



# Technical Support Information to the CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities

## Module G. Principles of EIAs

The full CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities and the stand-alone modules are online at:

[cms.int/guidelines/cms-family-guidelines-EIAs-marine-noise](https://cms.int/guidelines/cms-family-guidelines-EIAs-marine-noise)



## G. Principles of EIAs

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The principle of Environmental Impact Assessment (EIA) was developed and introduced in the 1960s during a time where there was a growth of modern environmental concern, a drive for more rational, scientific and objective environmental decision-making and a desire for more public involvement in environmental decision making. (Weston, 2002)

Conducting EIAs is now a well established governance and environmental management process, institutionalized in most of the 193 United Nations Member States (Glasson *et al* 2013, Morrison-Saunders and Retief, 2012).

A number of intergovernmental bodies have elaborated the principles of what EIAs should present (see Module G).

Through the process of their adoption, governments have individually committed to reflecting these decisions in their domestic law. The ‘weight’ of these decisions taken by governments at an international level is considerable and provides significant clarity about the expectations to conduct EIAs and effectively manage impacts of marine noise-generating activities.

A number of jurisdictions have already developed national and regional operational guidelines about mitigating anthropogenic noise on marine fauna during activities. These began with the United Kingdom’s Joint Nature Conservation Committee guidelines. Similar guidelines have been iteratively developed in the United States of America, Brazil, Canada, Australia and New Zealand (Castellote 2007, Weir and Dolman 2007). These European Espoo Convention also provides guidance. These are important and necessary operational guidelines. They form a part of, but are not the totality of what should be considered within an EIA.

This Module provides some general principles to ensure environmental impacts (broadly defined to include the physical, life and social sciences) are an explicit and

fundamental consideration both during the design of an activity and in the project authorisation by a regulator. (Cashmaore, 2004)

It is clear that there is sufficient international agreement that EIAs should be conducted. There is widespread national legal commitment and some detail in a few jurisdictions. What is now required is a change of practice: by regulators to insist thorough EIAs are presented, and by proponents to accept the same. (Morrison-Saunders and Retief, 2012, Prideaux and Prideaux, 2015)

### G.1. The importance of early Strategic Environmental Assessment

There is strong value in governments' undergoing a level of assessment before inviting proponents to propose activities. Conducting proactive and early assessment of groups of activities, in the context of broader governmental vision, goals or objectives, can serve as a decision-support instrument that shapes as a process. (Morgan, 2012) Commonly called Strategic Environmental Assessments (SEA), these exercises can highlight the likely outcomes of anticipated activities and reduce stakeholder conflict by restricting or directing activity development before any commercial investment has been made. (Alshuwaikhat, 2005, Fundingsland Tetlow and Hanusch, 2012).

SEAs have the potential to act as a mediating instrument, bridging problem perceptions with technical solutions and steering the assessment to facilitate the integration of environmental values into decision-making processes. (Therivel, 2012, Fundingsland Tetlow and Hanusch, 2012)

SEA can enhance communication between different stakeholders, enabling discussion and agreement independently of different beliefs, convictions, social roles,

values, accumulated experiences, individual needs or other factors. (Vicente and Partidário, 2006) SEAs can also provide guidance to regulators about the institutional requirements needed to properly assess proposals. This will include their internal organizational structure, staffing and capacity. (Therivel, 2012, Fundingsland Tetlow and Hanusch, 2012)

SEA design should reflect the basic principles of the EIAs and the EIA Guidelines in Module I.

## G.2. Basic Principles of EIAs

It is broadly accepted that the basic intent of EIAs is to anticipate the significant environmental impacts of development proposals before any commitment to a particular course of action. Often, the detail required within EIAs is poorly defined. Many legislative provisions for EIAs have been introduced without consideration of the institutional requirements, organizational structure, staffing and capacity development (Cashmore *et al*, 2004, Devlin and Yap 2008, Jay *et al*, 2007). Often the scientific basis and methods need sophisticated understanding.

Defensible EIAs, representing the Best Available Techniques (BAT) and Best Environmental Practice (BEP), should provide regulators with decision-making certainty by ensuring:

- Appropriate transparency
- Natural justice
- Independent peer-review
- Appropriate consultation

Each of these elements complements and supports the others.

### G.2.1. Transparency and Commercial Sensitivity

Transparency is necessary for well-informed consultation, natural justice and independent peer-review.

