Development effects on our climate – can they be assessed?

The latest modifications to the EU EIA Directive (originally 85/337/EC, and 2011/92/EU) pave the way for the consideration of new aspects, but the success of Environmental Statements (to be rebranded as EIA Reports) in dealing with such contemporary sustainability issues depends on how well climate change issues are integrated into the process.

The accepted changes to the Directive do not refer to climate change explicitly in Article 3, where the ‘expanded themes’ are biodiversity, human health, land, and vulnerability to accidents and disaster. However, two changes to Annex IV (Information for the EIA Report) confirm that an EIA must consider:

- **Point 4.** A description of the factors specified in Article 3(1) likely to be significantly affected by the project: …climate (for example greenhouse gas emissions, impacts relevant to adaptation);
- **Point 5.** Assess the likely significant effects of the project on the environment resulting from: …part (f) 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.”

The door is left firmly open for competent authorities to ask for greenhouse gas (GHG) emissions data associated with a project. How that information is then interpreted, and what role it plays in any decision-making, pose intriguing questions. In the context of climate change – a global problem – the addition of say, 30,000 tonnes of GHG emissions (e.g., the typical annual operational emissions from a new container terminal handling around 1.5M boxes) from ‘one project’ is likely to be insignificant. Only Governments and international organisations can make judgements and take action on combined and cumulative effects.

International standards, such as the IFC’s 2012 Sustainability Framework (i.e., Environment & Social Performance Standard No. 3 on Resource Efficiency and Pollution Prevention) makes reference to a threshold for ‘operations’ of 25,000 tonnes of GHGs per annum. If this is triggered, the proponent needs to include a quantification of direct and indirect emissions from that facility. Construction-related GHG emissions do not appear to be included, yet anecdotal evidence from ongoing research suggests that around half of the total carbon footprint of a large infrastructure development (over a 25-year period) might be from the construction activities and embodied in materials.

Many international EIAs for projects involving multilateral development banks and those signed up to the Equator Principles already include information on GHGs. When the Directive is transposed into UK legislation (not until Spring 2017) a further crop of legislation on GHGs may well be in force. This is a missed opportunity by the EU to take a leadership stance.

The revised EIA Directive does not provide further information on the content, scope or format of any climate change-related assessment. Over the next three years, we will see the steady ramping-up of information on this topic in EIA Reports. The Project Description and Alternatives chapters will need to demonstrate how the design is resilient to the challenges posed by future sea-level rise, more frequent storm events and inclement weather, temperature rise and water scarcity. Authorities will be seeking assurance that mitigation is embedded in design and that where the EIA process has helped to enhance the design to minimise GHG emissions and/or risks associated with climate change, these are highlighted in the EIA Report. Carbon neutral (or positive) raw materials and construction techniques will eventually become desirable features in resilient design.
In any case, taking a traditional approach to impact assessment for these topics is not possible because of the difficulties of establishing a baseline for climate change at the project level. At Royal HaskoningDHV, we are already preparing a number of ‘futureproofing’ EIA chapters from forward-thinking developers who want to include at least a high-level review of GHG emissions and climate change aspects. They are pitched at the strategic level and address both discrete climate change issues and aspects that are interlinked with other EIA topics, for instance air emissions, traffic and transportation, change of land use, planning policy, human-health and habitat creation and/or biodiversity including any offsetting initiatives.

The inclusion of such a chapter containing GHG emissions and climate change information (as well as human health etc.) may pose a challenge in the reviews carried out by planning authorities, but should be welcomed as a positive step in providing a holistic review of the environmental aspects of a development.

Climate change is a hot topic in our EIA Practice. The vulnerability of a project to climate change influences is an area posing difficulty for EIA practitioners. In 2013, the European Commission published guidance on integrating “climate change and biodiversity” into EIA. We now expect to see a flurry of additional guidance on how climate change can be addressed practically in EIA.

Discussions amongst our EIA thought leaders are currently focussing on how to: define vulnerability; select relevant climate change trends; identify benchmarks for effects, and consider carbon sinks and sequestration opportunities in EIA. To ensure continuity in the project life-cycle, we are also preparing Climate Change Adaptation Plans to assist companies plan strategically for the longer-term.

Practitioners will be increasingly involved in tackling climate change issues from a risk assessment perspective. They will attempt to mix quantitative and qualitative elements but perhaps most usefully of all, engage more effectively in detailed discussions with designers and engineers to improve project design by reducing climate change risks. Ultimately, that is what we would all like to see. Improving the EIA process will enable it to deliver on its intended purpose: to provide tangible sustainability benefits through helping to avoid adverse impact, in this case by eliminating or reducing GHG emissions in development.

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