Department for Environment Food & Rural Affairs

POST-IMPLEMENTATION REVIEW

Defra Environmental Impact Assessment Regulations

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Post Implementation Review: Defra Environmental Impact Assessment (EIA) Regulations

Core Findings

Q1: To what extent are the existing regulations working?

- The policy is on course to achieve most, or all of its objectives. However, improvements can be made, such as improved implementation of mitigations, greater of monitoring of implementation, and further data on how the regs have impacted decision-making.
- Costs have been largely proportionate to benefits.

Q2: Is government regulation still required?

- Government intervention is still required.
- If the policy were withdrawn, a replacement framework for assessing environmental impacts from human activity would be required in most cases.

Q3: Is the existing form of regulation still the most appropriate approach?

- Compliance levels are sufficient to support achievement of objectives.
- Some alternatives have been identified which have the potential to make these regulations less burdensome to business and/or overall.

Summary of findings

- The EIA regulations have ultimately succeeded in their objectives, as the regulations provide a clear basis and requirement for assessment of impacts to the environment brought about by human activity.
- The regulations, as implemented, were praised for their ability to facilitate the use of the mitigation hierarchy in reducing the impacts of developments on the environment. However, better assessment of alternatives is required earlier on in the process.
- The regulations allow for proportional assessments of projects based on potential significant issues (i.e., ability to scope out non-significant issues).
- The lack of guidance is causing issues for developers. Updated UK wide guidance as to how to undertake an EIA and use thresholds etc. is urgently needed.
- The cumulative effects of developments were not being properly assessed through EIA, bringing into question if correct monitoring is being undertaken to determine this.
- Thresholds currently used in screening may need reviewing to enable more consistent and easier screening decisions.
- EIA needs to scope in decommissioning elements, detailed mitigation and, where needed, compensation. These should be covered in sufficient detail in the application stage and not pushed to post consent.

- Conditions related to EIA outputs should be better applied on licences, especially regarding any avoidance and mitigation / compensation.

Introduction

Overview of the Regulations

Objectives intended to be achieved by the regulatory provision

EIA regulations implement Directive 2011/92/EU of the European Parliament and of the Council on the assessment of the effects of certain public and private projects on the environment (as amended by Directive 2014/52/EU), (usually referred to as the 'Environmental Impact Assessment (EIA) Directive'). There are different EIA regulations for different Defra policy areas (marine, forestry, water resources, agriculture) and references to "the EIA Regulations" in the report refer to all the EIA regulations which implement the EIA Directive. The main objectives of all EIA regulations are:

1. **Core Objective**: To provide a framework of assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment and ensure that the public are given early and effective opportunities to participate in the decision-making procedures.

2. **Regulatory Objectives**: To transpose relevant EU Directives, amended to capture changes in domestic legislation and regulatory bodies.

3. **Streamlining Objectives**: Provide for cases where the EIA Regulations may, or will not, apply – for example where an assessment of the environmental impacts of a project has already been or will be carried out by another consenting authority.

Aims of Environmental Impact Assessments

EIA has been practised for over 50 years and is now applied in over 100 countries worldwide. In the UK context, the EIA Directive has been transposed into domestic law. A form of EIA has been practised in the UK for around 35 years. The chief aims of EIA are as follows:

- To protect the environment by ensuring that an appropriate licensing authority, when deciding whether to grant permission for a project or development which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects and takes this into account in the decision-making process. Development consent for public and private projects which are likely to have significant effects on the environment should be granted only after an assessment of the likely significant environmental effects of those projects has been carried out. That assessment should be conducted based on the appropriate information supplied by the developer, which may be supplemented by the authorities and by the public likely to be concerned by the project in question.

- To set out a procedure for identifying those projects which should be subject to an Environmental Impact Assessment, and for assessing, consulting, and coming to a decision on those projects which are likely to have significant environmental effects. The effects of a project on the environment should be assessed to take into account, for example, concerns to protect human health, to contribute by means of a better environment to the quality of life, to ensure maintenance of the diversity of species and to maintain the reproductive capacity of the ecosystem as a basic resource for life.

- To ensure that the public are given early and effective opportunities to participate in the decision-making procedures.

- To ensure that assessments are not a barrier to growth, licensing authorities and developers should carefully consider if a project should be subject to an EIA and should limit the scope of assessment to those aspects of the environment that are likely to be significantly affected. Pre-application engagement can also play a role in identifying when a proposal should be subject to EIA.

- EIA should be based on key environmental principles, such as the precautionary principle that preventive action should be taken, and that environmental damage should as a priority be rectified at source and that the polluter should pay. As such, effects on the environment should be considered at the earliest possible stage in all the technical planning and decision-making processes.

- EIA may contribute to delivering UK government strategies and targets related to the environment. This includes Environmental Improvement Plans (EIP) under the Environment Act, UK Marine Strategy (UKMS) target of Good Environmental Status (GES). 25YEP sets out government action to help the natural world regain and retain good health. UKMS provides the framework for delivering marine policy at the UK level and sets out how we will achieve the vision of clean, healthy, safe, productive, and biologically diverse oceans and seas. GES is about protecting the marine environment, preventing its deterioration, and restoring it where practical, while allowing sustainable use of marine resources.

- Also, EIA may also contribute to achieving the Environment Act targets:
    - Halt the decline in species populations by 2030, and then increase populations by at least 10% to exceed current levels by 2042
    - Restore precious water bodies to their natural state by cracking down on harmful pollution from sewers and abandoned mines and improving water usage in households
    - Deliver our net zero ambitions and boost nature recovery by increasing tree and woodland cover to 16.5% of total land area in England by 2050

- Halve the waste per person that is sent to residual treatment by 2042
- Cut exposure to the most harmful air pollutant to human health – PM2.5
- Restore 70% of designated features in our Marine Protected Areas to a favourable condition by 2042, with the rest in a recovering condition.is

There are five broad stages to the process:

1. **Screening -** Determining whether a proposed project falls within the remit of the EIA Regulations, whether it is likely to have a significant effect on the environment and therefore requires an assessment. In this stage, proposed projects can be categorised as either Annex/Schedule I or Annex/Schedule II. Annex I lists the projects which must be subject to the EIA process while Annex II lists the projects which may be subject to the EIA process, subject to thresholds or criteria set by UK Government.

2. **Scoping -** Determining the extent of issues to be considered in the assessment and reported in the Environmental Statement. The applicant can ask the consenting authority for its opinion on what information needs to be included (which is called a 'scoping opinion').

3. **Preparing an Environmental Statement -** Where it is decided that an assessment is required, the applicant must prepare and submit an Environmental Statement. The Environmental Statement must include at least the information reasonably required to assess the likely significant environmental effects of the development. To help the applicant, public authorities must make available any relevant environmental information in their possession. To ensure the completeness and quality of the Environmental Statement, the applicant must ensure that it is prepared by competent experts. The Environmental Statement must be accompanied by a statement from the applicant outlining the relevant expertise or qualifications of such experts.

4. **Making a consent application and consultation -** The Environmental Statement (and the application for consent to which it relates) must be publicised electronically and by public notice. The statutory 'consultation bodies' and the public must be given an opportunity to give their views about the proposed development and the Environmental Statement.

5. **Decision making -** The Environmental Statement, together with any other information which is relevant to the decision, and any comments and representations made on it, must be considered by the appropriate licensing authority and/or the Secretary of State for reserved matters or matters in England in deciding whether to grant consent for the development. The public must be informed of the decision and the main reasons for it both electronically and by public notice.

Scope of this report

As per the requirements of a Post Implementation Review (PIR), this review will:

- Set out the objectives intended to be achieved by the regulatory provision and assess the extent to which those objectives have been achieved.
- Assess whether those objectives remain appropriate, and if so, assess the extent to which they could be achieved in another way which involves less onerous regulatory provision.
- Analyse the costs and benefits to businesses and the third sector of the regulations.
- So far as is reasonable, have regard to how the EIA Directive was implemented in EU member States as a comparison.

This review is a statutory responsibility of the Secretary of State for Environment, Food and Rural Affairs and therefore Defra is leading this review with assistance from Devolved Administrations.

This review will also go beyond the statutory requirements of a PIR and aim to assess whether Defra's EIA Regulations have helped the Government to achieve its objective of living within environmental limits while achieving a sustainable economy by providing increased recognition and transparency of environmental impacts with a view to better environmental protection.[1]

We have assessed the EIA Regulations as they stand today including any amendments to the Regulations.

The intended outcomes of this report are therefore:

- To assess whether, across the four EIA regimes for which Defra is responsible, the Regulations have achieved their objectives as per the requirements of individual regulations[2]. See **Annex 1** for a detailed summary of each of these regulations:
    - The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)
    - The Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999 (as amended)
    - The Environmental Impact Assessment (Agriculture) (England) (No.2) Regulations 2006 (as amended)
    - The Water Resources (Environmental Impact Assessment) (England and Wales) Regulations 2003 (as amended)
- To summarise stakeholder feedback across all regimes and provide more detailed regime specific analysis where applicable.
- To determine common areas for improvement across regimes that could influence wider EIA reform across government.

[1] Environmental impact assessment (europa.eu)

[2] Given the similarities present across all of Defra's EIA regulations, this report will focus on assessing success in achieving objectives across all of Defra's implantation of EIA as a whole and will only assess individual regulations where aspects differ significantly.

- To assess whether the objectives can be achieved with less onerous regulatory provision (as required in EIA review provision).

Limitations:

This review will assess the economic impact of these regulation on businesses, comparing against the Impact Assessment (IA) completed when the regulations were first introduced. Where IAs did not detail economic impact, evidence was gathered via discussions with stakeholders and regulators. IAs also did not explicitly reference environmental costs and benefits. However, we have endeavoured to include these to the best of our ability.

As no system of monitoring or evaluation accompanied these regulations, most of our evidence base to assess impact will be based on discussions with stakeholders and regulators, and wider literature searches. We have therefore conducted a wide-ranging stakeholder survey to inform our assessment of the regulations. See Annex 3 for the full list of survey questions and summary of responses. See Annex 4 for a breakdown of respondents by stakeholder type.

Regulation specific considerations:

1. **The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended):**

These regulations apply across the UK, and therefore we have aimed to assess the impact of these regulations across all UK administrations rather than England only.

Section 1 - Evidence across regimes

Overview

As per the requirements of a PIR, this report will include a thorough examination of the impacts of the regulations to businesses, drawing on prior Impact Assessments and evidential support from stakeholders. We have taken a proportionate approach:

1. Reviewing past Impact Assessments for the regulations to identify the expected impacts,
2. Conducted a Consultation with stakeholders (users and regulators) to help provide information on the actual impacts,[3]
3. Commissioned additional regime specific analysis to look at the environmental impacts (see Section 2), and
4. Conducted a Literature Review.

