

How should rural policy be evaluated if it aims to foster community involvement in environmental management?

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To be submitted to **the Journal of Rural Studies**

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Word Count: text including abstract and tables, excluding references: 7399

Highlights

- A gap remains between rhetoric and implementation of community involvement policies

- The complexity of rural policies requires a comprehensive evaluation framework
- We propose an evaluation framework based on theories from different disciplines
- We progress understanding of policy effectiveness in social-ecological systems

How should rural policy be evaluated if it aims to foster community involvement in environmental management?

Abstract

This paper brings together different disciplinary perspectives to propose an evaluation framework for policies which have the explicit aim to foster community involvement in the management of their natural environment in the context of sustainable rural development, such as the EU LEADER programme, Australia's Caring for Our Country, and UNESCO Biosphere Reserves. Previous policy evaluations have over-simplified the complex social-ecological systems on which these policies are supposed to act, have lacked specification of the policy level they address and were predicated on the assumption that policies can be designed to produce predictable outcomes.

Based on a concept of 'complex realities' we develop a framework to guide the evaluation of policy effectiveness. This framework considers the kind of data needed for an evaluation, the different sources to be acknowledged, a policy's history and context, and how evaluators' mindsets would have to change to accept uncertainty and the validity of various stakeholders' perceptions and evaluations.

Keywords: policy evaluation; complex realities; rural development; social capital; social-ecological systems; community-based environmental management

1 Introduction

Since the 1990s, policies which aim to encourage community involvement, endogenous development, and bottom-up, participatory approaches are becoming more widespread in Europe and globally (Bridger and Luloff, 1999; Lovan et al., 2004; High and Nemes, 2007). There is an increasing emphasis on sub-state entities or non-governmental organisations to take responsibility for the management of their local environments. Already noted more than a decade ago, the dynamics of political pluralism and local economic opportunistic actions in Europe registered demands for enhanced local participation (Ray, 2000a). Similar trends have been observed in Australia, where state intervention has focussed on promoting voluntary change using participatory approaches (Curtis and Lockwood, 2000; Ryan et al., 2010).

There are multiple rationales for strengthening community involvement, using multiple terms. In particular, official EU documents have emphasised that participation and a ‘bottom-up’ approach can harness the creativity and solidarity of rural communities (European Commission, 1996). One of the European priorities for rural development is “improving governance and mobilising the endogenous development potential of rural areas” (Council of the European Union, 2006) which refers to initiatives that stem from the active involvement of communities. Similarly, one of the six national priorities in Australia’s Caring for Our Country programme is “Community skills, knowledge and engagement” (Australian Government, 2011). An underlying assumption is that a high level of involvement will bring social, economic and environmental benefits to local communities and the whole rural region, by encouraging stronger identification with the region, larger networks, new businesses, positive attitudes towards future activities, education, and increased participation rates of communities in activities to manage natural resources and to help protect the environment

(Curtis and Lockwood, 2000).¹ Many of these assumptions are linked to expectations of social learning. Social learning and bringing together different kinds of knowledge are seen as necessary to manage the environment sustainably (Blackmore, 2007). Ultimately, resulting effective community involvement should allow for cost-efficient (less costs for control and enforcement) and more sustainable implementation of policies because policies and their aims are understood, accepted and supported by the addressees. Nevertheless, some authors claim that at all policy levels a big gap remains between the rhetoric of participation and the real-life implementation of participatory processes (Rauschmayer et al., 2009b). What causes this gap?

Despite the growing number of policies that aim to foster community involvement in the management of their natural environment, there are a number of unresolved issues around evaluating the effectiveness of such policies. These relate to multiple and poorly defined policy objectives, difficulties in attributing cause to effect, determining the aggregation level and dealing with aggregation effects, challenges around defining a base-line, timing of the evaluation and the distinction of immediate, intermediate and ultimate outcomes. These more technical difficulties are coupled with socio-political and institutional difficulties, such as an imbalance in knowledge integration (scientific versus lay knowledge) and the reluctance amongst policy makers to carry out evaluations since results might show that policies have not delivered. Current approaches are often not clear as to which part of a policy they aim to assess, nor are they holistic enough to incorporate less tangible outcomes or take into account the multiplicity of values and aims, and (unintended) by-products (see section 3.1). Part of the problem is that current approaches are based on the perspective of an older – but still dominant – “modernist paradigm of policy making predicated on the assumption that policies can be designed to produce predictable outcomes, even in very complex settings” (Connick

¹ The terms ‘environmental management’ and ‘natural resource management’ are both used in this paper depending on the literature that is referred to. Australian literature tends to use natural resource management (NRM), whereas European literature uses environmental management.

and Innes, 2003, p. 178). How should rural policy be evaluated, in particular those policies that aim to foster community involvement in the management of their environment? Who is best placed to evaluate policy effectiveness? What weight should be given to economic, social and environmental goals of policy in sustainable rural development, and how to treat trade-offs?

This paper addresses the absence of a comprehensive, yet flexible evaluation framework to judge this kind of policy. Motivated by our own experience of frustration when trying to evaluate policy effectiveness, we have drawn on our own empirical work in Australia and Germany, to iteratively develop an evaluation framework. We reflected on issues and findings in case studies, and compared them to theoretical perspectives of rural sociology, human geography, as well as policy and institutional analysis. Based on these iterations we have developed an evaluation framework for policy analysis which follows our concept of ‘complex realities’. The framework is expected to support:

- Comparison of the claims made in policy tools² and comparison of the extent to which they actually foster community involvement in environmental management,
- Identification of which factors influence the implementation of a policy tool and the extent to which these factors help or hinder achievement of community engagement, and thereby explain why the policy tool was effective (or otherwise).

