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EPI in Multi-Level Governance – A Literature Review

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EPIGOV is a research project on the modes of governance employed at global, EU, national and regional/local levels to support the integration of environmental concerns into other policy areas. Relevant policy areas are, for example, transport, agricultural, and energy policy. Running over three years (2006-2009), EPIGOV brings together nineteen research institutions from ten European countries.

EPIGOV aims to co-ordinate and synthesise existing research on environmental policy integration and multi-level governance and to generate new research questions and initiatives. To obtain feedback and disseminate results, EPIGOV will also involve policy-makers and non-state stakeholders.

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1. **INTRODUCTION**

In the literature reviewed in this report, Multilevel governance (MLG) is used to describe situations in which governance and policy making is best understood as a process not only dominated by actors centrally located in nation states. The term indicates that policy formation and political authority is significantly influenced or transferred to other levels; either upward to a supranational arena, downward to local or regional contexts, or sideways to other networks of actors than traditionally in control of policy formation.

There is obviously a very broad area of research that discusses MLG using concepts from the paragraph above and the scope of this review - covering “EPI and MLG” - only allows a rather limited study. Furthermore, since the overarching theme of the EPIGOV project as such is the topic of the review, no attempt will be made to summaries all literature relevant for this project (that is EPI at the full range of levels) as this has been done in other literature reviews and throughout the length of this project. Approaching EPI and MLG in this review will therefore primarily be an effort grounded on two sets of review and search criteria’s, capturing; i) studies that explicitly identify and use both of the two concepts EPI and MLG; and ii) key studies on EPI that discuss Multilevel tiers in the form of interaction between levels of governance. In addition, a short outlook into the use of MLG in the relevant governance literature close to EPI will be conducted, but this approach in general leaves out the final potential starting point; of reviewing MLG studies broadly for cases describing EPI, although not using the “EPI” terminology.

1.1. **Outline of the review**

The review is organised around themes covering key differences in how of EPI and MLG is discussed. The rest of the review is thus organised as follows: In the second section, the literature is reviewed for key conceptual motivations as to why multilevel tiers is important in understanding EPI. This includes the key pieces used in the EPI literature that provides a clear definition of MLG. The third, main part of the review is divided in to several sections over key themes discussed in the review.

a) How multilevel is EPI?

b) Integration into what (what deterrent subjects/how is ML interpreted)?
c) What are the most important outcomes due to ML tiers?

Sections four then offers a limited outlook to literature close to the EPI literature with interesting application of MLG, and finally, section five concludes.

2. Why study MLG?

2.1. Key motivations in literature for MLG

Two types of motivations can be found in the literature: The first is summarised by (Marks and Hooghe 2004: 16) as follows: “Because Externalities from the provisioning of public goods vary immensely – from planet-wide in the case of global warming to local in the case of most city services – so should the scale of governance.” with the original text in (Hooghe and Marks 2001: 4). Several other authors discuss this topic (Bache and Flinders 2004; Betsill and Bulkeley 2006: 151; Paavola 2007: 99). It is noteworthy that this motivation for multiple scales of governance in Bache and Finders book on Multilevel Governance draws on the classical problem of provisioning of public goods. This indicates that there are close linkages between the concepts of MLG and public goods. Indeed, the externalities in the quote above are key areas of research in the EPI literature. Furthermore, the literature on collective action and the governing of commons has long argued for devolution of authority to the local level ever since successful cases were clearly identified all around the world by (Ostrom 1990) that has evolved into a theory of polycentric governance (Andersson and Ostrom 2008). Interesting linkages on the use of Multilevel governance in the EPI literature and literature on natural resource management will therefore be discussed later in this review.

