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Towards a new instrument for promoting sustainability beyond the EIA and the SEA: the Holistic Impact Assessment (HIA)

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The Need for a New Regulatory Model

The world is currently facing a deep global crisis, which, far from being purely financial or economic, is rather systemic. Such a crisis, in fact, is showing a reality which had remained, more or less intentionally, veiled so far: the impossibility of a limitless economic growth in a finite Earth. The present global crisis is witnessing the failure of the neoclassical economic model (neo-liberalism), which has characterized the last decades. Such a model is based on the gross domestic product growth as the major (if not unique) indicator of development and adopts a sectoral thinking, which tends to separate the economic dimension from the environmental and social ones, not paying the due attention to the latter ones and to their interactions and inter-connections. In brief, it is a development model, *rectius* a "model of growth", that is unsustainable for the earth's ecosystem, neither in the short term, nor in the long one.1

1 The deep relationship between the economy and the environment, neglected by the neoclassical economy, is explained by the two fundamental laws of the thermodynamics, which may be considered as an economic formulation of the physical relations. In fact, the Earth is a closed system with regard to "matter", that is, a system in which there is neither increase nor decrease in material entropy. On the contrary, as it continuously receives energy from the sun, the Earth is an open system in regard to energy, although the reservoirs of fossil fuels are progressively being depleted. On these issues see C. J. Cleveland, "Biophysical Economics: Historical Perspective and Current Research Trends", in R. Costanza, C. Perrings and C. J. Cleveland (eds.), *The Development of Ecological Economics*, Edward Elgar, 1997 (originally in *Ecological Modelling*, 38, 1987), 62; N. Georgescu-Roegen, "The Entropy Law and the Economic Problem", in R. Costanza et al., *Ibid.*, 236 - 247 (originally in H. E. Daly (ed.), *Economics, Ecology; Ethics: Essays Towards a Steady-State Economy*, Chapter 3, W.H. Freeman & Co, 1980, 239.

Therefore, it is absolutely necessary to change the dominant economic model. To this effect, it would not be sufficient to simply adjust and revise the current development patterns based on the traditional neoclassical economic model, as proposed by the "green economy" approach. Quite on the contrary, a systemic shift of paradigm, grounded on a new reference economic model, should be pursued. The new paradigm ought to be based on the principle of sustainability.

The principle of sustainability, which predates the concept of sustainable development as enshrined in the Brundtland Report,² has been defined as "the duty to protect and restore the integrity of the Earth's ecological systems".³ This definition of the principle is correctly grounded on the concept of "ecological sustainability" and implies that economic development which ignores the inherent ecological limits of the Earth can never be sustainable.⁴

In the language used in the economic literature, the requested shift of paradigm should be accompanied by the shift from the so-called weak-sustainability approach, which has so far influenced the application of the traditional neoclassical economic model, to the strong sustainability approach, promoted by the so-called ecological economics. Such an approach analyses how ecosystems and economic activity interrelate, focusing more on the requirements of the system than on those of the individual. In fact, in the "ecological economics" rationale, the ecosystem contains the economy to which it supplies a throughput of matter/energy taken from *in natura* uses according to some rules of sustainable yield rather than according to individual willingness to pay. Therefore, this approach seems to be better suited to take into account the inherent ecological limits to development.

The shift from weak to strong sustainability corresponds to the shift from a sectoral to a holistic approach. This implies a reallocation of priorities calling not only for relevant environmental, social, economic and cultural changes, but also for legislative and policy innovations. In such a context, therefore, also the role of law has to be revised and restored, in opposition to the current deregulation and liberalisation trends which have played, and are still playing, a crucial role in the present crisis. In particular, a rebalance between command and control and market based instruments is needed and such an activity has to be informed to the strong sustainability pa-

² See K. Bosselmann, *The Principle of Sustainability, Ashgate Publ*, 2008, 12. 3 Ibid, 53.

⁴ Ibid.

⁵ M. Common and C. Perrings, "Towards an Ecological Economics of Sustainability", in R. Costanza et al., The Development of Ecological Economics, 1997 (originally in *Ecological Economics*, 6 (1), 1992), 197. 6 H. E. Daly, "Allocation, Distribution and Scale: Towards an Economics that is Efficient, Just and Sustainable", in R. Costanza et al., *Ecological Economics*, 202.