We acknowledge that policy tools aiming at sustainable rural development, such as the ones referred to in this paper, also address social and economic sustainability. To some extent these dimensions of sustainability are considered in our framework, but its focus is on community involvement and environmental sustainability.

² We refer to policy tools here as one part of the policy hierarchy that our framework helps to evaluate. The policy hierarchy is explained in detail in Section 4.

2 Policies aiming to involve communities in environmental management

Three policy tools from the rural development arena were the starting point for thinking about policy evaluation. They all explicitly state community engagement as their aim and all are expected to support sustainable management of the environment. A prominent example in Europe is the EU LEADER initiative, first introduced in 1991 and subsequently developed into a mainstream funding activity. Australian natural resource management (NRM) programmes are comparable to some degree, in that they place emphasis on community involvement in environmental management. Their predecessor was the National Landcare Program introduced in 1990, followed by a number of similar programmes, and replaced by the broad-ranging Caring for Our Country programme in 2008. The third example is the instrument Biosphere Reserve, an international category of designated areas accredited by the UNESCO. Biosphere Reserves aim at fostering sustainable development. They are often managed locally and also feature a strong community involvement and partnership approach.

2.1 LEADER and rural development policy in Europe

LEADER (Liaison Entre Actions de Développement de l'Économie Rurale) stands for 'links between actions of rural development'. This policy tool was introduced in the European Union in the early 1990s and focuses on small, rural and coherent regions. It developed from being a so-called European community initiative to being mainstreamed as one of the four axes (priorities) of the EU's agricultural policy in the most recent funding period (European Union, 2010). This shows the increasing importance policy makers attributed to it. It is recognised for its ability to deliver a diverse range of projects to address local priorities which draw on multiple levels of governance (Kinsella et al., 2010) for sustainable rural development. From the outset, LEADER was characterised by a local and participative approach, aiming to enable "those involved and rural areas to develop their own potential within an overall policy of stimulating rural development" (European Community, 1994, p.

48). In subsequent phases, LEADER maintained its central aims: a) the mobilisation of local actors via a bottom-up approach with decision-making power for local action groups, b) a multi-sectorial design, and c) networking of local partnerships and support (European Community, 2000; European Union, 2010).

LEADER funds are granted subject to the condition that a local action group is the beneficiary of the funding. A local action group is defined as a public-private partnership that includes all sectors in rural areas. A local action group must include at least 50% economic and social partners and associations ‘at the decision making level’, and these stakeholders have to be locally based (European Community, 2000).

With these objectives and characteristics LEADER is clearly a policy tool that aims to encourage the involvement of local communities in the management of their environment – if the environmental dimension is understood as an integral part of sustainable rural development – although the focus of local action groups has often been on social and economic aspects.

Previous evaluations of LEADER have focused on specific aspects of the programme, i.e. project evaluation procedures (Barke and Newton, 1997; High and Nemes, 2007; Ray, 1998, 2000b), on the use of the concept of innovation in LEADER (Dargan and Shucksmith, 2008), on social inclusion in rural development programmes generally (Shortall, 2008) or on local LEADER boards (Furmaniakiewicz et al., 2010; Thuesen, 2010), and on the capacity of the LEADER programme to actually generate endogenous (economic) development (Barke and Newton, 1997). A comprehensive evaluation, taking into account local actors views on whether the policy tool was effective in mobilising the community and giving decision making power to local groups, or one that juxtaposes an evaluation by government with an evaluation by the place-based communities, has not been carried out to date. However, some studies indicate shortcomings with respect to decision making power remaining with local

authorities and funding agencies (Furmankiewicz et al., 2010; Storey, 1999), a failure to generate local activism and environmental projects (Valve, 2002), and undermining existing independent and critical rural development initiatives (Bruckmeier, 2000; Furmankiewicz et al., 2010).

2.2 The Landcare approach and natural resource management in Australia

In Australia there is no directly comparable policy to LEADER, but Landcare and the wider context of NRM arrangements in rural Australia are based on similar ideas. Landcare has undergone significant evolution since its inception. Initially, the National Landcare Program emphasised community involvement in local or catchment based groups to ‘fix land degradation’ (Curtis and De Lacy, 1998). Later, in 2008, Landcare and other previous programmes were integrated into a consolidated programme called Caring for Our Country (CfOC). CfOC is a NRM initiative which includes a community action grants component. Among the programme’s six national priority areas are “Community skills, knowledge and engagement” and “Sustainable farm practices”, indicating farmers and rural land managers as target audiences. In addition, the programme aims to be delivered using partnerships with regional NRM groups, local, state and territory governments, Indigenous groups, industry bodies, land managers, farmers, Landcare groups and communities.

The political rhetoric was and still is very much focused on partnership. Among the strategies to achieve the “5 year outcomes” is the statement “to work with community and industry organisations, including Landcare, to accelerate the adoption of more sustainable farm management”, by supporting the work of voluntary groups, regional groups and community organisations and by encouraging effective and enduring partnerships between key stakeholders, community groups and others (Australian Government Land and Coast, 2008, p. 28). Among the outcomes to be achieved by Caring for Our Country by 2013 is “to increase

the engagement and participation rates of urban and regional communities in activities to manage natural resources and to help protect the environment” (*ibid*, p. 46).

