
Involving the Public in Catchment Management: An Analysis of the Scope for Learning Lessons from Abroad

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ABSTRACT

Scholars have tended to treat the European Union (EU) as an environmental 'leader'. Yet significant potential nonetheless exists for it to learn lessons in areas such as water policy where it has a long and successful history of involvement. The EU's Water Framework Directive (2000) imposes potentially far reaching requirements on its Member States to enhance public participation in the process of catchment management. However, to date, its implementation has been highly variable across and even within individual states. As the EU starts to revise the original Directive, thoughts will turn to how the current situation could be improved. One potentially productive avenue, which has not yet been fully explored, is to draw lessons on public participation from comparable multi-levelled governance contexts such as in the USA and Australia, where public engagement has arguably been more advanced. Drawing on theoretical accounts of the most likely facilitators and obstacles to lesson drawing, this paper assesses the scope for transfer. It finds that while the EU could potentially learn from these jurisdictions, there are likely to be significant obstacles in practice. These should be born in mind by would-be policy learners. Copyright © 2011 John Wiley & Sons, Ltd and ERP Environment.

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Introduction

SCHOLARS HAVE CONTINUALLY IDENTIFIED THE EUROPEAN UNION (EU) AS AN ENVIRONMENTAL POLICY 'LEADER' (E.G. ZITO, 2005; Jordan and Adelle, 2012) or entrepreneur, and hence a fertile source of lessons for policy-makers outside Europe. The EU has certainly attempted to position itself as a normative 'transfer agent' (Stone, 2004) or global soft power actor in areas such as climate change (see, for example, Jordan *et al.*, 2010). Yet drawing lessons is potentially a two-way rather than a one-way street: EU policy-makers themselves can potentially learn much about practices in other (multi-levelled) political systems. One conspicuous example may lie in the EU's promotion of public participation in catchment management, where it arguably lags behind other political contexts.

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Catchment management in the EU is mandated by the Water Framework Directive (WFD). Introduced in 2000 and scheduled to be fully implemented in 2015, its preamble (Official Journal, 2000) suggests that it marks a radical departure from previous command-and-control type water policies. It states that Member States should ensure all their waters are of a 'good status' by 2015. Crucially, it requires Member States to engage in river basin management planning (RBMP) at the catchment scale and to cooperate with other countries where catchments are trans-boundary. The purpose of this paper is to explore another equally innovative feature: the requirement for public participation in planning. Under Article 14 of the Directive, Member States are obliged to promote stakeholder engagement in implementation via publicizing information to the public on the planning process and inviting them to comment (Official Journal, 2000).

Although the WFD provides a legally embedded framework for enhancing participation, emerging evidence suggests that, in reality, this aspect of the Directive has been highly variable (WWF/EEB, 2009; WWF, 2010; see also Demetropoulou *et al.*, 2010). Some Member States, for example, have not started public consultations despite the passing of a deadline in 2009 (Deloitte/IEEP, 2011). These variations suggest the need for further research into how participation is enacted and, more saliently, how it could possibly be improved amongst Member States. Although such an aim raises normative concerns, we equate 'better' participation within decision-making that moves beyond perfunctory and tokenistic engagement to deeper forms of citizen management: a transition captured by Arnstein's much cited 'ladder' of public participation (Arnstein, 1969: 217). Critics, however, argue that 'good' participation should also include a focus on aspects such as timing, definitions of citizen engagement, costs and informational biases (Huitema, 2002). Research into these issues is timely as the EU begins the process of reassessing the implementation of the Directive and, in time, considers future revisions.

One way of addressing the challenge of improving participation is to draw on international comparative studies to provide a basis for drawing lessons (Benson and Jordan, 2011a). A lesson in this context is defined as 'a detailed cause-and-effect description of a set of actions that government can consider in the light of experience elsewhere' (Rose, 1993: 27). Lesson drawing has already been applied to water governance in various contexts (e.g. Benson and Jordan, 2007; Swainson and de Loe, 2011). There are two obvious sources of lessons for the EU in this respect. One is to share practices in different Member States, a process already occurring under the Common Implementation Strategy (CIS) introduced in 2003. Some Member States have advanced systems for involving the public, while others have less accessible decision-making processes. In principle, much scope also exists for researchers to facilitate cross-national learning through exchange of ideas, providing of course that demand exists for policy lessons.

Lessons could, however, also be imported from other comparable (i.e. federal) multi-level governance systems such as the USA and Australia. This presents a potentially attractive proposition for several reasons. First, comparison has already been employed to facilitate cross-contextual learning in relation to other aspects of EU environmental policy (e.g. Schreurs *et al.*, 2009). Secondly, the USA and Australia also have experiences of promoting public participation in catchment planning (Sabatier *et al.*, 2005; Margerum, 2008) that in principle could be applied by the EU. Finally, comparison allows direct examination of how higher level 'federal' policies in these two countries shape participation at lower levels as a basis for lesson drawing and potential policy change.

