



The role of co-operation between academia and policymakers for the development and use of sustainability indicators – a case from the Finnish Kymenlaakso Region

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ABSTRACT

In this article, we analyze the co-operation between academia and other stakeholders in the development and use of sustainability indicators. The empirical case is a self-assessment of a Life-Environment project, ECOREG (2002–2004), in which eco-efficiency indicators were constructed for the Finnish Kymenlaakso Region. In the article the relationship between academia and local decision-makers in both the ECOREG Project and the activities thereafter is examined. Contrary to many sustainability indicator initiatives the ECOREG indicators have been updated and used after the original project ended. A main conclusion of the article is that the use of the indicators is largely influenced by how they were originally developed. More specifically, that knowledge was jointly produced instead of being merely transferred from academia to policymakers affected the relevance of the indicators as well as the capabilities of local actors to use, update and further develop the indicators.

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1. Introduction

The “indicator industry” has produced a huge number of local projects that have focused on designing different sets of sustainability indicators (SIs). Mostly, however, when the project is over the indicators have been forgotten. Usually they are neither updated nor used. According to Rydin et al. [1] this is because there is a limited understanding:

1. of the local context in which the indicators are developed
2. of the relationship between experts and laymen
3. of the process through which the indicators are developed.

The direct use of information produced by academics and consultants is often much smaller than expected. This insight has resulted in extensive research into how information is produced, how it is actually used, which features are crucial for what kind of use and what the benefits and limitations of different ways of producing and using information are. Based on these studies it is argued that it is essential that academia should engage in self-

scrutiny in order to better understand how they actually produce information and how they interact with others. That is to produce information to provide understanding of points 2 and 3 of Rydin et al. [1]. When these processes are inclusive at the regional or local level point 1 is also covered.

There are two main reasons why the use of regional sustainability indicators is an important issue. Firstly a lot of resources are invested in developing these indicators and therefore there is a need to know which factors affect their utilization in order to avoid wasting resources. Secondly, lack of sustainability is an as pressing issue as ever and it is evident that it is a multi-level governance problem. The local and regional levels are essential for sustainable development, since only at this level can the specific environmental and social context be taken into account. In Europe regions are also central units through which the billions of Euros of support from the European Union’s structural funds are distributed. If the development by regions is to become more sustainable, information on different aspects of sustainable development is required and regional sustainability indicators could provide such information, but only if they are used.

In this article, we will analyze a regional SI initiative, the Finnish Life-Environment Project “*The Eco-efficiency of Regions – Case Kymenlaakso (ECOREG)*” (2002–2004). We have earlier published several articles [2–4] and reports [5] about the ECOREG project.

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This article, however, differs considerably from the earlier ones in several ways. First the focus is different. In this article we examine how co-operation by academia and policymakers in the development of indicators may influence their use, the earlier publications have focused on either the indicators or the general process. The second difference is related to time. It is now several years since the ECOREG project was completed. It can thus be judged with hindsight and there has been time for the indicators to either be used or forgotten. All previous publications were written when the project was ongoing or had just ended. Finally, the perspective of this article represents self-scrutiny, through which we critically examine our own actions in relation to the other actors. Through this self-scrutiny we will provide case-based empirical insight into the processes of knowledge production and use.

In the article we will examine the co-operation between academics and policymakers in the process through which the ECOREG indicators were developed. We will show that the use and further development of the indicators that have taken place since the project ended is largely related to the collaboration between key local authorities and researchers in the early stages of the process. However, lack of use by other stakeholders can also partly be traced back to the phase in which the indicators were determined. The production and use of the ECOREG indicators can thus be seen as an example of academia having to become involved with other actors in order to produce relevant information that is actually used. It is, however, also an illustration of the increased importance assigned to practice in order to understand policies [6].

The theoretical background for the joint production of knowledge is first discussed in Section 2. The pilot area of the ECOREG Project, the Kymenlaakso Region, and the project itself (aims, working process, results) are described in Sections 3 and 4. In Section 5 we describe the development that has taken place since the completion of the original project and assess the use and further development of the indicators constructed in the ECOREG Project. In Section 6 we analyze the relationship between academia and local decision-makers in both the ECOREG Project and the activities after the project. The extent to which knowledge was actually jointly produced is also assessed. Finally, we conclude in Section 7 with some general findings from the ECOREG work.