The objectives of Landcare were to raise awareness of land degradation problems, build community capacity and contribute to sustainable agriculture. In these terms, evaluations find Landcare to have been very successful (Curtis and De Lacy, 1998; Curtis and Van Nouhuys, 1999; Mues et al., 1994). However, whilst Landcare has been regarded by some as one of the nation’s most effective natural resource policy instruments (Martin and Halpin, 1998), others have pointed out the limits of addressing large environmental problems through volunteer community groups (Lockie and Higgins, 2007). Meanwhile, a national assessment of NRM programmes claimed that the information reported “has been insufficient to make an informed judgement as to the progress of the programmes towards either outcomes or intermediate outcomes” (ANAO, 2008, p. 102). The Australian Government now runs consultations on CfOC (Australian Government Land and Coasts, 2011) which could contribute to a holistic evaluation of the policy tool with regards to its effectiveness for community involvement.

2.3 Biosphere reserves

The policy context of biosphere reserves spans multiple scales and levels from global to local, embedding them in complex and hierarchical “arenas of decision making” (Fürst et al., 2005). The global Man and Biosphere (MAB) programme and the national committee set criteria and guidelines for the UNESCO designation. Within Europe, European framework legislation (e.g. the Habitats Directive) adds additional conservation aspects. National and state legislation substantiate this higher-level framework and set out the designation of biosphere reserves.

The MAB strategy aims to foster bottom-up involvement of local actors when developing and implementing concepts for conservation and restoration of the environment and landscape, as well as for economic and social development (Kühne, 2010; Schliep and Stoll-Kleemann,

2010); in other words, it promotes sustainable (land) use in its holistic sense (Wurzel et al., 2010). This aim is to be achieved through “increased community ownership and responsibility of protected areas as well as private lands, environmental restoration, monitoring and experimental sustainable development projects with public and private partners” (Brunckhorst, 2001, p. 25). Enabling “full participation” of local communities and people, stakeholders and “other local agents” has been set as a clear aim for all biosphere reserve processes (UNESCO, 1996; 2011).

The national and local implementation of biosphere reserves, including their administrative set up and funding differs considerably between places. In Australia, evaluations of the implementation of biosphere reserves have highlighted little public understanding or appreciation of the concepts and the opportunities offered by biosphere reserves (Buckley, 2007), the importance of vesting the community with the ownership and responsibility for selecting management goals for the entire landscape, integration of local knowledge and strong (bipartisan) political commitment (Brunckhorst, 2001; Pfueller, 2008; Watson, 1993).

The history of the designation process can determine the extent of community involvement, as shown in Germany (Frys and Nienaber, 2011; Kühne, 2010). In addition, the overlap of different organisations and initiatives e.g. relating to LEADER and the biosphere reserve structures can be problematic due to their slightly diverging foci ranging from socio-cultural and economic development to ecological improvement (Lübke et al., 2012; Nienaber and Lübke, 2010).

3 The Concept of Complex Realities

As outlined in the description of the three policy tools, the development and implementation of policy supporting community involvement in environmental management is a complex and congested place both inside and outside government. There are many contributors, owners

and subjects of rural environmental policy. We argue that methods to evaluate the effectiveness need to be robust and flexible enough to deal with this complexity, while not being so convoluted that it precludes efficient implementation by others, e.g. policy makers or stakeholders, in the future.

We understand participation as encompassing a broad range of organisation-community-stakeholder interactions; from information and consultation to engagement, collaboration and joint decision making (Arnstein, 1969; Collins and Ison, 2009). Community engagement, here, is essentially the same as community involvement albeit more directed and purposeful. A bottom-up process encapsulates the idea that it is open to community-led directions with decisions formed by local stakeholders and the community.

In order to answer the question of how policies aimed at involving the community can be evaluated, we found that following any specific theory is insufficient to allow explanation of the many influential factors. The process of policy implementation – an interplay of institutions, multiple levels and scales, tied to localities with human actors embedded in their natural environment – cannot be reduced to a theory that only focuses on one or a few components of the system. We believe that such reductionism provides limited insight in complex systems such as the governance and management of social-ecological systems.

Therefore, we introduce the concept of complex realities. It is composed of a complex systems approach, combining disciplinary perspectives and acknowledging differing realities. Complexity science and complex systems theory has been identified as a way to bridge natural and social sciences (Ison et al., 1997), it has led to the development of social–ecological systems approaches (Ban et al., 2013; Berkes et al., 2003; Ostrom, 2009), and it is underlying governance and collaboration (Connick and Innes, 2003; Plummer and Armitage, 2007).

Combining different disciplinary perspectives enhances our holistic view of the policy implementation process and the effectiveness of delivery. Institutional, network, policy, sociological and geographical perspectives offer different and often complementary insights. They require taking into account the economic and environmental setting, demographic development, and the history of processes and interactions in a particular policy area.

Drawing on different disciplinary perspectives in evaluation frameworks is not an entirely new idea. For example, Bellamy et al. (2001) combined perspectives of social, economic, environmental, policy and technological disciplines. However, their systems-based framework was focused on evaluating how NRM initiatives contribute to sustainable resource use, rather than focusing on the objective of local involvement in environmental management *per se*.