So, what can comparison teach us about how different federal systems stimulate public participation in catchment management? In practice, multiple constraints potentially exist in relation to the successful importation of policy lessons, related to the uniqueness of individual policies developed in one context and the problems of inserting them into a different political setting (Benson and Jordan, 2011a; Swainson and de Loe, 2011). These constraints, in turn, structure the type of lesson drawing that may occur. Rose (2005: 81) identifies several strategies, from direct 'photocopying', through to 'synthesis' (combining elements of different programmes to create new ones) and mere 'inspiration' or 'imitation'.

Given the inherent complexities of direct copying between contexts, we focus our analysis on the potential for imitation by posing several questions. First, how is public participation understood? Normative arguments relating to the need for public participation in environmental management are briefly discussed. Secondly, how are public participation requirements currently expressed in the WFD? An overview of its key requirements on public participation is provided in the next section, along with a brief overview of current developments and critical issues, focusing on the uneven pattern of implementation between Member States. Thirdly, what are the potential constraints to lesson drawing in practice? Theoretical arguments on lesson drawing and its analogous term policy

transfer are reviewed to understand the critical determinants. Finally, on this basis, what lessons can the EU *potentially* learn from US and Australian policy approaches on promoting effective public participation? Some recommendations are identified to guide future policy-making.

Participatory Environmental Governance

Public participation is currently de rigueur within environmental governance (Bulkeley and Mol, 2003). Although the notion of participation is hotly contested within the environmental governance literature, it is invariably taken to mean an element of citizen control over decision-making whereby 'participants often engage in deliberation over extended periods of interaction, discussion and debate' (Chilvers, 2009: 401). A bewildering variety of mechanisms have been identified to facilitate the engagement of the public, stakeholders and other specialists (Rowe and Frewer, 2005). These include focus groups (Burgess *et al.*, 1998), citizens' juries (Crosby, 1999; Huitema *et al.*, 2007), consensus-building methods and 'deliberative mapping' (Burgess *et al.*, 2007), through to more collaborative forms of environmental management that directly involve citizens in planning (e.g. Sabatier *et al.*, 2005; Margerum, 2008).

The effectiveness of public participation remains a continued source of debate and hence a basis for greater evaluation (see Coenen *et al.*, 1998; Chess and Purcell, 1999; Chilvers, 2009; Newig and Fritsch, 2009), although participatory forms of environmental governance are undoubtedly more common. They have evolved in response to several drivers such as a reaction to the perceived top-down and scientifically elitist tendencies of traditional environmental governing by 'empower[ing] voices often marginalised in science-policy processes' (Chilvers, 2009: 400). Meanwhile 'post-normal' scientific uncertainties and disputes over problem definitions surrounding some intractable environmental issues (Funtowicz and Ravetz, 1993) have enhanced the imperative for greater public dialogue.

Another driver of public participation, and one which is especially relevant to the aims of this paper, is its promotion as a normative goal through international and supra-national policy. The 1992 United Nations Rio Declaration, Agenda 21, and the 1998 UN Aarhus Convention stress that public participation is essential for promoting sustainable development. Participation norms have subsequently become incorporated into national and supra-national legislation, with EU environmental policy in particular privileging public engagement. For example, the Directive (2003/4/EC) on public access to environmental information implements the Aarhus Convention. In the field of water policy, the 1992 Dublin Principles and Chapter 18 of Agenda 21 have also helped to promote greater public participation. The Dublin Principles state that:

'The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects.' (UN, 1992)

Three features of participation in catchment management are thus established: first, that policy-makers and the public should be informed about water management (*awareness-raising*); secondly, decision-making should occur 'at the lowest appropriate level' (i.e. subsidiarity) so as to be closer to citizens; and thirdly, decision-making should involve 'full public consultation' and the 'involvement of users' in planning and implementation (i.e. what might be called *deliberative engagement*). According to many commentators, genuine participation should involve the engagement of individuals in a deliberative process that 'promotes political dialogue aimed at mutual understanding' (Smith and Wales, 2000: 53; see also Hendricks, 2009). This notion relates strongly to deliberative democracy (see Dryzek 2002), which favours inclusive decision-making whereby 'reasoned debate transforms judgements in the face of publicly convincing arguments that appeal to the "public good" rather than individual self-interest' (Chilvers, 2009: 401–2). Within the EU, these participation norms significantly influenced the design of the WFD. Although implementation has been rather variable, the Directive has nonetheless raised expectations about public engagement in Member States.

Participation in the WFD: Sinking or Swimming?

The WFD has a rather curious history. After national governments unsuccessfully attempted to ‘repatriate’ parts of the existing EU water *acquis communautaire* during the great subsidiarity debate of the early 1990s (Benson and Jordan, 2008), demands surfaced for a more joined-up approach. Acting on invitations from the EU Environment Council and the European Parliament, in 1997 the European Commission published a proposal for an integrated water policy. It provided the basis for the WFD, which was eventually adopted in 2000. As discussed above, it contains several innovative features, including the requirement to promote participation in water management.