⁷ On the term "holistic" and its meaning, see F. Capra, *The Turning Point*, Simon & Schuster, 1982.

radigm, since weak sustainability aims at making our political and economic systems more environmental sensitive, but without any fundamental institutional change.⁸

As a consequence, the new approach should be also reflected in the way traditional legal instruments for the protection of the environment and of the ecosystem are conceived and applied. For instance, a major effort of re-orientation should be made in the field of the preventive assessment of negative impacts possibly caused by projects as well as by plans and programs on the environment.

In such a context, the two main legal instruments presently existing namely the Environmental Impact Assessment (EIA) and the Strategic Environmental Assessment (SEA), have represented in the recent past, and still represent, very useful tools to prevent possible negative impacts on the environment of a given territory. Their application, however, is affected by several shortcomings, which undermine their effectiveness. On this premise, the present contribution will focus on the analysis of the main features and the most relevant shortcomings of these two instruments, in particular within the European Union legal system, and then will consider the possibility of merging them into a new single instrument, in order to better coordinate and maximise their contribution to the promotion of sustainability.

The Shortcomings of the SEA and EIA in the Light of Sustainability

EIA: A Critical Appraisal

The Environmental Impact Assessment (EIA) is a procedure aimed at assessing the likely impacts of a project on the environment before its implementation. Through EIA's obligation, public authorities are required to gather prior information on the potential negative effects of a project on the environment and to integrate them into the decision-making process. In other words, it may be said that EIA's final goal is to try to make decisions more environmental-sensitive.⁹

For the first time, EIA appeared as a requirement for public decision-making in the USA in 1969, under the National Environmental Policy Act (NEPA).¹⁰ Since then, EIA encountered a great acceptance at the global level. A vast number of domestic legal systems adopted national EIAs¹¹ and EIAs obligations are today encompassed in several international treaties.¹² At the worldwide level, EIA has increasin-

11 N. Craik, *The International Law of Environmental Impact Assessment, Process, Substance and Integration*, Cambridge University Press, 2008, 23. 12 Among them: the 1978 UNEP Principles on Conservation and Harmonious Utilization of Natural Resources Shared by Two or More Sates; the 1980 Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-based Sources; the 1982 UN Convention of the Law of the Sea (art. 204); the 1991 Antarctic Environmental Protocol to the Antarctic Treaty; the 1991 UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo); the 1992 UN Convention on Biological Diversity (Article 14), the 1992 UN Framework Convention on Climate Change.

⁹ M. Lee, EU Environmental Law Challenges, Change and Decision-Making, Hart Publishing 2005, 171.

¹⁰ See National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4370(f) (2000).

gly emerged as a fundamental element of a preventive approach towards environmental protection and sustainable development.¹³ In the European Union context, EIA is regulated by Directive 11/92, which "codified" the original EIA Directive 85/337 and its amendments in a single text.¹⁴

The EIA Directive applies both to public and private projects likely to have "significant effects on the environment by virtue of their nature, size or location". The assessment shall encompass the direct and indirect effects of a project on human beings, fauna and flora; soil, water, air, climate and the landscape; material assets and the cultural heritage; as well as the interaction between the factors above mentioned.

EIA can be integrated into the existing procedures for consent to projects in the Member States.¹⁷ The main steps of the EIA process are the following ones: 1) a screening phase for the competent authority to determine whether the project is likely to have significant impacts on the environment (when not included in the list of projects for which an EIA is mandatory according to Annex I); 2) a scoping phase during which the developers provide a description and all relevant information on the project; 3) a consultation process with the general public and agencies with environmental responsibilities (in case the project has transboundary implications, neighbouring Member States should be consulted as well); 4) a final decision to grant consent or not to the project, which should consider the EIA's findings.

The Directive lists in Annex I the types of projects for which an EIA is mandatory. In Annex II the types of projects for which it is up to each Member State to determine whether or not to make them subject to an EIA are enumerated. For the latter types of projects, Member States have a wide margin of discretion, which can be exercised, on a case-by-case examination or on the basis of thresholds or criteria previously determined in general terms, taking into account the relevant selection criteria set out in Annex III.¹⁸

The EIA procedure set up by the Directive seems to be quite well

¹³ The 1992 Rio Declaration on Environment and Development highly contributed to elevate EIA among the mandatory requirements of this environmental preventive approach through Principle 17, which states that "Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority".

