UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Law, Humanities and the Arts - Papers

Faculty of Law, Humanities and the Arts

2015

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

Katrin Prager
James Hutton Institute

Birte Nienaber
University of Luxembourg

Barbara Neumann
Kiel University, barbara@uow.edu.au

Alistair Phillips
La Trobe University

Publication Details

K. Prager, B. Nienaber, B. Neumann and A. Phillips, 'How should rural policy be evaluated if it aims to foster community involvement in environmental management?' (2015) 37 *Journal of Rural Studies* 120-131.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

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

Abstract

This paper brings together different theoretical perspectives to propose an evaluation framework for policies which have the explicit aim to foster communities' 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 oversimplified the complex social-ecological systems on which these policies are intended 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 developed a framework to guide the evaluation of policy effectiveness in social-ecological systems. This comprehensive framework provides the conceptual and theoretical context in which individual evaluation exercises for policy review and future programme design can be embedded. It goes beyond existing frameworks by allowing the identification of factors that explain how and why a policy tool was effective. It provides a structure within which datasets from different sources, relevant stakeholders and relationships can be identified and analysed in a multi level and multi-scale context. However, we emphasise that policy makers and evaluators' mindsets would have to change to accept uncertainty and the validity of various stakeholders' perceptions and evaluations.

Keywords

involvement, community, foster, aims, if, evaluated, be, policy, rural, should, management, environmental

Disciplines

Arts and Humanities | Law

Publication Details

K. Prager, B. Nienaber, B. Neumann and A. Phillips, 'How should rural policy be evaluated if it aims to foster community involvement in environmental management?' (2015) 37 *Journal of Rural Studies* 120-131.

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

Katrin Prager, Birte Nienaber, Barbara Neumann, Alistair Phillips

Contact details of all authors:

Dr Katrin Prager (corresponding author)

The James Hutton Institute

Craigiebuckler, Macaulay Drive, Aberdeen AB15 8QH, Scotland UK

Tel: 0044 (0) 1224 395 386

e-mail: katrin.prager@hutton.ac.uk

Prof. Dr. Birte Nienaber

Geography and Spatial Planning Research Centre, University of Luxembourg, Campus

Walferdange, Route de Diekirch (B.P. 2), L-7201 Walferdange

e-mail: birte.nienaber@uni.lu

Dr. Barbara Neumann

Institute of Geography, Kiel University, Ludewig-Meyn-Straße 14, D-24098 Kiel, Germany

Tel. +49 (0)431 880 5319

e-mail: neumann@geographie.uni-kiel.de

Alistair Phillips

Greening Australia, S.E. Region

PO Box 118, LaTrobe University, Bundoora, VIC 3083, Australia

Tel: +61 (0) 475 820 506402 259 379

e-mail: APhillips@gavic.org.au

This is the accepted version of an article published in the
Journal of Rural Studies. For the final published version, please see
<http://www.sciencedirect.com/science/article/pii/S0743016714001612>
doi:10.1016/j.jrurstud.2014.12.006

Manuscript Number: RURAL-D-14-00038R2

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

Article Type: Research Paper

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

Corresponding Author: Dr. Katrin Prager, Dr

Corresponding Author's Institution: The James Hutton Institute

First Author: Katrin Prager, Dr

Order of Authors: Katrin Prager, Dr; Birte Nienaber, Dr; Barbara Neumann, Dr; Alistair Phillips, Dr

Abstract: This paper brings together different theoretical perspectives to propose an evaluation framework for policies which have the explicit aim to foster communities' 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 intended 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 developed a framework to guide the evaluation of policy effectiveness in social-ecological systems. This comprehensive framework provides the conceptual and theoretical context in which individual evaluation exercises for policy review and future programme design can be embedded. It goes beyond existing frameworks by allowing the identification of factors that explain how and why a policy tool was effective. It provides a structure within which datasets from different sources, relevant stakeholders and relationships can be identified and analysed in a multi-level and multi-scale context. However, we emphasise that policy makers and evaluators' mindsets would have to change to accept uncertainty and the validity of various stakeholders' perceptions and evaluations.

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

Abstract

This paper brings together different theoretical perspectives to propose an evaluation framework for policies which have the explicit aim to foster communities' 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 intended 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 developed a framework to guide the evaluation of policy effectiveness in social-ecological systems. This comprehensive framework provides the conceptual and theoretical context in which individual evaluation exercises for policy review and future programme design can be embedded. It goes beyond existing frameworks by allowing the identification of factors that explain how and why a policy tool was effective. It provides a structure within which datasets from different sources, relevant stakeholders and relationships can be identified and analysed in a multi-level and multi-scale context. However, we emphasise that policy makers and evaluators' mindsets would have to change to accept uncertainty and the validity of various stakeholders' perceptions and evaluations.

Keywords: policy evaluation; complexity science; 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 taking responsibility for the management of their local environments (OECD 2006). For over a decade, demands for enhanced local participation in local environmental governance and development can be noted in Europe and more widely (Ray, 2000; Curtis et al., 2014; Ryan et al., 2010).

Various policies explicitly identify community engagement as means to support more sustainable management of the environment. A prominent example in Europe is the EU LEADER¹ initiative, first introduced in 1991 and subsequently mainstreamed. Australian natural resource management (NRM) programmes provide an Antipodean example, which follows on from Landcare and other predecessor schemes². A third example are Biosphere Reserves, an international category of designated areas accredited by the UNESCO, which aim at fostering sustainable development through strong community involvement and partnership approach.

Community involvement, or participation, is understood as encompassing a broad range of organisation-community-stakeholder interactions; from information provision and consultation to engagement, collaboration and joint decision making (Arnstein, 1969; Collins and Ison, 2009). In this paper, community engagement is treated as directed and purposeful form of community involvement. A bottom-up process encapsulates the idea that

¹ LEADER (Liaison Entre Actions de Développement de l'Économie Rurale) English translation: 'links between actions of rural development'.

² Note: At the time of publication the Australian government had commenced a transition from the Caring for our Country Programme back to the National Landcare Programme. The aims of both programmes are similar.

environmental management is a process that is open to community-led direction with decisions shaped by local stakeholders and the community.

Community involvement is promoted widely as a vehicle to achieve environmental and development policy goals. 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), with the Council committed to “improving governance and mobilising the endogenous development potential of rural areas” (Council of the European Union, 2006). Similarly, one of the six national priorities in Australia’s Caring for Our Country programme is “Community skills, knowledge and engagement” (Australian Government, 2011). The global Man and Biosphere (MAB) programme sets the frame for the UNESCO designation of a biosphere reserve. The programme aims to foster full participation of local actors (UNESCO, 1996; 2011) 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; Brunckhorst, 2001).