The extent of transparency should complement the goals of natural justice and consultation, but does not need to provide information that is genuinely commercially or personally sensitive. However, far too often commercial sensitivity is a veil that industry proponents hide behind. (DiMento and Ingram, 2005, Sheaves *et al*, 2015) Currently a large body of data about public resources (the marine environment) is claimed as commercial-in-confidence with little justification. (Costanza *et al*, 2006, Sheaves *et al*, 2015)

The technical details of proposal for activities that generate noise should be fully

and transparently available for comment before plans are submitted for approval to regulators.

Broadly, the information provided should include:

- comprehensive description of the noise to be generated and the equipment to be used, including elements of the sound that are auxiliary to the need,
- comprehensive description of the direct and surrounding area where the noise-generating activity is proposed and the species within this area,
- expert modelling of expected sound intensity levels and sound dispersal,
- timeframe of the noise-generation,
- scientific monitoring programmes conducted during and after noise-generating activity.

The full extent of information that should be transparently available is detailed in Module I.

None of this information should be considered commercially sensitive and proponents should not seek to hide it from view.

### G.2.2. Natural Justice

Natural justice is both a legal and common concept with two parts: it ensure there is no bias, increasing public confidence, and enshrines a right to a fair hearing so that individuals are not unfairly impacted (penalized) by decisions that affect their rights or legitimate expectations.

In the case of decisions for activities in the marine environment, confidence that there is no hidden bias can be developed by ensuring there is full transparency and that all stakeholders are given reasonable notice of the plans, a fair opportunity to present their own concerns and that these concerns will factor in the final decision that is made. (DiMento and Ingram, 2005)

Stakeholders with a rightful interest in the marine environment include: traditional communities with cultural or spiritual connections, marine users such as fishermen (commercial and recreational), shipping and boating and tourism operators, scientists, conservation organizations, and general marine users such as tourism and recreation, who advocate for the conservation of marine wildlife or marine ecosystems. Their interest must be considered.

### G.2.3. Independent Peer-review

There is concern in many countries over

the poor quality of EIA information. Depending on circumstance, this might reflect problems with institutional arrangements, low levels of commitment by proponents, or issues with the nature, extent and quality of training and capacity-building in the impact assessment, or elements of all of these. (Morgan, 2012) There is often a significant gap between the best practice thinking represented in the research and practice literature and the application of EIAs on the ground. (Morgan, 2012)

Proponent-funded independent peer-review of EIA proposals, before submission to regulators for assessment, is an important tool of BEP. (Sheaves *et al*, 2015) Comprehensive, independent peer-review is a logical requirement for ensuring alignment of EIAs with scientific understanding and standards, and ensuring that scientific understanding takes precedence over short-term benefits and political considerations. (Morrison-Saunders and Bailey, 2003, DiMento and Ingram, 2005, Sheaves *et al*, 2015)

In the case of marine noise-generating activities, independent peer-reviewers should include species experts and expert sound modelers and acousticians, who are able to declare full and verifiable independence from the proposal. Their peer-review reports should be fully transparent and submitted to regulators, without influence from proponents.

#### G.2.4. Consultation and burden of proof

True consultation has two key components: participation in the outcome of a decision and that the burden of proof rests with the proponent.

Development actions may have wide-ranging impacts on the environment, affecting many different groups in society. There is increasing emphasis by government at many levels on the importance of consultation and participation by key stakeholders in the planning and development of projects.

An EIA is an important vehicle for engaging with communities and stakeholders, helping those potentially affected by a proposed development to be much better informed and to influence the direction and precautions put in place by the proponent. This requires an appropriate exchange of information and a willingness by the proponent to be transparent about their likely impact. (O'Faircheallaigh, 2010, Glasson *et al*, 2013)

Burden of proof is often associated with the Latin maxim *semper necessitas probandi incumbit ei qui agit*, which broadly means "the

*necessity for proof always lies with the person who makes the claim.*" In the case of proponents of marine noise-generating activities, it is their claim that the activities they propose to undertake – in a shared marine environment – will cause minimal harm. To satisfy the burden of proof, the proponent must provide sufficient evidence to demonstrate that there is limited danger of damaging the marine environment or any species that have been highlighted as having importance.

Other stakeholders do not carry the burden of proof but instead carry the benefit of assumption, meaning they need no evidence to support their position of concern. It is up to the proponent to provide the assurance and bear all financial costs for doing so.

The current situation in far too many jurisdictions around the world is that industry has persuaded legislators to shift the burden of proof to stakeholders. Regulators need to take step to redress this imbalance, and the EIA Guidelines, outlined in Module I should provide this shift.

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