¹⁴ More in detail, the original Directive 85/337/EC on the assessment of impacts of certain public and private projects was amended in 1997 by Directive 97/11/EC and in 2003 by Directive 2003/35/EC, which sought to align the provisions on public participation with the Aarhus Convention. More recently, it was replaced by Directive 11/92/EU, which "codified" the previous directives and its amendments in a single text without any significant change. 15 Article 2(1), Directive 11/92.

¹⁶ Article 3, Directive 11/92.

¹⁷ Article 2(2), Directive 11/92.

¹⁸ L. Krämer, EU Environmental Law, 7th ed., Sweet & Maxwell, 2011, 156.

articulated and efficient. However, it has some shortcomings, as highlighted also by the European Commission in its periodical Reports on the implementation of the Directive.

For instance, the 2003 Report on the application and effectiveness of the EIA Directive showed *inter alia* a wide diversity of national approaches to project screening and to the setting of thresholds for determining whether to make projects subject to EIA or not, an often inadequate provision of information on the projects, a sometimes scarce consideration of the alternatives, a limited opportunity for public participation in some Member States coped with the difficulty to assess its effective weight in the decisional process, and a widespread poor quality control of the EIA procedure. Moreover, it called for an effort to improve the judicial review on formal requirements and to better integrate other concerns, such as those related to human health and biodiversity, in the assessment.¹⁹

Furthermore, the subsequent 2009 Report on the application and effectiveness of the EIA Directive, while acknowledging that Member States' transposition and implementation of the EIA Directive is largely in line with its main objectives and requirements, found that some improvements and amendments are needed, insofar the effective application of the Directive suffers from a sometimes inadequate quality of the information used in the EIA documentation and from an often poor overall quality of the EIA process.²⁰

Some of the major shortcomings of the EIA Directive deserve a more detailed analysis. In this sense, firstly, the practical implementation of the Directive's provisions is largely left to the Member States and has sometimes given rise to marked differences in its concrete application. For instance, a major difficulty lies in the uncertainty of determining which projects should be made subject to an EIA. In this sense, as regards Annex I projects, the selection criterion based on a rigid list may sometimes have the consequence to narrow down the potential field of application of the Directive. Moreover, the wide margin of discretion left to the Member States with regard to Annex II projects may lead to a too broad variety of approaches on whether to require an EIA or not in similar cases. In such a context, it should be noted that the European Court of Justice (ECJ), with its case-law, has promoted a trend towards the limitation of the discretionary power left to the Member States by the Directive. In this sense, the ECJ affirmed that de facto the EIA procedure is necessary every time that a project is likely to

¹⁹ European Commission, Application and Effectiveness of the EIA Directive (Directive 85/337/EEC as amended by Directive 97/11/EC): How successful are the Member States in Implementing the EIA Directive? COM (2003) 334 final.

²⁰ European Commission, Report on the application and effectiveness of the EIA Directive (Directive 85/337/EEC, as amended by Directives 97/11/EC and 2003/35/EC), COM (2009) 378 final.

have significant effects on the environment.²¹ Moreover, it limited the cases when exceptions to EIA can be granted,²² it interpreted extensively what constitutes a "project",²³ and it established that when deciding whether a project falling under Annex II should be submitted to EIA or not, the selection criteria included in Annex III are all binding and shall be adopted and integrated into the national legislation.²⁴ Unfortunately, as it has been correctly argued, the daily practice demonstrates that this case-law is often ignored.²⁵

Secondly, the EIA Directive essentially lays down procedural requirements, which ought to be followed by the Member States, but it neither establishes obligatory environmental standards for a correct assessment, nor imposes a legal obligation to follow the EIA findings. In fact, article 8 of the Directive simply prescribes that the results of consultations and information gathered during the EIA procedure "shall be taken into consideration in the development consent procedure". In other words, there is no legal obligation to abide by the results and the recommendations of the EIA procedure in the development consent phase.²⁶ At the origin of this deficiency lays the idea that environmental impact assessment is not a procedure which should prohibit certain types of development capable of hindering the environmental integrity of a given land,²⁷ but rather lead to a better informed and more transparent decision-making process. In fact, there is just a presumption that the collection of information gathered during the EIA procedure will improve the environmental sensitivity of the final decisions, despite the fact that the development consent may be granted also when serious negative effects are expected.²⁸ Moreover, the omission of the EIA procedure, when due, seems to be treated differently in the various Member States.29

