

A journey to achieving integration in Flood Risk Management

¹ Cumiskey, L (2020) Joining the dots: A framework for assessing integration in Flood Risk Management with applications to England and Serbia. PhD thesis, Middlesex University. Available at: <http://eprints.mdx.ac.uk/29624/>

Achieving ‘integrated’ Flood Risk Management (FRM) is strongly advocated across policy and practice but there is limited guidance on how to actually assess it. This briefing note outlines PhD research¹ that developed a framework for assessing integration in FRM. Practical insights are also provided for policymakers and practitioners on a journey to achieving integration in FRM.

Introduction

This research highlighted the complex and dynamic nature of achieving integration for FRM. Strong relationships are needed between a range of actors across sectors who utilise their mechanisms to realise integration in practice for FRM. Doing so will generate joint knowledge, aligned plans and interventions that manage trade-offs and capture synergies and efficiencies for FRM and sector-specific objectives. Reframing integration in this way for FRM offers a structured and holistic means to assess it and identify possible improvements.

Figure 1:

Illustration of a journey to integration in FRM



Key elements of integration in FRM

² Cumiskey, L., Priest, S. J., Klijn, F. and Juntti, M (2019) A framework to assess integration in flood risk management: implications for governance, policy, and practice. *Ecology and Society*, 24 (4), 17.

This research broadly defines integration as the degree to which the governance capacity (actor relationships and influencing mechanisms) realises joint knowledge, aligned policies and synergies and/or efficiencies across interventions for flood risk management in practice. Within the framework each of these key elements are assessed for an identified integration challenge.

Specifying the *integration challenge*, helps to identify the context-specific nature of integration in a particular area and streamline the assessment. For example, integration challenges can be focused on specific flood hazards, sectors, phases of FRM, temporal and/or spatial scales. Figure 1 illustrates some different sectors that require integration with FRM.

Building governance capacity

This part of the framework assesses the strength of multiple actor relationships and the extent to which their actor-, rule- and resource-based mechanisms influence integration for FRM.

Actor relationships

The range of bonding, bridging and linking actor relationships that influence FRM are identified and assessed. *Bonding relationships* are those between responsible FRM professionals (e.g. for river, surface and coastal flooding), whereas *bridging relationships* represent those between FRM professionals and other sector professionals e.g. environment. *Linking relationships* represent those with differing levels of power and influence, such as communities and FRM professionals. The two key indicators identified to assess the strength of these relationships are; 1) mindset alignment and 2) communication intensity between actors.

Influencing mechanisms

The framework distinguishes between actor-, rule- and resource-based mechanisms. *Actor-based mechanisms* are those which increase actors' knowledge sharing and interaction e.g. FRM partnerships, boundary spanning roles, joint working arrangements – influenced by the diversity and continuity of actors engaged, the benefit versus transaction costs of engagement, and the availability of resourced proactive staff. *Rule-based mechanisms* are those which enforce interaction between actors e.g. statutory consultee roles, duties to cooperate and cooperation agreements – influenced by the clarity of roles and responsibilities, and quality of rule design and enforcement. *Resource-based mechanisms* represent the available FRM or sector-specific funds to enable integration in FRM - influenced by the availability of joint funds, (in)flexibility of funding criteria ('strings') and timescales.

Realising integration

The framework assesses the realisation of integration in FRM through the knowledge, policies and interventions generated across actors.

Knowledge

The extent to which joint knowledge (e.g. joint investigations) is generated by multiple actors and applied to support integration for FRM e.g. aligned plans or multi-benefit interventions.

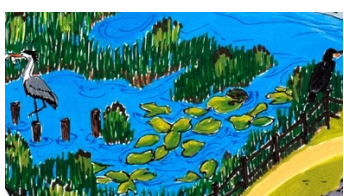
Policies

The ability for actors to generate and synchronise FRM and sector-specific policies, by producing joint plans, aligning objectives and interventions across plan boundaries, and supporting consistency between plan preparation, monitoring and renewal timelines. For example, the UK 25 Year Environment Plan (2018), local FRM plans or infrastructure plans.

Interventions

When assessing the FRM and sector-specific interventions, there should be no negative impact on the other sector, instead achieving mutually beneficial efficiencies (e.g. time and cost savings) and synergies, such as increased biodiversity by restoring wetlands or unlocking economic regeneration through a flood scheme.

Further details on the selection and verification of these elements and the associated indicators can be found in Chapters 2 and 4 of the thesis¹. In addition, an overview of the framework can be found in Cumiskey et al. (2019)².



