1. Impact assessment and sustainable development: an introduction

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I. INTRODUCTION

The United Nations (UN) Conference on Environment and Development in 1992 successfully established the concept of sustainable development as an underlying principle for strategic policy and planning. But the translation of the principle of sustainable development into practice has presented new challenges in finding workable solutions to the complex trade-offs that can arise between the different, and often conflicting, dimensions of sustainable development.

The growing complexity of policy-making in terms of the goal of sustainable development has encouraged a growing interest among researchers and practitioners in developing a practical and evidence based approach to public policy appraisal and evaluation. As a result, impact assessment, defined as the systematic assessment of the potential or actual effects of a public intervention on the economic, social and environmental ‘pillars’ of sustainable development, is now used as a tool for policy-making in the European Commission, most member states of the European Union (EU), other OECD countries, and in a growing number of developing countries and transitional economies.¹

II. IMPACT ASSESSMENT AND SUSTAINABLE DEVELOPMENT

The last decade has seen a growing international interest in the development and use of evidence-informed policy and practice across a wide range of public policy issues. While the design and implementation of public policy has always been of concern to public sector researchers and policy makers, the importance of good regulation has come to the forefront today because of the rise of the ‘regulatory state’ (Majone 1994, 1997), in which government’s role is perceived to be that of regulating the market economy.

State regulation that promotes economic and social welfare needs to be both effective and efficient: effective in the sense of achieving its planned goals, and efficient in the sense of achieving these goals at least cost, in terms of government administration costs and the costs imposed on the economy in terms of complying with regulations. There is, therefore, a compelling case for the systematic appraisal of the positive and negative impacts of any proposed or actual regulatory change. The purpose of impact assessment (often referred to as regulatory impact assessment, RIA) is to 'explain the objectives of the [regulatory] proposal, the risks to be addressed and the options for delivering the objectives. In doing so it should make transparent the expected costs and benefits of the options for the different bodies involved, such as other parts of Government and small businesses, and how compliance with regulatory options would be secured and enforced' (NAO 2002, p. 51). The appraisal should encompass the likely economic, environmental, social and distributional consequences of a regulatory measure, thereby providing a comprehensive analysis of its impact.

The underlying rationale for RIA is that regulations need to be assessed on a case-by-case basis, to see whether they contribute to strategic policy goals. RIA has the potential to strengthen regulation efficiency and effectiveness by examining the possible impacts arising from planned government actions and communicating this information to decision makers in a way that allows them to consider (ideally) the full range of positive and negative effects (benefits and costs) that are associated with a proposed regulatory change. Equally, RIA has the potential to improve the monitoring of existing regulatory policies. This might lead to revisions to an existing regulation to improve its performance or even the outright cancellation of a regulation. Both *ex ante* and *ex post* RIA help to constrain damaging regulatory discretion and expose cases of regulatory conflict (e.g. between government agencies).

Impact assessment (IA) can contribute to both the *outcome* and the *process* dimensions of national objectives. The outcome contribution of IA can be assessed against the economic, social and environmental goals of government. The process contribution of IA can be assessed in terms of the principles of 'good governance'. There is a broad consensus that these principles encompass consistency in decision-making to avoid uncertainty, accountability for regulatory actions and outcomes, and transparency in decision-making. IA encourages public consultation to identify and measure benefits and costs and thereby has the potential to improve the transparency of governmental decision-making. It can promote government accountability by reporting on the information used in decision-making and by demonstrating how the regulation will impact on society. In these ways IA can contribute to improved regulatory governance, and the result should be an improved and

more consistent regulatory environment for both producers and consumers. The contribution of IA to better policy-making therefore rests on the systematic assessment of the impacts of a regulatory measure, and the adherence to the principles of accountability, transparency and consistency.

Where IA is adopted at the national level, the precise form it takes can be expected to vary between countries. Equally, we should expect the government policy decisions to which it is applied and the pace of adoption both to vary. At the same time, however, a number of principles seem to be universal.

