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Legitimizing differentiated flood protection levels – Consequences of the European flood risk management plan

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ABSTRACT

The European flood risk management plan is a new instrument introduced by the Floods Directive. It introduces a spatial turn and a scenario approach in flood risk management, ultimately leading to differentiated flood protection levels on a catchment basis. This challenges the traditional sources of legitimacy for flood risk management, which are predominantly founded on strong institutions and engineering solutions. Future flood risk management needs to incorporate stakeholders and citizens in the decision-making process because the choices for the flood risk management plan will be more normative and political. In terms of concepts of legitimacy, this means an increasing importance of throughput legitimacy, complementing input and output legitimacy. This change shares similarities with a paradigm shift in spatial planning around the 1970s. Therefore, this contribution argues that flood risk management, according to the European Floods Directive, can profit from experiences and approaches in spatial planning.

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1. Introduction

The European Floods Directive (2007/60/EC) requires the creation of flood risk management plans. These plans need to determine objectives for the management of flood risk and reduce potential adverse consequences of flooding. The plans must be coordinated on the level of river basin districts across administrative and national boundaries. Currently, water management agencies across Europe are preparing flood risk management plans as the first generation of those plans needs to be released by the end of 2015. Subsequently, the plans will be revised every six years. The instrument of the flood risk management plan is a step by the European Union towards the institutionalization of an ongoing paradigm shift in dealing with floods, moving from flood protection towards flood risk management. This institutionalization has consequences for the legitimacy of flood risk management. Due to the specific risk approach pursued in the Floods Directive, which differentiates flood protection for different land uses, the plan raises legitimacy issues because it crucially affects property rights. The inherent urgency of flood risks and also the degree of interventions in land uses makes the issue of legitimacy more important with the Floods Directive than it was with the Water Framework Directive (WFD).

Of course, in many respects, the Floods Directive does not introduce entirely new paradigms into flood risk management. Many countries had predecessors to flood risk management planning (i.e. Germany with the water law in 2005, or other catchment approaches in other countries). Within European water policy, catchment-wide planning is well known from the WFD. Also, the risk approach – i.e. not focusing on flood protection but rather the management of risks – has already been discussed for some time (Hartmann and Jüpner, 2014a).

The paradigm shift pushed forward by the Floods Directive can be characterized as follows: For decades, flood protection has been the responsibility of engineers. Therefore, it is not surprising that a technical approach dominated the flood protection regimes throughout Europe. Ever since the River Rhine flood events in 1993 and 1995, there has been a very gradual paradigm shift from infrastructural flood protection to flood risk management (Hartmann and Albrecht, 2014; Moss and Monstadt, 2008; Mostert and Junier, 2009; Roth and Warner, 2007). This implies a gradual move away from the ideology that flood protection must guarantee the security of humans and economic values (Boettcher, 1997) by defending against the floods and ‘keeping the water out’ and towards an ideology of managing flood risks (Johnson and Priest, 2008). Water should no longer be excluded, rather it should be ‘accommodated’ (Wesselink, 2007). This idea did not fit in with the traditional working paradigm of water management, which was still deeply rooted in the earlier mentioned technical approach. Water management – in most European member states – was not

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prepared for catchment-wide planning for flood risk management (Ison et al., 2007). Dikes have been regarded as the boundaries between the water and water management. But, according to the new paradigm, dikes are no longer boundaries or lines of defence in the 'battle against the water' (Wiering and Immink, 2006). However, in practice, the traditional perspective of dikes as boundaries between wet and dry land still often prevails. In terms of policymaking, this development led from state-oriented governance processes towards more collaborative schemes, as is widely acknowledged in the scholarly debate (van Buuren et al., 2012) and explored in practice (van den Brink, 2009). This new governance is triggered by the way the measures for the flood risk management plan are being legitimized.

This paper outlines the types of legitimacy tensions that result from the flood risk management plan, namely how the plan demands forms of legitimacy other than those that traditional water engineering is used to, and how these forms of legitimacy can be dealt with methodologically in terms of responsive participation. This paper will not address the legitimacy of the European Directive itself, i.e. the debate on whether the flood risk management plan belongs to the competency of environmental policy or not; this question has been discussed earlier in the scholarly debate (Reinhardt, 2008). This paper focuses on the consequences of the measures in terms of legitimacy.

2. Concepts of legitimacy

Measures in the flood risk management plan are governmental interventions in the allocation or distribution of spatial goods, notably flood protection (as a spatial good). All of these governmental interventions require some sort of legitimization. There are three different forms of such legitimacy (Schmidt, 2013). *Input legitimacy* is assessed on criteria such as authorization, representation, and accountability. *Output legitimacy* judges the policy results for citizens or stakeholders. Finally, *throughput legitimacy* involves the inclusiveness and openness to consultation with citizens (or stakeholders). These three forms of legitimacy provide justification for governmental intervention.

