of these districts, River Basin Management Plans (RBMPs) were required to be produced and implemented. The overall objective of the management plans is to establish an integrated monitoring and management system for all waters within a river basin district, and to develop dynamic programmes of measures (POMs), including details of the actions required to achieve defined environmental quality objectives. The principal objectives are to:

- Prevent further deterioration;
- Protect 'high status' where it exists; and
- Restore the status of water bodies to 'good' by 2015 (NWIRBD, 2008).

The achievement of these core objectives necessitates a commitment to cross-sectoral, cross-departmental and inter-jurisdictional collaboration

Figure 1: River Basin Districts on the Island of Ireland



Source: All Island Research Observatory

as rivers, like many natural assets, do not adhere to administrative or political boundaries and borders.

### **River Basin Districts on the Island of Ireland**

In total, eight River Basin Districts have been established on the island of Ireland following the transposition of the EU Water Framework Directive: four located in the Republic of Ireland, one in Northern Ireland and three cross-border International River Basin Districts (see Figure 1). The governance arrangements for implementation of the RBMPs, North and South, are yet to be finalised. At this stage, however, it is clear that significant investment of resources and development of expertise will be required.

The emerging challenges involved in coordinating river basin management and spatial planning policy objectives are not only technical. They are also political. The WFD places emphasis on stakeholder involvement in processes of decision-making that recognise the fact that water resource management involves making decisions that effectively reshape the landscape in relation to future options and scenarios for development. The political implications of WFD implementation has recently come to the fore in the Republic of Ireland, where in the case of a number of Local Authorities, RBMPs were adopted by city/county managers rather than elected representatives. This situation directly reflects a sense that councillors have been slow or reluctant to take ownership of the policy objectives in RBMPs.

Integration between river basin management and spatial planning currently poses significant challenges for most Member States of the EU – not least in terms of policy alignment. A comparatively weak tradition of water resource management and environmental planning in Ireland, North and South, serves to accentuate these challenges in the Irish context – as does the different reporting arrangements in each jurisdiction. The ICLR study identifies specific lessons for the island of Ireland from good practice case studies of river basin management in Germany and the United States.

Drawing on international experience, it is possible to identify a number of different potential roles for spatial planning in the context of river basin management and WFD implementation:

1. *A Factor in Planning Decisions:* Planning and development decisions take into account river basin management and water quality concerns. To make this operational, WFD concerns would need to be integrated into Impact Assessment procedures.
2. *A Factor in Making Spatial Plans:* Forward-looking spatial plans (i.e. at county, regional, and/or national levels) are informed by a river basin management approach. Water quality concerns thus inform urban and rural development strategies and lead to substantial modifications as required. This approach seeks to ensure that future development does not negatively impact on the achievement of WFD objectives.
3. *Active Policy Integration:* Specific RBMP objectives are integrated in order to achieve mutually beneficial outcomes. This may be possible through green infrastructure strategies or other strategies that focus on the development/conservation of semi-natural areas for both their ecological and amenity values (there are good examples of this in Germany, see Creamer et al. 2011, Chapter III).
4. *Spatial Strategies as a Framework for Policy Coordination:* Strategic spatial plans can provide a focus for cross-sectoral and multi-stakeholder policy coordination and potentially integration. In the case of WFD implementation, negotiation with and participation from agriculture, forestry and rural housing stakeholders may be particularly significant.

In practice, however, the potential role of spatial planning in river basin management is not always recognised or appreciated by all actors involved (see Moss and von Haaren, 2009; Kidd and Shaw

2007). Sweden represents one example where water management issues are handled through the municipal physical planning system by local authorities governed by elected politicians. Even in this case, however, governance arrangements are complex. For the purposes of WFD implementation and reporting, a parallel system of water authorities has been established at the regional level (Hedelin and Lindh, 2008).

In the context of the island of Ireland, an economic analysis of the benefits of integrated river basin management and good practice projects with complementary social and environmental objectives will be important to foster public support. Interactive engagement with, and training of, elected representatives as well as practicing planners is also critical in ensuring that planning and development decision-making takes into consideration all relevant factors in a balanced way.