Firstly, IA needs the development of skills within the government machinery, including skills in evaluating the problem that is being addressed and enumerating the relevant costs and benefits. Generally, qualitative effects will involve much judgmental or subjective evaluation, and physical units introduce serious problems of aggregation. There may be a temptation, therefore, to diminish the IA to include only an evaluation of measurable financial costs and benefits. Or, the assessment could be reduced to looking solely at the cheapest way of achieving the regulatory outcome (in effect providing a *cost effectiveness* study only) in which the benefits are taken as given. This lesser form of IA risks ignoring important differential benefits from differing forms of regulation.

Secondly, IA requires the extension of consultation procedures to ensure that appropriate information is collected and analysed in reaching a view on the regulatory impact. There may be little tradition of consulting widely in a country before undertaking regulation, or those chosen for consultation in the past may not have been representative of the relevant stakeholders. Consultation is an essential part of the IA process.

Thirdly, IA will need to be championed across government if it is to be used consistently and become a normal feature of regulatory policy-making. It therefore needs clear and powerful political support if it is to overcome bureaucratic and political inertia.

IA requires an explicit statement of the goals of government regulatory policy, since these goals will determine the criteria for assessing impacts. In practice, sustainable development is widely used as the ultimate goal for all regulatory interventions, and IA is designed, therefore, to assess the full range of economic, social and environmental results of a particular regulatory measure or policy.

In the EU, as a result of the Göteborg European Council meeting in June 2001 which committed the Commission to promote sustainable development and to establish mechanisms for the assessment of all European policy proposals (EC 2001a),² there are now procedures in place to ensure that each major legislative proposal is informed by an assessment of the potential impacts of the measure, both inside and outside the European Union.

Following the 2001 European Council meeting, the Commission proposed that ‘a coherent method for impact analysis’ be introduced for all major commission proposals by the end of 2002 (EC 2001b). The 2002 Communication of the European Commission on Impact Assessment committed the Commission to undertake an IA of all major policy proposals in order ‘to improve the quality and coherence of the policy development process’, . . . (and to) . . . ‘contribute to an effective and efficient regulatory environment and further, to a more coherent implementation of the European Strategy for Sustainable Development’ (EC 2002).

In 2003, the Commission began implementing the new integrated system for the systematic use of IA. In 2005 it issued new guidelines for integrated assessment, ‘based on the principle of sustainable development and designed to allow policy makers to make choices on the basis of careful analysis of the potential economic, social and environmental impacts of new legislation’ (EC 2005: 5). All initiatives set out in the Commission’s Legislative and Work Programme, which covers key legislative proposals as well as the most important cross-cutting policy-defining non-legislative proposals, are now subject to an integrated form of IA.

The use of IA in the Commission has so far been confined to *ex ante* assessment. However, it is proposed to develop *ex post* monitoring and evaluation procedures, using a common set of indicators to assess progress in improving the quality of the regulatory environment at the EU level (EC 2005).

III. EVALUATING SUSTAINABLE DEVELOPMENT

The 1992 UN Conference on Environment and Development (the Rio Conference) established the principle of integrating sustainable development considerations into strategic development planning and policy, and as one of the key mechanisms for achieving this, it was agreed that each government should adopt a national sustainable development strategy (NSDS), in order to implement the goals of Agenda 21 (UN 1992, paragraph 8.7). Agenda 21 established that the overall objective of an NSDS is ‘to improve or restructure the decision-making process so that consideration of socio-economic and environmental issues is fully integrated and a broader range of public participation assured’ (paragraph 8.3). An effective NSDS will be distinguished therefore, by adherence to a set of principles for strategic planning and sustainable development, and a coordinated set of measures to ensure its implementation.

The basic principles for an NSDS are well established. The OECD Development Assistance Committee has developed a set of principles

intended mainly for developing countries, and the UN Department for Economic and Social Affairs has developed similar principles appropriate for all countries (OECD/DAC 2001; UNDESA 2002). Both sets of principles are accompanied by guidance on implementation, and further work by OECD, UNDP and the International Institute for Environment and Development (IIED) has led to the preparation of a resource book for NSDS, giving in-depth information on possible approaches and methodologies (Dalal-Clayton and Bass 2002).

