

# CONCEPT OF REVERSE ENVIRONMENTAL IMPACT ASSESSMENT

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## INTRODUCTION

There is worldwide recognition that climate change (CC, if not precisely quoted) is one of the biggest challenges faced by human society, considering the unequivocal effects of CC posed on the state of the environment. Until recently, the environmental impact assessment (EIA) was focused primarily on identifying the impacts of a proposed project on the environment, rather than the impact of environmental change (including CC) on the project itself (Agrawala et al., 2010:8). Today, the era of 'mitigation-adaptation dichotomy' (Biesbroek et al., 2009:230) has come to an end, and adaptation is not 'perceived as the antidote to mitigation' (Ruth et al., 2006:15) and considered 'the neglected stepsister' (Sussman et al., 2010:57) or at least as 'the poor cousin of mitigation' (Ford and Berrang-Ford, 2011:4).

Theoretically, three levels of the incorporation of CC impacts and adaptation measures within the context of EIA modalities can be distinguished - high level policy documents acknowledging such a need (the first level), operational guidance and adjustment of legal and regulatory frameworks (the second level) and actual implementation - practice cases (the third level) (Agrawala et al., 2010:13). In this research, the second level, i.e., the adjustment of legal and regulatory frameworks in the terms of the EIA Directive 2011 Amendments (2014) (Amendments 2014<sup>□2</sup>) is explored. This article first provides a concise overview of the historical background of the development that has led to changes in the EIA legal framework, and the birth of the concept of reverse environmental impact assessment (REIA). Next, this article analyses the essence of the REIA and its reflection in the preamble of the directive. Finally, this article briefly discusses the rest of the Amendments 2014, as much as they regard to REIA.

The article is based on the analysis of the relevant documentation (political guidance documentation, legal sources) and specialized literature of the field. There are used traditional legal research methods as monographic, dogmatic and special analytical techniques.

## 1. HISTORICAL BACKGROUND - NEED FOR CHANGES

The fact that the anthropogenic CC, as a development, security, health, and equity issue (Byer et al., 2012), cannot be undervalued in the process of EIA has been acknowledged by several political guidance documents. The viable application of EIA to CC was first recognized by the United States Senate in the mid-1980s (Christopher, 2008:551), and today the United States is one of the pioneer countries (like Australia, Canada, the island of Kiribati, Netherlands, UK) (Gerrard, 2012; Parejo Navajas, 2014) in the promotion of the application of REIA (see more on this issue - e.g., Christopher, 2008; Moser, 2009, 2011; Sussman et al., 2010; Gerrard, 2012). A huge body of guidance documents regarding the incorporation of CC challenges within the context of EIA modalities has been prepared by national and several sub-national authorities as well as multilateral development banks (Agrawala et al., 2010:33; Gerrard, 2012; Parejo Navajas, 2014).

In the European Union (EU), for long years the policy and legislation followed the principle of 'business as usual' (Krämer, 2011:1-11, 9:25) and '[t]he appearance of climate change issues as a topic of EU environmental policy is of recent date' (ibid, 9-01). Pursuant to Article 191(1) of the Treaty on the Functioning of the EU, one of the objectives of the EU's environmental policy is combating CC (added by Lisbon Treaty since December 1, 2009), but becoming aware of double

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<sup>2</sup> Full titles of the Directives and respective abbreviations can be found at the end of the article in part of the legislative acts.

challenge of CC, the European Commission (Commission) has called for climate-proofing integration into the EIA Directive (Commission, 2007:18) for the first time (as to author's knowledge). In 2013, it firmly stated that **EIA, as legally-required and systematic tool, is well suited to tackle the problems caused by CC** (Commission, 2013:3).

From a legal perspective, the EIA Directive 1985 did not expressly address CC, demanding only describing, identifying and assessing in an appropriate manner direct and indirect effects **of a project on climate**, among other factors (EIA Directive 1985, Article 3), and stipulating that the description of the project shall include climatic factors (Annex III, point 3) (mitigation measure). The amendments to the EIA Directive 1985 (respectively, in 1997, 2003, 2009) did not introduce further regulations on this matter, with the exception of reference to **the risk of accidents**, having regard in particular to substances or technologies used, as one of the characteristics of the project that must be considered when evaluating the project pursuant to Article 4(1) (the EIA Directive 1985 Amendments (1997), Annex III, Section 1).