Secondly, the evolution of MLG has followed from the desire to understand EU as a political system (Bache and Flinders 2004: 1), (Baker 2003:26), and many others), as it is viewed as a new type of polity that doesn’t fit traditional theories describing interactions between nation states such as Liberal Intergovernmentalism (Fairbrass and Jordan 2004: 151-152). Instead the EU is viewed as a network of actors at different levels; and within EU and between EU, international, and subnational actors, interactions between institutions form (Oberthür and Gehring 2006). In order to understand EPI at different levels, it is hence crucial to understand the interactions between levels, and old hieratical models of governance are not sufficient. MLG is therefore part of a broad debate in social and political science on the role of the nation state, both in reference to
supranational actors such as EU and in terms of the growing importance of local actors (See for example (Pierre and Peters 2005)). Environmental policy in turn, is a prime example of this changing role of nations states, and hence naturally contains multilevel governance features (Eckerberg and Joas 2004: 407). A remark is also in this case appropriate: Both of the two concepts MLG and EPI have primarily been discussed in a European context by European Scholars. This is the case since EU constitutes both the most evident Multi-level governance structure and is therefore “an excellent case for ML study” (Fairbrass and Jordan 2004: 148), and furthermore; EU is at the centre of most studies on EPI.1

These two views on MLG can also be linked to two viewpoints on what processes that primarily give rise to ML tiers. Paavola (Paavola 2007) gives a good summary discussing both bottom up and top down origins of MLG. “Multi-level governance solutions may emerge because an upper level of governance is established to coordinate between lower-level solutions, or because lower levels of governance are established to implement higher-level strategies.” (ibid: 98). Paavola makes the argument that both bottom up and bottom down processes create multi-level governance solutions and “[These] processes often generate nested institutional structures” (ibid: 99).

2.2. What is MLG?

Before the EPI literature is being reviewed and organised according to how MLG is being motivated and applied, it is necessary to clarify a key feature of MLG. Peters and Pierre (Peters and Pierre 2004) offers a good set of descriptions of what “Multilevel Governance is” (ibid, p77-81)

1) “it is governance” (as apposed to government)
2) “refers to a particular kind of relationships between several institutional levels” not hierarchically ordered, but “have a more complex and contextually defining relationship”
3) “denotes a negotiated order rather than an order defined by formalized legal frameworks”
4) “frequently conceived of as a political game”

Hooghe and Marks describe is as a process of dispersion of power: “dispersion of authority away from central government – upwards to the supranational level, downwards to subnational jurisdictions, and sideways to public/private networks.”
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(Howe and Marks 2001: 3). Although the descriptions by Peters and Pierre illustrate the rational behind MLG in general in the contemporary discussion on governance, more relevant to the concept of EPI this the very concretely introduced institutional dimensions introduced by Hooghe and Marks. The dispersion of power in MLG is in essence organised at two dimensions, and these dimensions of integration appears throughout the EPI literature; Vertical (upwards / downwards) and Horizontal (sideways). How these dimensions are used in the key EPI literature needs to be further explored and is the topic of the first part of the following section.

3. EPI and MLG

3.1. EPI and Horizontal and Vertical integration

A natural starting point for this review is the most cited references on EPI. Even though (Steurer 2008, forthcoming) concludes that “most EPI literature (except on the EU environmental policy-making) pays generally little attention to multi-level challenges”, few studies on EPI completely avoid discussing relationships between levels of governance. Furthermore, the studies that do apply the concept directly (as indicated above, primarily studies on EU environmental policy making) have significantly contributed to the evolution of the concept of MLG in relation to environmental governance.

As indicated by Steurer (Steurer 2008, forthcoming) there are, however, two categories in the EPI literature that quite naturally arise given their treatment of layers of governance. The categorisation is here made, not on the application of a particular definition of MLG, but on the use of the Vertical institutional dimension. EPI or Policy Integration in general, with references to a vertical dimension, tends to be defined or conceptualised differently in the literature. Before this is explored in greater detail, a description of the Horizontal dimension of MLG is first appropriate.

*Horizontal dimension – aspects of MLG integral to EPI*

With no exceptions, the EPI literature discuss integration cross sectors as the central challenge. Integration of concerns sideways; e.g. from the ministry of environment, into the sector ministries of industry, transport, or agriculture etc. is the core idea of EPI (Lenschow 2002; and many others; Nilsson and Eckerberg
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2007; Jordan and Lenschow 2008, forthcoming). The literature appears coherent in the way the horizontal dimension is interpreted, and it is built in to the concept. "[H]orizontally policy matters" and it means to integrate of a particular issue "cross sectors" (Lenschow 2002: 5).