### **Recommendations for Effective Integration between River Basin Management and Spatial Planning**

Through the course of the ICLRD study, a number of key requirements for effective integration between river basin management and spatial planning have been identified. These are outlined below:

1. ***Development of expertise in environmental and landscape planning***  
The environmental dimension to planning is comparatively poorly developed across the island of Ireland. There is a need for a greater consideration of environmental issues and perspectives in spatial planning policy and practice. It is important to build on emerging approaches in this area in relation to green infrastructure, urban biodiversity, flood risk and Strategic Environmental Assessment (SEA).
2. ***Communication, learning and exchange across disciplinary and professional boundaries***  
River basin management and water quality protection require a strong scientific evidence
- base. As a consequence, RBMPs produced to date are lengthy documents written in technical language, drawing on empirical data and scientific analysis. Effective implementation will require communication between scientists, engineers and planners. The process of understanding, interpreting and translating the implications and recommendations of RBMPs into objectives for spatial policy should not be underestimated.
3. ***Development of effective integrated assessment methodologies and monitoring systems***  
Ultimately the scope for river basin management and water quality concerns to impact planning and development decision-making will depend to a large degree on the strength and capability of assessment and monitoring systems. In particular, the ability to assess the cumulative impacts of multiple developments on water bodies and ecological systems is critical. Such an assessment must take into account the probable impacts from multiple sectoral sources, including agriculture, forestry and housing development. Although a strong, multi-faceted evidence-base is required to support the operation of such a system, decisions must be taken on the basis of the precautionary principle. This implies that even where the scientific evidence is incomplete or inconclusive, decision-makers will need to draw conclusions from the best available evidence.
4. ***Inter-agency coordination and cross-jurisdictional cooperation***  
Effective coordination among responsible agencies is critical to the implementation of the RBMPs and the WFD on the island of Ireland. The WFD specifically requires an integrated approach that crosses sectoral and jurisdictional boundaries. The operationalisation of a river basin or catchment approach necessitates effective coordination among neighbouring jurisdictions and the development of harmonised or joint approaches across the

border. International experience of effective inter-agency coordination requires awareness among all actors of the roles played by the various agencies involved in the process of implementation. The potential contribution of some agencies, such as the cross-border Loughs Agency, is currently under-utilised due to weak inter-agency coordination and leadership in this area. International good practice further indicates that greater priority needs to be given to coordination and negotiation with key stakeholders in the agricultural and forestry sectors. Spatial planners, and planning strategies more broadly, have the potential to provide a framework for coordination across sectoral boundaries.

#### **5. Strategic Leadership**

The full ICLRD Report, *Responding to the Environmental Challenge? Spatial Planning, Cross-Border Cooperation and River Basin Management*, highlights the complexity of current institutional arrangements for RBMP governance, both North and South. The principal importance of leadership in developing proactive approaches to implementation is strongly evident. Effective and strategic leadership implies providing clarity in relation to institutional arrangements, divisions of responsibility and resource allocation. It would seem that this currently only comes from central government in both jurisdictions. This does not necessarily need to be the case. Strategic leadership also means ensuring that the lead authorities within each River Basin District are in a position to effectively negotiate with all stakeholders and deliver on key objectives.

#### **6. Communication and engagement with elected representatives and other stakeholders**

Coordination between river basin management and spatial planning must recognise that spatial planning is a political activity, as well as a technical discipline. Generating political and public acceptance for river basin management and

water quality protection measures will be key to successful implementation. Recent difficulties in relation to the adoption of RBMPs by local authorities in the Republic of Ireland indicate the extent to which political support will need to be fostered and developed over time. International experience suggests that projects which serve to improve environmental quality and enhance amenity value may be particularly effective in generating public support – once the benefits and processes are understood, and sufficient time is dedicated to promoting awareness of the programme.

#### **7. Allocation of Resources**

The effective implementation of RBMPs and compliance with the WFD requires significant investment and strategic allocation of resources. The water resource management sector in Ireland, both North and South, is currently fragmented and poorly developed in comparison to other countries. Investment is required to support the development and application of expertise and the roll-out of practical measures to preserve and enhance water quality and improve decision-making. The strategic allocation of resources is also critical in terms of providing certainty and support in relation to agreed policy objectives and programmes of measures, and enhancing the capacity of lead authorities to demonstrate proactive leadership. Within this context, all potential cost recovery options need to be examined. The costs of non-coordination and the potentially significant cost savings derived through enhanced cross-sectoral, inter-agency and inter-jurisdictional collaboration need to be given due consideration.

#### **Concluding Comments**

At an operational level, the planning systems of both jurisdictions on the island of Ireland respond well to clear instruction. They struggle with the interpretation of opaque plans which lack clarity around the specifics of the actions needed. In this sense, it is imperative that direct links are established between concrete river basin management policy measures

and spatial planning instruments and objectives. Looking to the future, it is evident that environmental considerations will play an increasingly critical and decisive role in spatial planning. The pace of climate change and the need for adaptation may bring new challenges that may interact with water policy objectives in unexpected ways. Integration between river basin management and spatial planning may, in this context, be seen as part of a wider process of integrating spatial planning, urban development and environmental policy objectives. In order to achieve this, it will be necessary to fundamentally rethink current understandings of and approaches to development. In particular, it will be necessary for political decision-makers to accept the value of

safeguarding the value of the natural environment through evidence-informed planning decisions, even where there may be a potential loss in economic terms.

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