2. Theoretical background

2.1. Key concepts: sustainable development, eco-efficiency and indicators

The Brundtland Commission [7] defined sustainable development, as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. During the twenty years that have passed since the Brundtland Report was published, sustainable development has been extensively researched. Despite this there is still no consensus on any detailed definition of “sustainable development” nor on how it should be promoted. There is, however, a general agreement that the present development has many aspects that are not sustainable.

Promoting sustainable development is related to a comprehensive approach integrating environmental, economic and social aspects. A starting point of sustainable development is to emphasize the long term, i.e. the multi-generational perspective. In addition, interactions and synergies between actors and actions, interdependence and rebound effects are key aspects of sustainable development. Such a comprehensive approach seems to imply a massive amount of large scale planning. For example, Agenda 21 [8] necessitates “*national strategies, plans, policies and processes*” in order to implement sustainable development. This is at a time

when the view of planning in general has become much more skeptical [9]. The conflict – between the demands for planning and the attitude towards it – is, however, smaller if the focus is on the process characteristic and dynamic features of sustainable development. Then the dynamic aspects of different actions as well as learning and reassessing actions based on new information become the key features of sustainable development, instead of trying to reach some kind of sustainability optimum.

The eco-efficiency concept is one of several attempts to bridge the gap between the generally agreed but abstract goal of sustainable development on the one hand and the concrete practical actions on the other hand. Approaches focusing on different types of capital (environmental, economic and social) [10], on space, e.g. the ecological footprint [11], on material and energy flows [12] or on process, e.g. transition management [13], are other examples of much discussed tools for sustainable development. Eco-efficiency emerged in the early 1990s, and actually the term was introduced before its definition [14]. The main idea of eco-efficiency is to produce more value while at the same time consuming fewer natural resources and reducing the environmental impacts, i.e. “more with less”. The OECD [15] extended the concept by calling eco-efficiency “*the efficiency with which ecological resources are used to meet human needs*”.

Although eco-efficiency may provide a route to a more sustainable development, the two concepts are not the same and improvements in eco-efficiency might even be detrimental for sustainability. This is because the absolute level of environmental pressure can increase, even if the relative environmental impacts decrease, i.e. eco-efficiency increases. Another limitation by focusing on just relative improvements, captured by eco-efficiency, is that absolute ecological thresholds are not taken into account [16]. The path provided by eco-efficiency might also be too slow. Therefore even if eco-efficiency improves the result might still be a collapse, or even depletion, of ecological resources. Eco-efficiency can thus not substitute sustainable development as a societal goal, but it might still be a useful concept for promoting sustainable development.

While eco-efficiency has largely been used for products and firms, there has also been an interest in applying the concept to larger entities such as countries, or their regions. Analysis of the use of eco-efficiency in companies has revealed impediments caused by the fact that many environmental impacts are dependent on the local context of the production [17]. Moreover, neither the environmental impacts nor the input to meeting human needs depends on the actions of any single actor. There are therefore many reasons to examine eco-efficiency at a level above that of a single production unit, but more closely linked to a specific context than a country or a multi-national company, i.e. to study the eco-efficiency of regions or communities.

A popular statement has long been “what you can’t measure you can’t manage”. In the increasingly complex and fast developing world there is no way to measure everything. As stated by Rose [18], “*Numbers are integral to the problematizations that shape what is to be governed, to the programmes that seek to give effect to government and to the unrelenting evaluation of the performance of government that characterizes modern political culture.*” Deciding what to measure and collect statistics on, how to do it and how often, thus becomes action where what is perceived as important is also reflected; in other words, statistics, numbers and indicators are politicized [18]. The need for information in order to promote sustainable development was consequently included as Chapter 40 of Agenda 21 [8], which explicitly stresses the need to develop indicators of sustainable development.

According to Rydin et al. [1] a sustainability indicator “*captures and measures a particular aspect of sustainability policy in an easily*

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