Other authors have approached sustainability evaluation more broadly, by emphasising the multi-scale aspect of their framework (López-Ridaura et al., 2005) or by starting from the local scale to evaluate performance and outcomes of adaptive co-management for multi-site comparisons (Plummer and Armitage, 2007).

In addition to recognising the complexity of the systems that rural and environmental policies are trying to influence and are part of, the concept of complex realities also acknowledges that there is not one single, superior and ‘true’ way of interpretation and evaluation. Hager and Wagenaar (2003) emphasised this in the context of interpretive, practice-oriented and deliberative policy analysis. Both individual and collective actors will have different values and perceptions, influenced by the institutional level at which they act. We therefore encounter a plurality of interpretations and evaluations, consistent with the respective actor’s reality.

3.1 Policy evaluation perspective

Our approach is informed by an approach common in policy evaluation studies, in that we advocate identification of relevant policy objectives – what should ideally be achieved – and

then comparison of these with what has been achieved. However, a weakness of many policy evaluation studies is that they do not make explicit which part of policy they aim to assess.

There are a number of constituent parts of ‘policy’, commonly constructed in a policy hierarchy consisting of 1) policy statement/ policy document, 2) strategy document, 3) policy tools and 4) policy implementation action plans (Althaus et al., 2007), each with different timelines (for details, see section 4). All four levels are often considered individually, in various combinations or occasionally all together as ‘policy’ which makes it difficult to draw comparisons between policy analyses. An analysis at only one level of the policy hierarchy can be problematic if the single-level analysis is appropriated across all levels on the policy hierarchy.

In addition, an evaluation of policy effectiveness in achieving a certain objective can focus on either the output, the outcome, or the process of implementation itself. For example, LEADER is typically assessed as part of the overall rural development policy (European Agricultural Fund for Rural Development Regulation). Some authors caution that evaluating the individual components of a policy (e.g. the LEADER axis of the Rural Development Policy) is tempting but “does not much help with the bigger picture” (Wakeford, 2010, p. 38). To date, evaluation of outputs is most common (e.g. Arabatzis et al., 2010) while the assessment of outcomes is much more difficult (Blandford et al., 2010).³ However, Bellamy et al. (2001) show that outcomes can be considered and to this end propose a systems perspective for the evaluation of natural resource management initiatives that aim to promote sustainable and equitable resource use outcomes.

Lind and Tyler (1988) found that for the people involved, the process itself, judgements of its quality (e.g. fairness) and intangible outcomes were frequently more important than outputs.

³ “Outputs are important products, services, profits, and revenues: the What. Outcomes create meanings, relationships, and differences: the Why.”

(http://blogs.hbr.org/cs/2012/11/its_not_just_semantics_managing_outcomes.html). Outcomes are often the difficult-to-precisely-measure long-term results.

The claims of Rauschmayer et al. (2009a) support this, that a combination of evaluation practice of outcomes and process of governance is a promising approach despite its caveats. This reflects an earlier request made by Ray (1998) that evaluation methods need to evolve to be able to focus on process, structures and interpretation/learning.

Note that most of these authors focus on a bundle of objectives rather than on a particular objective. This reminds us that one policy does not pursue only one objective but typically a bundle of objectives, some of which may even be conflicting. In an attempt to tackle this, the evaluation framework by Bristow et al. (2009) focuses on cross-cutting policy goals and the wider impacts of policy initiatives, though they evaluate the provision of rural services rather than community involvement in environmental management.

In combination, these publications highlight several unresolved issues:

- Many policies (and even the more concrete policy tools and action plans) often have multiple and poorly defined objectives;
- The potential conflict between implicit and explicit goals which may differ between government and stakeholders, e.g. a programme might aim for community engagement but policy makers' implicit aim is to channel funding into disadvantaged rural areas; or Landcare groups use funding provided by programme A to achieve their aim B but report only outcomes relevant to objectives of programme A;
- The necessity - and yet difficulty - of clearly defining expected outcomes of a policy, this is challenging since it requires decisions to be made regarding competing views of what success might look like, also because there may be intangible outcomes;
- The appropriate level of aggregation (project-level, local/regional context only, national scale, or even at European scale) and how to deal with aggregation effects;

- Teasing out outcomes of potentially overlapping measures and programmes, and difficulties in attributing cause and effect;
- The appropriate timing for carrying out an evaluation and the challenge of defining a base-line;
- The consideration of hierarchy of goals and objectives, as well as the distinction of immediate, intermediate and ultimate outcomes;
- The reluctance to carry out evaluations since their results might demonstrate to governments, ministers and officials that their policies have not achieved their objectives; and the reluctance to take evaluation results (evidence) into account due to an inherent path dependency and the operation of power in the policy process (Juntti et al., 2009).

There are calls for more holistic and soft evaluation approaches which need to complement formal methods and indicator frameworks such as the Common Monitoring and Evaluation Framework Monitoring (CMEF) in the EU and the Monitoring, Evaluation, Reporting and Improvement (MERI) in Australia. For example, by using case studies and focus groups, and involving stakeholders in the evaluation process, stakeholders' commitment to the programmes can be enhanced and the sustainability of policies increased (High and Nemes, 2007; Mortimer et al., 2010).