Input legitimacy is thought of as the classical democratic model (van Buuren et al., 2012). It can be linked to the societal contract described, for example, by Thomas Hobbes' Leviathan (Davy, 1997; Scharpf, 1997) where the members of a society give their decisive power to an institution. Policy actions are justified via input legitimacy if the governmental action is enacted by representative, authorized, and accountable institutions. These institutions are well embedded in the democratic system and receive their legitimacy via the respective political system. An example would be the police, whose actions are not legitimized by a participatory process or the outcome, but rather via laws and rules (ensured by the electoral representation) (Schmidt, 2013).

Output legitimacy means that the result of the governmental action justifies the measures. This requires that the concerns of the citizens and stakeholders be taken into account (Schmidt, 2013). Scharpf acknowledges that this does not necessarily mean to deliberate with people, but instead that there are cases where the 'effective resolution of specific problems is highly dependent on expert knowledge that is neither generally available nor easily acquired' (Scharpf, 1997). Such a type of legitimacy is suitable for situations where the goals and values at stake are highly consensual; in other words, it is in the public interest. An example could be disaster management, where a certain governmental intervention led to the reduction of the impact of a natural catastrophe (such as a flood).

A governmental action can also be legitimized via throughput legitimacy wherein citizens and stakeholders have actively participated in a process that was effective, accountable and

transparent (Schmidt, 2013). A typical zoning plan procedure where citizens take part is an example of such legitimization. Throughput legitimization is process-oriented, based on interactions of all (relevant) actors (Schmidt, 2013). Participatory planning is a prime example of the way in which throughput legitimacy can be improved. In planning, other stakeholders and citizens take part and stay involved in the decisions and the decision-making processes (Mickel et al., 2005; van Coenen et al., 2001). The famous 'ladder of citizen participation' by Arnstein (Arnstein, 1969) became a very influential basis to measure empowerment. Since its introduction, Arnstein's ladder has inspired many researchers in general spatial planning (see e.g. Fung, 2006; Brownill and Carpenter, 2007a,b), but it has become particularly useful in relation to environmental governance (Newig and Kvarda, 2012; Green and Penning-Rowsell, 2010). Historically, participation developed due to major political arguments and milestones in legislation, projects, and societal change (van Coenen et al., 2001). It has sometimes been used as an instrument to catalyze protests. At other times, it has been an important tool to legitimize governmental actions, or it has been used as an instrument for reconsidering and deliberating on agreements. But there is also a counter-movement to participation aiming to speed up planning processes (van Coenen et al., 2001; Kamphorst et al., 2008), e.g. the Dutch Crisis and Recovery Act from March 2010 shortened planning procedures (Donders et al., 2014). Participation contradicts, in some ways, the idea of Schumpeter's representative democratic model (input legitimacy) and follows instead Rousseau's understanding of an active citizenship (Michels, 2006).

3. Legitimacy of traditional water engineering

What were the sources of legitimacy for traditional flood protection, i.e. before the flood risk management plan? Two concepts of legitimacy have prevailed:

3.1. Input legitimacy via strong water institutions

In the past, water engineering served predominantly economic purposes: shipping, regulating discharge, providing flood protection to make floodplains agriculturally fertile or maintaining and increasing the value of riparian land (Nisipeanu, 2008). Users of riparian land have been dependent on water management. This led to a very strong and long-lasting tradition of water engineering (Hartmann and Driessen, 2013). The provision of flood protection has always been the particular responsibility of water engineering (Reinhardt, 2008). Water managers derive a prominent position from this responsibility (Hartmann and Driessen, 2013). Due to the importance of this task, these institutions have been empowered with a clear aim by the political system.

A very prominent example of such a strong institution is the Dutch Directorate-General on water issues, or the 'Rijkswaterstaat'. It is the most important central institution for water engineering in the Netherlands (Wesselink et al., 2013). It has a long-lasting tradition of centrally governing and initiating all water-related issues with a 'hegemony of the state' (Wiering and Crabbé, 2006, p. 99). Also, at the local level, strong water boards are responsible for regional water issues (Heer et al., 2004). These bottom-up initiatives have existed since the 13th century (van Steen and Pellenburg, 2004), and they are considered to be the oldest democratically elected bodies in the Netherlands (Heer et al., 2004, p. 10). In other countries, examples of strong regional water authorities can also be found (e.g. in North Rhine-Westphalia). It can be concluded that in most European countries, water management relies on relatively robust and powerful institutions (Hartmann and Driessen, 2013; Moss, 2004; Nisipeanu, 2008). These institutions link to input

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