## **2. THE ESSENCE OF REVERSE ENVIRONMENTAL IMPACT ASSESSMENT AND PREVENTIVE INTENT OR 'SPIRIT' OF DIRECTIVE**

In essence, the Amendments 2014 are aimed at the use of adaptive management in order to improve adaptive capacity through the mechanism of CC adaptation, or, in other words, introduce 'climate proofing' for the projects. In such an interpretation, the main questions posed by the CC adaptation are following: 'How might implementing the project be affected by climate change? How might the project need to adapt to a changing climate and possible extreme events?' (Commission, 2013:30) These questions constitute the core of the REIA (Gerrard, 2012; Parejo Navajas, 2014) that helps to evaluate 'the impacts that the 'transformed environment' – a result of the adverse effects of climate change – may cause to a project [...] in order to act proactively' (Parejo Navajas, 2014). As well as, it 'takes the environment (transformed by the effects of climate change), for the first time, as a reason for the possible damages caused to a certain project' (ibid) or, put differently, devotes attention to - 'at how changes in the environment might affect the project' (Gerrard, 2012).

By adopting the Amendments 2014, a new body of 'climate change law' has been introduced in the EU's EIA legal framework, following a proactive, precautionary, cross-cutting and cross-sectoral approach to CC adaptation, and aiming at such a development trajectory where climate-resilient pathways realize the goal of sustainable development (IPCC, 2014a). The preventive intent (legislative intent) or 'spirit' of the Amendments 2014, results from several recitals of the preamble: recital 7, recital 13 and recital 15, although, they are not operative provisions themselves and are, by definition, statements of intent, not meant to stand alone, but exist in reference to operative provisions (Klimas and Vaičiukaitė, 2008:25, 30).

Recital 7 recognizes that '[o]ver the last decade, environmental issues, such as resource efficiency and sustainability, biodiversity protection, **climate change, and risks of accidents and disasters**, have become more important in policy making' and '[t]hey should therefore also constitute important elements in assessment and decision-making processes.' The main idea of the incorporation of the tool of adaptation to CC in combination with the mitigation of CC, in the words of recital 13, is explicitly expressed as follows: '**Climate change** will continue to cause damage to the environment and compromise economic development. In this regard, it is appropriate to assess the impact of projects on climate (for example greenhouse gas emissions) and their **vulnerability** to climate change.' Thus, here two different situations can be distinguished - i.e., first, the appropriate evaluation of the emissions generated by the project and, secondly, the assessment of the climate-proofing (vulnerability) of the project (adaptation measure (REIA)) (also Parejo Navajas, 2014). Recital 15 makes it clear that the intention of the EU lawmaker is to strengthen synergy between CC, risks of accidents and disasters, as one of the constitutive elements of CC process and its impact on the projects: 'In order to ensure a high level of protection of the environment, precautionary actions need to be taken for certain projects which, because of **their vulnerability to major accidents, and/or natural disasters** (such as

flooding, sea level rise, or earthquakes) are likely to have significant adverse effects on the environment. For such projects, **it is important to consider their vulnerability** (exposure and resilience) **to major accidents and/or disasters**, the risk of those accidents and/or disasters occurring and the implications for the likelihood of significant adverse effects on the environment.’ Thus, this recital manifests the political will of the integration of two assessments - EIA and Climate Risk Assessment by the use of the REIA, because effective implementation of mitigation and adaptation options that can help address CC ‘depends on policies and cooperation at all scales, and can be enhanced through **integrated responses** that link adaptation and mitigation with other societal objectives’ (IPCC, 2014b).

Although CC challenges are framed in several recitals of the preamble of the Amendments 2014, a cautious approach should be applied in reference to whether the intentions expressed in the preamble fully, meaningfully and effectively are incorporated in the rest of the Amendments 2014. As de Sadeleer (2014:24) contends: ‘There is no doubt that an EU act will never end up addressing all objectives cumulatively at the same time. Sometimes it will emphasize one of them, sometimes another, whilst at other times both at the same time.’