3.2 Sociological perspective

We agree with Giddens' theory of "structuration" (1984) in that human agency at individual and collective levels exist and that it will be mediated by structures in society which in turn feed back to the individual's or group's sense of agency. The type of policy we aim to evaluate targets 'the community' which is made up of individuals. The interests of the individual may align with the collective interest, but may also be contradictory. Action (e.g. to

respond to a policy, to initiate an activity) is taken by the individual but will inevitably impact on the neighbours, peer groups, and the community. A certain community structure as well as existing governance structures will determine individuals' motivations and inclination to become involved in the management of their natural environment. Ray (1998) asserted that local rural development policy and action should be understood in terms of both agency and structure, as a product of the history pre-dating a particular programme, and as the intersection of local and extra-local dimensions.

Social capital has a dual role, and one which analytically is not yet clearly resolved. That is, while policy aspires to build social capital, it is also believed to influence outputs and outcomes of policy and hence to play a key role in policy implementation and governance. Especially where environmental management needs cooperation, social capital is of crucial importance – as it lowers the costs of working together, and this facilitates co-operation (Pretty and Ward, 2001). Social capital is based on institutions and culture, and often named as “the glue that holds society together” (Serageldin, 1996, p. 196). Social (and human) capital is now recognised as key to the process of rural development, and sustaining endogenous economic growth (Kinsella et al., 2010).

Several authors caution that there can be a conflict between social capital and leadership (Gray et al., 2005; Sofsky and Paris, 1991) while others have identified leadership as crucial for local community initiatives to establish. Sobels et al. (2001) found that social capital helped explain the success of Australian Landcare networks, yet stress the importance of separating social capital as a cause from social capital as an outcome. In a similar vein, Webb and Cary (2005) consider the role of both, sources and consequences of social capital for achieving environmental management outcomes. Social capital has also been ascribed to contribute to social learning and community capacity building, which is the aim of current

programmes such as Caring for Our Country and of adaptive co-management (Plummer and Fitzgibbon, 2007).

Social networks are the basis of the establishment of social capital as they “offer access to resources of a material or (possibly) non-material kind. However, while both social capital and social networks may enable individuals to gain access to other resources, the former is characterised as a public good, to which all residents of an area have access, in contrast to social networks, which almost by definition rely on exclusion” (Mohan and Mohan, 2002, p. 192). Within networks of economic actors, social capital can enhance the competitiveness of a group by enhancing communication and information exchange which supports the creation of financial capital, real capital and human capital, which could not have been created without affiliation to the network (Bohle, 2005).

3.3 Institutional analysis and linking to place

The societal structures discussed by sociologists are comparable to institutions described by institutional economists. Institutions are defined as rules that regularise actors’ behaviour, i.e. the “rules of the game in a society” (North, 1990, p3). They can be formal, such as laws, policies and contracts, or informal, such as conventions, verbal agreements and moral norms. The implementation of policies – and actually much of their intended impact – depends on the existence of governance structures. Governance structures are required to transform a rule on paper into a rule-in-use. These can be authorities and agencies responsible for issuing contracts and accounting for money spent. For example, the governance structures include administrations which process LEADER funding applications and award designations, the biosphere reserve authority and local groups.

Governance as such can be defined as the “totality of interactions in which government, other public bodies, private sector and civil society participate, aiming at solving societal problems or creating societal opportunities” (Meulemann, 2008, p. 11). Network governance

arrangements (as opposed to hierarchy and market) appear to be the most conducive to the aim of local involvement in terms of encouraging a “process of collective decision making and implementation” (Wurzel et al., 2010, p5).

The Institutions of Sustainability framework (Hagedorn, 2008; Prager et al., 2011) is one analytical tool that can be used to analyse interactions between actors, the transactions relating to environmental management, the relevant institutions and governance structures. Institutional analysis distinguishes operational, organisational and policy level when describing institutional settings (Ostrom, 1999). The concept of “institutional levels” is concerned with organisations and the institutional level at which their decision making takes place (Margerum, 2008). The lens of institutional levels has been applied to explain challenges in the collaboration between groups at different levels (Prager, 2010). In essence, if a group is active at the operational level it means that it focuses on direct action or on-the-ground activities such as monitoring, education and restoration. At the organisational level, groups focus on the policies or programs of organisations (government agencies, local government, NGOs). At the policy level, groups would focus on government legislation and policies.

A variant of institutional analysis is actor-based institutionalism (Fürst et al., 2005) which was used to analyse regimes of regional governance in biosphere reserves. The actions of individuals are just as important in influencing policy implementation and community action as the actions of collectives and organisations. For example, Van Herzele et al. (2011), in their evaluation of agri-environmental schemes, conceive this policy instrument as an evolving product that takes shape, gets diffused and taken up in, by and through networks of relations. They put forth that success depends on the mobilisation or active participation of all those who may support and develop it.

Taking a human or social geography perspective reminds us that the implementation of policies and the engagement of communities cannot be investigated without the link to the places where these occur. Hauser et al. (2007) found that geographical proximity enhances social networks and social capital, and therefore also fosters regional learning processes. Cultural geographies, administrative and natural boundaries greatly influence the extent as well as the capacity and the interest of communities to become involved in the management of their environment.