Public Participation Requirements

Public participation requirements are contained in three main parts of the legislation. The Preamble of the Directive requires ‘close cooperation and coherent action between . . . [EU], Member States and local level as well as on information, consultation and the involvement of the public, including users’ (Official Journal, 2000: 2). This requirement is qualified in Section 46 of the Preamble, which states that public participation is dependent on ‘proper information of planned measures’ and reporting on plan development (ibid.: 5). More detailed obligations for ensuring public participation are contained in Directive Article 14. Member States are obliged to ‘encourage the active involvement of all interested parties in the . . . production, review and updating’ of RBMPs (ibid.: 17). For river basins, states should publish timetables and work programmes for plan production, an overview of management issues and draft plans for public comment. Information employed in producing the draft plan should also be made available. Finally, Annex VII states the information required in plans and subsequent revisions, which includes ‘a summary of the public information and consultation measures taken, their results and the changes to the plan made as a consequence’ (ibid.).

More specific guidance is contained in the CIS. According to this document, which is non-binding, the Directive provides for three types of participation, categorized in terms of: ‘information supply’, ‘consultation’ and ‘active involvement’ (CEC, 2003: iv). Member States are required to make publicly available information relating to plan production, including background documents and data employed. Consultation occurs in the three plan production stages, outlined in Article 14, with the public invited to comment. Active involvement can be understood as occurring where interested parties or ‘stakeholders are invited to contribute actively to the process and thus play a role in advising the competent authorities’ (ibid.: 26).

Three other factors are relevant to how these public participation obligations are implemented: timing, scale and stakeholders. The timing of participation is detailed in Article 14. Member States must ‘publish and make available for comment to the public, including users’ information as the plan is developed. Scale implications of participation are somewhat contradictory, with the Directive implicitly basing actions at the river basin scale while EU Commission guidance (CEC, 2003: 19) argues that implementation ‘will require activities at many different scales’ from the local, sub-basin to the national. It goes on to identify the local scale as significant for participation as here ‘the effects of management will be felt most directly’ (ibid.: 20). Indeed, the scope for local-level responses to river basin districts to be scaled up (and vice versa) is explicitly recognized. Stakeholders are not defined in the Directive but ‘interested parties’ are now taken to mean ‘any *relevant* person, group or organisation with an interest in the issue’, including ‘government, local authorities, non-governmental institutions, political organisations, research institutes, industries, agriculture, households or other businesses’ (ibid.: 63, emphasis added).

Public Participation in Practice

Together, the Directive and the CIS provide a framework for encouraging public participation. Nonetheless, evidence emerging from Member States shows significant divergence in how it has been enacted. The WWF-EEB (2009: 12), for example, claimed that ‘RBMPs mostly do not reach the public’. Doubts have also been over the effectiveness of participation mechanisms, particularly in translating the views of non-governmental organizations into planning outcomes (WWF, 2010).

Constraints to Lesson Drawing

Given the rather uneven contours of public participation emerging between and within Member States, how could practice be enhanced? The Commission could try to give its guidance greater legal force, but this is likely to be resisted by states on subsidiarity grounds. Alternatively, as outlined above, greater cross-national learning could be encouraged through mechanisms such as the CIS. Finally, experiences abroad could also be carefully assessed to determine the scope for comparative lesson drawing. The rest of this paper concentrates on this third option.

Lesson drawing and its analogous term policy transfer¹ are hardly innovative (Benson and Jordan, 2011). Politicians have engaged in 'systematically pinching ideas' (Schneider and Ingram, 1988) since time immemorial. What is new is the propensity of policy lessons to transfer extra-territorially across time and space as globalization and enhanced communications have increased information sharing between decision-makers (Dolowitz, 2000; Rose, 2005). For example, transfer has occurred on water governance institutional arrangements between Australian states (Swainson and de Loe, 2011). For some policy-makers and academics, lesson drawing has also become an active project promoted to generate practical solutions to specific problems to governments (Rose, 1993, 2005). In addition, national governments have become lesson drawing agents through their growing participation in international and supra-national governance through processes such as Europeanization (e.g. Bulmer *et al.*, 2007).

