Ex-ante Impact Assessments (IA) in the European Commission – an overview

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Abstract

Ex-ante Impact Assessment (IA) was officially introduced into European Commission (EC) policy making in 2002. It is understood as a formal procedure to analyse potential effects of new policies before their adoption. The two main drivers behind this EC initiative are the EU Sustainable Development Strategy and the Better Regulation agenda. IA is carried out on policy level by the Secretariat General of the EC.

In parallel, Environmental Impact Assessments (EIA) and Strategic Environmental Assessments (SEA) exist. They are based at EC Directorate of Environment. EIA analysis impacts of project on the environment and SEA is concerned with impacts of plans and programmes mainly on the environment.

The EU project SENSOR develops ex-ante Sustainability Impact Assessment Tools (SIAT) to support decision making on European land use and environmental policies. The project relates directly to the efforts of the EC, on behalf of the European Union (EU), to integrate all single sector policy assessment into one impact assessment procedure.

This article outlines the historical background of impact assessment and it presents the three IA procedures simultaneously in use by the EC, their level and scope. It aims to provide the reader with a classification helping to identify the role of IA tools as developed in SENSOR for EC decision making.

Keywords
Sustainability Impact Assessment Tools (SIAT), Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Impact Assessment (IA)

1 Introduction

SENSOR is a research project, funded by the European Commission, and its objective is to develop an ex-ante sustainability IA tools (SIAT) to support decision making on policies related to land use in European regions. Sustainability Impact Assessment (SIA) seeks to identify possible economic, environmental and social effects of proposed policies and their consequences with respect to sustainable development.

SIAT provides political decision makers with land use scenarios which present comprehensive, clear and comparable information on possible consequences, trade-offs and indirect affects of their available courses of action.

There are two main drivers behind the Impact Assessment (IA) procedure of the European Commission. The first is the EU Sustainable Development Strategy (CEC, 2005a); which focuses on the assessment of policy impacts on the economic, social and environmental dimension, including tradeoffs. Secondly, there is the Better Regulation agenda (EU Better Regulation Action Plan (CEC, 2002); which sets out initiatives to promote effective and efficient regulation, and aims to fulfil the Lisbon objectives for a competitive European economy. SENSOR allows for both of these basic EU policy initiatives in the land use policy arena.

The objective of this paper is to provide the reader with an overview on IA procedures carried out at different levels in the EC. The paper outlines historical backgrounds of IA and shows major differences concerning scope, impact and procedure.

2 Sustainability Strategies and Impact Assessment

At the Earth Summit (UN Conference on Environment and Development, UNCED) in Rio de Janeiro in 1992, 178 UN member countries adopted major agreements concerning the change from traditional free market approaches to Sustainable Development. A key role was given to Agenda 21, which includes a comprehensive plan of proposed actions at global, national and local level to achieve these changes. In order to implement § 8 of

the Agenda, the "*Integration of environment and development into decision making*", countries are required to develop a National Sustainable Development Strategy (NSDS). Agenda 21 states that NSDS should not result in new strategies but should "*improve and restructure the decision-making process, so that economic as well as social and environmental issues are fully taken into consideration and stakeholder participation is assured*" (§ 8.3). NSDS should be designed to convert mainstream environmental concerns into policy (Brodhag and Taliere, 2006).

By 2006, 40% of UN member countries had developed and and/or partly implemented NSDS (Silveira, 2006). At the most recent 2005 World Summit in New York, 170 states reaffirmed their commitment to Sustainable Development (SD), additionally establishing clear links to the Millennium Development Goals (MDG). It was repeatedly stressed that each country had to take primary responsibility for its own development and that the role of national policies and strategies was of utmost importance for the achievement of SD (Silveira, 2006). This demonstrates that; although the urgent need for NSDS is widely acknowledged; workable procedures for implementing Sustainable Development are still in their infancy. SD as a concept has been kept rather vague. This ensures its transferability to different local and global contexts, as well as to contrasting cultures and regions of the world; however, it also restricts its usefulness as an operational concept, particularly at international level (Cordonier Segger, 2004).

Impact Assessment (IA) is one of the major tools through which the NSDS are implemented (CEC, 2006a). The "Guidance in preparing a NSDS (UN, 2002)", elaborated at the World Summit on Sustainable Development, describes IA as a tool to reveal comprehensive and long-term consequences of policies. The guidance further states that the procedure of IA provides feedback mechanisms whose results cannot easily be ignored by decision makers. The consideration of IA criteria and results, on the contrary, supports concise and tuned decision making processes. The guidance stresses that the participation of local stakeholders in an IA and their interpretation of criteria are key to meaningful IA outcomes.

