Proportionality in EIA and design development  
- Iterative design and the role of the EIA Coordinator to achieve proportionate by design

Introduction
Environmental Impact Assessment (EIA) is a process to report the predicted significant effects on the environment of a development proposal. There are a number of different consenting mechanisms (Town and Country Planning Act, Transport and Works Act and Planning Act (Development Consent Orders)) but the main purpose is to present the decision maker with information on the predicted significant environmental effects associated with the development to enable a decision to be made on whether to grant consent. In doing so, many EAs have become large, unwieldy documents and feedback from stakeholders has been that this can be perceived as in-accessible. Reasons for this include fear of challenge, or risk of litigation resulting in a temptation to scope in topics with little consideration of whether the effects are anticipated to be significant or not. Legal teams also have a tendency to insist on various additional information being included despite adding little value to the document or being materially relevant to the decision making. By doing so many EAs become less effective in communicating a clear, concise message to inform decision makers. The reporting requirements of the EIA Regulations do not differentiate between significant adverse environmental effects and beneficial ones and too many EA authors tend to focus on the adverse effects, often forgetting there may also be significant benefits. This article builds upon several sources of information not least the views of EIA practitioners through feedback obtained as part of the IEMA EIA Quality Mark Forum – “Proportionate by design: Making the most of EIA’s iterative nature” and the experiences of the article’s authors.

Effective Scoping
Effective scoping underpins a proportionate approach to environmental assessment, increases efficiency and reduces the potential for unnecessary work. A common pitfall is the perception that all of the ‘normal’ or ‘traditional’ environmental topics need to be assessed and reported when in many cases they can be scoped out. Analysis undertaken by IEMA of 100 UK EAs indicates that on average they include nine topic chapters with 85% containing chapters on ecology, noise, landscape, transport and water (including flood risk). Experienced professional judgement should be employed during the scoping stage to focus the initial assessment work. Early engagement with statutory consultees is key to agreeing the scope and methods to be used.

Scoping should also be a dynamic process, subject to review and change throughout the life of the EIA. Scoping should be adaptable to consider new environmental aspects that arise and the potential need for detailed assessment as well as scoping out issues if it subsequently becomes apparent they are not likely to give rise to significant effects after all. EIA practitioners should not be afraid to use professional judgement to explain why a new aspect should or should not be included within the scope of the EIA.

What is proportionality in EIA and design?
In order to provide fit for purpose assessments it is important that the scoping and assessment is proportionate; tailored to the scale of the development and the likely scale of the project’s effects on the environment. It therefore follows that the design and mitigation response should also be proportionate and based on the scale of anticipated impacts. This approach provides safeguards that the relevant key issues are assessed, effectively mitigated (but not entailing excessive costs, where practicable) and are also communicated to the decision maker in a clear concise manner. The design of any development is iterative by nature, with refinements made throughout the project lifecycle from inception through to detailed design and construction. EIA is also an iterative process and should be undertaken at key points during the design process. The two processes actually share many common elements (see Figure 1) and therefore, are well suited to run as an integrated process. The traditional model of environmental assessment is undertaken at key points in the design i.e. where the design is sufficiently developed to understand the effects of the development on the environment, but it also needs to be fixed and not subject to substantive change so that impacts can be assessed effectively. This process can lead to the integration of mitigation into the scheme but can come across as “clunky” and sometimes disjointed from the design process. This article advocates a more integrated approach by embedding the environmental professional within the design team to truly integrate initial environmental findings and approach to mitigation into the design. Environmental assessment, therefore, should not be viewed as a process that merely reports back at the end of the design process with the resultant mitigation shoe-horned into an evolved and inflexible design. It should be considered as a fully integrated and iterative process which is interdependent on the evolution of the design.
The role of the EIA Coordinator
The EIA Coordinator and the Environmental Manager has a central role in the development cycle and their relationship to interested stakeholders and their effectiveness to communicate within the design team and wider development team is key to avoiding, reducing the projects effects on the environment and ensuring that mitigation is proportionate and integrated into the design. Effective communication is also key to ensure that the developer and decision maker understands the environmental impacts of the project, how the results of the assessment have influenced the design and implementing avoidance and reduction strategies has been done at appropriate times in the design process before compensatory or enhancement measures are considered. Clever design avoids the impact or reduces the effect as part of the scheme. The appointment of the EIA Coordinator early in the development process can ensure environmental and sustainability principles are integral project objectives, the EIA scope is proportionate, enhanced efficiencies in the design and assessment, and ultimately reduced consenting risk and project cost. The EIA Coordinator therefore has a critical role within the Project Team for the successful delivery of the project. The EIA Coordinator needs a diverse range of skills to manage the interface between the environmental topic teams, design engineers and wider project team as well as stakeholders and other interest groups. The EIA Coordinator must be conversant with engineering and construction issues whilst also having an in-depth understanding of environmental assessment techniques, giving them the ability to engage multiple project stakeholders with diverse viewpoints. The benefits of having an embedded EIA Coordinator within the core development project team, include the following:-

- Communication – a conduit between the engineering design team and environmental specialists able to liaise both on a technical level to integrate mitigation/enhancement into the emerging design;
- Understanding of the key issues relating to the environmental baseline of the study area in order to inform the design process;
- Design management – thorough understanding of the environmental implications of design decisions and their potential for adverse impacts or potential contravention of legislation. It is essential for the EIA Coordinator to be experienced and confident enough to respond promptly to the evolving design;
- Design advice – able to influence the evolution of the design including adding proportionate mitigation; and
- Impartiality - able to challenge conventional thinking or status quo design assumptions.

The recent proposed changes to the EIA Directive mean that ESs will either need to be produced or reviewed by a competent expert. Clearly the above points need to be demonstrated by EIA professionals whether they are managing the design, coordinating or producing the ESs. By using organisations which are EIA Quality Mark registrants and those individuals with relevant professional qualifications (such Registered EIA Practitioner or MIEMA and CEnv) this is a clear demonstrable way to evidence competency to undertake EIAs for development organisations.

Conclusions
In our experience the EIA Coordinator has a key role to play not only in terms of the EIA process but also the wider design development. This role will become increasingly important with the new changes to the EIA Directive and the requirement for competent environmental professionals to be used. EIA has always been an iterative process running in parallel with design but it has evolved to become much more integrated with the benefits of improved design environmental feedback, better integration of environmental and sustainability mitigation and enhancement measures earlier in the design process, and more effective communication across the spectrum of project stakeholders. More work still needs to be done by EIA practitioners to guide and advise clients and legal practitioners on the scope of EIAs, moving ESs away from being information dumps to shorter, more concise documents that provide evidence of impact and its significance.

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