Also in MLG terminology the horizontal dimension constitutes a sideway "dispersion of power". To some extent, the two concepts are thus very close to each other, but few EPI studies has focused the attention to a dispersion of power to other then different policy actors. Indeed, as Jordan and Lenschow (Jordan and Lenschow 2008, forthcoming) discuss EPI in their forthcoming book; EPI in the EU, the nation state, and subordinate levels of government are “the most appropriate focus of studies for EPI” since outside these “no legal mandate for decision making exist” (Jordan and Lenschow 2008, forthcoming). That is, EPI needs a government context to be integrated into. According to this view - and as is evident in this report - most of the literature on MLG and EPI is chiefly about the vertical ML tiers.

Vertical dimension as hierarchical dimension cross jurisdictions

In this section the reviewed literature more often applies a definition of MLG, and studies on EU as a ML polity dominates. The central problem studied here is not only integration of environment into policymaking at a specific governance level, but studies of the difficulties and opportunities arising precisely from the layered reality of EU.

In the first book on EPI in the EU Lenschow (Lenschow 2002) applies a broad interpretation of the vertical dimension and use the multilevel concept to describe EU. Vertical tiers along the dimension ‘EU - member state’ are here concluded as “important for learning and reform” (Lenschow 2002: 220). The study is a study that embrace the idea of EU as a “multilevel polity” (ibid: 223), but the concept is not used further then to analyse EU and its member states. Other work on national studies such as (Nilsson 2005) can be mentioned as relevant since it entails discussion on EPI in EU vs. Sweden, similar in approach to (Lenschow 2002). Indeed, factors influencing EPI in Sweden are factors form multiple levels (Nilsson and Eckerberg 2007: 141).

This discussion however existed before Lenshow’s book (Jordan 1999a; Jordan 1999b) but following this landmark piece, the application of EPI to the European level has continued to evolve. Shout and Jordan (Schout and Jordan 2005)
discuss that EU is relying more and more on network-type solutions to deliver EPI, since persistent hierarchical (vertical) problems of implementation is the case. Implementation and coordination of EU policy, and the interplay between member states and EU forms a distinctive application of the vertical dimension (Jordan 1999a; Jordan 1999b; Lenschow 2002; Baker 2003; Hoornbeek 2004).

Without venturing to far into a review of EPI at national level, it is worth mentioning here that EU regulation influence EPI in nations in different ways. In Nilsson and Eckeberg (2007) the importance of international commitments and interactions, as well as local actors act as knowledge providers, and this demonstrate that national EPI (at least in Sweden) is clearly situated in a landscape of multi-level governance with this definition of the vertical dimension.

At this point is it appropriate to re-iterate the most commonly used definition of MLG. Hooghe and Marks discusses used of MLG and conclude that “Each of these terms has its own particularities, but all refers to the dispersion of authority away from central government – upwards to the supranational level, downwards to subnational jurisdictions, and sideways to public/private networks.” (Hooghe and Marks 2001: 3) Furthermore, they provided a typology of MLG, identifying two types. Not all studies reviewed in this section apply this (or any other) definition, but all fit the description of dispersion of power, and influences of different networks of actors. Fairbrass and Jordan (2001; 2004) are examples, but the application also stretches outside that of the traditional EPI literature (Betsill and Bulkeley 2006).

Although strictly outside of the EPI literature, the latter study on the “Cities for Climate Protection” is an example of a study that apply the same Vertical dimension of MLG as used in environmental policy by Bache and Flinders (Bache and Flinders 2004). The contribution of this literature to the EPI field is that it further highlights that this vertical dimension includes not only EU as a supranational dimension, but also other international institutions. However, in terms of EPI, (Jordan and Lenschow 2008, forthcoming) gives an clear message that EPI is best applied at EU level, national, and sub-national level; because “Outside the EU no legal mandate for decision making exists above the nation state, making this level with sub-national levels of government the most appropriate focus for studies for EPI.” As the discussion of “integration of environment into what” will reappear later in this review, this section only concludes that this first type of vertical dimension of EPI applied in the literature
in principal stretches from the local, subnational levels of governance, up through nation states, to supranational in the case of EU.