### 3. OVERVIEW OF AMENDMENTS

The new wording of Article 3(1) (hereinafter – Articles quoted of Directive 2011 as amended by Amendments 2014) that fixes the requirements of the content of the EIA, and refers to the scoping stage of the EIA, stipulates that the EIA should identify, describe and assess the climate, among other factors. In Annex IV, section 4 is the reference to this factor, indicating that the description of the EIA report shall include the description of climate like greenhouse gas emissions, impacts relevant to adaptation. In addition, reading Article 3(1) in conjunction with paragraph 2 of the same Article concludes that these legal provisions have to be understood not only in terms of the traditional EIA (examination of the effect of proposed action on the environment), but as including the REIA that considers the effects of the project in terms of adaptation policy (see also Parejo Navajas, 2014), i.e., Article 3(2) states:

‘The effects referred to in paragraph 1 on the factors set out therein shall include **the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters** that are relevant to the project concerned.’

Thus, ‘[t]he modifications to Article 3 aim to ensure consistency with Article 2(1), i.e. by referring to ‘significant’ effects, and adapt the EIA to environmental issues’ (Commission, 2012:5).

In section 1 of Annex III is stated that a particular regard should be paid to the ‘the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge’ (point f). The Amendments 2014 introduce a new Annex II.A that is ‘intended to harmonise the screening process’ (Commission, 2012:6). Practically, the main difference between the two annexes is explained in paragraphs 3 to 5 of Article 4. Annex II.A contains the information that the developer shall provide on the characteristics of the project and its likely significant effects on the environment regarding the projects listed in Annex II, for which screening is carried out to determine whether an EIA is required. Annex III lays down the criteria for screening Annex II projects and is used to state the main reasons for requiring/not requiring the EIA by the competent authority. The interlinking of all Annexes can be found in section 4 of Annex II.A that sets out: ‘The criteria of Annex III shall be taken into account, where relevant, when compiling the information in accordance with points 1 to 3.’ It indicates that the tool of the REIA is applicable in the screening phase of the project, too. The application of the REIA, both at the scoping and screening phase, shall be estimated as the right approach because the experience suggests – the earlier the considerations related to CC challenges are considered, the easier they can be incorporated into the project development process, and at the least financial cost (Agrawala et al., 2010:9). On the one hand, it means that ‘[o]nce it has been determined that an EIA is required at the project identification stage, the necessity of a full scale climate change risk assessment could be examined as part of the EIA

scoping' (Agrawala et al., 2010:12), using different adaptation measures (e.g., heat-related health action plans, flood-risk planning, drought and water scarcity risk management, coastal and flood defenses, economic diversification, natural hazard monitoring, greening of cities) (Isoard, 2011:53). On the other hand, in the case of projects that are to be made subject to an EIA (applicable to both types of the projects - Annex I and Annex II projects) the developer has the duty of preparing and submitting an EIA report, as set out in Article 5(1). Accordingly, Annex IV foresees that the information supplied by the developer shall include the description of 'the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change' (point 5, f) and 'of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned' (point 8). According to the new wording of Article 5(1), the developer has the right (and no express obligation) to provide any additional information (i.e., among other, also that one referring to vulnerability of the project to CC and major accidents and/or disasters) taking into account two cumulative factors. Firstly, 'where necessary, the competent authority shall seek from the developer supplementary information, in accordance with Annex IV, which is directly relevant to reaching the reasoned conclusion on the significant effects of the project on the environment' (Article 5(3), c)). Secondly, such requirement is sound as far as 'that may reasonably be required for reaching a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment' (Article 5(1), second indent). Such rewording of Article 5 signals a shift away from the compulsory tackling of CC issues towards the broader use of 'good faith' in the actual EIA implementation, leaving the developer and competent authority with extensive room to maneuver. Therefore, further empirical evidence on EIA practice cases - on the actual application of the legal provisions - needs to be gathered in the future, in order to evaluate properly to what extent Amendments 2014 (whether they are sufficient) ensure the appropriate, effective and meaningful use of the REIA.

## CONCLUSIONS

The incorporation of the REIA, through Amendments 2014, into the EIA process will no doubt be a step further in tackling CC challenges through EIA projects. The incorporation of the REA into the modalities of the EIA has the pivotal role of combatting CC at national, regional, and international levels, and the effective application of other legal provisions to this decision-making instrument. In addition, there can be hardly any doubt that further legislative measures will be subject to the comitology procedure, mainly due to technical or scientific progress, but also due to the extent of legal maneuverability of the developers, competent authorities, and Member States.

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