3.4 Summary

In developing the concept of complex realities, we have drawn on different disciplinary perspectives to achieve a holistic view of the policy effectiveness. Examples of how the different perspectives inform the evaluation framework (Section 4) are provided in Table 1. In summary, the concept of complex realities requires an acknowledgement of diverging realities as perceived by different people, acting at different institutional levels and in different capacities. These realities determine what individuals and collectives will perceive, how they value it and what aims they strive to achieve. This plurality of interpretations and values, consistent with the respective actors' realities, will lead to different and sometimes conflicting aims. These are legitimate but need to be made explicit to form the basis of policy evaluation. We conceptualise the process of policy implementation as an interplay of institutions, multiple levels and scales, tied to localities with human actors whose actions in turn are influenced by their values, attitudes and social networks, and embedded in their environmental context. The concept of complex realities requires a systems perspective, linking social and ecological systems, where policy evaluation is part of an iterative cycle of design and implementation rather than a linear process with predictable outcomes, and where process is equally important as outputs and outcomes. Building on the notion that social-ecological systems are complex, a policy evaluation will have to take the 'bigger picture' into

account by considering how the specific policy tool is embedded into the wider policy context, its historical development, the natural environment, feedback loops and (unintended) side-effects.

Table 1: Overview of how disciplinary perspectives informed components of the evaluation framework

Perspective	Components of the evaluation framework
Policy evaluation perspective	Specific characteristics of the policy (aims, type, funding, duration) Output, outcome, process, policy hierarchy
Sociological perspective	Specific characteristics of the policy (participatory opportunities, hidden agendas, implicit objectives, funding) Policy history (previous experiences of cooperation) Socio-economic, environmental, cultural setting (regional identity, overarching regional issues, specific issues for local actors) Internal/external actors; individual/ collective actors (groups and associations, perceived benefits and problems, relationships, power and influence, social capital) Supportive structures (professionalisation, network brokers, charismatic leaders, communication, awareness raising)
Institutional analysis	Policy context (other relevant strategies, plans, programmes, legislation, designated areas, funding = formal institutions) Policy history (development of accompanying tools, actors involved) Governance arrangements , governmental organisations Internal/ external actors and the informal institutions governing their interactions (relationships, cooperation)
Linking to place	Socio-economic, environmental, cultural setting (natural boundaries, link between identity-region-environment, region-specific issues) Governance arrangements (administrative boundaries)

4 Evaluation Framework

This section visualises the components of the concept of complex realities in an evaluation framework which in essence is a tool to guide the analysis of policy tools. Using such an evaluation framework can assist working through complexity, by making assumptions about components and their linkages explicit. The evaluation framework represents the different components that are essential to consider when evaluating the effectiveness of a policy tool to encourage and support local involvement in environmental management (Figure 1).

The basic structure of the framework arranges the relevant components into three clusters: policy, regional context, and implementation. We recognise that there is necessary overlap between the three clusters. Analysis of one cluster will inform aspects of one or both the other clusters. Social capital is part of the regional context but singled out as a separate component because of its important role in implementing a policy as well as being a goal of the policy. The regional context is the setting in which a policy tool is introduced. While there is a greater policy context operating outside the regional context, the implementation process is embedded in and influenced by the regional context.

Three dimensions are denoted along the axes which feature in many of the recent frameworks for evaluation of policy, natural resource management systems, or co-adaptive management (Bellamy et al., 2001; López-Ridaura et al., 2005; Plummer and Armitage, 2007; Ryan et al., 2010); the institutional level, the geographical scale, and the time scale. In contrast to geographical scale, the institutional level is concerned with organisations and the level at which their decision making takes place (Margerum, 2008), as detailed in the previous section. Relevant questions to consider with regard to the three dimensions include: How (well) are different institutional levels linked? Which geographical scales are the frame of reference for the relevant policies and actors? What baseline is used to assess policy

effectiveness? How does time influence natural and social processes, and which uncertainties are acknowledged?

The natural environment, bio-geophysical components or the ecological system which feature more prominently in other frameworks are incorporated in the ‘environmental setting’ in the regional context. This is justified by the focus of our framework, which is guiding the analysis of the social component of the system, i.e. the encouragement of community involvement through policies.