Systematizing Lesson Drawing

So how, in theory, do policies voluntarily transfer – or not – between jurisdictions? In his seminal text on lesson drawing, Rose argues a key question addressed is '[u]nder what circumstances and to what extent can a programme that is effective in one place transfer to another' (Rose, 1991: 3). Rose has modelled lesson drawing through a 'ten step' procedure for practitioners (Rose, 2005). His template describes a systematic, step-wise process involving specific stages needed 'to determine whether or to what extent programmes in operation abroad could and should be applied at home' (ibid.: 8). For Rose, this linear process starts with conceptualizing programmes and generating or promoting a policy need for lesson drawing amongst policy-makers – steps 1 and 2 (ibid.: 8–9). Then proponents must actively seek out programmatic prescriptions abroad that potentially fit the problem – steps 3 and 4 (ibid.). Then build a 'generalized model' and modify this model to fit with specific national contexts – steps 5 and 6 (ibid.). Lastly, the lesson must be adopted in a form that ensures its success – steps 7–10 (ibid.). Therefore, the actual physical process of lesson drawing involves four broad developmental stages (Figure 1) that constitute an evaluation of policy 'fit'. Lesson drawing, we argue, can be divided into a demand and supply side (Benson and Jordan, 2011a).

Obstacles to transfer

In theory, what structures or constrains lesson drawing? Rose (1993: 118) argues the 'critical task in lesson-drawing is to identify the contingencies' affecting transfer between contexts. But what exactly are these 'contingencies'? Multiple arguments are made in the lesson drawing and policy transfer literature on potential constraints to this process, some provided by Rose himself. On examination, these constraints are apparent at each stage in the process (see above), allowing us to develop a detailed framework for analysing or predicting transferability (or 'fungibility', ibid.: 118). We can categorize them as demand, programmatic, contextual and application constraints.

Demand-side constraints exist where no obvious enthusiasm for learning is evident amongst policy-makers. Rose thus talks about policy-makers as 'satisficers': maintaining the status quo wherever possible (Rose, 1991; see also Bache and Taylor, 2003: 280). 'Bounded rationality', providing cognitive limitations on how new policy options are evaluated (Simon, 1981), path dependency (Pierson, 2004) and entrenched interests are therefore significant constraints to voluntary transfer – and those like Rose who promote lesson drawing as a normative strategy. The inference made is that learning will be demanded more in instances of policy failure, instability and where

¹Policy transfer differs from lesson drawing in that it can also be coercive while lesson drawing is a voluntary act (Dolowitz and Marsh, 1996).

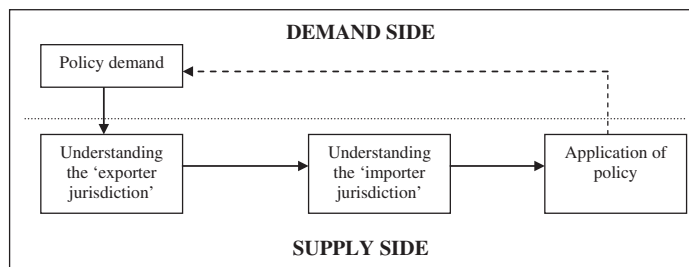


Figure 1. Four components of lesson drawing (after Page, 2000: 2; Rose, 1993, 2005)

knowledge of specific problems is limited, thereby shifting political values and stimulating interest in workable solutions elsewhere.

Other significant constraints are apparent on the *supply side*. Most obviously, practitioners require an intimate understanding of the conditions under which policies function in other contexts, i.e. the potential 'exporter jurisdiction' (Page, 2000: 2). *Programmatic constraints* to developing such understanding include limited knowledge of the 'uniqueness' of a policy, something seen as critical because a policy feature that will only readily function in its original environment cannot be transferred (Rose, 1993: 118). This notion also includes understanding of the 'wider social and policy context' that contributes to its effective functioning (Dolowitz, 2003: 106). In addition, for Dolowitz and Marsh (1996: 353) it is the 'complexity of a programme [that] affects its transferability; the more complex a policy or programme is the harder it will be to transfer'.

Constraints also exist in 'importer' jurisdictions (Page, 2000: 2), i.e. *contextual constraints*. Path dependency and policy layering are important issues, with Dolowitz and Marsh (1996: 353) arguing that '[p]ast policies constrain agents as to both what can be transferred and what agents look for'. Similarly, another related issue is the relative density of institutional and political structures in which actors undertake lesson drawing (Wolman, 1992). By their nature, denser institutional environments exert more powerful constraints to would-be inward transference. Political context is therefore critical although public policy-making is itself shaped by competing actors each trying to exert their values reflexively. Robertson (1991: 54) notes how '[p]olitical factors strongly affect the way . . . lessons are drawn and transformed into public policy'. Therefore, heightened 'politicization' (ibid.) can act as a powerful inhibitor. Resources are another key issue, with Rose (1993: 119) arguing that in drawing lessons, 'claims on the resources of law, public administrators, and money should be within the scope of the agency considering it'. Political systems must consequently possess 'the political, bureaucratic and economic resources to implement the policy' (Dolowitz and Marsh 1996: 354). Another structural factor is the role of political ideologies (Dolowitz and Marsh, 1996: 353), political values (Rose, 1993) or 'culture' (de Jong, 2009: 147). Ideological consistencies between countries can be a significant factor as policies appear to transfer more easily between similar political systems and like-minded actors (Dolowitz and Marsh, 1996: 354). Another constraint could be differentials in biophysical conditions between jurisdictions (Swainson and de Loe, 2011).