Thirdly, the EIA procedure, as it stands, seems not to be well suited to achieve a satisfactory coordination with other procedures and policies, such as in particular with regard to biodiversity and climate change, as well as with other types of assessments, such as

²¹ See C-431/92 Commission v. Germany [1995] ECR I-2189; C-131/94 Commission v. Belgium [1996] ECR I-2323; C-392/96 Commission v. Ireland [1999] ECR I-5901.

²² See C-142/07, *WWF v. Autonome Provinz*, [1999] ECR I 5613, where the Court said that "Only projects which mainly serve national defence purposes may therefore be excluded from the assessment obligation".

²³ C-142/07 Ecologistas en Acción-CODA [2008] ECR I-6097; C-2/07 Abraham et al. [2008] ECR I-1197.

²⁴ C-156/07, Aiello et al. v. Comune di Milano.

²⁵ L. Krämer, EU Environmental Law, 156.

²⁶ Craik, The International Law of Environmental Impact Assessment, 150; 27 P.G.G. Davis, European Environmental Law, An Introduction to Key Selected Issues, Ashgate Publishing, 2004, 156

²⁸ Krämer, EU Environmental Law, 157.

²⁹ In such a case, the situation is very different in the 27 Member States. For instance, some of them, as the UK, oblige the developer to restart a new procedure, whereas others, like Germany, consider the omission as an administrative error irrelevant for the planning consent.

the one required under the Habitats Directive. Moreover, the scope of the EIA procedure is limited to the assessment of projects likely to have "significant effects on the environment". This means that there is just a limited possibility to consider the possible negative effects of a project on interests and values not directly linked to the environmental dimension, but rather pertaining to the social, economic and cultural spheres, which may be relevant for a certain territory.

Fourthly, the implementation of the EIA Directive in the various Member States has shown a lack of harmonised practices for public participation. Despite increasing public participation in the decision-making process, in fact, there is still no standard practice with regard to the scope and meaning of the public participation within the EIA procedure. Too often the public participation requirement is perceived by the competent national authorities in the Member States as a merely "procedural", rather than a "substantial" requirement, whose contribution is not really able to influence the outcome of the final decisions.

SEA: A Critical Appraisal

The Strategic Environmental Assessment (SEA), also known as Strategic Impact Assessment (SIA) under international law, deals with the assessment of the likely negative effects of policies, plans and programmes on the environment. It was firstly introduced in the USA together with the EIA under the 1969 NEPA³⁰ and is highly connected to the EIA. In fact, the SEA replies to the objections raised with regard to the limited scope of the EIA evaluation, according to which, in many cases, projects follow policy decisions already taken in general plans and programmes. Therefore, the separation of the two types of environmental assessment from the broader policy setting can entail the risk that the environmental impacts of plans and programmes are not consistent with those of projects. In the light of the principle of sustainability, it seems that environmental considerations should be better anticipated at an upper level and earlier stage of the decision-making process, as constitutive elements of the process itself.³¹ Indeed, SEA aims at integrating environmental considerations together with economic and social interests related to policies, plans and programmes, thus creating a reference framework for the correct evaluation of projects.

³⁰ See above footnote 10.

³¹ S. Marsden and J. De Mulder, "Strategic Environmental Assessment and Sustainability in Europe: How Bright Is the Future?", in S. Marsden, T. Koivurova (eds.), *Transboundary Environmental Impact Assessment in the European Union, The ESPOO Convention and its Kiev Protocol on Strategic Environmental Assessment*, Earthscan, 2011, 217. For a broader discussion on the necessity to have an integrated decision making process in the field of sustainable development law, see J. Dernbach, "Achieving Sustainable Development: The Centrality and Multiple Facets of Integrated of Decision making", 10 *Indiana Journal of Global Legal Studies* (2003), 247.

