

OPERAs

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APPLICATIONS



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Milestone 3.6

Set of generic questions sent to selected exemplars regarding salient characteristics of ES/NC and stakeholders.

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1. Introduction

One of the aims of the Task 3.4 (institutional structure and governance systems) is to provide theoretical insights on governance arrangements of ecosystem services. In doing so, we emphasise that governance must focus on ecosystem functioning rather than ecosystem services otherwise there is a risk of gradually undermining the ecosystem that delivers the services. Hence we see this document primarily as a link between theories of governance and theories of ecology.

2. What is governance?

The term governance emerged as reaction to previously a narrow focus on government as the prime actor in shaping society. Governance implies the recognition that many more actors and structures are at play and they interact in myriad ways. There is no universally accepted definition of governance but there is wide agreement that new forms of regulation and management that go beyond traditional hierarchical state activity and involves public and private actors as well as civil society. Governance most often implies certain degrees and forms of self-regulation among actors and coalitions such as public-private cooperation. For an overview, please refer to (Biermann 2007).

Studies of governance in relation to ecosystem services and in the context of OPERAs includes but also goes beyond the traditional study of environmental policy. Particularly the studies of social and cultural values (Task 3.2) require a broader approach than a focus on environmental policy. Such values are often poorly represented in policies and may be expressed through social movements.

3. Relationship between ecosystem services and ecosystem function

Ecosystem services was launched as a metaphor in the early 1990s to increase the awareness of how societies and human well-being are dependent on a myriad of goods and services produced and delivered by ecosystems (Costanza and Daly 1992). The idea behind formulating the concept was to facilitate the communication with lay people about the complexity of ecosystem functions and the value of resulting ecosystem services, for instance, how these contribute to economic production. But we must remind ourselves that the notion of ecosystem services must not be severed from the ecosystem functions responsible for delivering and maintaining the services. The governance of ecosystem services must aim at guaranteeing the integrity of ecosystems at large in order to secure the sustainability of the services.

The popularity of the concept increased dramatically with the publication of the Millennium Ecosystem Assessment (Reid, Mooney et al. 2005). Simultaneously and in combination with increasing market fundamentalism, ecosystem services have become an important notion and driver in the commodification of ecosystems and increasingly come to represent a simplification of the ecosystem functions that underlie them (Norgaard 2010). There is a risk that the concept of ecosystem services is further co-opted by the strong neo-liberal agenda prevailing in the EU, leading to a undermining of ecosystems instead of conservation and restoration.

4. Three modes of governance

Science and governance arrangements interact in complex multi-level dialogues to formulate strategies and pathways aiming at sustainability. Such strategies are intimately and mutually related to scientific understandings, as well as to the political and economic context in which science is pursued. Policies are often not the results of a rational and logical reasoning underpinned by science, but the results of complex bargaining, influenced by myriad interests, many of which are counter to the issue. There are several governance options available for states, marketization, regulation and democratisation, but any governance arrangement will ultimately comprise a mix of all three modes.

4.1. Marketization

The public sector increasingly adopts values and practices from the private sector in fields such as health, education and environmental management. This marketization trend is ubiquitous but particularly strong in transitional economies with rapid industrialisation (Rigg 2006). As a response to the threat of global climate change a global carbon market was created and a new 'carbon economy' as a result. The current global climate policy regime relies to a large extent on market mechanisms such as emissions trading, joint implementation and the Clean Development Mechanism. Regarding adaptation to climate change, insurance as an adaptation strategy represents a rapidly growing market where major financial players are increasingly active. Payments for ecosystem services (PES) is yet another emerging tool, applied from local to international levels, for the management of natural resources, such as biodiversity, water and soils (Pagiola, Arcenas et al. 2004). In the development debate, market integration is often described as a panacea (Sachs 2005). While proponents of marketization argue that markets are most effective for dealing with problems, opponents fear that this will compromise values related to democracy, citizenship (Eikenberry and Kluver 2004) and equity (Rigg 2006). Thus, in the context of the research agenda on sustainability challenges, marketization has to be scrutinised for its effectiveness and its impact on social justice.

4.2. Regulation

There are profound challenges regarding legal regulations of sustainability. While environmental problems are often trans-boundary and trans-jurisdiction, much regulation is based on national law. New forms of regulative bodies transcending the nation state are therefore needed. Since there is no legal bearer of a right belonging to future generations, contemporary law is challenged by the intergenerational approach to sustainability. We therefore need more emphasis both on regulatory techniques and ethical principles (Gunningham, Kagan et al. 2003). One initiative in this direction is seen in climate politics with the concept of the 'ensuring state' that serves as catalyst, facilitator and provider of guarantees in relation to both citizens and other states; this would imply a new form of strong state (Giddens 2009). The global research programme Earth System Governance aims to contribute to new forms of governance at the planetary (and local) level (Biermann, Betsill et al. 2009). A suggested task here is to critically rethink contemporary regulative processes from a normative perspective.