Finally, major *application constraints* would ensue from a requirement to change institutions or structures. As institutions are notoriously resilient (Rose, 1993), restructuring may be unfeasible. The extent to which a policy is 'fungible depends on the extent to which . . . [its] delivery . . . requires a specific institutional form or, contrarily, whether there is substitutability between institutions' (ibid.: 123). Constraints could occur due to the high transaction costs of institutional adjustment in practice. The 'scale of change' required to accommodate a new approach is then significant as small-scale incremental change is easier to achieve than wholesale restructuring (ibid.: 135). Similarly, policies themselves could need adapting for contextual constraints, which may significantly alter their original objectives and the scope for producing successful outcomes.

These arguments provide a framework for examining the potential transferability of participation-focused lessons. Each constraint can be posed as a series of hypotheses linked to specific indicators for guiding research and analysis. Where constraints are high, the scope for drawing lessons will be impaired or its chances of success considerably diminished. On the other hand, where constraints are low, lesson drawing will be more successful.

Comparative Practice as a Source of Learning: What Lessons *Could* be Drawn?

After identifying potential constraints to lesson drawing, we now examine how participation functions within federal catchment management policy in the USA and Australia.

The USA: Clean Water Act Section 319

Although various forms of 'watershed planning' are widespread and enjoy a long history in the USA, there is no single federal-level policy for promoting catchment management that equates to the WFD. Rather, a patchwork of legal and policy mechanisms are used by federal and state agencies to support existing or to establish new participatory watershed initiatives at the catchment scale (Leach and Pelkey, 2001; Schlager and Blomquist, 2008). These include inter alia the Section 319 amendments to the 1987 Clean Water Act (CWA), Section 205j of the CWA which funds watershed planning, Section 320 of the CWA funding for the National Estuaries Program, Memorandums of Agreement under the Safe Drinking Water Act (Smith and Porter, 2009), the federal Environmental Protection Agency's Targeted Watershed Grants Program, and government support for farmers and Soil Conservation Districts. These are in addition to multi-scale, multi-actor governance structures such as the Chesapeake Bay and Great Lakes Commissions, established under cooperative agreements between the federal government and states.

One of the most influential measures in terms of watershed planning is the Section 319 amendments to the CWA. In 1970, the Act introduced stringent requirements on federal agencies to prevent point source pollution via permitting of polluters, although it largely failed to deal with non-point source pollution which continues to be a significant impediment to water quality in the USA. For this reason, Congress enacted the Section 319 amendments in 1987 thereby establishing a nationally consistent approach to non-point source pollution control. Under the Act (s. 319a), states must complete non-point source pollution assessment reports identifying sources of pollution where waters do not meet quality standards set by the CWA. States are then required to adopt non-point source management programmes (s. 319b) detailing how pollution identified will be controlled. Section 319 (h) of the Act then provides for federal match funding, administered by the Environmental Protection Agency (EPA), to be made available annually to states to implement management programmes via a variety of measures but primarily via watershed planning.

As a result, states have increasingly focused their non-point source management programmes on the watershed scale to tackle pollution sources. Section 303(d) of the CWA compels states to list watersheds as impaired where they are failing to meet water quality standards and introduce Total Daily Maximum Loads (TDMLs) to control pollution. Although states have considerable flexibility on how Section 319 funding is employed, they have under EPA guidance increasingly used funds to develop and implement TDMLs using a watershed planning approach within management programmes. As a result, watershed planning has increased significantly in the last decade, with funding utilised by state agencies to support pre-existing community-based initiatives on the ground or to develop new collaborative actions. Moreover, the EPA has sought to integrate Section 319 funding with other federal and state initiatives to further strengthen the watershed planning approach² (EPA, 2003).

Although there is no specific legal article in Section 319 for participation, as in the WFD, the role of non-state actors is nonetheless structured into the operation of the programme by its legal requirements and implementation guidelines. Three main 'levels' of participation are apparent. First, under Section 319 states must involve the public in the preparation of state assessment reports and management programmes through providing notice and opportunities for comment. Secondly, to receive funding, watershed plans developed to address impaired waters must include nine mandatory eligibility elements, including:

'An information and education component used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the nonpoint source management measures that will be implemented.' (EPA, 2008: 2-16)

²These include funding provided to farmers and Soil Conservation Districts for improving water quality by the United States Department of Agriculture, and source water protection programmes under the Safe Drinking Water Act.

Thirdly, the EPA is using the policy to promote collaborative watershed planning. In its 2003 guidelines for implementation of state management programmes under Section 319, the EPA strongly states its intention to fully support the watershed approach:

‘whereby local stakeholders join forces to develop and implement watershed-based plans that make good sense for the particular conditions found within their communities.’ (Federal Register: II3)

Taken together, these factors ensure public participation plays an important role in managing non-point source pollution, although the system is sufficiently flexible to allow differing approaches to emerge in specific contexts.