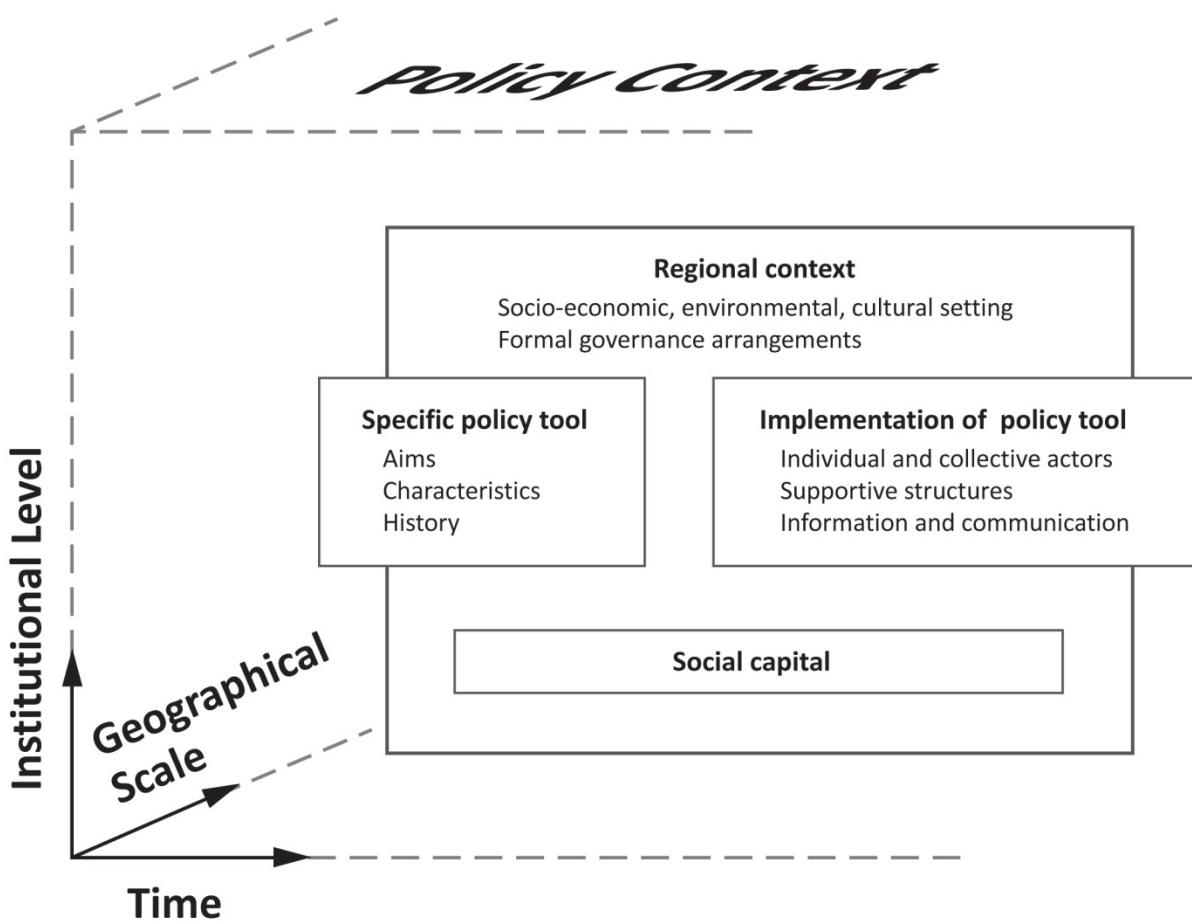


Figure 1: Evaluation framework for evaluating policies aiming to foster community involvement in environmental management

Table 2 provides more details about which specific areas are investigated by following the evaluation framework. It is structured corresponding to the three clusters: policy, regional

context, and implementation, and serves as a guide to exploring factors that influence the implementation and effectiveness of policies. The list of questions is drawn from our experience with the exemplified policies and not exhaustive.

When interrogating the effectiveness of policy via the proposed evaluation framework it is important to understand the level at which the policy sits in the policy hierarchy. As briefly covered above, a policy typically has a number of constituent parts, commonly constructed in a hierarchical typology or ‘policy bundle’ consisting in descending order of four parts (Althaus et al., 2007):

1. Policy statement or policy document (time frame 5-20 years) describing long-term broader goals for changes in behaviours, altered state or condition of the subject matter;
2. Strategy document (time frame 5-10 years) detailing steps and activities required to implement the policy statement;
3. Policy tools, the general collection of approaches and methods available to implement the set of activities in the strategy document, including education programmes, funding schemes, regulation, legislation, provision of information, provision of resources such as staff time;
4. Policy implementation action plans (time frame: 1-3 years), often written as rolling annual action plans including specifications for materials needed, project management, funding schedule and reporting arrangements.

In our framework, we chose to focus on the evaluation of *policy tools* but it is likely that the framework is also suitable to be applied to the evaluation of policy statements, strategy documents and policy implementation action plans.

In addition to clarifying the focal scale in the above hierarchy of the policy being evaluated, it is essential to understand the intention of programmes used to implement the policy so that the audience of the policy can be identified and a detailed methodology can be designed where the collection of specific data is part of the evaluation.

Organisations engage communities for many reasons. Sometimes these reasons are clearly stated but often the aim of community engagement is not transparent. Knowing ‘why’ the organisation is engaging is the key to assessing the effectiveness of policy. Unreliable findings are a risk, for example, if a simple *community information action plan* is assessed as if it was considered a complex *community empowerment strategy*.

Table 2: Questions for operationalising the evaluation framework

Cluster	Explanation	Specific questions
Policy	Policy context at international, EU, national and sub-national/regional levels	<ul style="list-style-type: none"> • Which policy context is the specific tool embedded in? e.g. regional concepts, development strategies, plans and programmes; legislation (e.g. nature conservation law); designated areas • Other funding tools that support or contradict the goals of the investigated policy tool
	Specific characteristics of the investigated policy tool	<ul style="list-style-type: none"> • What are the aims and objectives (outputs, outcomes)? What hidden agendas and implicit objectives exist? • What type of policy is it (regulatory, incentive-based)? • Is it linked to funding; if yes how much and provided by whom? • Which participatory opportunities exist e.g. consultation, shared decision making (process)? • What duration is envisaged?
	Policy history	<ul style="list-style-type: none"> • How are accompanying tools developed (e.g. regional development concepts), which actors are involved, do they have a history of working together? • Did the specific policy tool have a predecessor and what are related experiences of policy makers, implementing agencies and addressees?
Regional context	Socio-economic, environmental and cultural setting	<ul style="list-style-type: none"> • Which natural boundaries exist? • To which boundary does the (dominant) regional identity align? • To what extent is the regional identity linked to the natural environment? • What are the overarching issues relevant to the region as a whole in social, economic and ecological terms? • What are the specific issues that local actors are trying to address?
	(Formal/State) Governance arrangements	<ul style="list-style-type: none"> • Which governmental organisations, authorities, (e.g. biosphere reserve authority) have a stake in or responsibility for rural development and for environmental issues? • Which administrative boundaries exist?
Implementation	(Region-) Internal actors	<ul style="list-style-type: none"> • Who are the relevant individual and collective local stakeholders, e.g. associations (membership, social capital, history, degree of professionalisation, reach of activities) and communities in the region? • Which individual/collective benefits and problems do they perceive, what motivates their involvement? • Is there identification with the region? Which region? • What is the internal/external and governmental/non-governmental actors' working relationship?
	External actors	<ul style="list-style-type: none"> • In which way do ministry, authorities, state and national NGOs influence the implementation of the policy?
	Supportive structure	<ul style="list-style-type: none"> • What is the degree of professionalisation associated with the policy implementation?