4.3. Democratisation through deliberation

The strong deliberative turn in democratic theory during recent decades speaks to an emerging concern with the distance between the interests and motives of citizens and the decisions made in

their name (Smith 2003). A growing scholarship today questions liberal democratic institutions by pointing at the lack of voice of citizens and the poor representation of ecological values in decision-making processes (Dryzek 1997, Eckersly 2004). Deliberative democratic theory has evolved as a response to this perceived weakness of liberal democracy. It seeks both to democratise and to 'green' policy discourses by increasing the opportunities for citizens to engage in decisions that affect their lives and surrounding environment (Dobson 2003). The deliberative project also extends to the international arena and has been forwarded as a strategy that can bridge the democracy deficit in governance arrangements beyond the state (Nanz and Steffek 2005) and foster a trans-national green public sphere (Dryzek 1997). Research in this sub-theme should seek to examine how 'democratisation through deliberation' plays out in the environmental domain. We are particularly concerned with the potential synergies and tensions between the substantive and procedural aspects built into the deliberative project. As Goodin (1992) famously claimed, "(t)o advocate democracy is to advocate procedures, to advocate environmentalism is to advocate substantive outcomes." Hence, how and to what extent can a deliberative model of democracy represent a pathway towards sustainability?

5. Key questions for assessing the governance of ecosystem services

In order to understand governance and institutional dimensions of the OPERAs exemplars, we formulate a set of generic questions that are important for our research. The answers to these questions will form the basis for the deliverable 3.6: A portfolio of ideal types of (public and private) governance modes for selected ES/NC.

5.1. Intersecting policies at EU, national and local level

At the European Union level a variety of intersecting policies exist which have implications for the management of ecosystems and, subsequently, ES/NC. One prominent example at the EU level which has implications at different levels is the water framework directive (WFD) which sets up the future frame for the regulation and protection of water resources in Europe, comprising lakes, streams, coastal waters and groundwater. The WFD summarises much of the European experience of pollution, water quality and ecosystem management, and it represents a new and comprehensive way of source-to-sink thinking, where the primary goals are to achieve the desired quality of the water resources, to ensure that there is enough clean water for different uses (EEA, 2012). Another prominent example regarding biodiversity policies is the Natura 2000 network, comprising Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) derived from the Birds Directive, which represents the main mechanism in place to protect habitats of special interest and the species they contain. This network is part of the larger Emerald Network of the Council of Europe under the Bern Convention, which also provides for protected areas in Council of Europe Member States outside the EU.

- Which policies have a direct or indirect effect on the management approaches in the exemplars and its ES/NC aspects?
- How are these policies being implemented?
- Who oversees policy implementation?
- Are some of these policies leading to contradictory or management objectives?
- To what extent do these policies take ecosystem functions into account?

5.2. Jurisdictions involved and affected

The extent to which ecosystems, its functions and ultimately ecosystem services can be managed is subject to legal restrictions, which in turn are subject to the jurisdiction that applies (European, national or federal state).

- Which jurisdiction(s) applies in the exemplar cases?
- Are there legal rules that aim specifically at ecosystem functions or ecosystem services?
- Are these jurisdictions overlapping, contradicting, complimentary?

5.3. Property rights arrangements

Property rights arrangements are important for ecosystem services, but even more important for the ecosystem functions underlying the services. Proceeding from Carruthers and Ariovich (2004) we define five main categories of questions that we are interested in:

- What can be owned? For example, if a person owns a piece of land does it also imply that she owns the water flowing through the property, or the insects pollinating plants, or minerals that might be found in the ground?
- Who can own? In the simplest case, we individuals and legal entities, such as a company or an organisation, can own property. But are there other entities that could own property? For example, in South Africa there is legislation regulating that enough water must be left in rivers to sustain an acceptable natural environment, prior to any allocation for economic purposes (Muller, Schreiner et al. 2009). This is an interesting question from a property rights perspective, can nature own water, and if so, who owns nature?
- What can be done with it? Ownership does not automatically imply unrestricted user-rights, but such restrictions vary from place to place and also with type of property.
- How can ownership be maintained? In some cases the maintenances of ownership is straightforward, for example in the case of private ownership of real estate that is registered by an authority. But there are many examples where ownership is fuzzy and contested. The concept of entitlements by Amartya Sen could be applied in some cases (Sen 1981, Leach, Mearns et al. 1999).
- How can ownership be transferred? Buying and selling in the market is perhaps the most common way of transferring ownership, but definitely not the only way. Can ownership for example be transferred to future generations? What happens to user-rights when ownership is transferred?

5.4. User rights

Are there user rights that are different from property rights (de-facto rights and de-jure rights)? How are user rights maintained and how can they be transferred? Many of the five key questions under property rights are also applicably to user rights.

5.5. Spatial scale

These questions concerns the definability and spatial extent of the ecosystem services and their underlying ecosystem functioning. For example, in the context of water provision or flood regulation,

the definability of the system and its spatial limits are exact, namely a watershed. But in the case of pollination services, the limits and spatial extent of the ecosystem functioning and services are hard to determine.

5.6. Temporal scale.

Are there lags and inertia in the relationship between ecosystem functioning and the ecosystem services? Lags and inertia increases the risk of undermining the ecosystem services. For example we can degrade soils for a long time without reducing the ecosystem service if nutrients are replaced through other means than the natural nutrient cycling. But ultimately there will be a reduction in the services provided by the soil which may take very long time to restore.

5.7. Stakeholders

What are the most important stakeholders of different categories (state, private, civil society)? Are people who live in and around the exemplar areas able to partake in shaping decisions regarding their present and future management?

5.8. Power relationships among stakeholders

What are the most important power relationships among the stakeholders. Could these power relationships be presented in a two-dimensional space of stake (x-axis) and power (y-axis)?

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