In general, IA supports decision-making and tries to ensure that potential development options are environmentally and socio-economically sound. IA deals with identifying, predicting and evaluating the foreseeable impacts, both beneficial and adverse, of public and private policy-related development activities. IA is concerned with alternatives and mitigation measures and aims to optimise positive impacts and eliminate or minimise negative ones. It therefore differs from goal oriented impact *evaluation* which assesses the effectiveness of policy options in reaching a defined policy target.

IA needs to be process-oriented, multidisciplinary and interactive. It is increasingly being viewed as an instrument to involve different stakeholder groups (Donelly et al., 1998).

Many different forms of IA exist today which have mainly evolved from the assessment of economic impacts (or of regulations) and the assessment of environmental impacts. However, both strands developed in parallel to other assessments, e.g., gender, social and health. Recent developments endorse the integration of different assessment types into one approach. Abaza (2003) states that the need for integrated, comprehensive approaches towards IA has never been more urgent, considering the growing claims of globalisation and the challenge of unifying sound economic growth, social equity, and environmental protection – while simultaneously alleviating poverty and enhancing trade opportunities.

Integrated assessment and sustainability IAs consider the evaluation of impacts on all three sustainability dimensions - economic, social and environmental - in a systematic, multi-disciplinary approach.

A very recent introduction is Integrated Sustainability Assessment (ISA) which is considered in a number of EU research projects. ISA is based upon the principles of transition management. It is mentioned here for the sake of completeness, but will not be described further.

3 Ex-ante impact assessments at different levels in the European Commission (EC)

In the EC, IA has high priority on the political agenda. Currently, several ex-ante IA procedures are being applied simultaneously, covering different levels and objectives. Three of them are mandatory:

- Environmental Impact Assessment (EIA), a directive to be implemented by EU Member States, coordinated by DG Environment;
- Strategic Environmental Assessment (SEA), a directive to be implemented by EU Member States, coordinated as EIA at DG Environment;
- the EC IA procedure, implemented by the European Commission itself (all Directorates General), coordinated by the Secretariat General.

In Figure 1 the three IA procedures and their different levels and scopes are shown. Further details concerning each procedure are described in the following paragraphs.

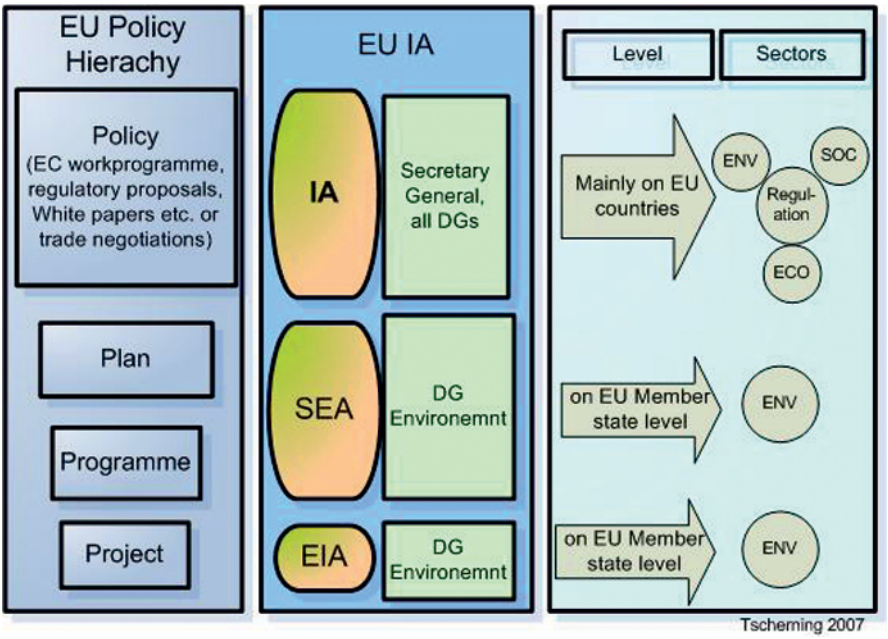

Fig. 1. Classification of EU Assessments (EIA (CEC 1985), SEA (CEC 2001a) and IA (CEC 2005b)) to EU decision-making hierarchy and broad trends in the nature of the different assessments. IA: EU Impact Assessment, EIA: Environmental Impact Assessment, SEA: Strategic Environmental Assessment, ENV: Environmental Sector, SOC: Social Sector, ECO: Economic Sector, DG: Directorate General