Similarly to EIA, SEA is nowadays an instrument adopted and widely used worldwide, both at the international and the domestic levels.³² In the European context, SEA is mandated by Directive 2001/42.³³

SEA should be coordinated and complementary to EIA. This seems to be possible and advisable, since EIA applies at a lower level to projects, whereas SEA applies at an upper level to policies, plans and programmes.³⁴ In other words, EIA operates "down-stream" and SEA "up-stream". In such a context, whilst EIA is meant to focus on the effects of a single project, SEA should analyse the cumulative impacts of the several activities included in a plan or programme.

Within the EU context, the SEA Directive applies to a wide range of public plans and programmes prepared at national, regional or local level and required by legislative, regulatory or administrative provisions. The SEA Directive does not apply to mere policies, if not encompassed in official plans or programmes. Differently from the EIA Directive, the SEA Directive does not contain a list of specific plans/programmes to be made subject to the assessment, but establishes that SEA is mandatory for plans/programmes falling in the following areas: agriculture, forestry, fisheries, energy, industry, transport, waste/water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in the EIA Directive or have been determined to require an assessment under the Habitats Directive.³⁵

For plans/programmes not included in the areas listed above, Member States have to carry out a screening procedure to determine whether such plans/programmes are likely to have significant environmental effects. If there are significant effects, a SEA must be carried out. The screening procedure is based on the criteria set out in Annex II of the Directive. For the SEA procedure, an environmental report is prepared in which the likely significant effects on the environment and the reasonable alternatives to the proposed plan or programme are identified, described and evalua-

32 For example, within the framework of the 1991 Espoo Convention, the Parties adopted in 2003 the Kiev Protocol on strategic environmental assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (adopted on May 21st 2003 and entered into force in 2010). The recognition of the importance of a strategic assessment integrated in the earlier phases of the decision-making process is also present in the Aarhus Convention (1998), with regard to the public participation requirement to plans and programmes, and in Principle 4 of the Rio Declaration on Environment and Development (1992), which acknowledges that "environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it".

33 Council Directive 2001/42/EC of 27 June 2001 on the Assessment of the

33 Council Directive 2001/42/EC of 27 June 2001 on the Assessment of the Effects of Certain Plans and Programmes on the Environment.

35 Article 3(2), Directive 2001/42.

³⁴ See for instance art. 2 (7) Espoo Convention. See Craik, *The International Law of Environmental Impact Assessment*, 155.

ted. The public and the concerned environmental authorities are informed and consulted on the draft plan or programme and the environmental report. As regards plans and programmes which are likely to have significant effects on the environment in another Member State, the Member State in whose territory the plan or programme is being prepared must consult the other Member State(s). The competent national authorities have the duty to take into account the environmental report and the results of the consultations before the final adoption of the plan or programme. Once the plan or programme is adopted, the concerned environmental authorities and the public have to be adequately informed. Moreover, Member States must monitor the significant environmental effects of plan and programmes, in order to identify at an early stage possible unforeseen adverse effects.

The European Commission issued in 2009 a Report on the application and effectiveness of the Directive on SEA,³⁶ in which it presented and evaluated the main critical issues regarding the application of the Directive and analysed its effectiveness. In such a context, the European Commission affirmed that Member States have shown some difficulties and the need for further guidance, in particular in the interpretation of certain key concepts of the Directive, such as those related to the screening criteria, as well as in the identification of alternatives, in the coordination mechanisms and/or in the joint procedures for fulfilling the requirements for assessment under other Directives, such as for instance the Habitats Directive.

However, the most relevant shortcoming related to the application of the SEA Directive seems to be the lack of coordination with the EIA procedure. The two procedures seem too often to proceed on two parallel tracks, without any common vision or approach. This may lead to different and inconsistent views on the activities conducted at upstream and downstream level, which are likely to have significant effects on a certain territory. Therefore, the lack of coordination between the two procedures seems to be the most urgent question to be addressed.

The Way Forward: the HIA (Holistic Impact Assessment)

Is there a Need for Merging SEA and EIA?

From the analysis conducted above, it emerges that the SEA and EIA procedures represent very important tools to prevent possible negative impacts on the environment of a given land, which present many similarities, but lack coordination between them. How to determine, then, whether there is a need for merging them within a single framework?