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**Vertical dimension as central control, and coordination of sectors**

Among the most cited articles on EPI, however, several scholars apply a slightly different interpretation of the vertical dimension. Whereas studies on EPI in the previous section – both with nations being the subject and studies of EU per se – apply a hierarchical vertical dimension spanning several jurisdictions, this second category of the literature keep the analysis to a single level of governance, and the hierarchies therein.

Lafferty and Hovden (Lafferty and Hovden 2003) refers to vertical integration, or Vertical Environmental Policy Integration (VEPI) as “indicating the extent to which a particular governmental sector has adopted and sough to implant environmental objectives as central in the portfolio of objectives that the governmental body continuously pursues” (ibid: 12). And further; “The dimension looks at the degree of EPI within the steering domain of the individual department or ministry.” (ibid:13). Along the same lines are Hertin and Berhout (Hertin and Berkhout 2003) when they discuss both integration “internal to ministries”, and horizontal integration cross sectors. Another example from the governance literature on this application of vertical integration can be found in (Pierre and Peters 2005: 138).
This use of the word ‘vertical integration’ is in this context ‘government oriented’, and refers to compliance to procedures and strategies from central bodies within a particular ministry or between central government and a ministry. The actors are the ministries/departments, and central government; or, as in the case of Hertin and Berhout (2003) the corresponding actors at EU level. These studies gain some in precision of the application of the concept EPI, but on the other hand the value of this distinction between horizontal and vertical EPI has been criticised as relevant only if highly separated self-contained policy sectors (Persson 2007). This might be true for the EU (Weale, Pridham et al. 2000), but not necessarily universal, as in the case of Sweden (Nilsson and Eckerberg 2007) and other national studies on EPI.

To summary; all the literature discussed in this category use Vertical primarily referring to intra Government, whether on EU level (Weale, Pridham et al. 2000; Hertin and Berkhout 2003) or national level (Walti 2004). The latter study by Walti present a comparative study investigating how ML structures affect environmental policy in several countries that will be discussed more in the following sections.

It is hence clear that the different perspectives on EPI is both relating to ‘what to integrate’ into sectoral policymaking; just the environment (as Lenschow (2002) and Nilsson and Eckerberg (2007) and many others) or sustainability in general, giving it higher “principal” priority (Lafferty and Hovden 2003), and a debate on ‘what to integrate into’. This in turn explains differences in how MLG is conceptualised and used. Steurer again provides a good summary (Steurer 2008, forthcoming): “Crucially, while EPI is concerned with cross-sectoral policy integration within a particular jurisdiction, SD strategies should seek to balance social, environmental and economic goals in the short and long term across jurisdictions, with a strong input form different stakeholders.”(emphasis added).

How MLG is conceptualised can be explored based on the jurisdiction at primary focus in each study, and the following section will provide such an overview.

3.2. Conceptualisations of EPI and MLG - Integration into what?

How does the literature conceptualise integration of environment in a MLG framework? This section explores how different authors relate to MLG given the primary subject of investigation. As highlighted previously in this review, the prime case in the EPI literature regards interactions between EU and member
states and EU and subnational levels of governance. This section thus starts with a review of MLG in terms of interactions with and within the EU.

The interactions between EU and member states and between EU and subnational levels

Studies in this part of the literature chiefly discuss MLG and environmental policy in EU in terms of a coordination problem (i.e. the implementation of EU directives) but also the opportunities for EPI given the linkages between subnational levels and EU. Fairbrass and Jordan (Fairbrass and Jordan 2004: 155-162) provides examples of implementation of four directives, all showing clear evidence of Multi-level governance (multiactorness, unpredictability and complexity), and in which, chiefly, the outcomes was not predictable for states. This unpredictability for the nation state is also highlighted by Weale and Prideham (Weale, Pridham et al. 2000). Using the perspective of Neo-functionalism which lies close to MLG idea, unforeseen developments due to ML tiers is key evidence that a bottom up approach needed.