3.1 Environmental Impact Assessment (EIA)

Background

Environmental Impact Assessment (EIA) was enacted in the first National Environmental Protection Act (NEPA) of the United States in 1969 (Modak and Biswas, 1999). Today NEPA is considered as the cradle of all IAs: it provided the legislative background and formulated essential components of EIA. One of NEPA's main purposes was to facilitate the use of science for decision making. The procedure of EIA requires the identification of potential alternatives to any specific proposal, the analysis of impacts, and a justification of why the preferred action was chosen (Pope, 2007). EIA was meant to be applied ex-ante to all actions with a potential

effect on the environment, extending from project proposals to policy appraisals. EIA spread rapidly to other countries, e.g., Canada (1973), Australia (1974), former West Germany (1975) and France (1976) (Therivel et al 1992). Today it has been established in more than 100 countries at different institutional levels as an important decision support tool (Donelly et al., 1998).

The EIA Directive

EIA was first introduced into EU legislation in 1985 (CEC 1985) to identify and assess the effects and consequences of public and private projects (see box 1) on the environment before authorisation is given. It was amended in 1997 (CEC, 1997) and had to be converted into EU Member States directives by March 1999 (CEC, 1985). The participation of public opinion was possible in respect of certain projects. In 2003 it was assured through the Aarhus convention (CEC, 2003). The EIA Directive covers a broad range of activities ranging from industrial to infrastructure projects. A list of respective projects is given in Annex II and III of the Directive.

Article 2 of the directive requires that „*Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue inter alia, of their nature, size or location are made subject to an assessment with regard to their effects.“* Furthermore, the directive demands that the results achieved in the EIA „*must be taken into account in the development consent procedure*. “

These main requirements are further elaborated in the directive, and in the different EIA systems existing in the Member States. Although procedures adopted may vary, the stages are generally similar.

The EIA procedure

Screening is the first stage in which a “competent authority[1]” decides whether or not an EIA is required for a particular project. The requirements for screening are described in Article 4 of Directive 97/11/EC. EIA is mandatory for some projects and is based on individual Member State decisions for other projects. Screening results must be made public. The following stage, called *Scoping,* is mandatory only in some Member States. The Directive proposes that the project proponent may require a scoping opinion by the “competent authority”. At this stage the authority

[1] A competent authority is one designated by the Member State as responsible for performing the duties arising from the EIA directive

identifies which matters have to be covered in the "environmental information". Referring to the required information, the project proponent has to carry out environmental studies which will be delivered to the "competent authority", together with an application for development consent (*Submission of Environmental Information to Competent Authority*). In a large number of Member States the environmental information is presented in an Environmental Impact Statement. The collected environmental information must be presented to authorities with environmental responsibilities and to other interested organisations as well as to the public. This stage is called *Consultation with Statutory Environmental Authorities, other interested parties and the public*. It is followed by the *Consideration of the Environmental Information by the Competent Authority* in which the authority must reach a decision which is finally announced and made public (*Announcement of the Decision*). Measures to mitigate potential adverse environmental effects need to be described. For Natura 2000 sites special EIA rules apply.

Guidelines on scoping, screening and the environmental statement review are published by the Commission, and provide authorities, developers, consultants, researchers, organisations and the public with relevant information and checklists.

EIA scope

EIA is associated with decisions relating to projects. Usually, decisions concerning the location and the design of a project are taken before the construction work starts. Instead of prevention strategies, mitigation measures are often adopted. Later in the process, feasible alternatives to the project intervention are often limited to a minimum (BEACON, 2005). EIA outputs are detailed and the key data sources used are often from field work or sample analysis. Data tend to be qualitative and assessment benchmarks are often legal restrictions and best practices (BEACON, 2005).

EIA is defined by its reactivity because it applies after the developer or proponent has already finished the proposal (Pope et al 2004). The developer or proponent of the project itself is responsible for carrying out the requested environmental studies identified in the scoping process by the corresponding authorities (Sheate et al., 2001). In conclusion, EIA is a proponent driven, reactive approach (Pope et al., 2004).