The Consultation took the form of stakeholder surveys and was delivered over two months, reaching out to a total of 69 stakeholders by written (emailed) surveys.

We are already considering reforms to our EIA regulations as part of wider reform proposals across all EIA regimes across all Departments. As such, the conclusions drawn from this review will be used to inform this wider reform work.

Survey and Analysis Limitations

- 28 of the 69 stakeholders contacted (41%) responded to our survey, this can be broken down by regime:
  i) 6 respondents for Agriculture;
  ii) 7 respondents, Forestry;
  iii) 12 respondents, Marine;
  iv) 3 respondents, Water Resources[4].

  See Annex 6 for further breakdown of survey responses.
- Some of the regulations have been in place since 1999, meaning not all the stakeholders surveyed retain knowledge of the regulatory environment prior to this point. This, alongside any recency bias is likely to have led to some distortion of responses to overweight current conditions in responses rather than considering impacts over the full period.
- Lots of the data in the past IAs are not presented in the published summary documents so it is difficult to fully compare estimated impacts to actual impacts.
- Not all stakeholders could provide responses to all questions, given some specialised in certain areas of the Regulations and not others. This led to small

[3] See Annex 5 for the full list of survey questions and summary of responses. See Annex 6 for a breakdown of stakeholder type.
[4] It was noted that an EIA under these regulations had not been carried out.

samples for some questions and a risk that some concerns were not captured or overweighted by those that did respond.

- Respondents were often unable to provide detailed cost or benefit data given who was surveyed and data availability. Most responses were therefore mainly qualitative, making it difficult to quantitively assess the overall impact of the regulations.
- No questions covered overall cumulative impacts on the environment of the system, however this was somewhat covered by question 10: "How successful have the regulations been in securing their objective of helping Government to achieve its goal of living within environmental limits whilst achieving social and or economic sustainability?"

Prior Impact Assessments

Only the Marine Works EIA Regulations (MWR) 2007 and 2011 and 2017 amending regulations) and Forestry EIA 2017 Regulations (2017 amendment) had detailed Impact Assessments available to review.

A summary of the expected impacts of the MWR in the original 2007 impact assessment and following amendments are set out in the table below. Overall, the regulations were not determined to incur costs to regulators, or industry, significantly above the regulations which were already in place. Benefits were not widely quantified aside from cost savings, although the potential for the regulations to support nature recovery and avoid negative environmental impacts was identified as a potentially significant non-quantified benefit.

Table 1 - Marine Works EIA Regulations Impact Assessment Summary

	Marine Anticipated Impact		
Group/area Affected	**2007 Regulations**	**2011 Amendment**	**2017 Amendment**
Government/regulators	• Avoided costs of fines for failing to implement? European Directive (Estimated to be at least £12.6m in 2022 prices)	• Transition costs to the Marine Management Organisation (MMO) • Cost savings through new application procedures to the MMO	• All costs to MMO assumed to be passed on to industry
Industry • The dredging industry • The maritime industry • Private terminal operators	• Reduced legal uncertainty for marine works licences • Potential for higher fees to recover regulators costs in future (not a result of this specific regulation though)	• Cost savings to industry through new application procedures • Cost of now requiring licences for previously unregulated dredging	• Cost increase through post consent monitoring passed on to industry (£2000 per application) • Additional screening costs to MMO passed on to industry of £14.6k p/a
Environment	• Greater public participation in the assessment of	• N/A	• Increased protection of marine environment

	environmental impacts leading to increased consideration in decisions		
Small firms impact test	• Impact of regulations expected to be low. Regulations will be equitable with no unfair burden on small firms.	• Not expected to fall disproportionately on small businesses. Time saving benefits will be a greater proportion of small firm time	• Not assessed
Quantified Costs (2022 values)	N/A Not quantified	£6m	£0.7m
Quantified Benefits (2022 values)	£12.6m (Avoided fine)	£22m	N/A Not quantified
NPV (2022 values)	N/A Not quantified	£16m	-£0.7m

Position Without Intervention

While it is difficult to robustly estimate the position that the UK would be in now had these Marine Works EIA Regulations not been implemented, we can use the original impact assessment's appraisal of the "do nothing" option conducted prior to their introduction.

This identified no economic benefits as it is a continuation of the then existing situation, however several economic costs would have been incurred, as summarised below.

To Government/regulators:

- Cost of infraction proceedings against the UK for failing to implement European Directive. Non-compliance can result in a fixed penalty and/or daily fine which was estimated to be at least £12.6m in 2022 prices.

To industry:

- Potential costs associated with the legal uncertainty around requirements for an environmental assessment. Not quantified.
- The IA for the 2011 amending regulations indicates that the then-existing situation and regulations were incurring significant avoidable costs to business due to regulatory inefficiencies (£22m in quantified benefits through those regulations)

Environmental Impact:

- This was judged to be low in the original IA for the Marine Works EIA Regulations 2007, as an appraisal of the environmental effects of works was already assessed where required. While this regulatory change may not have been estimated to have had a significant impact on the environment, it may have affected the governments' ability to deliver Good Environment Status (GES), or 25 Year Environment Plan (25YEP) had the regulations not been updated. However, this was not assessed due to these targets being set after these regulations came into force.

Stakeholder survey

A full output of survey questions and responses is provided in Annex 2. Below is a summary of the feedback:

Implementation

Across all regimes, 44% of stakeholders thought that the regulations had been implemented well or very well.

Positive responses identified the good interface amongst EIA regimes when collaboration is required, and the proportional approach to high-risk projects that are likely to cause environmental harm (Annex I projects are easy to identify). However, the current guidance is not adequate and is causing issues for EIA applicants, developers and regulators including:

- A lack of transparency - because the guidance and procedures are not clear, if the EIA decision for a project is disputed it can take years to reach a resolution.
- Difficulty in identifying the appropriate schedule proposals fit into - in some cases, it is difficult to predict whether projects listed as Annex II are likely to have a significant effect on the marine environment and thus whether they should be screened in or out of EIA.
- Confusion around differences in implementation between EIA regimes due to the varying determination mechanisms - whilst the core of EIA remains the same, there are differences between EIA legislation relevant to Town and Country Planning, Marine, Forestry, Water Resources, and Agriculture.

Recognising the need for some regime specifics, the creation of over-arching guidance for the numerous regulations would be beneficial to support consistent application for similar project proposals.

Additionally, respondents recommend that the schedules be reviewed to consider the applicability to new and emerging technologies.

Other suggestions for improvement from survey respondents were:

- Ensuring EIA regulations include an obligation to contribute to achieving targets or objectives in aligned frameworks (e.g., Good Environmental Status (GES) under the UK Marine Strategy Regulations 2010 and the Water Environment (Water Framework Directive) Regulations 2017; Environmental Improvement Plans under the Environment Act 2021; Joint Fisheries Statement and Marine Plans.
- There are gaps in assessing cumulative impacts of multiple projects and project contributions to nature recovery – is there a way to use EIA to better achieve good environmental outcomes to determine limitations or contributions towards recovery?

- Improvements to post-consent elements linked to EIA - the lack of monitoring and enforcement of mitigation measures identified during assessment is leading to negative environmental and social impacts and outcomes.

Considering the post consent elements, respondents suggested the inclusion of a requirement for monitoring and reporting to become a clearer responsibility of the competent authority undertaking the assessment.

Costs

The cost of implementing these regulations should be in relation to the risk of significant environmental and social adverse impacts and should therefore be proportionate to the impact of the activity. If a project has no likely significant adverse environmental effects, then it should not need EIA; conversely, if the project does have likely significant adverse environmental effects, then these should be assessed and managed.

However, many stakeholders believed that the current cost of compliance is high. For example, employing ecologists and land agents to support a case can cost thousands, for the largest cases even as high as £100,000, and even for small cases mounting an appeal will cost upwards of £5,000.

Stakeholders' main concerns around costs incurred in relation to the implementation of EIAs were that:

- Costs have increased due to increase in evidence requirements which have been a result of legal challenges of EIAs over the years: Many stakeholders felt that interpretations of the regulations have changed, leading to increased evidence requirements which some believed to be unnecessary.
- Remediation costs are not in line with site integrity, leading to costs of the remediation measures being higher than a fine.

Moreover, across all regimes stakeholders believed that costs associated with EIAs are higher than the costs originally estimated in the original impact assessments which accompanied the regulations. This could be due to:

- Changes in the interpretation of regulations: The interpretation of the regulations has changed since they were implemented, leading to more structured procedural requirements and thus a greater need for regulator time/charges.
- Casework has not been solely processing screening and EIA consent decisions: Associated enforcement and appeals casework and correspondence in relation to the regulations also require significant time to process. In Wales, appeals and enforcement have not been deferred to Natural Resources Wales, these remain with Welsh Ministers and are not cost recovered.
- Survey and consultation costs: Costs of statutory consultees for example MMO, Natural England and Environmental Agency were not fully considered during the original impact assessment. This is a potentially significant oversight, as

statutory consultees spend a significant amount of time/resources on each case. For example, statutory consultees must spend hundreds of hours, across multiple levels of staff, on average to consult on a typical appeals case.
- Since the regulations came into force there has been an increase in the complexity of cases, for example through marine renewables.

Proportionality

The application of the EIA Regulations should consider proportionality relative to the extent of potential significant environmental risk, which is implemented via thresholds for EIA requirements. These are risk-based screening thresholds to determine the need for an EIA. Stakeholders were in agreement that thresholds for EIA requirement seem to be set at a reasonable level to ensure that seldom would small-micro businesses propose, or conduct works for which an EIA would be deemed necessary. Therefore, the regulations were not deemed to disadvantage smaller businesses.

However, it was recognised that the regulations could potentially have a disproportionate impact on small and micro businesses when applied to agricultural abstractors.

Guidance

Most Marine stakeholders deem the regulations to be well understood among developers, project proposers, licensing users. This could be due to the EIA regulation being embedded within the marine licensing process. The marine aggregate industry has used the regulations to their benefit by adopting a regional approach to assessments, saving them time, money and effort and enabling better cumulative effect assessments.

This higher understanding could be also because the projects requiring EIA under the marine regime are overall large-scale and, therefore, more likely to be brought forward by developers with prior experience of EIA and with adequate funds to seek advice and expertise from experienced consultancies.

Across the other regimes, responses were spread with a negative skew. Reasons behind this include:

- Lack of transparency of the process leading to stakeholders to question consistency of decisions made.
- Lack of overarching guidance which has led to delays.
- Confusion around interpretation of regulations and environmental principles definitions.
- Consultants being required to understand the EIA process especially for applicants with no previous experience.
- Confusion between EIA and HRA.