- Do network brokers (e.g. regional managers) exist?
 - How is information transfer, communication and visualisation of outputs realised?
 - Is awareness/ personal understanding of the local population supported and how?
 - Who initiated the process of implementation (not the policy tool as such)?
 - Can charismatic leaders be identified?
-

5 Conclusions

In this paper we aim to improve the evaluation of policies, in particular the evaluation of those policies that explicitly aim to foster community involvement in the management of their natural environment, in the context of sustainable rural development. Given the shortcomings in available policy evaluation approaches, we have brought together the perspectives of various disciplines to introduce a concept that recognises complex realities and to develop a comprehensive evaluation framework. We argue that the concept of complex realities is suited to understand the effectiveness of policies in complex social-ecological systems. Policy making and implementation, especially when it aims to encourage engagement or even bottom-up processes, so-called collaborative policy making, can be best understood as part of a complex evolving system (Connick and Innes, 2003).

Building on the concept of complex realities we caution against applying a reductionist approach, relying on a single discipline, or assuming there is a single ‘true’ result arising from an evaluation. The concept offers multiple benefits. It reminds us to be specific about the part of the policy bundle that an analysis will address, and to be sensitive to the policies’ history and wider policy context. Implicit and explicit objectives must be acknowledged. The concept also emphasises the importance of issues around internal and external evaluation of the same policy (Blackstock et al., 2012), its outputs, outcomes and implementation process (Rauschmayer et al., 2009a). There is scope to explore the benefits of combining summative

and formative evaluation (Spaey and Leloup, 2000; Worthen et al., 1997) in order to enable learning and responsiveness, as well as cope with uncertainties that are inherent in an evaluation approach that strives to include the perspectives of various stakeholders. In addition, the concept explicitly takes account of the co-existence of diverging perceptions and justifies these as the expressions of multiple realities we have to take into account when evaluating policy effectiveness. This indicates that evaluators' mindsets would have to change to accept uncertainty and the validity of various stakeholders' perceptions and evaluations, in other words, shift from an approach guided by a technical–rational model to one informed by post-positivism (Adelle et al., 2012).

In order to guide the analysis of policies, we propose a comprehensive, yet flexible evaluation framework that can help to work through the complexity of rural development policy and community involvement. By focussing the analysis on three clusters (policy tool, regional context, and implementation) and the overall policy context along three axes (institutional level, geographical scale, and time), the framework provides a structure within which data sets, relevant stakeholders and relationships can be identified and drawn together for the evaluation. The framework considers, for example, the kind of data needed for an evaluation, the different sources to be acknowledged, and a policy's history and context.

We provide questions (Table 2) that operationalise the framework so evaluators are signposted to the components and issues that need to be considered for the evaluation. A full empirical analysis and comprehensive evaluation of a policy tool is a resource-intensive exercise and may only sometimes be affordable or justified. In those cases, we would argue that, in negotiation with addressees of the policy tool and other stakeholders that influence the policy design and implementation, the adequate components and questions can be selected and the scope of the analysis narrowed down. Similarly, the weightings given to different

evaluation results (e.g. from different stakeholder groups) in the aggregate evaluation will need to be negotiated among the involved parties.

Looking across the three example policies we recommend they should be analysed at the level of policy tools (with other levels considered as the ‘policy context’, Figure 1) and any findings should be clearly allocated to only this part of the policy hierarchy. We observe that ‘community involvement’ is only one of multiple objectives which may compete with or even contradict the others. The goal of ‘community involvement’ is also viewed as a means by which other objectives are to be achieved. Depending on which goal the observer favours, the evaluation of the policy’s effectiveness will be quite different.

Our approach is likely to be unnecessarily complex for policies with narrow objectives, clear addressees, straightforward monitoring and uncontested cause-effect relationships. However, there are many policies which are complex. We suggest that the evaluation framework we advance in this paper can be applied to other policies that aim to foster community involvement and the respective policy tools. These include, for example, rural health policy, catchment and water management policy such as the European Water Framework Directive, landscape policies, coastal and marine policies, or policies aimed at enhancing the resilience of rural or other place-based communities. It may also be feasible to extend the evaluation framework to other parts of the ‘policy bundle’ such as strategy documents or policy implementation action plans.

6 Acknowledgements

We would like to thank Catherine Allan for helpful comments on an earlier version of this paper. We are also grateful for help from Kirsty Blackstock and Kerry Waylen.

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