An underlying assumption of these policies is that a high level of involvement will bring social, economic and environmental benefits to local communities and the whole rural region (EENRD, 2010b), 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).³ Effective community involvement could also engender 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 intended beneficiaries.

³ 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.

Despite the growing number of policies that aim to foster communities' involvement in the management of their natural environment, there are a number of unresolved issues around evaluating the effectiveness of such policies. The "evaluation of rural development policy and strategies is highly complex" (OECD 2006, p.136). Issues relate to defining communities of interest and place, 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 imbalances in knowledge integration (scientific versus lay/ local knowledge) and the reluctance amongst some policy makers to carry out evaluations since results might show that policies have not delivered.

First, it is important to acknowledge that the notion of 'community' is inherently complex. Communities of place have neither well-defined (geographical) borders, nor are they homogeneous. Differences may relate to age, class, ethnicity and gender, as well as interests and power. Communities of place may include "many 'communities of interest', with highly unequal capacities to act" (Shucksmith, 2010, p. 208).

Second, current evaluation approaches are often not clear about which part of a policy they aim to assess. In addition, current approaches are often not holistic enough to incorporate less tangible outcomes or take into account the multiplicity of values and aims, and (unintended) by-products (see section 2). Part of the problem is that current approaches are based on the perspective of an older – but still largely 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 and Innes, 2003, p. 178). To date, insufficient attention has been given to the question of how rural policy should be evaluated, in particular

those policies that aim to foster communities' involvement in the management of their environment.

Specific indicator frameworks have been designed to assist evaluators collect the appropriate data to analyse outputs and outcomes e.g., the Common Monitoring and Evaluation Framework Monitoring (CMEF) in the EU and the Monitoring, Evaluation, Reporting and Improvement (MERI) in Australia. However, there is no comprehensive framework that provides the theoretical and conceptual context in which individual evaluation exercises can be embedded. This paper addresses the absence of such a framework that could be applied in different settings to help judge different policies that aim to foster community involvement in environmental management. Motivated by our own frustration in trying to evaluate policy effectiveness, we draw on empirical work in Australia and Germany to iteratively develop an evaluation framework. We reflect on issues and findings in case studies, and compare them to two theoretical concepts which have been identified as central in the literature: governance and social capital. Based on these iterations we have developed an evaluation framework for policy analysis that follows our concept of 'complex realities'. The framework is expected to support:

- Comparison of the claims made in relation to a policy tool⁴ with the extent to which it actually fosters community involvement in environmental management, i.e. evaluating whether and to what extent an objective has been achieved;
- 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 how and why the policy tool was effective (or otherwise).

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

The latter is an ambition that goes beyond frameworks that simply serve policy evaluation carried out for the purpose of policy review and future programme design. Rather, it embeds the evaluation into a broader critical reflection of how society tries to achieve sustainable development. Our framework reaches further than existing frameworks in the requirements it places on policy makers but also on communities' contribution to evaluation.

In the following section we discuss issues associated with policy evaluation. Section three covers the conceptual and theoretical background, outlines the concept of complex realities and explains how the core concepts of governance and social capital inform the evaluation framework. The framework is presented in section four and then operationalised in section five using the policy examples of the EU's LEADER policy, Australia's Caring for Our Country, and UNESCO's Biosphere Reserves.

2 Policy evaluation

Policy evaluation studies commonly identify relevant policy objectives – what should ideally be achieved – and then compare 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 different policy analyses. In evaluations of rural policy there is typically a distinction between 'measures' and 'programmes' (OECD 2010) but 'scheme' and 'initiative' are also frequently used. 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 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 Programme) 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).⁵ 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. Rauschmayer et al. (2009) support this, claiming that a combination of evaluating outcomes and the 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 an objectives bundle. In other words, a policy can have narrow or broad objectives (OECD, 2010). For rural development policy, broad objectives are typical, some of which may even be

⁵ “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.

conflicting. For example, OECD (2006) highlighted tension between two different objectives: equity and development (i.e. competitiveness between regions). 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. A more holistic evaluation that goes beyond the stated objectives of policy is recommended because it can facilitate the identification of unforeseen side-effects of policy, which might otherwise be neglected (Lehtonen, 2005).

In combination, these publications highlight several unresolved issues:

- The fact that 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 be described explicitly as aiming for community engagement but policy makers' implicit aim is to channel funding into disadvantaged rural areas;
- 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;
- The difficulty of 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 the hierarchy of goals and objectives, as well as the distinction of immediate, intermediate and ultimate outcomes;
- The reluctance of policy makers 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).

Although these issues are not specific to rural policy and have been known for several decades (Brewer and deLeon 1983), they are important to consider in developing a new evaluation framework. Objectives, levels, influence of other policies, timing, process, output and outcome are revisited in the following theoretical section and incorporated in the proposed framework.

3 Conceptual and theoretical background

The design and implementation of rural policy is a complex process, requiring coordination across sectors, across multiple levels of government and between public and private actors (OECD 2006). This also applies to those rural policies that aim to support community involvement in environmental management. In order to answer the question of how such policies 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 (i) a complex systems approach, (ii) combining theoretical perspectives and (iii) acknowledging differing realities.

(i) 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). Within social-ecological systems, adaptive governance and adaptive co-management (as a way to operationalise adaptive governance, Folke et al. 2005) are seen as crucial to achieve long-term resilience of the system. This literature highlights that effective management requires multi-scale multi-actor collaborative action, not simply devolution to local-scale governance. Bridging or boundary organizations are important to facilitate the process and to enhance fit between social (institutional arrangements) and biophysical systems (Cash and Moser 2000; Berkes 2009).

(ii) Combining different theoretical perspectives enhances our holistic view of the policy implementation process and the effectiveness of delivery. For example, 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. 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).

(iii) In addition to recognising the complexity of the biophysical and social 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 superior and ‘true’ way of interpretation and evaluation. Hajer 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 actors’ reality.

Based on the literature, we identified two key concepts of relevance to the evaluation and impact of rural policy: governance and social capital. Contained within these concepts are a number of (partially overlapping) sub-concepts that we will now outline.

3.1 Governance

Environmental governance

Aspects of ‘good governance’ are discussed in a number of policy documents (e.g. OECD 2006) and are associated with the following aspects: transparency, legitimacy, participation in decision making, horizontal and vertical integration, learning mechanisms, and communication and conflict management. These more general issues are reflected in issues that are specific to environmental governance (Plummer et al. 2013). The authors discuss how adaptive co-management relates to environmental governance. In their analysis of the literature, they highlight “core environmental governance issues”, including

- Actors and roles, including participation by diverse non-state actors in decision making;
- Accountability and legitimacy, alluding to “the responsible exercise of power by entities”;
- Fit, interplay and scale of both the environmental concern and multi-level actor networks;
- Adaptiveness, flexibility and learning, to respond to uncertainty and change that characterize complex systems; learning takes place individually and collectively;
- Knowledge from various knowledge sources and knowledge co-production; and
- Evaluation and monitoring (Plummer et al. 2013).