Measuring the success of these participatory, community-based watershed schemes is problematic on a national scale as there are no consistent data on whether water quality is improving. However, numerous case studies provide evidence that Section 319 is promoting ‘a vast network of community based action on a watershed basis . . . [and, in consequence] the nation is experiencing increasingly positive results in terms of both on the ground action and actual water quality improvements’ (Federal Register: IIIa). The current EPA website lists illustrative cases of 182 partially or fully restored waters, many formerly identified as impaired by states under Section 303(d) of the CWA, that have been improved under the programme (EPA, 2010). For example, Section 319 funding was provided to a coalition of local and state actors in New York to successfully help reduce phosphorus loadings along the Delaware River under the Delaware County Action Plan. Nationally, Section 319 funding has stimulated the growth of collaborative watershed partnerships for addressing non-point source pollution (Hardy and Koontz, 2008). This research infers that the participation in watershed management is both widespread and growing, with federal policy one significant factor. However, others are less certain of the relationship between collaboration and environmental improvements (Imperial, 2005; Leach and Pelkey, 2001; Karkkainen, 2004).

Australia: The National Heritage Trust/Caring For Our Country

Current Australian approaches to catchment management reflect a long evolutionary development characterized by a gradual centralization of policy from the local-state level to the Commonwealth. The first attempts to manage water resources at the catchment scale in an integrated manner date back to the 19th century, although the 1917 Murray-Darling Basin Commission is considered the precursor to current practice (Robins, 2007). Integrated regional-scale planning of environmental resources became progressively more widespread across Australia in the early part of the 20th century and was followed by the growth of participatory, community-based approaches to integrated land management characterized by the Landcare movement. Landcare was a community-based initiative which supported voluntary and farming groups in their efforts to tackle environmental issues, most saliently soil erosion and salinization. Due to its success, Landcare members lobbied the federal government to promote the initiative nationally. In 1990, the government announced the Decade of Landcare policy – a funding mechanism that provided \$360 million (AUD) to support community groups (Curtis, 1998). This ethos was carried forward by the Natural Heritage Trust (NHT), established by the Commonwealth government in 1996 to provide funding for community-based natural resource management (NRM) in response to the lack of a coordinated response to environmental problems between Australian states. The Natural Heritage Trust extension (NHT2) was subsequently instrumental in establishing regional-scale governance structures across Australia for steering NRM activities at the local scale.

The current initiative, Caring For Our Country (2008), builds on the NHT approach through directly supporting regional NRM governance structures and allowing these organizations to bid for funding under a business plan model. With this approach, the Commonwealth has made up to \$171 million in investment funding available on a competitive bid basis. This amount is in addition to \$138 million directly allocated annually to regional NRM organizations to support environmental protection activities. The current approach helps to promote participation in NRM through a business plan model and NRM funding.

Participation is structured into the Business Plan funding application process. Applicants are obliged to ‘involve effective partnerships’ constituted by different groups, including local communities (Commonwealth of Australia, 2010: 98). Applications must also include a communication strategy designed to ‘disseminate information to the broader community’ (ibid.). Business plans should also consider how specific community groups might be involved by exploring ‘opportunities for Indigenous people to participate in the delivery of the targets’ and considering how

'environmental, Landcare and Coastcare groups might be actively engaged'. Proposals are scored against these and other criteria in order to receive funding, meaning that without a participation strategy, projects may be rejected. Australian governance approaches to steering participation therefore contrast with the regulatory compulsion of the EU Directive. Financial incentives ensure this aspect of NRM is fully considered in management on the ground.

Yet while participation may be considered central to Australian NRM governance, has it actually proved successful in practice? Although it is too early to assess the current Caring For Our Country initiative, significant evidence exists from its previous policy incarnations to suggest positive participation outcomes. The Decade of Landcare was highly successful in stimulating the participation of community actors in NRM. Curtis and De Lacy (1998: 60) show how by 1998, there were 2500 Landcare groups across Australia with a total membership of 65 000, including one-third of farmers nationally. Further growth was experienced under the two NHT policies, with 56 regional NRM bodies established to provide support to a significant number of community-scale initiatives on the ground. As in the USA, many illustrative case studies show quantifiable improvements in resource quality (EPA, 2010), suggesting this form of governance is a potentially successful model for lesson drawing.

Learning from Abroad: Opportunities and Constraints

One obvious finding to emerge from these summaries is the sheer diversity in how public participation is interpreted and enacted. Returning to our initial definition of participation in catchment management (as articulated by the Dublin Principles), we can analyse approaches the approaches against the three indicators: awareness raising, subsidiarity and deliberative engagement.