All of the guidance recommends that a country's NSDS should be developed from its existing strategic planning mechanisms, through a process of continual improvement. The starting point should also include the country's established mechanisms of social and economic planning. These mechanisms typically consist of the national budgeting process, national development plans and other national planning processes, and inter-departmental coordinating processes, with links to sub-national and local strategy processes (Swanson et al 2004). In many developing countries they also include internationally recognized poverty reduction strategies.

By 2003, most EU countries had implemented a recognized NSDS (UNDESA 2004). However, many other countries had not, including the United States (US) and several other high-income countries. Only 12 percent of UN member states were implementing national strategies, while a further 2 percent had received government approval. Some were developing an NSDS, but most reported only that components of a sustainable development strategy were in place. This was despite the call for accelerated action agreed to at the UN World Summit on Sustainable Development, urging states to 'take immediate steps to make progress in the formulation and elaboration of national strategies for sustainable development and begin their implementation by 2005' (UN 2002, paragraph 162).

How should a country's NSDS be evaluated?³ A country's existing strategic planning mechanisms need to be reviewed, to measure the extent to which they already comply with NSDS principles, and to highlight any shortcomings. In order to strengthen the continual improvement aspect of NSDS development, a focus is needed on the actual achievements of operational planning systems, in relation to internationally agreed objectives. In the preparations for the 2002 World Summit on Sustainable Development, a methodology was developed for assessing countries' existing strategic planning mechanisms, to identify areas that need to be improved in order to comply with NSDS principles (Cherp, George and Kirkpatrick 2004). The methodology is based on principles of sustainable development and corresponding principles of strategic planning and management, as interpreted for NSDS by OECD and UNDESA. The OECD principles and UN principles are grouped under five core principles, derived from sustainable

development principles and more general principles of strategic planning and management.⁴

The assessment methodology measures the degree to which national strategic planning processes adhere to the five core principles and the related NSDS principles. A set of criteria for each of the five principles is used as the basis for a qualitative scoring system (IDPM 2001). The outcome of an assessment against these criteria provides policy makers and other interested parties with a clear indication of the effectiveness of the planning process, so that areas where improvement is needed can be identified.

IV. THE CHAPTERS OF THE VOLUME

The remaining chapters in the volume share a common concern with IA and evaluation of sustainable development policy and practice. The book is structured into two main parts. This introductory chapter is followed by the chapters in Part I, which discuss various conceptual and methodological issues relating to IA and sustainable development. Part II explores the practice and experience of IA and sustainable development in the European context.

The focus of the chapter by Peter Hardi is on the need for a common interpretation of sustainable development (SD) in the context of evaluation. The starting assumption is that evaluation, its content, methods and results, will change with the differences in the definition of SD. In other words, evaluation as a process is not independent of the content: it depends on and changes with the definition of SD.

Martin Jänicke gives a general evaluation of the governance model standing behind the strategic concept of SD. He argues that the Rio governance model was remarkably successful in so far as it was a knowledge-based model of steering – not based on power and legal obligation – but requires constant revision and evaluation, drawing on forces that are independent from, but supportive to, the strategy of SD.

Wolfgang Meyer and Sebastian Elbe discuss capacity building for SD in the context of local network governance. Based on the Agenda 21 principles, they argue that a multi-level governance structure for vertical integration from the global to the local level was intended to synchronize the development and execution of policy strategies. New participatory approaches are indispensable for ‘good regional governance’, which itself is needed for establishing ‘SD’ at the local level. The chapter concludes with some general observations based on German experience, of steering SD at the regional level.