A number of scholars belong to this category; many of them taking as a starting point the problem with top down Implementation of EU policy. Schout and Jordan (Schout and Jordan 2005) for example argue that “EU are now relying more and more on network-type solutions to deliver EPI, since hierarchical means to deliver greater EPI is difficult because of persistent implementation problems” (ibid: p203). The ML nature of EU combined with a lack of strong enough vertical links means that another type of governance is viewed as potentially more successful. This type relies on networks and dispersion of power and responsibly among the actors within these networks. The discussion is centred on EU, as a supranational actor, that is influencing EPI. Apparently, supranational actors has decisive role, i.e. the top down dimension remains very important (Fairbrass and Jordan 2004) p151-152, but not by enforcing strong vertical pressure on the member states, but in the opening up for subnational actors to influence EU directly. The debate can be described as Intergovernmentalism vs. MLG (Fairbrass and Jordan 2001), using two schools of thought on European integration. Fairbrass and Jordan in this discussion uses Hooghe and Marks as ‘the’ MLG theory and “The inevitable corollary” in there view is that power is increasingly shared across levels of governance” (ibid: 506). Although the nation states within EU still has the power to “resist” directives (including those with relevance for EPI), they are still weakened due to the truly ML reality of EU. This
way of “attributing a significant role to supranational and subnational level actors” leads to the central discussion of the phenomenon of bypassing the nation state (see figure in, ibid: 501). Although most of the EPI literature discusses EPI as integration at a particular governmental level, primarily the nation state level, actually bypassing the national level, thanks to the multilevel tiers, is thus argued to result in better EPI. Concrete examples of this can be found in a number of studies.

Weber and Christophersen explicitly discuss coalitions between NGOs and EU level actors (Weber and Christophersen 2002). The study of how environmental NGOs have bypassed the national level and gained access to European Parliament and European Court (ibid: 2). Using the theory of Advocacy coalitions (see for example (Sabatier, 1999)) the conclusion is that a coalition between Commission (in terms of DG environment), and WWF evolved. ((Weber and Christophersen 2002):10), in effect bypassing national level policymaking. Also Fairbrass and Jordan uses environmental groups as an example “Perhaps the main contribution of environmental groups is to have given credibility and legitimacy to the actions of supranational actors such as the Commission an the Court, who have been the prime movers in advancing European integration in this particular policy domain.” (Fairbrass and Jordan 2001): 514.

It should be emphasised that this literature on EU and EPI primarily focuses on the role of EU as a supranational actor and the top down aspects of MLG. The way that EU influence member states, although not directly, is at heart. An additional example of this is Baker’s (Baker 2003) study on the biodiversity directive. Co-ordination (as implementation) is argued to have to be explored as a “threefold relationship between internationalism, Europeanisation, and nationalisation …” (ibid: 26). Viewing the EU system as multi-level governance system, where policy-making powers are shared between international, European, national and sub national levels “nature protection policy has become entangled at the subnational, regional, and inter-regional levels” (refereeing to Hooghes and Marks). Baker, however, also focuses on the influence from the global level “To focus only on the relationship between the member state and the EU is to ignore the role of international obligations in shaping EU policy and providing the Commission with mandate for policy leadership.” (ibid: 37). International engagement acted as a driving force, an argument that returns in other studies such as (Nilsson and Eckerberg 2007): 107.
A final recent example of bypassing of traditional sovereignty of the states (not originating from the literature on EU) is the case of the international agenda on Climate Change and its implication on EPI at local level. Betsil and Bulkeley (Betsill and Bulkeley 2006): 151, discusses that the Cities for Climate Protection program (CCP) can be considered as an example of what (Hooghe and Marks, 2001) define as type II MLG. CCP program have in effect transferred power to local government, bypassing nation-state, taking over functions that normally resides within national governments.

To summarise, studies applying the concept of EPI and that discuss the role of MLG in is not arguing that the nations state is overturned. In most studies on local governance for example, the nation state remains central to policymaking (Eckerberg and Joas 2004). In the studies above, the focus is on the interaction between the levels, changing the conditions and in some case putting additional pressure on the member states. The pattern that emerges from the literature is instead the almost self-evident conclusion that the ML tiers do influence EPI within the EU.