The starting point in this sense ought to be the fact that the two instruments share a common aim. Indeed, although SEA and EIA are two separate instruments and apply to different types of ex-ante evaluation, one being at the "upstream" level of the plans and programmes, while the other referring to the "downstream" level of the projects, they substantially have a common objective. Such an objective consists in the prevention of the negative effects of certain plans and programmes (SEA) as well as of certain projects (EIA) on the environment.

The possibility to merge the two instruments together has in fact been considered at EU level.³⁷ The European Commission has recognised that there are different potential areas of overlapping between the two Directives. This is the case, for instance, "where large projects are made up of sub-projects; for projects that require changes to land use plans; for plans and programmes which set binding criteria for the subsequent development consent of projects; and hierarchical linking between SEA and EIA ("tiering")".³⁸ However,

the European Commission, after having addressed this issue, affirmed that the two instruments have their specificities and should not be merged.³⁹ To this effect, in particular, it argued that "the objectives of the SEA are expressed in terms of sustainable development, whereas the aims of the EIA are purely environmental".40 Moreover, it added that the SEA, differently from the EIA, requires the competent authorities to be consulted at the screening stage, calls for an assessment of reasonable alternatives, has an explicit provision concerning the use of information from other sources. and includes requirements on monitoring and quality control.41

In my opinion, the reasoning of the European Commission with regard to the allegedly different approach of the two legal instruments towards environmental protection and sustainable development is not convincing. In particular, the consideration that only the SEA Directive contains an explicit reference to sustainable development cannot be a decisive reason to conclude that the two Directives are too different to be merged.

Ouite on the contrary, a careful analysis of the scope of the two Directives shows that they share a common objective, approach and rationale. This is demonstrated by the fact that SEA and EIA represent two very similar procedures, both promoting the preventive assessment of certain activities likely to have negative consequences on the environment. The major difference between them simply lies in the fact that the assessment required is conducted at different stages: in the case of SEA at the planning stage, whereas in the case of EIA at the project stage. Moreover, the fact that the EIA Directive does not contain an explicit reference to the concept of sustainable development, does not exclude the possibility to interpret and apply its provisions in the light of the principle of sustainability, with a view to promoting sustainable development.

My proposal is therefore that in order to give value to the explicit (SEA) and implicit (EIA) reference to sustainable development and achieve a better coordination between the two procedures, they should be merged into a new single instrument, based upon a holistic sustainability approach. The new instrument, which could be named Holistic Impact Assessment (HIA), would represent the common framework for the assessment of all the activities likely to have significant adverse effects on a certain territory. Within such a context, the two types of evaluations will continue to exist and be conducted separately, still dealing respectively with the upstream and downstream assessment, but will be placed under a single framework, inspired by a common approach, governed by the same rules and managed in a coordinated way.

⁴⁰ Ibid.

³⁹ Ibid. 41 Ibid.

HIA: a New Single Instrument to Promote a Holistic Sustainability Approach

The merge of the SEA and EIA procedures into a new single instrument, namely the HIA, would represent in my opinion the best solution to address the main open issues and tackle the major shortcomings presently affecting the two procedures, which are still shaped on a sectoral based approach.

The main reasons to support the merge and establish the new instrument may be summarised as follows.

Firstly, the merge of the SEA and EIA into the HIA would promote a true vertical integration among the two procedures within a common reference framework, inspired by the same kind of holistic sustainability approach. This will realise an effective "tiering" of the two upstream and downstream assessments (SEA and EIA) and reduce the observed lack of coordination presently existing between the two procedures. By so doing, the risk that the two procedures lead to different and inconsistent views on the activities conducted at upstream and downstream level, within the same territory, will be greatly reduced. Moreover, the merge of the SEA and EIA within a single instrument would also improve the coordination with other procedures and policies, such as with regard to biodiversity and climate change, as well as with other types of assessments, such as the one required under the Habitats Directive.

Secondly, the revised SEA and EIA procedures, operating as integrated instruments within the single HIA framework, would represent very valuable tools to promote an improved spatial planning. In this sense, the two revised procedures, rather than limiting the upstream and downstream assessments to "procedural" instruments only, with a limited role and limited effects on the decision-making related to the spatial development of a certain territory, could give a "substantial" contribution to a more accurate and effective land planning, inspired by a common sustainability rationale.