Areas of improvements include:

- Better integration with other environmental targets and objectives in domestic law.
- Having clearer explanation of requirements, detail, interpretation guidelines, cumulative impacts, roles and responsibilities, pre-application process and contacts within the guidance.
- Reducing number of requirements, using 2012 interpretation and guidance as the basis. In 2014, the 2012 guidance has been replaced with a Gov.uk website and is updated on an ad hoc basis.
- Modernise process using digital tools, virtual events, and training.
- Blend EIA with other assessments to streamline processes when handling cross discipline projects.
- Ensure Gov.uk webpage is up to date.
- Revise EIA forms to reflect requirements.
- Provide training to regulators to improve consistency.

Enforcement and Compliance

Overall, most stakeholders were content that enough was being done to ensure good compliance rates, and that enforcement measures were effective. Most stakeholders were therefore unsure whether refinements could be made to improve the enforcement and / or compliance rates. However, some noted that improvements could be made, believing that:

- Further clarity could be provided in relation to what remedies are / can be required where conditions linked to Environmental Statements are breached.
- Making final versions of a project's Environmental Statement available to save time comparing information during post consent monitoring: Often there are many changes to the project proposal through the EIA process and examination, and therefore the final consented scheme does not match that which has been assessed through the original EIA. Making final versions of a project's Environmental Statement available is therefore recommended, insofar as is possible. Moreover, this would also enable future developers to utilise any headroom from previous assessments that may be available and support cumulative assessments.
- It would be useful to consider implementing a register of compliance, to recognise where conditions and the predicted environmental parameters have not been met.

Section 2 - Regime specific evidence

Agriculture

Stakeholder Survey

We have consulted stakeholders on EIA reform via the survey (as above) which requested feedback on the various EIA regulatory regimes under Defra's control, including The Environmental Impact Assessment (Agriculture) (England) (No.2) Regulations 2006 (as amended), (the Regulations). The feedback has provided a valuable insight into how successful (or not) the Regulations have been, together with providing thoughts on the changes that may be required.

To what extent have the EIA regulations succeeded in their objectives?

The agricultural regulations have met their objectives in part and have had a generally positive effect overall when triggered. However, nature outside of protected sites continues to decline and historic environment considerations need to be better understood and accounted for. The stakeholder survey identifies several areas for improvement which will ensure that the Regulations meet their objectives fully, such as affording protection to semi-natural areas and uncultivated land in England: and guarding against possible negative environmental effects following the physical restructuring of rural land holdings.

A summary of survey responses is below:

Q. How effective has the policy been implemented?

- Stakeholders believe that the implementation of the Regulations to date has been imperfect, with feedback ranging from fair to poor, to very poor.
- A variety of concerns were raised, including that greater clarity is needed on the appeals process, both in terms of how an appeal is to be conducted, and the timelines for the variety of stages of an appeal.
- We understand that there has been a general lack of understanding for those about to exit an Environmental Stewardship Scheme.

Q. In your opinion, how well understood are the regulations among developers/project proposers/licensing users?

- Most respondents note that the Regulations are not well understood, with Natural England receiving higher numbers of requests for advice and support since c.2016.
- Natural England have had issues regarding the number of applications received where the Regulations have been inappropriately applied.

Q. Do you have any suggestions to improve the understanding of the rules or guidance?

- Wide-ranging feedback was received, including:
    - that the guidance produced in 2012 was helpful and should be re-enacted;
    - that the information required for submission with an application should be minimised, particularly during the first step of the EIA process;
    - that clarity of key terms is needed, such as with respect to 'semi-natural land' and 'uncultivated land project', with Natural England suggesting that statutory definitions of such terms is required (which Defra agrees with), together with public-facing guidance, including with respect to other ambiguous terms such as 'increase the productivity for agriculture' and 'to below the norm';
    - Natural England would also like the term 'sensitive area' to be expanded to include Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Local Wildlife Sites, and Registered Parks and Gardens.
    - a further, specific request, was to amend regulation 2 to include the wording 'a project that would increase the productivity for agriculture'.

Q. Have there been any unintended effects caused by the regulations?

- 60% of the stakeholders that responded to the question believe that there have been unintended effects due to the Regulations, including that some farmers may be wary of entering agri-environment schemes given that some land may then be at risk of falling under the requirement/s of the Regulations; and, that the Regulations do not consider the potential for unknown archaeology, the loss of which would be irreversible.

Q. Do you have any suggestions to reduce any burdens inherent in the EIA process?

- The general suggestions received include:
    - reverting to previous guidance and interpretation of the Regulations, together with reducing the requirement for information in the first stage (as above);
    - the need for a better, more refined, process;
- Whilst Natural England suggested, inter alia:
    - the removal of the ability to appeal against screening decisions;
    - review of the requirement for Natural England to publish details of a consent application online and within the local press;
    - mandating for the inclusion of specific information within a screening application to aid decision-making and timeframes; and,
    - the standardisation of survey data form used for biodiversity assessments.

Q. Do you feel refinements could be made to improve the enforcement and / or compliance rates?

- Most stakeholders agreed that refinements could be made, with having clearer guidance again mentioned. Specific refinements include:

- the removal of regulation 30(2) in order to allow for more prosecutions for significant EIA breaches;
- the amendment of regulation 27 to address the circumvention of compliance with remediation notices by disposal of land subject to such a notice;
- the introduction of a 'prohibition order' to prevent work taking place before a project has begun.

Q. How successful have the regulations been in securing their objective of helping Government to achieve its goal of living within environmental limits whilst achieving social and or economic sustainability?

- All responses indicated that the Regulations had been fair to poor in achieving this objective.

Q. Do you feel the regulations could be improved to better meet the objective of living within environmental limits while achieving social and economic sustainability?

- Half of the stakeholders that responded to this question believe improvements could be made.
- There is a belief that the thresholds for uncultivated grasslands are too high, with the removal of these thresholds allowing the objectives to be met better.
- More detailed guidance should allow for greater understanding from developers.

Q. Do you believe there are any gaps in the regulations that are causing or enabling negative environmental impacts / outcomes?

- One of the stakeholders believe that there are gaps in the current enforcement of the Regulations. A specific concern is that the balance of proof currently lies with Natural England rather than the appellant.
- Other gaps include that the:
  - financial penalties are not high enough when compared with the potential economic benefit from violating the Regulations;
  - actions are hampered by the lack of an inventory of semi-natural land (grasslands);
  - the Regulations need to give more consideration to the protection of soil health, net zero, and greenhouse gas emissions.

Q. Do you believe the existing form of Government regulation for environmental assessment is the correct approach? If not, what might you replace it with?

- Despite the clear room for improvement, only one of the stakeholders determined that the Regulations were not the correct approach to take. The regulations have support, but changes do need to be implemented for the Regulations to be less burdensome and more effective. As one stakeholder noted, "We would support changes to improve the process to ensure nature's recovery, but we do not think wholesale reform is appropriate."

Q. What are the costs that you/your business incurs in relation to the implementation of EIAs? Please quantify these where possible, considering costs such as staff

time/wages, fees, consultants etc. If this is not possible, please provide a qualitative description of the costs.

- The increase in the amount of evidence now required during the first stage of the EIA process has led to a corresponding rise in costs;
- Costs can be high, particularly with the hiring of ecologists and land agents;
- If a case is lost, the costs associated with remediation may be far higher than any fine;
- Over the period 2006 to 2021, the estimated cost to Natural England as regulator is £10.33 million.

Q. How do these costs compare with the estimated costs outlined in the impact assessment which accompanied the regulations when they came into force?

- All the stakeholders that responded on this question believe that the costs were higher or significantly higher than those previously outlined.

Q. Do you believe there has been a disproportionate impact on small and micro businesses from these regulations?

- There is a general agreement amongst stakeholders that the Regulations disproportionately impact on small businesses.

Economic Evidence & Analysis

Among other things, Natural England measure:

- Environmental gains (i.e., what benefit are the rules producing);
- Cost to the taxpayer of regulating and enforcing the regime;
- Costs to businesses, covering both the compliance burden and the administrative burden;
- Details of enforcement activities;
- Land managers' perceptions of the new Regulations."

Costs to farmers and land managers have been considered in relation to the extra burden imposed by the 2017 amendments to the Regulations, with estimates based on Natural England data.

Summary of costs and benefits

The costs of the Regulations, to farmers and land managers were £3,124,020 and £9,412,699 to the taxpayer through Defra and Natural England's budget for the period 2012-21. The total estimated benefits through protection of environmentally important land are £31,317,200. It is important to note that this figure does not include land protected due to breach of earlier correspondence, enforcements and appeals, so the true figure is likely slightly higher. This results in an annual average net benefit of £1,878,000.

Scope

Under the Regulations, projects on uncultivated land or semi-natural areas will normally be required to submit a screening application if the area exceeds 2 hectares. Amendments to the Regulations in 2017 mean that farmers and land managers must also provide surveys along with this screening application. There is approximately 1,151,300 hectares of Priority Habitat Inventory (PHI) land that is potentially in scope of the Regulations. This land is not in SSSIs, and each parcel is larger than 2 hectares, however this land is not all uncultivated or semi-natural areas.

Applications

There were 2,245 screening decision applications from 2012-2021, excluding applications which were rejected because of insufficient information. These applications covered an area of 28,376 hectares.

Most applications (c. 97%) were to make changes to uncultivated land (accounting for 2,171 of the 2,245 applications made in the period 2012-2021). Only 74 rural restructuring applications were submitted.

Of these 2,245 applications, 1,044 (47%) were deemed to concern matters that lay outside of the Regulations and, therefore, were unnecessary. For the period after the 2017 amendments, this figure falls to 25%.

Total costs

The total costs of the Regulations from 2012-2021 was £12,536,719 with an average of £1,253,672 per annum (p.a.).

The costs associated with rejected applications are included in the total cost figure as they still require some staff time to process. Also included is the administration cost of investigating tip-offs that were a breach of regulation, correspondence, enforcements and appeals.

The majority of the costs of the Regulations are incurred by Natural England. The costs are primarily staff costs for administration, site visits and legal advice.

Appeals

There were 23 appeals during the period 2012-2021. Appeals contesting screening decisions and remediation decisions under the Regulations are processed by Defra, but Natural England also take on some related costs, including legal costs.

The cost of appeals to Defra was not possible to precisely calculate as staff hours dedicated to each case have not been recorded. Therefore, an estimate of staff hours per appeal case was used, and the costs borne by Defra calculated from this. Natural

England also provided an estimate for staff hours dedicated to an average appeals case, and costs were estimated from this.

Therefore, these estimates have a low confidence as appeals can have quite varied demands on staff time.

Processing, assessing and legal costs for these appeals cost approximately £1,687,700 (2012-2021).