The chapter by Joe Ravetz is concerned with evaluation in the context of the widening of ‘regional development’ to ‘regional sustainable

development' ('RSD'), with a more integrated economic, social and environmental agenda. The chapter is based on the evaluation strand of a project that brings together best practice in RSD across Europe. It reviews two contrasting examples of evaluation methods in development. One concerns the modelling of 'tangibles' of environmental flows and impacts; the other is focused on the 'intangibles' of evaluation of regional innovation strategy. Each example demonstrates the need for more integrated approaches, and the management of complexity and uncertainty in a practical process.

The chapter by Klaus Jacob, Julia Hertin and Axel Volkery analyses the relationship between environmental assessment and integrated IA by comparing IA systems in Australia, Canada, the EU, Italy, the Netherlands, the United Kingdom (UK) and the US. They then examine whether integrated IA is beneficial to the goals of environmental policy integration or hampers their implementation. The chapter concludes by drawing a number of conclusions regarding procedural and substantial requirements to ensure a balanced treatment of environmental aspects in integrated IA.

The contribution by Matt Cashmore critically assesses the widespread perception that environmental impact assessment (EIA) is failing to achieve its potential in practice. Rather than focusing on the more tangible limitations of EIA practices, it is argued that the underlying reason it is failing is because the relationship between EIA and SD is inadequately conceptualized. Cashmore suggests, however, that one way in which EIA makes a significant contribution is by providing a forum in which societal interpretations of sustainability can be debated and that a richer conception of their relationship can still be developed, by examining causation in EIA. It is postulated that EIA can be considered to be operating as a 'front-line' tool in operationalizing SD, but in a markedly different manner to conventional expectations.

Serban Scriciu provides an evaluation of the use of computable general equilibrium (CGE) modelling as a tool for predicting possible sustainability outcomes from policy proposals. Although some of the restrictive assumptions of CGE models have been relaxed in recent CGE modelling studies, further research needs to be undertaken in order to bring model specifications closer to realistic behavioural relationships. CGE models also tend to focus on alternative equilibrium outcomes and rarely deal with the adjustment process or regulation measures needed to realistically bring the economy into the desired new equilibrium stance. Scriciu concludes that while CGE models may provide some useful information on individual, particularly economic, impacts of policy reform appraisal, it may be inappropriate and even misleading to rely extensively on their use in sustainability evaluation studies.

The chapter by Paul Weaver, Jan Rotmans, John Turnpenny, Alex Haxeltine and Andrew Jordan describes a major European research project which aims to develop a common conceptual framework for integrated sustainability assessment (ISA), development, implementation and evaluation. This is related to the assessment of the current status of ISA and its pattern of use in relation to different domains and contexts, including institutional factors that play a key role at the science-policy interface.

Marjan van Herwijnen and Wouter de Ridder report on a project to assemble an inventory and evaluation of tools commonly used in sustainability impact assessments (SIAs). A large set of tools is evaluated for their ability to support certain policy processes, their ability to address various aspects of SD and for certain specific operational aspects. A case study on bio-fuel is used to further deepen the evaluation and, based on concrete policy decisions, to investigate promising combinations of tools.

Part II concentrates on European practice and experience in IA and SD evaluation. The first chapter in this section, by Benjamin Görlach, Eduard Interwies, Jodi Newcombe and Helen Johns summarizes the main results of a project on the cost-effectiveness of environmental policies carried out on behalf of the European Environment Agency. The chapter first provides a review of legal requirements for ex post cost effectiveness analysis (CEA) in European environmental policy, then presents an overview of existing guidance documents and manuals for carrying out ex post CEAs, and finally gives a summary of the current practice in EU member states with regard to ex post CEA of environmental policies.

The chapter by Benoît Simon and Jean-Pierre Sivignon presents the results of a study to develop a monitoring and evaluation system for the French national strategy for SD. The paper is focused on the evaluation of sustainability on three axes: a reflection on the framework of the national strategy for SD; a discussion on the methodology used to elaborate indicators; and a reflection on difficulties encountered during the process.