Several of these issues are crucial in the evaluation of policy that aims to foster community involvement in environmental management and have therefore informed the evaluation framework we developed (see overview provided in Table 1 and section 4).

Plummer et al.’s (20013) description of evaluation also covers key points such as participatory, multi-scale and interactive evaluation and highlights the difficulty of evaluating process and outcomes which resonates with the policy evaluation literature (Section 2).

There is a particular emphasis on social learning (shared learning and knowledge creation among individuals through an iterative process of engagement and reflection that is scaled-up from individuals through social interactions) on the grounds that collective learning and bringing together different kinds of knowledge are seen as necessary to manage the environment sustainably (Blackmore, 2007) and to build adaptive capacity to manage change in social-ecological systems (Plummer and Fitzgibbon, 2007; McCarthy et al. 2011).

Table 1: Overview of how the concepts of governance and social capital inform components of the evaluation framework

Concept	Components of the evaluation framework
Governance	<p>Policy and policy context (formal institutions reaching across different levels)</p> <ul style="list-style-type: none"> - policy hierarchy - policy objectives - type, funding, duration - policy history <p>Governance influencing the implementation process</p> <ul style="list-style-type: none"> - Multi-level governance (vertical integration) - Local governance (horizontal integration) <p>Fit, interplay and scale</p> <p>Transparency</p> <p>Accountability and legitimacy</p> <p>Participation in decision making</p> <p>Supportive structures (networks/ institutions) for</p> <ul style="list-style-type: none"> - Communication - Learning and awareness raising - conflict management
Social capital	<p>Actors' involvement in cooperation structures and networks</p> <p>(History of) working relationships</p> <p>Local/regional identity</p> <p>Cultural setting</p> <p>Communities of place/ interest/ beneficiaries</p> <p>Individual/ collective actors as part of communities</p> <ul style="list-style-type: none"> - capacities and skills - interests, motivations, - perceived benefits and problems - the (informal) rules governing their interactions

Institutions

In institutional analysis, institutions are defined as rules that regularise actors' behaviour, i.e. the "rules of the game in a society" (North, 1990, p3). The set of actor interactions that makes up governance is determined by such rules that determine individuals' behaviour. 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. The formal governance structures shape the overall (multi-level) governance framework and define the administrative, regulatory and procedural environment for the implementation of policy and ensuing local projects. They can greatly influence the style of interaction between (and within) different levels and organisations of the system, the degree of autonomy of the local level, the administrative procedures applied, and the autonomy of local partnership in general (ENNRD 2010b). For example, governance structures include the biosphere reserve authority, local associations, and the administration which processes LEADER funding applications, accounts for money spent and awards designations.

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 fit of policies at different institutional levels, but also the fit of the policy to the problem it aims to address, as well as the fit between the social (institutional arrangements) and the biophysical system have been highlighted as challenges in effective governance (Cash and Moser 2000; Berkes 2009). Institutional levels feature in approaches such as actor-based institutionalism (Fürst et al., 2005) which was used to analyse regimes of regional governance in biosphere reserves, or the Institutions of Sustainability framework (Hagedorn, 2008; Prager et al., 2011) which focuses the analysis on interactions between actors, the transactions relating to environmental management, the relevant institutions and governance structures.

The lens of institutional levels has been applied to explain challenges in the collaboration between collective actors 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, collaborative groups would focus on government legislation and policies. These different approaches to bringing about change have been shown to underlie tensions between the collaboratives involved (*ibid.*).

So far, we have provided an overview of the institutional arrangements that determine the implementation of policies in general. The institutional arrangements include the policy and its particular requirements, funding, history and other policies that might impact on its implementation (policy context). For the implementation process, governance structures at different levels and their coordination (multi-level governance), as well as the local governance structures are important (Table 1). Actors, both individual and collective, interact to negotiate and make decisions, and it is their behaviour, which determines whether a policy achieves its intended objectives. We will discuss actors as part of the concept of social capital that is of particular relevance to policies that aim to involve communities in environmental management.

3.2 Social capital

Communities, individual and collective actors

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 (part of European rural development policy), 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.

The type of policy we aim to develop an evaluation framework for, such as LEADER, Australian NRM programmes or biosphere reserves, targets ‘the community’. Communities of place are far from homogeneous (Shucksmith, 2010). Individuals within these communities differ in their interests, preferences, capacities and power held, among others. Some members of the community may not want to be involved or do not have an interest in the environment. 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. Their interests and needs will determine how they perceive benefits and evaluate policy impacts.

Although the rhetoric of a policy may imply that it addresses everyone within that community to the same extent, Kovách (2000) stated that one function of intervention by means of a policy is the selection of actors, giving preference to some and excluding others. Shucksmith (2010), also discussing LEADER, made the point that capacity is being built of the most privileged who are able to mobilize and win funding in a short time-scale, since they already have a greater capacity to act.

In addition to the distinction between those within and outside the circle of beneficiaries, there are issue of delineating a community and thus, internal and external actors. In this context, Ray (1998)⁶ asserted that local rural development policy and action should be understood as

⁶ He also drew attention to understanding policy as a product of the history pre-dating a particular programme which can have implications for whether actors want to become involved or are willing to cooperate in the course of policy implementation or environmental management.

the intersection of local and extra-local dimensions. Whilst environmental management should at best be aligned with an ecosystem, natural boundaries rarely overlap with community or administrative boundaries. 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.

Role of social capital

Social capital (along with human and cultural capital) is now recognised as key to the process of rural development, and sustaining endogenous economic growth (Kinsella et al., 2010).

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).

Beyond economic development, social capital is of crucial importance in environmental management, especially in landscape scale management that needs cooperation. According to Pretty and Ward (2001), social capital lowers the costs of working together, which in turn facilitates co-operation. With regard to the evaluation of place-based policies, it is important to consider that geographical proximity enhances social networks and social capital, and therefore also fosters regional learning processes (Hauser et al. 2007).

The concept of social capital is multi-faceted – for example, Franklin et al. (2007) consider social capital to be a concept, a policy and a practical action – and diverse definitions co-exist (Adler and Kwon 2002). Broadly speaking, social capital is based on institutions and culture, and often described as “the glue that holds society together” (Serageldin, 1996, p. 196). Social capital is concerned with the (structure of) relations between actors. While Bourdieu’s (1986) formulation of social capital refers to social relations in terms of the benefits accruing to individuals through participation in groups, Coleman (1988) focussed on relations that

facilitate productive activity. These relations build on a structure in which actors can communicate and share information, as well as form obligations and expectations and apply sanctions.