Additional Costs to Farmers and Land Managers

The Impact Assessment undertaken for the purpose of 2017 amendments indicated an estimated additional total cost of £630,000 per annum, as a result of the requirement for farmers or land managers to provide surveys of their land in the screening process. This was initially based on an average of 272 applications per year. However, the actual average number of applications for 2017-2021 was 178 with an estimated cost of £546,100 per annum.

The cost of familiarisation, completing applications and hiring consultants was estimated to be an average cost of £28,600 yearly for 2017-2021. This was additional cost created by the 2017 amendments.

The total cost to farmers and land managers of the Regulations for the ten-year period from 2012-2021 was £3,124,000.

There is also an opportunity cost to farmers of not being able to change their land use to a more profitable activity. Efforts were made to gauge the scope of this opportunity cost, but it was not possible to accurately estimate with the evidence available.

Benefits

The benefits of the Regulations come primarily through protecting environmentally important areas of land from potentially harmful changes. This may be done by mitigating the impact and/or effects of a project by applying conditions to a consent; by refusing consent to change land use; and, through stop notices and remediation notices where the Regulations are being breached. There is also the potential that farmers and land managers determine not to change the land use due to the 2006 Regulations, and may decline to submit a screening application but, due to a lack of evidence, it is not possible to quantify such elements at present.

To estimate the environmental benefit achieved, the type of land for the applications was ascertained. The annual carbon sequestration of the land as it remains was then compared to the annual carbon sequestration of the land if used as the application stated to give the benefit.

The total estimated benefits for the period 2012-21 are £31,317,200.

There will also be associated natural capital benefits of the protected land besides carbon sequestration, for example biodiversity in protected habitats. However, these have not been factored into the analysis due to limited resources.

Environmental Evidence & Analysis

Given the importance of semi-natural areas and to determine the environmental impact/s of the Regulations, Natural England were commissioned in November 2021 to provide the following evidence, as determined from their records, including analysis from their Geographical Information System (GIS):

- the total amount of priority habitat (i.e., semi-natural areas) in England not currently protected (i.e., lying outside of the protected sites regime);
- the amount of priority habitat of 2 ha. or less that is not currently protected;
- the location and amounts on a county-by-county basis;
- the carbon sequestration potential of such areas (together with the oxidation of carbon stores). Note, that it was later accepted that providing data on the carbon sequestration potential of such areas would be very hard to do in the timeframes allowed and would require substantial fieldwork which would be onerous for Natural England and beyond the requirements of this PIR. Natural England therefore provided data on the carbon stocks within such areas.

Analysis of the environmental data provided shows that:

- The Rural Land Register (RLR) determines that there is circa. 995,000 ha. of priority habitat in England outside of designated SSSI boundaries (i.e., land which is not currently protected).
- But that the PHI 31 notes that there is circa. 1.34 million ha. of priority habitat outside of designated SSSI boundaries (i.e., also not currently protected) but not registered on the RLR.

Thus, there is large area of priority habitat outside of the protected sites network because of the 2ha limit.

Uncultivated land stores large volumes of sequestered carbon.

- The carbon stored within priority habitats within RLR parcels that lie outside of designated SSSI boundaries is 654,339,383 t CO2 (tonnes of carbon dioxide) (178,456,033 t C (tonnes of carbon)). To put this into perspective, the average UK home's carbon footprint in 2014 was 8.1 tonnes of CO232. Therefore, this is equivalent to the theoretical storage capability of the carbon emissions of in excess of 80.7 million homes in the UK.
- Whilst for priority habitat on land not registered on the RLR, this rises to 933,572,440 t CO2 (254,610,434 t C per ha) (or the equivalent of the CO2 emissions of 115.2 million homes in the UK)).
- For priority habitat of less than 2 hectares on the RLR that is not currently protected, the estimate is 130,240,844.4 t CO2 (35,520,198198 t C) (or the equivalent of the CO2 emissions of nearly 16 million homes in the UK).

The Economic Case for Reform

The Regulations have performed well when viewed in a cost-benefit analysis, with an **average annual net benefit of £1,878,000 and a benefit-to-cost ratio of 2.5.**

However, the changes made to the Regulations in 2017 have increased the cost to farmers by adding the requirement to submit a land survey (and have one commissioned if one does not exist) alongside the screening application. Additionally, confusion over the definitions of the land and the application process may create excess costs for farmers.

Despite one of the aims of the 2017 policy changes being to reduce the number of unnecessary applications, approximately 47% of applications during the period 2012-2021 were outside the scope of the Regulations. This figure falls to 25% for the period 2017 to 2021.

Whilst the Regulations have been successful in a narrow scope, there is still a large amount of land that falls below the two-hectare threshold which could be protected. There are nearly one million hectares that are priority habitats but are not in designated SSSI boundaries, with Natural England considering 192,500 hectares at risk.

The Natural Environment Case for Reform

The 2006 Regulations exist to protect uncultivated, semi-natural land (and land with Historic Environment interest[5]) of 2 hectares or more from harm through agricultural intensification.

In effect, the 2006 Regulations provide a form of protection by definition (as opposed to designation), although most appeal cases rest on whether land falls within scope of the 2006 Regulations as the definitions are not as clear as they could be. In practice, the 2006 Regulations operate more like a permitting system than other forms of EIA.

The Regulations are an important lever to limit the negative impacts of agricultural intensification on important, yet undesignated, semi natural habitats and land of historic interest wherever they exist.

Forestry

The objectives of the 2017 amendments to the existing EIA (forestry) regulations 1999 were as follows:

[5] The historic environment is the physical evidence of past human activity. It connects people with place, and with traditions, stories and memories linked to those places. The historic environment could take the form of a stone circle, a prehistoric fort, a medieval castle, a Renaissance Garden, a stately home, a townscape or a landscape. It could be a factory, mill, battlefield or shipwreck. Or it could be an artefact or archive material – photographs, drawings, books, maps and manuscripts directly related to places and history. https://www.historicenvironment.scot/about-us/who-we-are/what-is-the-historic-environment/#:~:text=Put%20simply%2C%20the%20historic%20environment,memories%20linked%20to%20those%20places.

- To enact the requirements of the amended EU Directive, while avoiding unnecessary costs to business.
- To streamline the EIA process for applicants for afforestation.
- To provide clarification of the environment impacts in scope of an assessment.
- To require additional information from proposers at Stage 1 - screening to reduce the likelihood of projects needing to undertake a Stage 2 EIA later.

The Impact Assessment which accompanied the 2017 legislative changes estimated that there would be a financial impact of the regulations on businesses, with the additional information in the early stages increasing upfront cost. It predicted the additional cost to be around £153,000 per year. However, it also predicted the more stringent requirements for information at the screening stage may reduce the number of Stage 2 EIAs required, potentially saving business one Stage 2 EIA a year, at a cost of £100,000. The net additional cost to businesses was therefore predicted to be £53,000. Fuller examination of the predicted financial impact can be found the analysis section. Little resource impact was predicted on business outside of financial impact due to the forestry's sector existing compliance with the good forestry practice – as set out in the UK Forestry Standard (UKFS).

Evidence of Impact - Stakeholder survey

Most stakeholders agreed that new regulations were implemented fairly well, as shown in Figure 2. However, the following key concerns were highlighted:

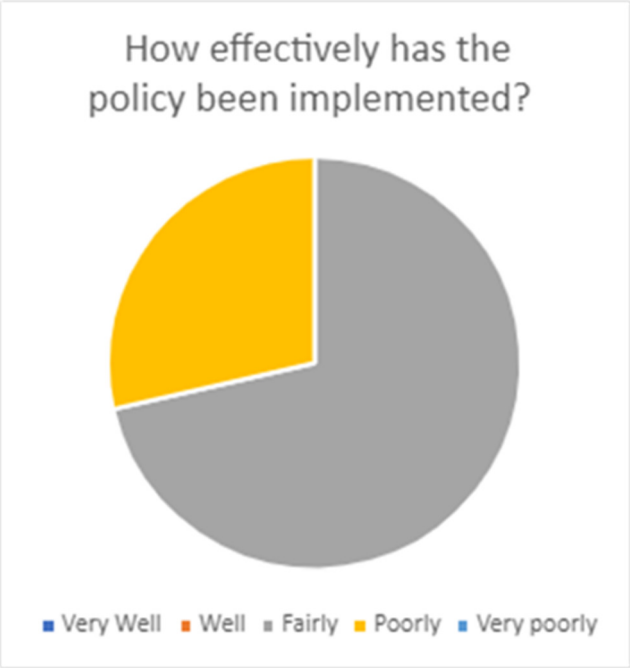

Figure 1.Proportion of stakeholders that think regulations were implemented effectively.

- **Cost** - The impact on project timeframes and costs for projects having to submit Stage 1 EIA was still considered significant. As the 2017 reforms were initially intended as a streamlining process, there is still work to do to shorten timescales and provide clarity on the correct EIA process for service users.

- **Timing and policy alignment** - The response time for EIAs can vary significantly within the statutory deadline. This is further complicated when policy is updated during the EIA process e.g., guidance on Breeding Bird Surveys was updated only a few weeks before the deadline to have started annual surveys.

- **Clarity:** Stakeholder considered that they required more clarity on the regulatory process. For example, when information is provided for grant schemes, such as Woodland Creation Planning Grants, is the quantity and level of information needed different for an EIA? Is it duplicative?

- **Nature recovery:** Stakeholders reflected that they saw a lack of necessary environmental ambition in regard to environmental outcomes. Stakeholders are concerned that Environmental statements are not aspirational enough to secure the step change in nature's recovery. The ability to assess and mitigate for cumulative risks of multiple projects, and future risks, such as the introduction of new and novel fast growing tree species, was also drawn into question.

- **Protection:** Stakeholders expressed concern that the regulations were not always successful at preventing adverse environmental impacts, such as for afforestation on peatland, planting on priority habitat, or the adverse impact on endangered ground nesting birds, which are at risk of increased predation when new tree cover is established.

- **Consultation:** Relative lack of consultation with local authority heritage advisers despite them being required consultees.

Despite these concerns, most stakeholders also expressed that the Forestry EIA regulatory process "Met Expectations", as shown in Figure 3. This could mean expectations for the 2017 amendments were moderate, or that improvement in other areas helped outweigh concerns raised.