An obvious difference with EU approaches is the more regulatory and prescriptive approach to promoting participation. Awareness raising is specified in the Directive in terms of the requirement on Member States to publish or make available information relating to plan production, including data and background documents, at specific points in the planning process. Decision-making should be devolved down to the river basin scale, with a scaling up and scaling down to local levels, although in reality subsidiarity infers national-level control as Member States must ultimately implement the Directive. Finally, deliberative engagement is predicated on the consultation of stakeholders in the river basin management planning process. Specific opportunities for engagement are specified although evidence emerging suggests a relatively low level of interaction (EEB/WWF, 2009).

Section 319 funding represents a quite different style of participation to the WFD. States must ensure watershed organizations include an education and outreach programme within their funding applications. Subsidiarity is promoted by sharing decision-making between federal, state and watershed organizations. Deliberative engagement is not specified in the requirements of Section 319, although states are compelled to make non-point source assessment reports and programmes available for public comment. However, most US watershed organizations are based on collaborative principles of engaging multiple actors, including community groups, so that participative practices are strongly encouraged by the policy (see Hardy and Koontz, 2008; Sabatier *et al.*, 2005).

In Australia, participation is more structured into the implementation of the Caring For Our Country policy via the business plan model. Organizations are compelled to demonstrate how they will raise awareness via a communication strategy for disseminating information to the public. Decision-making involves actors at several different levels, although subsidiarity is maintained by supporting NRM governance at the regional and local scales through the funding scheme. In fact, the scheme is deliberately predicated on community-level action. Deliberative engagement also occurs at a community level, with the business plan model specifying partnership approaches and opportunities for community groups, including indigenous people, to participate in decision-making.

What, therefore, could the EU in theory learn from these two jurisdictions? Given the normative underpinnings of any response, the most straightforward answer might be 'a good deal'. Awareness raising in the USA and Australia appears to be more fully integrated into the planning and implementing process through the obligation to develop mechanisms for education, outreach and public communication in order to receive funding. The requirements in the Directive for Member States to publish information on plan preparation seem limited in

comparison when informing the public and policy-makers. Deeper problems exist in terms of the often late timing of public participation, and the restricted number of participants and funders.

From a subsidiarity perspective, the Directive, by comparison, appears top-down and prescriptive, tending to promote participation as a regulatory obligation at the river basin management planning scale. Implementation guidelines (CEC, 2003) suggest greater participatory 'scaling up' and 'down' between this institutional scale and lower levels, although the Directive itself does not compel it. Consequently, some countries such as the Netherlands did engage stakeholders at the local level despite the outcomes being sub-optimal (C. Dieperink *et al.*, 2011). In contrast, Section 319 and Caring For Our Country policies engage actors at all levels but primarily seek to support activity at the local watershed scale.

Finally, when viewing participation in relation to deliberative engagement, EU approaches could, drawing on Arnstein (1969: 217), arguably exhibit 'tokenism', i.e. public participation in decision-making does not greatly influence management outcomes. Both the US and Australia appear more effective in engaging community groups and non-state actors, including greater degrees of 'partnership', 'delegated power' and 'citizen control' (*ibid.*) even though deliberative engagement is not specified to the same rigid extent as in the Directive. Again, the Caring For Our Country approach relies on the business plan model to encourage organizations to devise their own engagement strategies, tailored to specific NRM contexts, in order to receive funding.

Therefore, three different modes of governance to ensure public participation takes place are visible along a continuum between hierarchical and network steering. Despite some attempts to devolve decision-making downwards in the WFD, in public participation terms it still remains an example of hierarchical regulatory steering based on a command-and-control policy instrument. In contrast, both the USA and Australia employ a non-regulatory funding instrument to encourage more participative forms of catchment management that equate more strongly to network governance, although the US system is still subject to regulatory steering under the CWA. Australian federal approaches, in particular, seem historically successful in promoting lower level participation through such network steering. Although 'effectiveness' is notoriously difficult to pin down, the EU could (theoretically) learn much from these initiatives.

But herein resides another problem. If we return to our analysis of lesson drawing constraints, there are reasons to believe that the US and Australian approaches to participation in catchment management may be difficult to apply within the EU. Conspicuous 'demand-side' and 'programmatic' constraints are evident in policy responses. Demand may be limited so long as Member States are struggling to implement existing requirements. Other problems are related to the uniqueness of US and Australian federal politics and institutional structures. Considerable differences exist in decision-making styles and cultures between national contexts that cause policy-makers to frame issues in contrasting ways (see Rayner, 1991), a factor that could preclude lesson drawing. Analysts have already noted the problems of lesson drawing between systems such as the USA, particularly the uniqueness of federal institutional structures (Dolowitz and Medearis, 2009). Both the US and Australian environmental governance exhibit a form of cooperative federalism (Benson and Jordan, 2011b), meaning the federal government must cooperate with states in the implementation of national policy, primarily through providing conditional grants or funding to support the attainment of national environmental protection objectives. In the USA, cooperative arrangements have evolved to implement the CWA through the provision of grants to states. The Section 319 amendment has increasingly been used by the federal government to steer watershed planning towards reducing non-point source pollution in return for funding to states to implement programmes. In Australia, the federal government has encouraged states to cooperate in NRM by providing funds through the NHT and Caring For Our Country policies, using the Commonwealth's comparative advantage in fiscal matters. As a result, non-regulatory funding instruments have been employed in both contexts.