The definitions of Bourdieu (1986) and Coleman (1988) describe ‘bridging social capital’, i.e. interactions between people with the same aim or need to enhance their individual live or economic situation (Woolcock and Sweetser, 2002). ‘Bonding social capital’, on the other hand, refers to interactions based on kinsmanlike and emotional relations. It adopts a collective perspective and focuses on the internal linkages of and between collective actors that foster cohesiveness and benefits such as trust or diffusion of information (*ibid.*). A third type of social capital is ‘linking social capital’ which refers to the interactions between vertical social networks (Woolcock and Sweetser, 2002). This ties in with the recognition of different institutional levels (see section 3.1) and the importance of interaction of collective actors at and across such levels in the implementation of policy (Prager, 2010).

In contrast to authors that place the focus on social capital as held by the individual (e.g. their benefit from participation in social networks), Putnam defined social capital as “those features of social organizations, such as networks, norms, and trust that facilitate coordination and cooperation of mutual benefit” (Putnam, 1993, p.35), i.e. as something held by organisations or communities. This has been met with scepticism, e.g. Portes (1998) suggested more care and theoretical refinement before extending the concept from an individual asset to a feature of communities, and Shucksmith (2000) cautioned that treating social capital as a collective good and focussing on building collective capacity may mask the way in which social capital is appropriated by those who individually already have social capital (e.g. through their social connections, education, language). This process would ultimately lead to exclusion of some community members, thus counteracting the very aim of the policy to engage ‘the community’ in environmental management.

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 stressed the importance of separating social capital as a cause from social capital as an outcome. In a similar vein, Webb and Cary (2005) considered 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).

We conclude that social capital has a dual role, including one that analytically is not yet clearly resolved. That is, while policy aspires to build social capital, it is also believed that social capital influences the outputs and outcomes of policy and hence plays a key role in policy implementation and governance. The key components that we derive from the social capital concept for our framework are actors' characteristics (e.g. interests, capacities, identity and perceptions) and the relationships between (individual and collective) actors, including communication and cooperation (Table 1, Figure 1) as these will significantly influence how and to what effect a policy is implemented.

3.3 Summary – towards a concept of complex realities

In developing the concept of complex realities, we have drawn on the core concepts of social capital and governance, and related sub-concepts to achieve a holistic view of policy effectiveness (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 (e.g. local community member, administrator, policy maker, evaluator). 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 see a central role for participatory evaluation in evaluating policy that aims to foster community involvement in environmental management, because it can enhance stakeholders' commitment to programmes and the sustainability of policies (High and Nemes, 2007; Mortimer et al., 2010).

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 (Ban et al., 2013), 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, communities (individual and collective actors), feedback loops and (unintended) side-effects.

4 Evaluation Framework

This section visualises the components of the concept of complex realities in an evaluation framework by drawing together the various concepts introduced in the previous sections. The 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). Using such an evaluation framework, in combination

with the questions to operationalise the framework (Table 2), can assist working through complexity, by making assumptions about components and their linkages explicit.

The basic structure of the framework arranges the relevant components into three clusters: policy, implementation, and regional context. 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.

The specific policy tool is taken as the starting point, its objectives, characteristics and any relevant previous policy history is considered. In analysing the implementation (process, outputs and outcomes) of the specific policy tool, individual and collective actors, their previous and current relationships, existing supportive structures and communication processes are key concerns. For the evaluation of outputs and outcomes, the actors identified can be involved in participatory evaluation as illustrated in the CMEF example (Box 1).

Social capital needs to be considered as a characteristic of the individual actors, as well the communities or indeed the region in which a policy tool is implemented. It has been singled out in the diagram as a separate component because of its important role in implementing a policy as well as being a goal of the policy (section 3.2).

The regional context is the setting in which a policy tool is introduced, e.g. a certain geographical area with its socio-economic, environmental and cultural characteristics (the social-ecological system). This includes wider societal processes and other policies. The diagram visualises that while there is a greater policy context operating outside the regional context, the implementation process is embedded in and influenced by the regional context. The (multi-level) governance structures operating in the region and beyond influence the implementation of the specific policy tool. Note that the policy tool is likely to be applied in other regional contexts as well, and its implementation will have impacts outside the region, hence both boxes reach outside the regional context.

The whole process of policy implementation and evaluation has a temporal dimension, an institutional dimension and a geographical dimension. These three dimensions are denoted along the axes as the institutional level, the geographical scale, and the time scale. Issues associated with multi-scalar and multi-level nature of policy have been recognised in 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 temporal dimension emphasises the importance of ‘process’ in policy implementation, as well as the issues of time lags and timing of the evaluation (section 2). In contrast to geographical scale, the institutional level is concerned with organisations and the level at which their decision making takes place and considers aspects relating to multi-level governance (section 3.1).

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

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.

5 Operationalising the framework

To illustrate how components of the framework have relevance in evaluating different cases, we now look at three policy examples in more detail: the EU LEADER programme, Australia's Caring for Our Country, and UNESCO Biosphere Reserves. This is not a comprehensive evaluation but highlights how previous evaluation studies can contribute, and how the framework can be applied. Based on the framework, an evaluation would cover the three clusters by asking a range of questions (Table 2). The questions serve 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 is not exhaustive.

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? • Which other policy/funding tools 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, 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 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 (levels of trust and reciprocity, conflict)?
	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?

5.1 Cluster 1: Specific policy tool and policy context

In this cluster, the analysis focusses on context, characteristics and history of a policy. Since the evaluation is concerned with a place-based policy, it would be applied to a particular region where e.g. a LEADER project was implemented. The evaluation process would gather information on the specific policy context including regional concepts, development strategies, plans and programmes, designated areas as well as legislation such as nature conservation law. This analysis would also comprise the identification of other policies or funding schemes that may support or contradict the LEADER objectives. The objectives of the policy need to be noted explicitly as the basis of the evaluation, since they should, and generally do, logically complement each other but can sometimes conflict internally within a mix of instruments targeting a common objective, or externally with other apparently unrelated policies Jones (2005). Here, objectives of beneficiaries and non-beneficiaries should also be noted.

For the case of LEADER, this policy tool focuses on small, rural and coherent regions (European Union, 2010) and grants funding 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).

LEADER is recognised for its ability to deliver a diverse range of projects to address local priorities that draw on multiple levels of governance (Kinsella et al., 2010) for sustainable rural development. LEADER’s central aims are: 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 Union, 2010). An

analysis of LEADER objectives shows that they are very broad in that the policy tool is expected to contribute to the other rural development objectives but also play an important role improving governance and mobilising the endogenous development potential of rural areas (EENRD, 2010b).