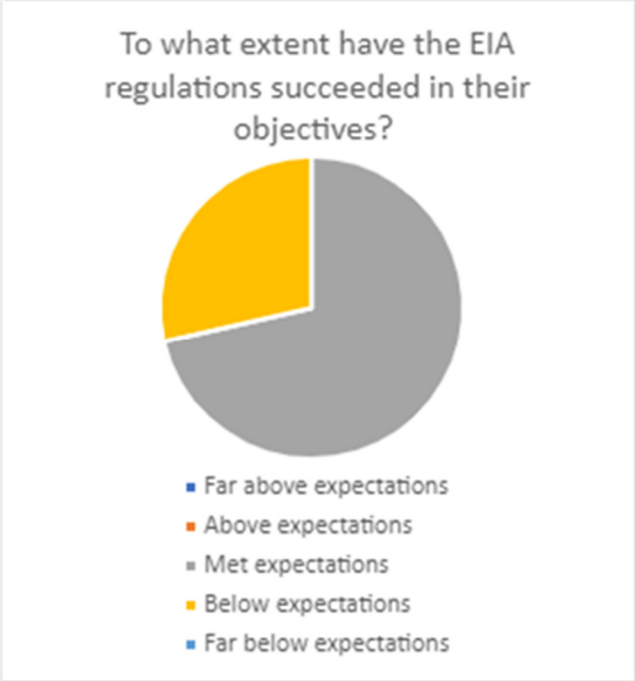

Figure 2. Proportion of responses that think the 2017 Regulations were successful in achieving its objectives.

However, a significant portion did still consider the scheme below expectations, with the core reason reflected in the consultation being a concern for environmental protection.

Costs and benefits of EIA

A consensus amongst stakeholders is that the forestry EIA process, and specifically the woodland creation regulatory process, is very time consuming and costly, as shown in Figure 4.

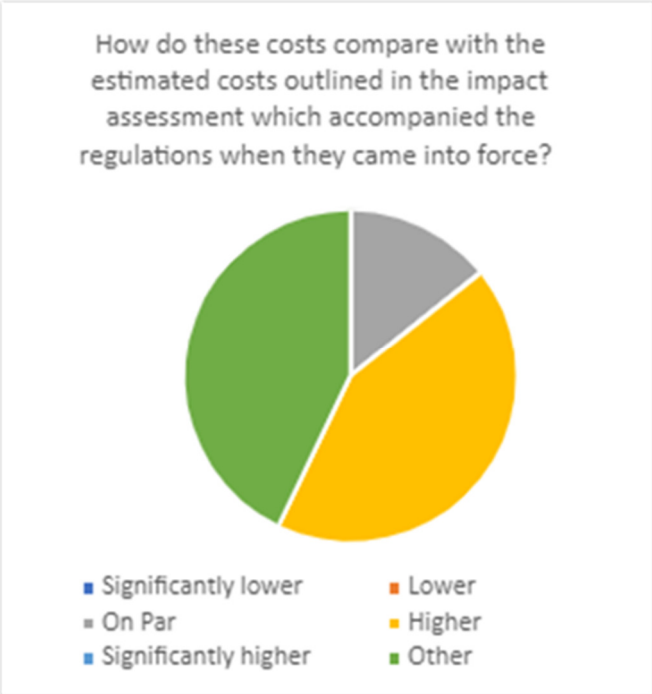

Figure 3. Proportion of responses that think the 2017 regulations were successful in achieving stated objectives.

Delays were reported, especially in cases where land-managers were not used to completing Stage 1 EIAs. A particular view was that it would take time to understand EIA regulation, or to seek guidance from another party, further costs were incurred due to increased time taken, and a potential loss in income e.g., from not being able to enter grant schemes by deadline.

Despite efforts to streamline EIA regulations, stakeholders still reflected a need for additional guidance and interpretation to support their applications, as they perceive complying with the EIA regulations as costly. This cost could prove prohibitive – in one case, the quoted cost of collecting the information required for an EIA was collectively around £52k, far higher than the level of funding that the Woodland Creation Planning Grant (WCPG) allows for all elements of assessing a site (£30k max). However, it is important to acknowledge that increased cost could be due to the project triggering sensitivities that need to be mitigated or compensated for.

Impacts on small and micro businesses

Stakeholders also reflected that this impact was disproportionately more significant for small and micro businesses. Core reasoning included:

- A lack of skills, guidance, or instruction, access to resources for small and micro businesses e.g., difficulty accessing GIS/mapping, and lack of staff and resources who could keep pace with changes in policy.
- General lack of funding leading to smaller landowners being dissuaded from engaging with capital grant opportunities in woodland creation.

Unintended consequences

Stakeholders expressed concern that an unintended consequence of the reforms was that their complexity threatened to discourage landowners considering woodland creation as an option, therefore negatively affecting delivery of the government's tree targets. We have committed publicly to a target of planting 30,000 hectares per year across the UK and whilst not all of this will be regulated through the English EIA scheme, a significant portion will be. Therefore, it is important to consider how the EIA process may be functioning as a blocker to this goal, and how we can ensure the system better facilitates woodland creation.

However, it was also highlighted that, on balance to woodland creation proposals, without proper care and scrutiny, and an understanding of existing environmental features, there is a risk of large scale and incremental environmental damage through inappropriate planting schemes being approved. This is a particular concern given the longevity of trees and the permanency of land use change to woodland habitat, maintained by tree felling licences and the Open Habitats Policy 2010.

Considerations developed from Interviews with Forestry Commission

In the interests of reflecting the reality of implementing the regulatory amendments in 2017, we conducted 3 interviews with colleagues in the Forestry Commission (FC). The feedback from participants has been unified into the following sections:

- **Context of Reform**
- **Shift in Evidencing Culture**
- **Have the reforms delivered on our objectives?**
- **Is Intervention still necessary?**

Context of Reform

The original EIA regulations came into force in 1999, but the FC indicate there were not substantial amounts of EIA applications before 2010 and even fewer stage 2 EIA applications requiring consent. This lag period meant there was a lack of clarity about how the regulatory system worked, even within the FC. The intent of 2017 EIA reform was, in part, to clarify ambiguities in the 1999 regulation, introducing a new notification system to streamline the process for projects which were considered lower risk, and therefore required less information to be submitted to the regulator.

Shift in Evidencing Culture

The FC indicated that almost all the information required for the EIA process was already being collected as part of existing grant scheme applications, so they

perceived the changes introduced by the Directive to be minimally invasive. However, the regulatory changes did prescribe a more upfront approach to provision of information which increased administrative burden on applicants. This necessitated a significant cultural shift, as FC woodland officers used to provide a lot of guidance and support to proposers and help in some aspects of information gathering activities, sometimes to a significant degree. They suggested that moving to an upfront approach may increase the labour and cost for the proposer and may affect stakeholder perceptions of the efficiency of the amends.

Issues with the Notification Regime

The notification system was intended to promote planting "the right tree in the right place" by focusing applications on low-risk land. In principle, these EIA applications would then be streamlined, focusing FC resource on more complex cases. The FC consider the notification system to be unsuccessful in fully delivering on this objective, as applicants simply do not consider the low-risk map when making investment decisions on where they want to plant trees and continue to choose more sensitive locations for afforestation projects. However, the Low-Risk map itself has provided a catalyst for development of improved environmental data which, over time, is increasingly giving confidence to give afforestation in low-risk areas a lighter regulatory touch.

Streamlining

The 2017 reforms in relation to Notification attempted to streamline the EIA process. However, proposers find the combination of hectarage thresholds, EIA Decision types, and land sensitivity requirements confusing, and often rely on clarification from the FC. Confusion around the process has been reduced through updated guidance, instruction, and messaging from the FC, but further simplification of the process is necessary, especially as there are other regulatory processes that duplicate the evidence gathering (i.e., grant process, felling licensing).

Overall application changes

Overall, applications that progress to Stage 2 have increased, despite the stated goal in the Impact Assessment for 2017 regulations being to reduce application numbers by streamlining applications that were not risky for afforestation. The intent was that the Forestry Commission, once notified of a project, could work with applicants upfront, identifying low risk applications ahead of time and giving a decision of consent not required. This was intended to save applicants and the FC the resource commitment of a Stage 2 EIA, where one was unnecessary. This did not turn out to be the case, as the number of Stage 2 EIA applications has risen over the subsequent period, the result of specific types of afforestation proposal not previously seen by the Forestry Commission.

Applicants are also feeding back to FC that they are seeking advice even in cases where an EIA decision is ultimately not required, because they perceive the process as unclear. Applicants have also expressed to the FC that the regulatory process is not explicit enough in stating whether a Stage 1 EIA application is mandatory (legislatively it is not), or necessary (this is up to the applicant).

Is Intervention Still necessary? - EIA as an Environmental Protection

Forestry Commission expressed that the EIA regulatory system is currently functioning as a vital environmental protection against certain types of forestry project. In the cases of proposed planting of potentially invasive tree species, or in cases of self-funded planting, where grant scheme requirements do not need to be met, the EIA regulatory process is the only control against negative environmental impact. This was evident in a recent application to plant large amounts of an untested tree species, Paulownia.

FC have also expressed that amendments to introduce EIA Notification were successful in strengthening the EIA process as an environmental protection. Previously smaller projects, generally under 5 hectares for afforestation (1ha on sensitive sites), were not considered under EIA regulations. Now, depending on land sensitivity, most projects over 2 hectares are considered to require EIA notification, and this may have prevented or at least predicted and mitigated some significant damage.

Cost Analysis - How are costs impacted post EIA reform?

Using figures provided by the FC, we have attempted, where possible, to evidence the impact of the 2017 amendments through cost analysis. These results are caveated by a lack of comprehensive data, with significant gaps presented in the datasets collected since 2017.

Cost to Business

The 2017 amendments to the 1999 EIA regulations resulted in additional information being required from applicants, and at an earlier stage in proposal preparation, to inform the decisions on whether EIA consent is required. This implies that costs to business will increase due to the additional time burden of gathering and providing more detailed information.

To calculate the cost to business for each case, the cost of assembling the required data must be quantified. To do this, the best estimate to use is for a Stage 1 Woodland Creation Planning Grant, which pays £1,000 to complete relevant searches and gather relevant records. This can be multiplied by the number of applications to calculate the total costs to business. However, there were already costs to business under existing regulatory and compliance processes, and so these original costs to business must be subtracted to calculate the ‘additional’ cost to business of the increased information

requirements.

Afforestation

There were 1,587 afforestation cases from 2018. Multiplying this by the estimated cost of £1,000, leads to a total cost to business of £1,596,000.

However, it is assumed that 15% of these applications would have already required more advanced information (based on a survey on how easy it is for Forestry Commission staff to process applications - feedback from East and East Midlands and Northeast England provided), costing business £1,000 per application. This amounts to £239,400.

The other 85% of applications originally would have had lower information requirements and therefore cost requirements; however, these vary greatly and so cannot be accurately costed. As such, we have assumed that for these EIA applicants, the additional cost is the full amount of £1,000. Therefore, the total 'additional' cost to business is £1,596,000 - £239,400, which equals £1,356,600.

Total cost to business	**£1,596,000**
Original cost to business	**£239,400**
Additional cost to business	**£1,356,600**

Deforestation

There have been 156 deforestation applications since 2018. Like the afforestation cases, the total costs to business can be calculated by multiplying this by the estimated cost of £1,000 by the number of cases, to provide a total cost of £156,000.