3.2 Strategic Environmental Assessment (SEA)

Background

SEA aims at integrating environmental concerns into strategic decision making. Thereby, public and environmental authorities are fully involved in the planning process. SEA evolved in parallel with EIA and was initially carried out when the scope of EIA seemed too narrow for the assessment of a given proposal. This could be in terms of allowing for sound, sustainable, and global decision making (Partidário, 1996), or in regional or landscape level assessments, where the spatial requirements went beyond the EIA approach. Recently, it was argued that SEA has the capacity to support the development of policy and planning practices stressing the environmental component. SEA may therefore play a fundamental role in promoting sustainable principles and practices, since it considers cumulative and side effects (Eggenberger and Partidário, 2000).

In an international context the term SEA refers to a formalised procedure assessing the impacts of policies, programmes and plans. While SEA practises within EU countries is formalised by the EU SEA directive (CEC, 2001), no international standard has yet been established. Currently many existing SEA procedures are closely related to or based on EIA and the EC SEA directive. Similar policy tools and strategic approaches, widely present in developing countries, diverge from the European formal definitions of SEA but integrate parts of their characteristics and elements. For the further development and international standardisation of SEA all existing approaches should be considered equally (Dalal-Clayton and Sadler, 2004).

The SEA Directive

The EC elaborated the SEA directive "*to help to reach the goal of sustainable development*" (CEC, 2001a). It was adopted in 2001 and required Member States to implement SEA by 2003. SEA ensures that the environmental consequences of plans and programmes (see box 1) are identified and assessed before their implementation. For some of these, described in the directive, SEA is mandatory, whereas in other cases Member States have to make the decision case by case. Public and environmental authorities are fully integrated in the planning phase to improve transparency within the decision making process.

The objective of the SEA Directive as described in Article 1 is: „*to provide for a high level of protection of the environment and to contribute to*

the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development".

The SEA procedure

SEA follows a similar procedure to EIA. After a *Screening* phase, investigating the necessity of a SEA, the S*coping* phase determines which issues need to be addressed in the assessment, and by what means. During the third phase of the procedure, called *Environmental Assessment,* impacts and their significance are examined. Furthermore, alternatives to the proposed measure are stated and discussed. Findings of the *Environmental Assessment* are published in a report. The Environmental Report is a key feature of SEA. The Directive describes in detail which information has to be included. In the next stage of the assessment, the report is *reviewed* by environmental and other authorities and by the public. After this stage the decision maker approves or refuses the plan or programme, making reference to the SEA. Proposed *implementation and monitoring* methods are discussed and evaluated. *Consultation and stakeholder participation* is critical to the success of SEA and is carried out in tandem with the procedure from the early stages onward.

SEA scope

In contrast to EIA, which is initiated in response to a proposed plan, SEA serves as a support tool for decision-makers. SEA considers wider ranges of impacts and looks for alternatives to the proposed measure. It is a proactive tool and accompanies the planning of the proposed measure itself, allowing for the development of sustainable solutions.

The United Nations Economic Commission for Europe (UNECE) considers SEA as a key tool for Sustainable Development, because it is undertaken earlier in the decision making process than EIA. The SEA protocol was adopted by the ESPOO Convention paying special attention to transboundary contexts (UNECE, 2007). Hence, being advocated by strong organisations, SEA will most probably gain wider importance in the near future.

A detailed review of the relationship between EU EIA and EU SEA Directives is given in (Sheate et al., 2005).

Box 1: A proposed definition of policy, plan and programme in an IA context

Proposed definitions for Policies, Plans and Programs

*According to Wood (1991), a **policy** can be defined as an inspiration and guidance rationalising the course of action of a government …A **plan** can be defined as a set of linked proposed actions – with a time frame – to implement the policy ….Finally a **programme** can be defined as a set of **projects** that specify the geographical and temporal design criteria of the plan objectives.*

*The example "High Speed Rail" **Policy**: Development of a High Speed Rail network to promote the shift of passenger traffic from air to rail*
***Plan:** Where and when to implement the High Speed Rail?*
***Program:** Concrete proposal to build a High Speed Rail track between city A and city B.*
from BEACON Manual (2005)

3.3 EC Impact Assessment (IA)

Rationales – Sustainable Development and Better Regulation

Research in IA originated only a few years ago, in Canada, the UK and the EU (Buselich, 2004). So far the challenge of adapting existing environmental assessment, or regulatory approaches, to the requirements of Sustainable Development in its full complexity has not been carried out. Nor have newly developed approaches succeeded in fully integrating social, economic and environmental impacts and their interrelations at any level. Furthermore, the large number of different approaches and the alphabet soup of acronyms make for a confusing picture (Dalal-Clayton and Sadler, 2004).