The chapter by Katarína Staroňová evaluates the type and quality of information on IAs contained in the explanatory memoranda of draft legislation adopted by the government of Slovakia. The study is based on normative content analysis of a sample of 93 government-initiated draft laws and their explanatory memoranda that were submitted for government consideration during the period after EU accession. The results indicate that the system is not yet fully developed, and most of the draft laws reviewed have only a formal approach towards the assessment of impacts, with the aim of formally complying with the requirements.

The chapter by Mojca Golobic and Franc Zakrajšek argues that sustainability concerns should be ideally integrated in all fields of public action and regulation, above all in spatial planning and environment protection. The authors discuss the options for the implementation of sustainability by spatial planning process and (strategic) EIA. The experience from Slovenia is used to show that integrative tools, such as spatial vulnerability studies and evaluation of alternatives from the aspects of environmental impacts, impacts on urban and regional development and social acceptability, have been successfully used as optimization tools in decision support.

Geert Draaijers and Rob Verheem consider how sustainability assessment (SA) has been operationalized in the Dutch NSDS. Drawing on twenty years of Dutch experience with strategic environmental assessment (SEA), they show how experiments with SA were conducted. At the same time experience with SA was gained from SEAs in which sustainability issues were raised. Based on these experiences, the authors discuss some key elements for effective SA.

Tom Bauler, Marco Wäktare and Alessandro Bonifazi discuss the Belgian experience in institutionalizing a federal level evaluation scheme for the Belgian SD agenda. The authors explore whether and how such an SIA scheme could be applied to the federal level of Belgian government. More specifically, the chapter addresses issues related to the supply and the demand sides of SIAs. The supply side is covered through an analysis of major points to take into account when designing such an assessment. Issues related to the demand side are identified through face-to-face interviews which aimed at gaining knowledge of the understanding, dangers and opportunities, experiences and expertise, as well as institutional challenges perceived both by stakeholders and civil servants.

NOTES

1. For a comprehensive review of country-level experience and practice with RIA, see Kirkpatrick and Parker (2006).
2. The Communication stated that 'sustainable development should become the central objective of all sectors and policies . . . careful assessment of the full effects of a policy proposal must include estimates of its economic, environmental and social impacts inside and outside the EU' (EC 2001a).
3. Individual countries have used a variety of methods for assessing their own NSDS. In varying degrees, all these evaluations examine the extent to which the NSDS is integrated into a country's operational strategic planning mechanisms, with a view to making the NSDS itself fully operational and effective. However, they generally refrain from establishing clear benchmarks against which shortcomings may be judged, and through which progress towards rectifying them may be monitored. These different assessment methods are compared in George and Kirkpatrick (2006). See also, OECD (2005) and UNDESA (2004).

4. The five principles are shown in Table 1.1. Groups A and B may be regarded as sustainable development principles, while groups C, D and E are more general principles of strategic planning and management.

Table 1.1 NSDS principles

Core principles	OECD principles	UN principles
A. Integration of economic, social and environmental objectives	Comprehensive and integrated. People centred.	Integration and balanced across sectors and territories.
B. Participation and consensus	Consensus on long-term vision. Effective participation.	Shared strategic and pragmatic vision. Link the short to the medium and long terms. Ensure continuity of the strategy development process. Participatory and the widest possible participation ensured.
C. Country ownership and commitment	Country led and nationally owned. High-level government commitment and influential lead institutions.	Nationally owned and country-driven process. Strong political commitment at the national and local levels. Spearheaded by a strong institution.
D. Comprehensive and coordinated policy process	Based on comprehensive and reliable analysis. Building on existing processes and strategies. Link national and local levels.	Anchor the strategy process in sound technical analysis. Build on existing processes and strategies. Link national and local priorities and actions.
E. Targeting, resourcing and monitoring	Targeted with clear budgetary priorities. Incorporate monitoring, learning and improvements. Develop and build on existing capacity.	Set realistic but flexible targets. Coherence between budget and strategy priorities. Build mechanisms for monitoring follow-up, evaluation and feedback.

Source: Derived from OECD (2001) and UNDESA (2002).

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