An observation from Australia regarding diverging implicit and explicit goals was that Landcare groups use funding provided by a programme to achieve aims specific to their locality and situation but officially reported only outcomes relevant to objectives of the programme. Another example of multiple and potentially conflicting objectives is the CfOC aim to “increase the engagement and participation rates of urban and regional communities in activities to manage natural resources and to help protect the environment” which might not necessarily translate into measurable impact on environmental indicators. This was the case with the predecessor National Landcare Program which was successful in building community capacity and raising awareness (Curtis and Van Nouhuys, 1999; Mues et al., 1994) but faced limits with regard to addressing large environmental problems through volunteer community groups (Lockie and Higgins, 2007).

The duration of the policy will determine what can be achieved, e.g. LEADER evaluations repeatedly made the point that short-term funding structures are inadequate for long-term development processes (Shucksmith 2000). Previous evaluation studies can also inform the analysis by helping to identify areas that warrant closer attention, e.g. social inclusion in rural development programmes generally (Shortall, 2008), or the operation of local LEADER boards (Furmankiewicz et al., 2010; Thuesen, 2010).

Last in this cluster, the history of the policy is relevant. For example, non-communication and conflicts during the designation process of a biosphere reserve have reduced the extent of community involvement, as shown in Germany (Frys and Nienaber, 2011; Kühne, 2010). Where actors have a history of working together, e.g. in previous LEADER projects or in

drawing up regional development concepts, we expect higher levels of social capital. If previous experiences of cooperation were negative, or trust was lost because disputes were not resolved, it will be much more difficult to foster community involvement.

5.2 Cluster 2: Regional context

In the second cluster, we focus on the regional context and suggest analysing boundaries of the social-ecological system and formal (multi-level) governance structures. Which communities exist and what identity/ies do they hold? The pressing issues in the region more widely but also in local communities will determine which objectives and expectations they link to a policy. Rural development policies encounter significant heterogeneity in rural areas. Who are the responsible governmental organisations and authorities, what stakes do they hold and what decisions do they make? Diverging interests – often based on different cultural models (Stocker and Kennedy, 2009) – can lead to conflicts, for example between local leaders and regional government actors, impinging policy implementation and generation of mutually desirable outcomes. The overlap of different organisations and initiatives, e.g. a LEADER initiative with 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). Other studies have shown how the official project sponsorship of LEADER can undermine existing independent and critical rural development initiatives (Bruckmeier, 2000; Furmankiewicz et al., 2010).

Similarly, the Australian CfOC 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 (Australian Government Land and Coast, 2008) – all of which relate differently to the place where sustainable management is to take place, and have different roles and priorities (Prager 2010).

5.3 Cluster 3: Implementation – actors and supportive structures

In the last cluster, the analysis covers individual and collective actors (identifying the actors at higher governance levels as external). The networks and relationships that exist within and between communities, as well as with external actors determine the social capital and the capacity for joint involvement in environmental management; hence they are supportive structures for local governance. The extent to which the policy allows participatory processes and decision making by communities (e.g. on which objectives to pursue, which issues to address, which activities to implement) influences the willingness to become involved and the ensuing level of involvement. For example, studies of LEADER indicated shortcomings with respect to decision-making power remaining with local authorities and funding agencies (Furmankiewicz et al., 2010; Storey, 1999). Valve (2002) documented a ‘failure’ to generate local activism and environmental projects, which may indicate a mismatch between objectives of local community members, and actors driving the LEADER project. Similarly, with regard to biosphere reserves, Brunckhorst (2001) highlighted the importance of vesting the community with the ownership and responsibility for selecting management goals for the entire landscape.

Charismatic leaders and knowledge brokers can be of particular importance, both for motivating involvement, enhancing communication and integrating local knowledge (e.g. Pfueller, 2008). A policy will have limited effect if awareness of a policy is lacking, as was the case in Australia, with little public understanding or appreciation of the concepts and the opportunities offered by biosphere reserves (Buckley, 2007).

In addition to actors and structures in the implementation process, we need to further operationalise the framework to evaluate outputs and outcomes. Existing formal indicator frameworks can help to evaluate certain outputs and outcomes but they may fall short of

capturing levels of community involvement. As an illustration, the CMEF which frames the evaluation of LEADER is discussed in more detail (Box 1).

Box 1: Using the Common Monitoring and Evaluation Framework to evaluate community involvement

The CMEF represents the main mechanism by which the European Commission assesses the individual progress of Member States on the requirements set out in their rural development policies. It sets a broad indicator framework consisting of baseline, output, result and impact indicators (DG Agri 2006). However, it was recognised that the CMEF is not operationalized sufficiently yet, in particular for assessing the impacts of LEADER (EENRD, 2010a). The socio-economic impacts indicators for LEADER are economic growth and employment creation (EENRD, 2010a). The assessment of specific impacts of LEADER is not well developed; it is addressed to some extent in the qualitative Common Evaluation Questions. Six evaluation questions identified in the Handbook on CMEF, Guidance note B, focus on the specificities of the LEADER method and the other two questions relate to the extent to which the LEADER approach has contributed to the other programme objectives (priorities of Axes 1, 2 and 3). This indicates that the evaluation of the extent to which the policy fosters community involvement in environmental management is not part of the evaluation, unless Member States chose to do so by selecting additional, programme specific indicators within the CMEF.

In order to further operationalise earlier guidance, a common approach and framework was developed for assessing the impact of Quality of Life measures and LEADER, addressed at practitioners (evaluators) and responsible administrations (EENRD, 2010b). This paper recommends the adoption of a three-step methodological approach (EENRD, 2010b, p. 31):

- 1) Regional experts complete the proposed framework of reference by collecting quantitative and qualitative information from various sources and viewpoints through a range of

methods (participative self-assessments, focus groups, surveys, stakeholder interviews, case studies, Most Significant Changes monitoring, Potential and Bottleneck Analysis).

- 2) Hold a series of facilitated group meetings with a selected panel (including administrative officials, LAG executive, private stakeholders, beneficiaries of measures, experts, entrepreneurs, farmers, NGOs) where evaluation criteria are highlighted and additional information can be compiled.
- 3) Make a final judgement on the evaluation questions and confront these judgements with the baseline situation, using a multi-criteria rating tool.

Finally, the analysis will consider the three axes of the framework by means of answering questions that are cutting across the three clusters. Relevant questions to consider with regard to the institutional, geographical and temporal 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? What time lags are expected? How does time influence natural and social processes, and which uncertainties are acknowledged?

6 Conclusions

In this paper we suggest a common approach and framework for the evaluation of policies, in particular the evaluation of those policies that explicitly aim to foster communities' involvement in the management of their natural environment. Given the lack of a comprehensive framework that provides the conceptual and theoretical context in which individual evaluation exercises can be embedded, we have brought together different theoretical perspectives to develop such a framework. It builds on the concept of complex realities, which we argue 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, can be best understood as part of a complex evolving system (Connick and Innes, 2003).