However, all such deforestation proposals require a felling licence, and the Forestry Commission undertakes EIA screening as part of processing felling licence application. Government policy is to only allow conversion from woodland in the exceptional circumstances, as set out in the Open Habitats Policy (2010). This means applicants are required to provide additional information to show how their proposal conforms to the policy.

While related to the policy, this information also helps inform the EIA screening. The original costs for providing this additional information are £816 per application and is expected to be required for 92% of applications. For the remaining 8% of applications, more detailed information is required, and so the assumed £1,000 per application from the Stage 1 Woodland Creation Planning Grant is applied to these applications. Therefore, multiplying £816 by 156 (x0.92), and adding this to £1,000 multiplied by 156 (x0.08) gives the original total cost to business of £129,592.

Total cost	**£156,000**

Original cost	**£129,592**
Additional cost to business	**£26,408**

Forest Road / Forest Quarry

There are no expected changes in the costs to business for these projects.

Total Cost to Business

The total cost to business is calculated through adding the afforestation and deforestation additional costs to business:

Additional cost to business	**£1,383,008**

It has also been noted that through more stringent data collection, fewer Environmental Statements (ESs) may be required. Environmental statements are required for obtaining Stage 2 EIA Consent, and the estimated cost of one ES is £100,000. Therefore, if fewer ESs are required, there could be significant business savings. However, not all those cases that required a Stage 2 EIA ESs have progressed since 2018; there is no data available to show why, but the expectation is that cost of an ES would be a factor.

Costs to Forestry Commission

The costs to FC are calculated based on the hourly wage rate for FC employees, multiplied by the average number of hours it takes for them to review an EIA case. Due to there being no documented split in the workload per job role in the EIA review process, and the fact that this workload is split across various job roles and pay scales, a range of Forestry Commission pay scales is used covering the lower to mid-pay bands, to attempt to resolve this uncertainty. The annual salary range is £19,580 to £29,577, this equates to an hourly range of £10.18 to £15.37, with a central value of £12.77.

However, there are also likely to be overhead costs such as IT, travel, and administrative costs. To account for these, a 30% uplift has been applied. So, the hourly wage range becomes £13.23 to £19.98 with a central value of £16.61. These values will be multiplied with the hours required for each type of EIA review, then by the number of reviews required since 2018, to calculate a range for the costs to FC.

Afforestation (Consent not required)

There were 1,587 afforestation cases since 2018, for which consent was not required. These cases can be split into 'short' and 'long' timescales in which to determine the case.

With an estimated 70% of cases being in the short category, with FC review taking between 5 and 10 hours (with a mean of 7.5 hours). 30% of cases are therefore in the long category with FC review taking between 10 and 25 hours (with a mean of 17.5 hours). The reason for this difference is that the long cases require additional consultation by FC. As such, total estimated cost to FC for the short/long category applications can be calculated by:

Short: **Average review time** *(7.5 hrs)* multiplied by **low/high/central hourly wage rates** *(£13.23/ £19.98/£16.61)* multiplied by **number of non-consent afforestation applications** *(1,587)*

Long: **Average review time** *(17.5 hrs)* multiplied by **low/high/central hourly wage rates** *(£13.23/ £19.98/£16.61)* multiplied by **number of non-consent afforestation applications** *(1,587)*

The results for this for the long and short reviews, as well as the total cost to FC are:

Short	Upper	**£166,506**
	Lower	**£110,227**
	Central	**£138,366**

Long	Upper	**£166,506**
	Lower	**£110,227**
	Central	**£138,366**

Total	Upper	**£333,011**
	Lower	**£220,454**
	Central	**£276,732**

Deforestation (Consent not required)

There were 154 deforestation applications since 2018, for which consent was not required. The calculation for this follows the same process as for afforestation - wage rates and the 'short' and 'long' timescales in which to determine the case, as above. The results for these as well as the total costs to FC can be seen below:

Short	Upper	**£16,157**
	Lower	**£10,696**

	Central	**£13,427**

Long	Upper	**£16,157**
	Lower	**£10,696**
	Central	**£13,427**

Total	Upper	**£32,315**
	Lower	**£21,392**
	Central	**£26,854**

Forest Roads (Consent not required)

There were 15 forest road applications since 2018 that did not require consent. The calculation for cost to FC once again follows the two previous processes, just with a different number of applications. The results for this as well as the total cost to FC is:

Short	Upper	**£1,574**
	Lower	**£1,042**
	Central	**£1,308**

Long	Upper	**£1,574**
	Lower	**£1,042**
	Central	**£1,308**

Total	Upper	**£3,148**
	Lower	**£2,084**
	Central	**£2,616**

Applications where consent is required

For those applications where it is deemed consent is required, the time demands on Forestry Commission are vastly more extensive, with the average number of hours required being estimated as 450. This number has been calculated from real world cases.

Since 2018 there have been 11 cases which have required Stage 2 EIA Consent. However, of these 11 cases, only 4 cases undertook the Stage 2 ES process and were fully reviewed.

However, even though there is a significant Stage 2 EIA drop-out rate, some work hours are expected to have been spent on the review prior to its discontinuation. As there is no data for this, to take a conservative approach it is assumed that all 11 cases are fully reviewed to reach a decision that Stage 2 EIA Consent was required, and that an ES would be needed. As such, total estimated costs to FC can be calculated by:

Average review time *(450 hrs)* multiplied by **low/high/central hourly wage rates** *(£13.23/ £19.98/£16.61)* multiplied by **number of consent afforestation applications** *(11).*

Upper	**£76,094.67**
Lower	**£50,374.74**
Central	**£63,234.71**

Total Cost to Forestry Commission

The total cost to FC is calculated through adding each of these different aspects, for each part of the wage range:

Upper	**£444,568**
Lower	**£294,304**
Central	**£369,436**

Overall, Whilst the Forestry EIA regime is both necessary and functional, the core objectives of the 2017 reforms, for streamlining the process, reducing administrative burden, reducing the need for stage 2 EIAs, and broadening the environmental protection capabilities, have not been fully met.

Confusion remains around the regulatory process, increased by the introduction of EIA Notification, and there are concerns surrounding the regulations' ability to adequately assess risk from a biodiversity and habitat standpoint. The number of EIA determinations has increased overall, with the caveat that this is most likely to be due to increased planting rates resulting from Nature for Climate funding.

Marine

Stakeholder survey

A summary of the responses within the survey relevant to comparing the ex-ante impact assessments are set out below. Overall, responses indicated that the

regulations had been well implemented and succeeded in their objectives, with no marine respondents stating otherwise.

- No marine respondents thought the policy had been implemented poorly or did not succeed in their objectives
- 5/9 thought there were gaps in the regulations which may enable negative environmental impacts
- 4/5 thought costs were higher than the estimates set out within the Impact Assessments
- No marine responses flagged disproportionate impacts on small businesses
- 3/10 felt the regulations had led to unintended consequences

Implementation

Once consent is given, respondents have noted that monitoring of mitigation operations are regularly left to developers. This has led to many mitigation measures not being fully implemented. In addition, it was found that violations are often discovered via complaints from the public as opposed to active monitoring of compliance, or monitoring required by the marine licence on a particular receptor as triggered by the EIA assessment. According to respondents, this is believed to be due to a lack of resources within LPAs and regulators.

Respondents also recommended that more could be done to consult with other EEA states on the potential for transboundary impacts to the marine environment. For example, marine mammals are highly mobile, therefore, it is important to take into consideration the cumulative impacts of a development to these species across nations. This could become more important as we are predicting an increase in the number of offshore EIA applications over the coming years, especially in relation to the energy sector including offshore wind.

As such, it was highlighted that a review of the post-consent regime, such as monitoring and adaptive management, is required. Respondents also suggested that sanctions should be used when cases of noncompliance are discovered.

Licence Costs

Most of the responses were unable to quantify the associated costs in addition to the application fee for marine licences. This made it difficult to confidently assess the difference in actual costs experienced compared to those estimated. Responses indicate that due to the greater levels of scoping, monitoring and time required relative to in 2007, that costs have increased.

We have sought to obtain comparable data to the original impact assessment for the Marine Works (Environmental Impact Assessment) Regulations 2007 to directly assess the cost impact of the regulations and compare to expected costs.

Table 2 sets out the cost estimates per marine licence in the impact assessments for the 2007 regulations and the 2017 amending regulations and compares to data provided by the MMO and Natural Resources Wales. All prices are adjusted to 2022 prices to adjust for inflation over the time period.

TABLE **2** - ACTUAL COSTS PER MARINE LICENCE COMPARED TO 2007 ESTIMATES

Source	Screening	Scoping	Application	**Cost per licence**	**Difference to 2007 IA**
2007 IA	700	1,600	8,000	10,300	
2017 IA	2,100	3,600	13,100	18,800	82%
NRW 2022	600	3,600	12,000	16,200	57%
2017 IA analysis with latest MMO/CEFAS fees	2,400	3,900	14,300	20,500	99%

Notes:

1. All figures rebased to 2022 prices and rounded to the nearest 100
2. The 2011 IA analysis does not provide directly comparable data so is not included
3. Costs for each licence vary case by case, all figures above are averages
4. The table **does not include post-consent monitoring costs**, which were introduced only in 2011 and in 2017 for Wales

The 2017 amendments introduced post-consent monitoring within the regulations. The IA estimated a £2000 uplift in costs per application, attributable to post consent monitoring. Data provided by the MMO indicates that actual costs of post-consent applications average £3200, 60% higher than the 2017 IA estimate.

These costs are mainly charged to businesses, as was assumed in the impact assessment, however the current MMO fee's structure means that they face an average shortfall of 23% per application, which falls to the MMO and Government.

Overall costs per licence in 2022 are on average 109% higher than the 2007 estimate (when combining MMO and NRW samples and including post-consent monitoring costs).

Licence Applications

It should be noted that the overall number of marine licence applications has been trending downwards over the last decade, as illustrated in Figure 1. Evidence from the 2007 IA indicates that the number of comparative applications[6] in 2004/05 was 505.

[6] Prior to the introduction of the Marine Works Regulations in 2005, licences were granted through the Food and Environment Protection Act 1985.