The interesting question is rather; what does EPI in a MLG context mean? What are we integrating the environment into? From the literature identified in this review it is clear that EPI means integration at a particular level. The examples above all discuss the ML reality of EU against the backdrop of how well EPI is taken on at EU level, or at the national level. There are not any multilevel governments. ML always refers to the multitude of levels and types of actors influencing EPI and EPI thus has to be conceptualised either as an integration at a specific level, or alternatively as the overall much broader achievement towards environmental sustainability within a range of levels. Although the latter is argued by some authors as the ultimate goal of EPI (Lafferty and Hovden 2003), the majority of the EPI literature refer to EPI as integration at a specific level. Never the less, MLG can be conceptualised with many or few levels in mind, and the cases above that focus on EU on many occasions discuss actually focus on EU policy influencing member states, rather then EPI at the EU level.

The nation state as subject in the study

Most studies on EPI at the level of nation states such as (Nilsson and Eckerberg 2007), (Lenschow 2002) and (Jordan and Lenschow 2008, forthcoming) discuss MLG in terms of the surrounding and on the nation state influencing
supranational context. These interactions are either with the EU, as primarily discussed above, or with international agendas above the EU. Walti’s study “How multilevel structures affect environmental policy in industrialized countries” (Walti 2004) is one of few studies on environmental policy that explicitly study MLG within nation states. The study use two strands of theory; functional federalism which “…emphasizes the efficiency-enhancing properties of multilevel governance structures” and actor related theory of federalism stressing that the “potential [of multilevel governance structures] to fragment the policy process and multiply veto points” (Walti 2004: 600). That is; the two has contradictory conclusions on the role for MLG to enhance environmental outcome, which in this review could be equated with EPI. The study is an empirical, comparative study that correlates environmental performance with presence of ML structures within nation states. The study concludes that “multilevel structures do play a role in environmental policy, albeit often an indirect one (ibid: 624): To the extent that multilevel governance variables have a direct impact on environmental performance, their effect appears to be positive.

Another exception is case studies of the US, as a contrast to the EU. Were EU is still not a federal polity and lack strong vertical interactions, US is argued to be the opposite (Hoornbeck 2008, forthcoming). However, since the US “lack of strong and explicit national commitment to sustainable development, and the minimal use of comprehensive EPI strategies and mechanisms associated with it” (ibid: 22) the result of that stronger vertical interaction is not positive. The reason is the fragmentation in American policymaking structures with difficulties in building nationwide consensus. Although there are instances of successful EPI activism at least partially in some states and communities; it has not yet proven true as a whole, and no concerns for the Environment is there to be integrated cross the strong vertical linkages. In summary, that there is not much evidence of EPI and the study give no evidence of a US as a good example of MLG for EPI.

3.3. Short discussion of EPI outcome

In this review, there is no conclusive evidence of the role of MLG and its influence on EPI. Walti concludes that ML tiers had a positive influence on performance, but with a rather limited study. Jordan, Shout, Baker, and many others above argue that network solutions are more productive rather then opting for more political will, and likewise, Fairbrass and Jordan, and many others discuss the
bypass phenomenon as something that has fostered implementation when the traditional vertical lines of commands have failed.

However, as Weale applies ML perspectives to understand the problem with implementation of EU directives; both in terms of vertical implantation and coordination, and integration “at” EU level EPI was low. “Failure due to organizational structure of commission itself, in which strong vertical divisions favour highly sectorised policy-making…” and “These disjoint patterns have been reinforced by the multi-level logic of the Structural and Cohesion Funds…” (Weale, Pridham et al. 2000): p458). That is, multilevel tiers in the EU are highlighted as barriers to EPI. Also, the spill-over between sectors are not in favour of environmental policy, with single market influencing env. policy, not the other way around.

Also Lenshow (Lenschow 2002) downplay the importance of ML, conclude that “EPI in ML polity depend crucially upon the political will and initiative of the political leadership in the member states”, and in Nilsson and Eckerberg (Nilsson and Eckerberg 2007) the conclusions provides a mixed picture. Finally, (Oberture; Hoornbeck 2008) provides insights on the general integration intra environmental policy. It is happening, and ML tiers positive, but as soon as integration over different policy sectors comes into question, difficulties arise, and the evidence of success is less.

