

FAIR – from thinking to Policy and Practice in Asset Management for flood protection

Outline by: Berry Gersonius & Richard Ashley



Summary

This policy brief...

Introduction

Flooding... is a major threat...

Hard and soft solutions have led to various types and forms of infrastructure being provided... with major capital investment..

Assets are....

Replacement / improvement task: OECD study > Need to make best use of (shrinking) budgets for flood protection

Maintaining and managing these assets is a challenge

- Where, how and when to manage... information (in real time)... replacement vs renovation vs rehabilitation
- Responsibilities... given the wide range of stakeholders and land owners... are these fixed in time and place? Rapid pace of (external) change makes this potentially impractical..
- Policy behind this may need to re-cast who, when, where and how....

Who is responsible, and how are they doing?

Point to (contextual) differences between NSR countries, e.g. in terms of responsibilities

Asset management maturity models, which combine best practices and competencies, provide a useful approach to test the capacity of organisations to manage their assets. This can assess the capability, strengths and weaknesses of a stakeholder (organisation or individual) in relation to intended goals.

Discuss how the (contextual) differences between NSR countries explain performance

1. **Ad hoc:** The organisation has limited experience and is at a learning and development stage.
2. **Repeatable:** The organisation can repeat what it has done before, but not necessarily define what it does.
3. **Standard:** The organisation can say what it does and how it goes about it.
4. **Managed:** The organisation can control what it does in the way of processes. It specifies requirements and ensures that these are met through feedback.
5. **Optimised:** The organisation is “best practice,” capable of learning and adapting itself. It not only uses experience to correct any problems but also uses experience to change the way it operates.

Barriers and opportunities for improved asset management

Barriers to AM: institutional, resources, cognitive, information & communication, participation

Poor knowledge about the location and ownership of flood protection assets

uncertainties about the soil conditions around flood infrastructures

For all countries, ‘tactical handshake’ is most challenging

Institutional barriers	Resource barriers	Cognitive barriers	Information & communication barriers	Participation barriers
<ul style="list-style-type: none"> Conflicts of interest Inequality Unclear division of responsibility and ownership Lack of enforcement Lack of certification Lack of political will Rigid procedures Loss of warranty 	<ul style="list-style-type: none"> Time consuming processes Cost increase & access to funds Lack of staff Lack of space Lack of 	<ul style="list-style-type: none"> Conservative methods dominant Lack of knowledge and expertise Lack of trusted evidence to convince decision makers Lack of a long term vision No sense of urgency / wait until fails 	<ul style="list-style-type: none"> Lack of data Unstructured information Outdated information Lack of transparency Unstructured communication 	<ul style="list-style-type: none"> Public dilemma's Lack of stakeholder engagement

Informing Policy for practice

Policy recommendations

- Closing plan-do-check-act cycle: Need for (improved) monitoring, and adapt maintenance strategy on new insights / prove that meet design situations
- Establishing a strategic approach (few countries)
- Inventory and maintenance of asset health (using defined metrics see CH2M, Ofwat etc.)
- Flexibility for robustness and resilience needs to be the goal
- Funding cycles? Misaligned with strategic opportunities
- Total investment costs need to be balanced, not separated into capital, maintenance and operational
- Multifunctional assets? New, but also retrofit to existing?
- Linking strategic and operational level: Tactical handshake is most challenging, and requires attention in policy making
- Need for centralist view in decentralised regime: to be able to deal with existential challenges
- Fragmented ownership, responsibilities, and accountability
- Who bears the risks and who receives the rewards?
- Utilise latest ideas (international best practices) and technologies, including real-time sensing
- Green infrastructure as a legitimate asset