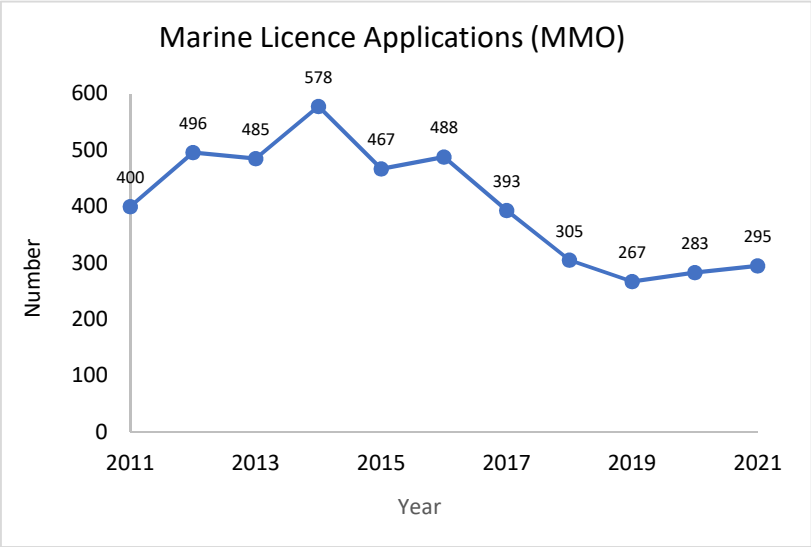

FIGURE 4. MARINE LICENCE APPLICATIONS TO THE MMO OVER TIME.

The reasons for the reduction are uncertain, given the limited data but are likely a consequence of external factors alongside previous regulatory streamlining efforts.

The reduction in the number of applications does offset some of the increase in average costs per licence for industry, reducing the overall burden on industry.

Overall cost to Industry

As we do not have data on how EIA costs have grown over time it is not possible to accurately model the actual cost to industry following the introduction of the regulations in 2007. Both qualitative data from the survey and quantitative data from wider sources indicate that costs have significantly increased since 2007. While this has been partially offset by a reduced number of applications, the burden to industry has still been higher than estimated.

To give an indication of scale, multiplying the average cost to industry in 2022 by the number of licence applications processed by the MMO in 2021 gives an overall cost to industry of £6.4m, 22% higher than the expected cost to industry in 2007. As noted previously, the significant increase in the cost per application has been offset by the reduced number of applications.

For comparison, planned investment in offshore wind projects from 2021 is expected to be more than c£8.5bn[7] and the value of oil and gas production was c£21.8bn in 2017[8]. The evidence indicates that the regulatory costs are low relative to the scale and value of marine works and infrastructure.

Benefits

Benefits have been largely unquantified within the original impact assessments. The

[7] National Infrastructure and Construction Pipeline 2021 - GOV.UK (www.gov.uk)
[8] Extractive industries in the UK: background information on oil and gas - GOV.UK (www.gov.uk)

original impact assessment for the 2007 Regulations identified the avoided cost of any fine, increased legal certainty and greater consideration of environmental impacts within licence decision making.

Environmental Benefits

While it has not been possible to appraise the environmental impacts, they are expected to be a benefit of the regulations. The requirement for an EIA leads to a greater assessment of environmental impacts, which can lead to reduced negative impacts of marine works. In doing so this avoids the associated costs of marine degradation, which can disrupt a wide range of the ecosystem services the marine environment provides.

Marine natural capital is vital to the functioning of the economy and society, with a high associated economic value estimated by the Office for National Statistics (ONS) to have an asset value of £211bn[9]. Degradation as a result of human activity is a significant risk to the ecosystem services natural capital underpins[10]. If the regulations have reduced the overall amount of degradation caused by marine works, then this will have been a significant economic benefit of the regulation.

Evidence from the UK Marine Strategy (UKMS) Part 1 assessment[11] indicates that severe degradation caused by marine works appears to have been avoided. While Defra has been enacting a wide range of policies to improve our marine environmental status, the requirement for an EIA for any marine works forms a core part of its strategy. Benthic habitats, hydrographical conditions, contaminants, and underwater noise are likely to be the indicators most impacted by any marine works. The UKMS 2018 assessment found hydrographical conditions to be achieving GES, benthic habitats to be on course to achieve GES provided fishing pressures are addressed, contaminants to be stabilising and improving, while underwater noise lacked evidence to assess. Overall, the assessment does not note infrastructure projects as a continued concern for any of the indicators, suggesting the marine works regulations are achieving their aims and minimising environmental impacts.

The survey responses also support this, indicating that, from a marine perspective, the impact of the regulations on the environment have been positive. All 12 marine respondents stated the regulations had met or exceeded their objective to live within environmental limits, whilst achieving social and/or economic sustainability.

Cost Savings

The impact assessment for the 2011 amending regulations quantified an array of expected cost savings as a result of the amendments (as set out in Table 1), however data limitations mean it has not been possible to assess fully whether these savings

[9] Marine accounts, natural capital, UK - Office for National Statistics (ons.gov.uk)
[10] The Economics of Biodiversity The Dasgupta Review: Abridged Version (publishing.service.gov.uk)
[11] Marine Strategy Part One: UK updated assessment and Good Environmental Status (publishing.service.gov.uk)

were realised in reality. As set out in Figure 1, the number of applications has decreased since 2014, indicating some of the reforms to streamline and reduce the burden of regulations has been successful, although the time lag indicates other factors may have been responsible too.

Small and Micro Businesses Assessment

As set out in Table 1, the previous impact assessments did not identify a disproportionate impact on small and micro businesses. The survey feedback supports this assessment, with no marine respondents reporting any disproportionate impacts on those businesses.

Summary of Impacts

In terms of the actual economic impact of the regulations, all three impact assessment[s] are likely to have underestimated the costs to business and government. The costs per licence have increased significantly, with the majority of the burden falling to industry. This may have had the unintended consequence of deterring some investment, although the costs are low relative to the scale of the industry, so this appears unlikely.

It is important to note that the benefits could be substantial despite not being appraised. Ecosystem services are highly valued by society, with qualitative evidence from the survey and wider environmental indicators suggesting the regulations are having the desired effect, although evidence is limited. It would be beneficial for government to have a greater understanding of specific environmental impacts (benefits in this case) of policies within the marine environment, in order to more accurately assess the quality and impact of policy and regulation.

Cefas Analysis of marine licence conditions

Cefas undertook a review of marine licences that were subject to EIAs to assess how the EIA affected decision making and licence conditions, with the aim of providing further evidence on the environmental impacts of the regulations. Overall, for England 77 marine licences and 10 Harbour Orders were reviewed in depth. Marine licenses are regulated by the Marine Management Organisation while a Harbour Orders are regulated by Harbour Authority.

The key question to be answered by this analysis was “How has the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) influenced decision making since 2012, what impacts has it had?”

Prior impact assessments have not considered this, so we are starting from no clear baseline. This analysis focussed on marine licences with EIA from 2015-2019.

Where Cefas could find correspondence that related to amendments to project proposals based on EIA concerns they highlighted these as examples of active

positive effects of EIA regulations on environmental impact reduction. As added value, Cefas also highlighted their recommendations for strengthening the Marine Works (EIA) Regulations from their position as technical advisors on marine licences.

For Wales, Natural Resources Wales provided five representative marine licences for review. Cefas downloaded the relevant documentation from the NRW Public Register. As with the MMO, NRW can defer EIA consent decisions to another authority in accordance with the Regulations. NRW deferred EIA consent to another licensing body (the MMO) in one of the representative cases, however, NRW were still required to issue a Marine Licence. Marine Scotland also provided five representative developments for review. For Northern Ireland, the Marine and Fisheries Division of the Department of Agriculture, Environment and Rural Affairs (DAERA) provided three representative developments for review.

Limitations

There were some limitations with this analysis including:

- The licences issued under Food and Environment Protection Act (FEPA) and Coastal Protection Act (CPA) were not held electronically and paper copies are rarely still available (based on retention needs and regulations), the marine licensing framework in FEPA was replaced by Part 4 Marine and Coastal Access Act and the CPA licences are no longer in the Marine Works (EIA) Regulations;
- The MMO was created pursuant to the Marine and Coastal Access Act 2009 (MCAA), but the marine licensing regime created pursuant to Part 4 of MCAA did not come into force until April 2011 (*hence starting in 2012 as first full year of marine licensing under MCAA*);
- The MMOs electronic data storage system, Marine Case Management System (MCMS), started in 2011 but collection of data linked to EIA in MCMS, the online portal interface of marine licensing applications, only started in 2015 (*Cefas supplemented this as far as possible from internal records 2012-2015*);
- EIAs linked to Harbour Orders are not held on MCMS, but a separate register – the Harbour Orders Public Register. Not all the information is always available, as Harbour Orders are processed 'offline' therefore the regulator has created a separate online public register for Harbour Orders.
- Given 2012 start date for analysis, the immediate impact of the 2007 Regulations and the 2011 amending regulations will not be captured. However, as core objective of regulations remains consistent, this should give us adequate information for an assessment at this time and form a baseline to build upon in future reviews.
- For devolved administrations, only a handful of representative cases were provided for review from each.

Overall conclusion from Cefas analysis

Across English marine licences and Harbour Revision Orders (HRO) the data shows that EIAs may have influenced the decisions. Marine licences, where appropriate, have conditions to mitigate the impacts, and / or monitor to reduce uncertainties based on the EIA, but it is not always clear exactly which specific licence conditions reflect which conclusions of the EIA. Conversely, the MMO appear to have also taken a proportionate approach to determining the licences as not every licence had conditions beyond standard conditions. Additionally, we have not assessed how effective the mitigation or monitoring measures posed by licence conditions have been due to difficulties in gathering this data, but the MMO do require monitoring reports to be provided and reviewed.

For Wales, it is unclear how projects were adapted to avoid, minimise, or mitigate environmental impacts during the EIA / environmental assessment processes. However, where an EIA Consent Letter was issued alongside a Marine Licence, it was clear that the decision was influenced by the results of the EIA because the EIA Consent Letter directly referred to the environmental statement and referred to the conclusions of the ES, split by chapter or EIA theme.

For Scotland it was difficult to determine exact influence of EIA on decisions. Of the five licences, four had specific project conditions, but it was difficult to directly link these to outputs from the EIA.

For Northern Ireland, the review could not determine how the decisions were, or were not, directly influenced by the results of an EIA which accompanies a Marine Licence application. However, it was noted that one of the licences did provide an EIA Consent Letter, which made clear the decision was based on the assessment and contained project specific conditions. As with Wales, how far decisions were adapted to avoid, minimise or mitigate environmental impacts, as well as the effectiveness of EIA measures, were unclear based on the method of analysis, which made it difficult to make this assessment.

Areas for improvement across all nations:

To better facilitate openness and transparency there are areas for improvement and as such the following are recommended, unless already in place:

- Ensuring the Decision Letter refers to the Screening Opinion in the screening decision.
- Ensure that any EIA project screened and subsequently determined in has either the EIA Consent Letter or EIA Deferral Decision Letter on the Public Register.
- Ensure the appropriate Schedule (Annex) under which an EIA is required is referenced in any Licence Decision Letter on the Public Register.
- Ensure the appropriate Schedule (Annex) under which an EIA is required is referenced in any EIA Consent Letter or EIA Deferral Decision Letter on the Public Register.