4. MLG IN LITERATURE CLOSE TO EPI

As indicated earlier in this review, a key motivation for the application of MLG is the nature of many environmental problems. The adverse impacts at varying scales and interactions between levels reflect the increasing connectivity and complexity of human nature interactions. MLG appears in the natural resource management literature on decentralisation vs. central governance (Ostrom, Burger et al. 1999; Andersson and Ostrom 2008) following the landmark work by Ostrom (1990) illustrating the successes of locally governed commons. In the modern NRM literature, MLG is closely linked with the concept of Resilience (Folke, Carpenter et al. 2002; Folke 2006). The entry point for this literature, however, is rather the complexity of natural systems as interacting with society and its institutions, than the complexity of governance, and the field draw on the literature on Complex Adaptive Systems (Rammel, Stagl et al. 2007). A recent
stream of this literature on NRM that stresses the role of MLG in this respect and that tries to incorporate a better analysis of governance, is the concept of Adaptive Governance (Dietz, Ostrom et al. 2003; Folke, Hahn et al. 2005).

With the heritage of this research being natural science rather the policy science or social science, the focus is manly on the multi-level nature of local resource users in interactions with different governance levels and other stakeholders and actors (Olsson, Folke et al. 2004). As such, the literature is far from the governance literature or the literature on policy integration at different levels of governance. However, EPI is indeed a key concern in the field. In the Millennium Ecosystem Assessment reports (Millennium Ecosystem Assessment 2005), policy interaction is a key discussion point, although the EPI concept as such is not used. See also (Cash, Adger et al. 2006). It can be argued that much of this literature has been overly confident on the value of local knowledge (Andersson and Ostrom 2008), and the state-of-the art review of the Millennium Ecosystem Assessment reports is also detached from the institutional conditions setting the stage of policy interaction. This, however, only further illustrates that the complexity of nature and society in interaction requires a truly ML perspective.
5. CONCLUSION

What is then EPI in MLG? Most studies apply MLG in an effort to understand EPI at nation states as influenced by the interactions cross multiple levels. Studies of EU are primarily studies of coordination and on how EU polices are taken up among the member states. A key discussion in the literature is therefore also the role of MLG in terms of the bypassing of the nation states, or rather, new type of pressures for actions, since most authors agree that the final decision making power chiefly remains at the nation state. Fewer, if any, studies actually refer to MLG and EPI by employing assessments of EPI simultaneously at different levels.

It is also worth pointing out that some aspects of MLG are inherent to EPI. Although different interpretations of the dimensions of policy integration exist within the EPI literature, all refer to integration cross levels of governance. Either within a particular jurisdictional level of governance (between departments and coordinating central functions); or cross several jurisdictional levels. The EPI literature also often relate to the importance of other actors, in common with the definitions of MLG. In summary, many scholars studying EPI naturally refers to MLG although not explicitly applying a theoretical framework.

Finally, it can be concluded from this review that the actual success of EPI has no clear linkages to ML influences. Indeed, MLG is also primarily discussed as an emergent property (mostly of EU), not as a strategic process of building nested institutions for EPI, or any other policy direction. Hence, MLG can be concluded to be more of the reality and backdrop against which EPI efforts now need to be discussed; rather than a vehicle for better EPI implementation.

The clearest research gaps identified in this review in view of MLG is:

i) the need for more studies of ML polities other than EU to strengthen understanding of MLG and EPI;

ii) a need to employ investigations of EPI at several governance levels simultaneously within the same study, in particular linking the two disciplines and motivations for MLG in terms of the very local governance (such in NRM) up through national level and supranational levels of governance.
REFERENCES


Hooghe, Liesbet and Marks, Gary (2001). 'Types of Multi-Level Governance.' *European Integration online Papers (EIoP)* 5(11).


6. NOTES

\[1\] According to Google Scholar the three most well cited studies on EPI is (Lenschow 2002); (Hertin and Berkhout 2003); and (Lafferty and Hovden 2003), and according to and ISI web of science (Richardson 1997), (Lenschow 1997), (Schout and Jordan 2005) and all of these studies explicitly studies EPI in EU, or use EU as prime case for discussions.