The established understanding of IA as a purely regulatory instrument (Regulatory Impact Assessment, RIA) for cost-benefit analysis has changed in many countries over the last decade. There is a worldwide trend to integrate environmental, economic and social issues into one IA procedure. Even so, IA may still only enable policy makers to choose the policy option with the greatest benefit at the lowest cost. It remains questionable whether a balance can be achieved between the two core aims of Sustainable Development and Better Regulation. A background of disparate issues, actors and institutions in IA hampers the process (Jacob et al., 2006).

In the Amsterdam Treaty of 2002, the EU committed itself to "*the achievement of a balanced and sustainable development*" (CEC, 2002). The EU Strategy for Sustainable Development proposed by the European Commission (EC) (CEC, 2001b) was adopted by the European Council in Goteborg in June 2001. The 2001 strategy postulated the need "*to judge how policies contribute to sustainable development*". Additionally, the full effects of a policy proposal need to be carefully assessed; including estimates of its economic, environmental and social impacts inside and outside the EU. In 1999, Sustainability Impact Assessment (SIA) had already been adopted by DG Trade in anticipation of the World Trade Organisation (WTO) round of negotiations. In the context of WTO, Sustainability Impact Assessment seeks to identify possible economic, environmental and social effects of trade agreement outside the EU. The EC pledged itself further to develop methodologies for Sustainable Impact Assessment (CEC 2006b), by contracting consultants who developed a methodology and carried out preliminary assessments on the WTO round.

The EU strategy for Sustainable Development was revised in December 2005 (CEC, 2005a) and further renewed. The actual EU Sustainable Development Strategy (CEC, 2006a) was adopted by the European Council in June 2006, and explicitly reinforces the importance of high quality IA as a tool for better policy making. It stated that all EU institutions should ensure that major policy decisions are based on proposals which have undergone an IA, and equal consideration should be given to the social, environmental and economic dimensions of sustainable development. The document additionally strengthens the importance of collaboration with partners outside the EU, to meet the long standing commitment to global sustainable development (CEC, 2006a).

In the EC context "Better Regulation" means simplifying, improving and streamlining the EC regulatory environment. Better Regulation is a key to "*making Europe the most competitive knowledge-based society of the world by 2010*" laid out in the EU's Lisbon strategy from 2002. EU Better Regulation initiatives started in 1992, although results have been limited due to the complexity of the task and the lack of policy support. In a further attempt to lobby for Better Regulation, the EU Action Plan: "*Simplifying and improving the regulatory environment*" (CEC, 2002a) was elaborated. It states "*By the end of 2002, the Commission will implement a consolidated and proportionate instrument for assessing the impact of its legislative and policy initiatives, covering regulatory impact assessment and sustainable development (in the economic, social and environmental fields) and incorporating the existing instruments and methods".* In "Impact Assessment: next steps", the 2004 progress report, the EU IA framework is presented as an integrated approach supporting competitive-

ness and Sustainable Development. Both papers explicitly mention the merging of Better Regulation and Sustainable Development into one common assessment approach.

The two main drivers behind the IA procedure of the European Commission are the EU Sustainable Development Strategy and the Better Regulation agenda. The first focuses on the assessment of policy impacts on the economic, social and environmental dimension, including tradeoffs, and the second promotes effective and efficient regulation, aiming to fulfil the Lisbon objectives for a competitive European economy (Franz and Kirkpatrick 2006).

The IA EC Communication

In response to its Goteborg commitment to implement Sustainable Development, and to its commitments at the Laeken council (EU Better Regulation Action Plan (CEC, 2002a) to implement better regulation principles (Tamborra, 2003) the EC systematically started the development of an integrated, centralised IA framework.

These efforts resulted in the Commission's Communication on IA which introduced an internal process of IA for major proposals in all policy areas, including trade (CEC, 2002b). One main objective of the EU's IA is to improve the quality of proposals. It applies to all major Commission proposals which are listed in the Annual Policy Strategy or in the Work Plan. In this final document the EC does not promote Sustainability IA *per se* but stresses the need to develop an Integrated IA process; streamlining, substituting and integrating all the existing, separate IA measures, including sustainability IA. The Commission published internal guidelines in 2002 ("Impact Assessment in the Commission - Guidelines" and the "Handbook for Impact Assessment in the Commission - How to do an Impact Assessment") on necessary procedures when carrying out an IA. On 15 June 2005 new guidelines were published (CEC, 2005b), replacing the Guidelines and the Handbook. These were further amended in 2006, and they describe the IA procedure and the six analytical steps of the IA itself in detail.