We caution against applying a reductionist approach, relying on a single theory or discipline, or assuming there is a single ‘true’ result arising from an evaluation. The concept of complex realities 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 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., 2009). We see 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. Mindsets would need to 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 from different sources, relevant stakeholders and relationships can be identified and drawn together for the evaluation.

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 occasionally be justified or indeed affordable. In those cases, we would argue that, in negotiation with beneficiaries 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. In terms of how to operationalise the evaluation of outputs and outcomes, the three-step methodological approach and range of participatory evaluation methods suggested by EENRD (2010b) provides useful guidance.

Looking across the three example policies LEADER, Caring for Our Country and Biosphere Reserves, 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 beneficiaries, straightforward monitoring and uncontested cause-effect relationships.

However, we suggest that the proposed framework is useful for evaluating many of the broad-ranging 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 and in that way help to embed the evaluation into a broader critical reflection of how society tries to achieve sustainable development.

7 Acknowledgements

The idea for this paper was initially developed and funded as part of a EU FP7 Marie Curie Intra-European Fellowship of KP. Her current work is funded by the Scottish Government’s Research Programme 2011-2016. We are grateful to Catherine Allan, Kirsty Blackstock, Kerry Waylen and Bill Slee for helpful comments on an earlier version of this paper. We would also like to thank three anonymous reviewers.

8 References

- Adelle, C., Jordan, A., Turnpenny, J., 2012. Proceeding in parallel or drifting apart? A systematic review of policy appraisal research and practices. *Environment and Planning C: Government and Policy* 30, 400-414.
- Adler, P.S., Kwon, S.W., 2002. Social Capital: Prospects for a New Concept. *The Academy of Management Review* 27, 17-40.
- Althaus, C., Bridgman, P., Davis, G., 2007. *The Australian Policy Handbook*. Fourth Edition. Allen & Unwin, Crows Nest, New South Wales.
- Arabatzis, G., Aggelopoulos, S., Tsiantikoudis, S., 2010., Rural development and LEADER plus in Greece: Evaluation of local action groups. *Journal of Food Agriculture & Environment* 8, 302-307.

- Arnstein, S.R., 1969. A Ladder of Citizen Participation. *Journal of the American Institute of Planners* 35, 216-224.
- Australian Government Land and Coast, 2008. Caring for our country. Outcomes 2008-2013. Department of the Environment, Water, Heritage and the Arts, Canberra, ACT; Department of Agriculture, Fisheries and Forestry, Canberra, ACT, last viewed on 2 February 2014, <http://nrmonline.nrm.gov.au/catalog/mql:1887>.
- Australian Government, 2011. Caring for our Country, Strategic outcomes across six national priority areas, last viewed on 2 February 2014, www.nrm.gov.au/about/caring/priorities/index.html
- Ban, N.C., Mills, M., Tam, J., Hicks, C.C., Klain, S., Stoeckl, N., Bottrill, M.C., Levine, J., Pressey, R.L., Satterfield, T., Chan, K.M.A., 2013. A social–ecological approach to conservation planning: embedding social considerations. *Frontiers in Ecology and the Environment* 11, 194-202.
- Bellamy, J.A., Walker, D.H., McDonald, G.T., Syme, G.J., 2001. A systems approach to the evaluation of natural resource management initiatives. *Journal of Environmental Management* 63, 407-423.
- Berkes, F., 2009. Evolution of co-management: role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management* 90, 1692-1702.
- Berkes, F., Colding, J., Folke, C., 2003. Navigating social-ecological systems: building resilience for complexity and change. Cambridge University Press, Cambridge, UK.
- Blackmore, C., 2007. What kinds of knowledge, knowing and learning are required for addressing resource dilemmas?: a theoretical overview. *Environmental Science & Policy* 10, 512-525.

- Blackstock, K.L., Waylen, K.A., Dunghinson, J., Marshall, K.M., 2012. Linking process to outcomes — Internal and external criteria for a stakeholder involvement in River Basin Management Planning. *Ecological Economics* 77, 113-122.
- Blandford, D., Boisvert, R.N., Hill, B., 2010. Improving the Evaluation of Rural Development Policy. *EuroChoices* 9, 4-9.
- Bohle, H.-G., 2005. Soziales oder unsoziales Kapital? Das Sozialkapital-Konzept in der Geographischen Verwundbarkeitsforschung. *Geographische Zeitschrift* 93, 65-81.
- Bourdieu, P., 1986. The forms of capital, in: Richardson, J. (Ed.), *Handbook of theory and research for the sociology of education*. Greenwood Press, Westport, CT, pp. 241–258.
- Brewer, G.D., deLeon, P., 1983. *The foundations of policy analysis*. Dorsey Press, Homewood, Illinois.
- Bridger, J.B., Luloff, A.E., 1999. Toward an interactional approach to sustainable community development. *Journal of Rural Studies* 15, 377-387.
- Bristow, G., Farrington, J., Shaw, J., Richardson, T., 2009. Developing an evaluation framework for crosscutting policy goals: the Accessibility Policy Assessment Tool. *Environment and Planning A* 41, 48-62.
- Bruckmeier, K., 2000. LEADER in Germany and the discourse of autonomous regional development. *Sociologia Ruralis* 40, 219-227.
- Brunckhorst, D., 2001. Building capital through bioregional planning and biosphere reserves. *Ethics in Science and Environmental Politics* 2001, 19-32.
- Buckley, A., 2007. Beyond conceptual elegance: Local participation and the 'model' Fitzgerald Biosphere Reserve. *Sustaining Gondwana Working Paper Series* 4, , Curtin University of Technology, Australia.

- Cash, D.W., Moser, S.C., 2000. Linking global and local scales: designing dynamic assessment and management processes. *Global Environmental Change* 10, 109-120.
- Coleman, J.S., 1988. Social capital in the creation of human capital. *American Journal of Sociology* 94, 95–120.
- Collins, K., Ison, R., 2009. Jumping off Arnstein's ladder: social learning as a new policy paradigm for climate change adaptation. *Environmental Policy and Governance* 19, 358-373.
- Connick, S., Innes, J.E., 2003. Outcomes of Collaborative Water Policy Making: Applying Complexity Thinking to Evaluation. *Journal of Environmental Planning and Management* 46, 177-197.
- Council of the European Union, 2006. Council Decision of 20 February 2006 on Community strategic guidelines for rural development (programming period 2007 to 2013). *Official Journal of the European Union* L55, 25 February, pp. 20-29, Council of the European Union, Brussels.
- Curtis, A., Ross, H., Marshall, G.R., Baldwin, C., Cavaye, J., Freeman, C., Carr, A., Syme, G.J., 2014. The great experiment with devolved NRM governance: lessons from community engagement in Australia and New Zealand since the 1980s. *Australasian Journal of Environmental Management* 21, pp.175-199.
- Curtis, A., Lockwood, M., 2000. Landcare and Catchment Management in Australia: Lessons for State-Sponsored Community Participation. *Society & Natural Resources* 13, 61-73.
- Curtis, A., Van Nouhuys, M., 1999. Landcare participation in Australia: the volunteer perspective. *Sustainable Development* 7, 98-111.