Applying the assessment framework

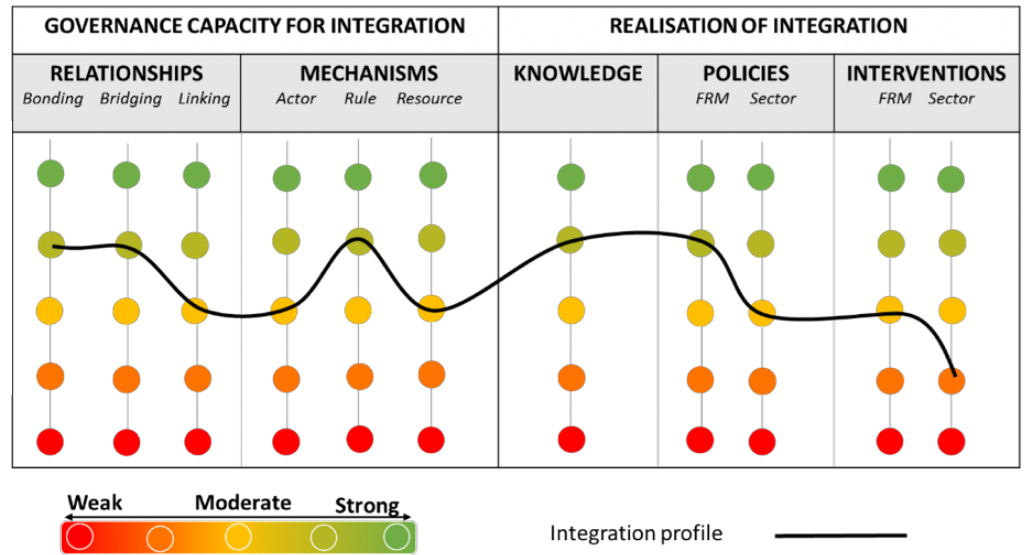
Visualising the integration profiles

The framework can be applied by assessing each of the elements individually from strong to weak using the qualitative descriptions of the indicators presented in the thesis (see details in Chapter 4).

After conducting the assessment for each element individually, these can be visualised as an *integration profile* – as shown by the black line in Figure 2. The profile gives an indication of the degree of integration for the identified integration challenge and highlights the key elements that need improvement.

Figure 2:

Visualising the assessment of key elements of integration and resulting integration profile



Applications in England and Serbia

The framework can be applied to a range of integration challenges for FRM. In this research, it was applied in England and Serbia by collecting and analysing qualitative data– discussed in detail in Chapters 5 and 6¹.

For the study areas in England, the framework was applied for integration between 1) FRM internally across sources of flood risk, 2) with emergency management, 3) housing and infrastructure growth and 3) environment and agriculture sectors. In Serbia the framework was applied to 1) assess their transition from a focus on flood response to FRM and 2) the expected improvement in the short-term (5 year) and 3) long term (10 year) period.

Insights generated from these integration profiles were used to characterise four different degrees of integration – high, intermediate, low and minimal (see Chapter 8¹).

Application guideline

A guideline is also available outlining how the framework can be applied by policymakers and practitioners in different ways based on their specific interests and ability to collect data (see Section 8.3, page 247¹).

In policymaking, the framework has potential for use in developing ‘integration’ narratives in planning documentation, generate insights for designing regulations or funding mechanisms and to facilitate multi-actor dialogue on integration in the context of FRM.

To support realising FRM in practice, the framework can be used in bilateral discussions to help break down the complexity of integration between different sectors and highlight the opportunities or barriers in doing so. The framework has potential for use as a training tool to motivate and educate staff on achieving integration in FRM.

Applied lessons for policymakers and practitioners

Here the key lessons gained from the research applicable to policymakers and practitioners on a journey to achieving integration in FRM are highlighted, as captured in Figure 1.



Create a culture of collaboration and learning

Building a culture of collaboration and learning is core to facilitating integration in FRM. Achieving integration presents a complex challenge for multiple actors – public, private and civil society – all of whom need to continuously build their capability to work together on FRM across sectoral, geographical and administrative boundaries. Consistent investment in people, partnerships, skills development and learning both within the FRM sector and across adjoining sectors will help to sustainably strengthen the governance capacity of the FRM sector to deliver integration now and in the future.

Work with existing mechanisms and avoid ‘quick fixes’

Working creatively and exploring the flexibility of existing actor-, rule- and resource-based mechanisms is important to make initial progress on integration, help strengthen relationships and identify the gaps. All mechanisms feed off each other and their interactions need to be considered for mutual support instead of relying on any ‘quick fixes’. For example, funding the establishment new partnerships instead of investing in existing partnerships and facilitating their ability to grow and connect with other mechanisms across sectors.

Think ambitiously about opportunities and develop a ‘wish list’

Staying proactive about the opportunities for integration across sectors and developing a ‘wish list’ jointly with multiple actors is important for maintaining an ambitious attitude. Such a wish list can be quickly utilised when resources become available or ‘windows of opportunity’ arise to adapt actor-, rule- or resource-based mechanisms, or implement joint projects.

Develop joint funds to support knowledge sharing

Joint funds can facilitate integration if they offer enough flexibility for actors to jointly fund a broad range of activities e.g. shared staff, investigative studies, capacity building and training. These funds support continued knowledge sharing among actors to identify joint opportunities.

Recognise the added value of boundary spanning roles

Multiple boundary spanning individuals play powerful roles in enabling integration for FRM, and thus their motivation, creativity and energy should be embraced. However, these roles can be jeopardised if the right mechanisms are not in place to generate, support and sustain them. See further details in Chapter 7¹ and in PhD Research Briefing Note 2.

Stay committed to the long journey towards integration

The pace of achieving integration will vary based on a range of influencing factors, such as politics, organisational change and flood events. However, it is important not to get demotivated by setbacks or changes that are difficult to control, and instead stay committed to the long journey, adapt and capture any opportunities that present themselves along the way.

This PhD research was supported within the System-Risk project funded under the EU’s Framework Programme for Research and Innovation Horizon 2020 (Grant Agreement No. 676027).

This research briefing note can be referenced as follows: Cumiskey, L. (2020) A journey to achieving integration in Flood Risk Management. PhD Research Briefing Note 1. Middlesex University.

However, where possible please reference the original PhD thesis¹ or peer-reviewed publication².

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