Indeed, the HIA would promote a holistic approach to the upstream and downstream assessments, which will lead to a more comprehensive evaluation of the activities likely to have significant effects on a certain territory. Under such a holistic approach, the possible negative effects of the plans and programs as well as of the projects will be assessed with regard to the specific features of the given territory. By so doing, it will be possible to better understand the local territorial context, including the environmental peculiarities, the relevant local traditions and the cultural vocation of the land where a certain initiative ought to be localised and thereby promote a more accurate and comprehensive assessment of its possible negative effects.

Thirdly, the establishment of the HIA could promote the adoption of a common approach towards the definition of the plans and programs as well as to the projects which ought to be subject to the SEA and EIA evaluations. It is well known that the present EIA regime prescribes a compulsory assessment for the projects falling under the Annex I list, while Member States retain a wide margin of di-

scretion with regard to Annex II projects. On the contrary, the SEA assessment is mandatory for plans and programs falling in certain given areas. However, the ECJ has affirmed, with specific regard to the EIA, that *de facto* the procedure is necessary every time that a project is likely to have significant effects on the environment. This reasoning may well apply also to the SEA assessment. For this reason, under the HIA framework, the question could be solved along the way indicated by the Court, by prescribing that SEA and EIA evaluations are mandatory every time that certain plans/programs or projects are likely to have significant negative effects on a certain territory.

Fourthly, the HIA could also promote a new and more progressive approach to the issue of the "value" of SEA and EIA procedures with respect to the development consent phases. In fact, the present situation, whereby there is no legal obligation to abide by the results and the recommendations of the two procedures in the development consent phases, is clearly not satisfactory. For this reason, I think that under the new holistic approach promoted by the HIA, which is inspired by sustainability considerations, the findings of the assessment procedures should become fully binding upon the relevant policy-makers and more specifically upon the authorities in charge with granting the development consent.

Finally, the HIA could also reinforce and improve the role of the public participation, both within SEA and EIA procedures. In this sense, the existing provisions and their concrete application in the Member States should be carefully revised, in order to promote as far as possible a "standard practice" for public participation within the EU territory. To this effect, the main guiding criterion should be to make public participation a more effective instrument, which can substantially influence decision-making, rather than being (often) reduced to a mere "procedural" requirement, whose results may be easily ignored or by-passed.

Conclusion

The present contribution has presented and discussed the major shortcomings of the EIA and the SEA, which are nowadays the two main legal instruments existing for the the preventive assessment of the negative impacts possibly caused by projects as well as by plans and programmes on the environment.

The analysis has focused in particular on the application of the EIA and the SEA in the European Union legal system. The experience gained at EU level with those instruments shows that they pursue a common aim, have a similar approach and present many similarities. However, the lack of coordination in their concrete application may lead to unsatisfactory and paradoxical results.

For this reason, I have argued that they should be merged into a new single instrument, based upon a holistic sustainability approach, namely the Holistic Impact Assessment (HIA). The new instrument would represent the common framework for the assessment of all the activities likely to have significant adverse effects on a certain territory. Within such a context, therefore, the two types of evaluations (EIA and SEA) would continue to be conducted separately, still dealing respectively with the upstream and downstream assessment, but will be placed under a single framework, inspired by a common approach, governed by the same rules and managed in a coordinated way.

In my opinion, the merge of the EIA and SEA within the HIA would help in solving the major shortcomings presently affecting the application of the two procedures, thus promoting a true "tiering" of the two upstream and downstream assessments, an improved, more accurate and effective land planning, a common appro-

ach towards the definition of the plans/programs and the projects which ought to be subject to the EIA and SEA, a more progressive approach towards the recognition of a legal obligation to abide by the results of the procedures in the development consent phase as well as an improved role of the public participation in both the EIA and the SEA.

For all these reasons, the establishment of the HIA should be pursued, starting from the EU level, with a view to promote a holistic sustainability approach to land planning and a more effective and coordinated prevention of all the possible negative impacts caused by either plans/programs or projects on the environment of a given territory.