EENRD, 2010a. Approaches for assessing the impacts of the Rural Development Programmes in the context of multiple intervening factors. European Evaluation Network for Rural Development.

EENRD, 2010b. Capturing impacts of Leader and of measures to improve Quality of Life in rural areas European Evaluation Network for Rural Development.

European Commission, 1996. The Cork Declaration: a living countryside. The European Conference on Rural Development of the Communities, Cork, Ireland, 7-9 November 1996, last viewed on 2 February 2014, http://ec.europa.eu/agriculture/rur/cork_en.htm.

European Community, 2000. Commission Notice to the Member States of 14 April 2000 laying down guidelines for the Community initiative for rural development (LEADER+). Official Journal of the European Communities C139, pp. 5-13, European Community, Brussels.

European Union, 2010. COUNCIL REGULATION (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD). Official Journal of the European Union L 277, pp. 1-40, European Union, Brussels.

Folke, C., Hahn, T., Olsson, P., Norberg, J., 2005. Adaptive governance of socio-ecological systems. *Annual Review of Environmental Resources* 30, 441-473.

Franklin, J., Holland, J., Edwards, R., 2007. W(h)ither Social Capital? , in: Edwards, R., Franklin, J., Holland, J. (Eds.), *Social Capital: Concept, Policy and Practice*, Cambridge, pp. 1-13.

Frys, W., Nienaber, B., 2011. Protected areas and regional development: conflicts and opportunities - presented on the example of the UNESCO biosphere reserve Bliesgau. *European Countryside* 3, pp. 208-226.

- Furmankiewicz, M., Thompson, N., Zielinska, M., 2010. Area-based partnerships in rural Poland: The post-accession experience. *Journal of Rural Studies* 26, pp. 52-62.
- Fürst, D., Lahner, M., Pollermann, K., 2005. Regional Governance bei Gemeinschaftsgütern des Ressourcenschutzes: das Beispiel Biosphärenreservate. *Raumforschung und Raumordnung* 63, pp. 330-339.
- Gray, I., Williams, R., Phillips, E., 2005. Rural community and leadership in the management of natural resources: Tensions between theory and policy. *Journal of Environmental Policy & Planning* 7, pp. 125 – 139.
- Hagedorn, K., 2008. Particular requirements for institutional analysis in nature-related sectors. *European Review of Agricultural Economics* 35, pp. 357-384.
- Hajer, M., Wagenaar, H., 2003. Introduction. In: Hajer, M., Wagenaar, H. (Eds.), *Deliberative Policy Analysis. Understanding Governance in the Network Society*. Cambridge University Press, Cambridge, pp. 1-30.
- Hauser, C., Tappeiner, G., Walde, J., 2007. The Learning region: The Impact of Social Capital and Weak Ties on Innovation. *Regional Studies* 41, pp. 75-88.
- High, C., Nemes, G., 2007. Social Learning in LEADER: Exogenous, Endogenous and Hybrid Evaluation in Rural Development. *Sociologia Ruralis* 47, pp. 103-119.
- Ison, R.L., Maitent, P.T., Carr, S., 1997. Systems methodologies for sustainable natural resources research and development. *Agricultural Systems* 55, pp. 257–272.
- Jones, D., 2005. Chapter 1. Evaluating agri-environmental policy in the OECD. In: OECD, *Evaluating Agri-Environmental Policies: Design, Practice and Results*. Paris, pp. 39–54.
- Juntti, M., Russel, D., Turnpenny, J., 2009. Evidence, politics and power in public policy for the environment. *Environmental Science & Policy* 12, pp. 207-215.

- Kinsella, J., Goetz, S.J., Partridge, M.D., Deller, S.C., Fleming, D., 2010. Evaluating Rural Development Policies for Social and Human Capital Development. *EuroChoices* 9, pp. 42-47.
- Kováč, I., 2000. Leader, a New Social Order, and the Central- and East-European Countries. *Sociologia Ruralis* 40, 181-189.
- Kühne, O., 2010. Das UNESCO-Biosphärenreservat Bliesgau. Standort - Zeitschrift für angewandte Geographie 34, 27-33.
- Lehtonen, M., 2005. Part I. Evaluation design. Key issues. In: OECD, Evaluating Agri-Environmental Policies: Design, Practice and Results. Paris, pp. 37–38.
- Lind, A.E., Tyler, T.R., 1988. The Social Psychology of Procedural Justice. Plenum Press, New York.
- Lockie, S., Higgins, V., 2007. Roll-out neoliberalism and hybrid practices of regulation in Australian agri-environmental governance. *Journal of Rural Studies* 23, 1-11.
- López-Ridaaura, S., Keulen, H.V., Ittersum, M.K. v., Leffelaar P A, 2005. Multiscale Methodological Framework to Derive Criteria and Indicators for Sustainability Evaluation of Peasant Natural Resource Management Systems. *Environment, Development and Sustainability* 7, 51-69.
- Lovan, W.R., Murray, M., Shaffer, R., 2004. Participatory Governance: Planning, Conflict Mediation and Public Decision Making in Civil Society. Ashgate Publishing, Aldershot.
- Lübke, S., Neumann, U., Nienaber, B., Spellerberg, A., 2012. Sozial-ökonomische Untersuchungen im Biosphärenreservat Bliesgau. Eine erste Bilanz der Bevölkerungssicht und regionalökonomischer Erfolge. *Naturschutz- und Landschaftsplanung* 44(11), 333-340.

- Margerum, R. 2008. A Typology of Collaboration Efforts in Environmental Management. *Environmental Management* 41, 487-500.
- McCarthy, D.D.P., Crandall, D.D., Whitelaw, G.S., General, Z., Tsuji, L.J.S., 2011. A Critical Systems Approach to Social Learning: Building Adaptive Capacity in Social, Ecological, Epistemological (SEE) Systems. *Ecology and Society* 16.
- Mortimer, S., Mauchline, A., Park, J., Finn, J., Edwards, D., Morris, J., 2010. Evaluation of Agri-Environment and Forestry Schemes with Multiple Objectives. *EuroChoices* 9, 48-54.
- Mues, C., Roper, H., Ockerby, J., 1994. Survey of Landcare and Land Management Practices: 1992-93. ABARE Research Report 94.6, Australian Bureau of Agricultural and Resource Economics, Canberra.
- Nienaber, B., Lübke, S., 2010. Die Akzeptanz der Bevölkerung ländlicher Gemeinden zur Ausweisung eines UNESCO-Biosphärenreservates am Beispiel der saarländischen Biosphäre Bliesgau. *Europa Regional* 18, 122-136.
- North, D.C., 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge University Press, Cambridge.
- OECD, 2006. *The new rural paradigm: policies and governance*. OECD Rural Policy Reviews, Paris.
- OECD, 2010. *Agricultural Policies and rural development - a synthesis of recent OECD work*. Paris.
- Ostrom, E., 1999. Institutional rational choice: an assessment of the institutional analysis and development framework. In: Sabatier, P.A. (Ed.), *Theories of the policy process*. Westview Press, Boulder, CO, pp 35-71.