The IA procedure

IAs are conducted by the responsible DG (Directorate General) within the European Commission. The Secretariat General recommends three steps/phases during the EU IA procedure. Firstly, the IA needs to be integrated into the Strategic Planning and Programming Cycle of the Commis-

sion. This means that the IA of each initiative has to be described in a Roadmap and is part of the Annual Work Programme of the Commission. The roadmap shows detailed information about the IA procedure. Additionally, an Inter-Service Steering Group (ISG) needs to be set up. The ISG is compulsory for cross-cutting items and always includes the Commissions Impact Assessment Unit (SG.C.1). These units, made up of different departments of the Commission, are meant to broaden the perspective of the assessment. Subsequently, all interested parties must be consulted, and expertise needs to be gathered, before the IA can be carried out. This latter part of the assessment is also known as stakeholder consultation. Minimum standards for consultation are set out in (CEC, 2002c).

Secondly, findings of the IA need to be presented in an assessment report, even if the policy initiative itself is withdrawn. Assessment reports should summarise the work undertaken for the IA and state assumptions and uncertainties. The report should be written in a simple non-technical language and technical details, or supporting documents, should be included in an annex. Thirdly, the report - together with the policy proposal - is disseminated for information to other institutions and summarised in a press release. Finally, the report is published on the Europe website by the Secretariat General (CEC, 2008).

The assessment itself is divided into six analytical steps which are described in Tabbush et al (2008).

In 2006, the EC established an IA Board, under supervision of the Commission's president, comprising six officers from different EC departments who had expertise in IA and policy support. The mandate of the board is to evaluate individual proposals and guide initiatives throughout the political decision-making in the EC.

By June 2007, the Commission had carried out 230 IAs and had gained considerable experience in the area. In spring 2007 the assessment procedure was further tested; with the help of an external evaluation, initiated by the European Council. The outcome is the "Strategic review of Better Regulation" which will be presented in spring 2008. Subsequently, the Commission will gradually introduce changes into the existing system. Among other things, these changes concern methodologies and data availability/quality across the three pillars, stakeholder consultations and Inter-Institutional aspects in Member States (Day, 2007).

IA scope

The goal of the EU IA is to estimate the environmental, economic and social impacts of a proposed policy in order to provide political decision makers with comprehensive and clear information of possible conse-

quences, trade-offs and other implications. The EU IA assists decision makers, but is not a substitute for political judgment. It may include an evaluation of the proposal (Will policy objectives be reached?) but mainly concentrates on the assessment of possible unforeseen impacts in different sectors, trade-offs and ramifications of a given policy intervention. The new assessment system replaces all single sector assessments; e.g., business, gender, trade, and environmental/ regulatory. It is intended to overcome the shortcomings inherent to single sector assessment (Lee and Kirkpatrick, 2004).

The new IA guidelines cover the Commission's work programme (regulatory proposals, white papers, expenditure programmes and negotiation guidelines for international agreements).

Although these guidelines still commit the EU IA to the ex-ante analyses of the impacts of policy proposals on the three sustainability dimensions, the assessment system is termed IA (Bartolomeo et al., 2004). The focus on the integration of Sustainable Development into EU policy has gradually declined. The EC still officially claims to assess potential economic, social and environmental impacts of policy options, but reduction of costs is becoming increasingly important in regulative issues. Critics already fear that established social and environmental standards will be undermined by Better Regulation (Paul, 2007).

4 Conclusion

Three different types of IA exist in parallel at the European Commission: Environmental Impact Assessment (EIA) which was first introduced into EU legislation in 1985 identifies and assesses environmental effects of projects. It is based at DG Environment and carried out at Member State level. Strategic Environmental Assessment (SEA) was adopted 2001 to make sure that environmental consequences of plans and programmes are assessed before the implementation of such. SEA is also carried out on Member State level and is based at DG Environment. Impact Assessments (IA) are conducted on policy level and are carried out by the different DGs in the EC. The procedure was introduced in 2002 to show potential effects of policies before their adoption.

Impact assessment is implemented at EC level and is meant to integrate all single assessments into one comprehensive system for European policy making. SENSOR's sustainability IA tools respond to this approach and concentrates on land use and environmental related policies. SENSOR is region-based and makes potential impacts on EU member state level

(NUT3) visible. It integrates the social, economic, and environmental dimension as well as regulation issues. The SIAT developed by the SENSOR project, supports decision makers in the EC to perform concise and reliable IAs.

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