Contextual and application constraints are also evident, which are related to the very structure of EU environmental policy-making. The EU is a unique system of federalism but in structural terms is probably more similar to German administrative federal arrangements (Benson and Jordan, 2011b). Although Member States have a stake in decision-making at the federal EU level via the Council, they are legally responsible for implementing environmental legislation. However, unlike mature federations such as the USA and Australia, the EU is not a system of re-distributional fiscal federalism, i.e. it cannot raise and dispense tax revenues (Sbragia, 2003). Although some EU funding mechanisms such as Cohesion and Common Agricultural Policies are in theory tied into implementation of the Directive (ENEA, 2006), to date their use by Member States has been limited

(Deloitte/IEEP, 2011). While an attractive option for improving participation at lower levels of catchment management may therefore be an EU-style Caring For Our Country or Landcare initiative, it may prove politically impractical. National governments may well resent such EU intervention in their jurisdictions without a strong say in how the money is spent. Another conspicuous constraint in this respect are Member States themselves. In the past, governments have chosen to employ structural funding to boost regional economic growth through infrastructure spending rather than more ecologically centred forms of development, despite recent attempts to 'green' this sector. Whether national governments will ever hand over the twin levers of taxation and spending, from which they derive a good part of their power and legitimacy, to Brussels remains doubtful.

Nonetheless, a window of opportunity exists for future policy change. One recommendation that could be extracted from the above analysis is that any future revision of the Directive could link participation to the availability of EU funding. In addition, the EU may consider promoting more avenues for greater citizen engagement in policy implementation at Member State levels, in the spirit of subsidiarity. Both the USA and Australia provide some pointers as to how more networked (and hence less hierarchical) participatory forms of governance may be achieved in practice through different approaches to awareness raising, subsidiarity and deliberative engagement.

Conclusions

If lesson drawing on participation-related matters is accepted as a legitimate normative goal, our research reveals several important findings. First, we explored how public participation is understood through recourse to the literature on environmental governance. Participation in catchment management was defined in terms of awareness-raising, subsidiarity and deliberative engagement. Second, an examination of the public participation requirements of the Directive was conducted. A close reading of the legal text and its implementing guidelines revealed that it compels Member States to provide specific information to certain stakeholders at designated points in the planning cycle. The overall approach to governing is, despite the downward re-scaling of some powers in the Directive, still relatively hierarchical. Third, following on from this, problems emerging from the implementation of these requirements was briefly discussed. An overview of current developments and critical issues was provided to show that uneven patterns of implementation are apparent between Member States. Fourth, we then reviewed the literature on lesson drawing to identify some common constraints to transfer, categorizing these into demand-side, programmatic, contextual and application factors. Finally, the scope for lesson drawing by the EU from US and Australia on promoting effective public participation was assessed. By analysing two federal water policy mechanisms, namely the US Section 319 programme and the Australian NHT/Caring For Our Country policy, we drew out key differences and sources of potential learning. Although multiple constraints exist to transferring lessons, due to differences in political and fiscal structures, the EU could in theory learn much from the USA and Australia in terms of promoting greater participation at the catchment scale through more networked-type governance based on higher level steering through funding mechanisms. Whether the EU can, or indeed should, adopt such approaches given the various constraints identified is of course a matter for political debate. However, with this paper we would like to encourage policy-makers at least to look outside as well as inside the EU for lessons.

Lesson drawing is potentially a two-way street. Although our research emphasis has focused on comparative learning by the EU, its own approach to catchment management could in turn provide potential lessons for other multi-level governance systems, such as the USA and Australia. As mentioned in the Introduction, the EU has consistently been held up as an environmental 'leader'. Although manifestly *not* a federal state, the EU could nonetheless offer lessons on how to legally embed centrally coordinated requirements for greater awareness-raising, subsidiarity and deliberative engagement into multi-levelled water governance. Analysts should of course remain cognisant of cross-cultural (Rayner, 1991), political (Dolowitz and Marsh, 1996) and even biophysical (Swainson and de Loe, 2011) differences.

Our analysis also raises the need for new research which could be integrated into such a political debate. Greater investigation is certainly needed into how the WFD is shaping national responses to participation comparatively. Opportunities also exist for extending comparative research into other multi-level federal systems, as well as other national contexts: the growth of catchment management practice provides many suitable venues for investigation.

Finally, more research is required into how different policy instruments, including funding, can be used in steering participatory processes via more networked, multi-level structures within environmental governance. As participation is increasingly promoted as a normative project that decision-makers should engage in, issues of policy design and effectiveness require much greater examination. Catchment management presents a potentially vital laboratory in which to test and refine proposed policy solutions.

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