- Ostrom, E., 2009. A General Framework for Analyzing Sustainability of Social-Ecological Systems. *Science* 325, 419-422.
- Pfueller, S.L., 2008. Role of bioregionalism in bookmark biosphere reserve, Australia. *Environmental Conservation* 35, 173-186.
- Plummer, R., Armitage, D., 2007. A resilience-based framework for evaluating adaptive co-management: Linking ecology, economics and society in a complex world. *Ecological Economics* 61, 62-74.
- Plummer, R., Armitage, D., de Loe, R., 2013. Adaptive Comanagement and its Relationship to Environmental Governance. *Ecology and Society* 18.
- Plummer, R., Fitzgibbon, J., 2007. Connecting Adaptive Co-management, Social Learning, and Social Capital Through Theory and Practice., In: Armitage, D., Berkes, F., Doubleday, N. (Eds.), *Adaptive Co-Management: Collaboration, Learning, and Multi-Level Governance*. UBC Press, Vancouver, Canada, pp. 38-61.
- Portes, A., 1998. Social capital: its origins and applications in modern sociology. *Annual Review of Sociology* 24, 1-24.
- Prager, K., 2010. Local and regional partnerships in natural resource management: The challenge of bridging institutional levels. *Environmental Management* 46, 711-724.
- Prager, K., Schuler, J., Helming, K., Zander, P., Ratinger, T., Hagedorn, K., 2011. Soil degradation, farming practices, institutions and policy responses: An analytical framework. *Land Degradation & Development* 22, 32-46.
- Pretty, J., Ward, H., 2001. Social capital and the environment. *World Development and Change* 29, 209-227.
- Putnam, R.D., 1993. *Making democracy work: Civic traditions in modern Italy*. Princeton University Press, Princeton.

- Rauschmayer, F., Berghöfer, A., Omann, I., Zikos, D., 2009. Examining processes or/and outcomes? Evaluation concepts in European governance of natural resources. *Environmental Policy and Governance* 19, 159-173.
- Ray, C., 1998. Territory, structures and interpretation - Two case studies of the European Union's LEADER I programme. *Journal of Rural Studies* 14, 79-87.
- Ray, C., 2000. Editorial. The EU LEADER programme: Rural development laboratory. *Sociologia Ruralis* 40, 163-171.
- Ryan, S., Broderick, K., Sneddon, Y., Andrews, K., 2010. Australia's NRM Governance System. Foundations and Principles for Meeting Future Challenges. Australian Regional NRM Chairs, Canberra, last viewed on 2 February 2014, <http://www.nrmnorth.org.au/client-assets/documents/corporate/nrm/NRM%20Governance2.pdf>
- Schliep, R., Stoll-Kleemann, S., 2010. Assessing governance of biosphere reserves in Central Europe. *Land Use Policy* 27, 917-927.
- Serageldin, I., 1996. Sustainability as Opportunity and the Problem of Social Capital. *The Brown Journal of World Affairs* 3, 187-203.
- Shortall, S., 2008. Are rural development programmes socially inclusive? Social inclusion, civic engagement, participation, and social capital: Exploring the differences. *Journal of Rural Studies* 24, 450-457.
- Shucksmith, M., 2000. Endogenous development, social capital and social inclusion: Perspectives from LEADER in the UK. *Sociologia Ruralis* 40, 208-218.
- Shucksmith, M., 2010. Disintegrated Rural Development? Neo-endogenous Rural Development, Planning and Place-Shaping in Diffused Power Contexts. *Sociologia Ruralis* 50, 1-14.

- Sobels, J., Curtis, A., Lockie, S., 2001. The role of Landcare group networks in rural Australia: exploring the contribution of social capital. *Journal of Rural Studies* 17, 265-276.
- Sofsky, W., Paris, R., 1991. *Figurationen sozialer Macht. Autorität, Stellvertretung, Koalition.* Suhrkamp, Frankfurt am Main.
- Spaey, P., Leloup, F., 2000. Formative Evaluation and Organizational Learning: The Case of the Belgium Postal System. In: Leeuw, F.L., Rist, R.C., Sonnichsen, R.C. (Eds.), *Can Governments Learn? Comparative Perspectives on Evaluation.* Transaction Publishers, New Brunswick, New Jersey, USA, pp. 107-125.
- Stocker L., Kennedy D., 2009. Cultural Models of the Coast in Australia: Toward Sustainability. *Coastal Management* 37, 387-404.
- Storey, D., 1999. Issues of integration, participation and empowerment in rural development: The case of LEADER in the Republic of Ireland. *Journal of Rural Studies* 15, 307-315.
- Thuesen, A.A., 2010. Is LEADER Elitist or Inclusive? Composition of Danish LAG Boards in the 2007-2013 Rural Development and Fisheries Programmes. *Sociologia Ruralis* 50, 31-45.
- UNESCO, 1996. *Biosphere reserves: The Seville Strategy and the Statutory Framework of the World Network.* UNESCO, Paris, last viewed on 2 February 2014, <http://unesdoc.unesco.org/images/0010/001038/103849eb.pdf>
- Valve, H., 2002. Implementation of EU rural policy: is there any room for local actors?: The case of East Anglia, UK. *Landscape and Urban Planning* 61, 125-136.
- Van Herzele, A., Dendoncker, N., Acosta-Michlik, L., 2011. Mobilisation capacity for agri-environmental management. *Journal of Environmental Management* 92, 1023-1032.

- Wakeford, R., 2010. Evaluation of Rural Development Requires Clarity on Expected Outcomes. *EuroChoices* 9, 37-41.
- Webb, T., Cary, J., 2005. Social capital and natural resource management: an application to Landcare. *Rural Society* 15, 119-131.
- Woolcock, M., Sweetser, A.T., 2002. Social capital. The Bonds that connect. *ADB Review* 34, 26-27.
- Worthen, B.R., Sanders, J.R., Fitzpatrick, J.L., 1997. Program Evaluation: Alternative Approaches and Practical Guidelines. Longman Publishers, White Plains, NY.