- Investigate ways to record pre-application project changes considered and made to avoid, minimise or mitigate adverse environmental impacts.
- Explore the process of relating specific conditions back to the EIA/ES where appropriate. This will help when reviewing the monitoring reports to know why the condition was applied back to the baseline and assessment(s).
- Explore ways of improving methods of reviewing mitigation and monitoring conditions to inform future assessments and decisions.
- Explore ways to make all documents linked, especially for HROs as the information is not easily retrievable.

Access to Cefas report and associated documents can be made available upon request.

Water resources

Little quantitative evidence was provided in the consultation responses to revise previous assessments in 2017. It was noted that the water resources regulations have rarely been used, if ever. However, if they were to be used then it is likely that they could add significant costs to the abstraction licence or permitting process both for the regulator (nominally 30-50 £/hour) and to the applicant through the need to produce EIA reports.

Respondents suggested that the water resources regulations needed to work holistically within the current water abstraction system and need to secure sustainable use of water resources. It was also suggested that the aims of the regulation could be effectively handled through the abstraction licensing, and these may act as unnecessary dual regulation of water resources.

Section 3 – Further information

Success in helping the Government to achieve its objective of living within environmental limits while achieving a sustainable economy

Stakeholders had mixed feelings on whether the regulations have truly succeeded in helping the Government to achieve its objective of living within environmental limits while achieving a sustainable economy. EIA Regulations have been predicted to have a fundamental role to play in supporting delivery the Government's target to create or restore in excess of 500,000 hectares of a range of wildlife-rich habitat outside protected sites by 2042 by preventing the further loss and fragmentation of this undesignated resource. However, the overall picture in England remains one of continuing decline in nature (Defra 2020, JNCC UK Biodiversity Indicators, 2022) and the consequent urgent need to move from protection to major proactive recovery, our toolkit needs to evolve to enable and foster the right action.

In terms of evaluating the effectiveness of the Regulations in terms of meeting the overall objective, to "help the Government to achieve its objective of living within environmental limits while achieving a sustainable economy", some stakeholders believed that a key challenge is the deficiency of data to demonstrate whether environmental limits have been exceeded or not (e.g., having confidence that natural environment features such as animal populations are decreasing or not). The EIA process looks at a snapshot in time and therefore would benefit from better use of long-term baseline data and cumulative effects information. At present, when looking at impacts on a project scale it is not easy to access information to determine if any actual environmental impacts in the long term were in line with the original EIA. Due to this lack of collated evidence and analysis, it is therefore very difficult to determine how successful the Regulations have been in securing the objective of helping Government to achieve its goal of living within environmental limits. As such, many stakeholders believed that we should question if the correct monitoring is being undertaken to determine this.

Unintended Consequences

Across the regimes, around half of the respondents highlighted that there have been unintended consequences of these regulations. Overall, respondents stated that the administration required to follow these regulations has increased over time due to increased environmental scrutiny. This may lead developers to avoid changing the scope of projects to avoid this process and save time and/or money.

It was also felt that engagement with stakeholders has become less effective over time, and therefore it is sometimes difficult to resolve issues early in the process. The regulator only formally consults a limited number of statutory consultees and relies on public notice to capture the views of other interested parties, which can result in wider stakeholders to the application process feeling marginalised.

- For Marine:
    - Costs per licence are now significantly higher than in 2007 due to the increased environmental scrutiny for licences and increased complexity of developments, which was not originally foreseen as a consequence of the regulations.

- For Forestry:
    - Lower uptake of capital grants in woodland creation: An unintended effect caused by the regulations may be to prevent or at least make it considerably harder for the Government to meet its woodland creation targets.
    - Misalignment with the Government's nature recovery ambitions: Without proper care and scrutiny of woodland establishment projects to understand the existing environmental features present on and around the establishment site, there is a risk of large scale and incremental environmental damage through inappropriate planting schemes. This is a particular concern given the longevity of trees and the permanency of land use change to woodland as directed under the Forestry Act.
    - Discouraging the re-creation of priority open habitats: The deforestation component of the Regulations often comes with associated compensatory planting requirements. This can discourage the recreation of priority open habitats. It will be important to review this aspect of the Regulations to ensure proper alignment with Local Nature Recovery Strategy (LNRS) ambitions and enable open habitat restoration, particularly where previous large-scale afforestation took place on nature-rich heathlands and peatlands. The regulations should also consider heritage assets.

- For Agriculture:
    - The inherent risk to semi-natural land contained within parcels of less than 2 ha. (Due to such land falling outside of the current scope of the Regulations). Given that outside of the Town and Country Planning framework, the Regulations are the only current mechanism to protect such land from agricultural intensification, 'the current 2 ha. screening threshold means there is no requirement to notify anyone of losses of habitat under this threshold, [and that] continued attrition of this undesignated resource of habitat takes place at an unknown rate and of unknown nature'.
    - In a similar vein, 'non-renewable' historic environment features are present at a variety of scales across the landscape, irrespective of field boundaries, which can lead to 'fragmentation and loss of assets and the cumulation reduction of significance'
    - That as projects near or adjacent to protected sites (such as SSSIs) that are below the 2 ha. threshold do not require a screening decision under

the Regulations, projects may legally be carried out that 'indirectly cause damage to notified interest features of a protected site'.

- Land values could, potentially, be affected: i.e., that the inability (or suspected inability) to change a parcel of land in the way desired could reduce land values. This was not something we were able to quantify or verify with the data and resources available.
- A potential unintended consequence of the 2017 amendment is the drop in the number of applications for screening decisions. As stated above, the original 2017 IA predicted an average of 272 applications per year based on trends from the previous five years. However, the actual number of applications in this period was an average of 178. Whilst there is no direct evidence that changes in the Regulations caused this fall, it is likely as the costs to farmers per application increased.
- Responses to the stakeholder survey suggest that the unintended effects included that some farmers may be wary of entering agri-environment schemes given that some land may then be at risk of falling under the requirement/s of the Regulations; and, that the Regulations do not consider the potential for unknown archaeology/historical remains, the loss of which would be irreversible.

Literature review

As an accompaniment to the focussed engagement and analysis, we also undertook a basic literature review to see if there were any opinion pieces or peer-reviewed literature assessing the impact of EIA regulations in the UK, with a specific focus on marine EIA. Using Google Scholar and search terms including 'Marine works EIA review', 'Marine works EIA UK', 'Impact of EIA regulation UK', 'Impact Marine EIA UK', 'UK experience of EIA' and similar combinations we reviewed in full 12 pieces of literature (chosen to review using expert judgement when reading abstract/summary). These included 10 peer-reviewed documents, 1 international report and 1 industry report/viewpoint.

Overall conclusions from the literature review included:

- The existing EIA process is considered too technical, not proportionate, unclear or overly prescriptive / process driven, with little in the way of guidance.
- Scoping and reporting (quality of environmental statement) are inconsistent between regimes and projects. This is due to there being no agreed set of standards or targets for applicants to assess against, so each responsible authority must decide whether the information is sufficient.
- The lack of statutory need to consult on screening decisions can lead to bias into what is screened in or out of assessment depending on the expertise of responsible authority.
- There is a lack of consideration of alternatives despite this being a requirement of the legislation. Where alternatives are considered, most EIAs focus on

economic/technological alternatives, with a lack of identification of more environmentally sustainable and less damaging alternatives.

- Commercial confidentiality and national security requirements restrict the information available to be shared in some instances, leading to poor feedback into the system from project level assessments.
- Decommissioning is poorly considered under EIA.
- Cumulative impact consideration remains a key failing of the EIA process.

Potential improvements identified in literature:

- The need for agreed standards and guidance that can apply across regimes and sectors to enable more consistency in assessment, reporting and monitoring. This could use international guidance such as that under UNCLOS (United Nations Convention on the Law of the Sea) as a basis - establishing processes, thresholds, and guidelines for conducting and reporting of assessments.
- Improve the EIA evidence base including continuing to resolve data sharing challenges.
- Moving more towards Strategic Environmental Assessments (SEA) in the marine environment, including data collection at a strategic level could have substantial benefits to both the environment and applicants.
- Adopt a standardised regional approach to monitoring for marine sectors, led by the industry as marine aggregate industry have already done.

Alleged UK breach of the Directive:

Between 2005 and 2014, the European Commission brought the United Kingdom to court on *nine* occasions for the alleged Failure of a Member State to fulfil obligations. The court ruled in line with the European Commission in six of these cases where the UK were required to cover the costs of the case.

One example of these cases was case C-37/05 where the European alleged the United Kingdom granted consents without assessment and therefore failed to correctly transpose Articles 2(1) and 4. Article 2(1) of the Directive covers the requires that an assessment of the effects of a project must be undertaken before consent can be given. Article 4(1) and (2) of the Directive states projects listed in Annex I required an assessment while projects in Annex II the requirement of assessment is dependent on case-by-case examination or thresholds set by the Member States. Article 3 of the directed stated that Member States had to adopt these measured by March 1999, therefore in December 2003 the Commission issued a reasoned opinion calling on the United Kingdom to take the necessary measures to comply with the opinion within two months of notification thereof. As the Commission took the view that the situation remained unsatisfactory, it decided to bring the present action.

The UK responded with:

> *The United Kingdom Government acknowledges that it is necessary to transpose Articles 2(1) and 4 of Directive 85/337 by adopting binding national*

legislation and not by instituting an administrative practice. It has committed itself to taking the measures necessary for such transposition by removing the Crown exemption provided for by national law. It states, however, that those measures cannot be adopted before the end of 2005.

The European Commission agree to this timeline laid down in the UK's response. However, by the court case in January 2006, the United Kingdom had not adopted, before expiry of the period set, the measures required in order to bring its legislation into conformity with Community law. Therefore, the court declared the UK had failed to make fulfil their obligation under Council Directive 85/337/EEC of 27 June 1985.

The UK accepted that it was necessary to transpose those measures by way of binding legislation and not by an administrative practice and committed itself to taking the necessary legislative action. A more detailed output of literature review can be found in Annex 3.

Comparison against other EU Member States and Countries

Germany[12]

EIA was first applied in Germany in 1990 and is now well established via the EIA Act. As with other nations, EIA is linked to consenting processes including planning approvals and emission control permits. The EIA regulations are a mix of national legislation and state-based legislation, to implement EIA as best applied to each region. There is no principal environmental regulator, and state authorities have most of the operational responsibility.

Screening, scoping, and consultation are key elements that are common across all EIA regulation in Germany as per UK. EIA screening must be applied to all large-scale projects, and a full list of activities requiring screening is provided in the Act, again like the current UK approach. The assessment is prepared by the project developer, but conducted by the permitting agency, and can require the consent of several public authorities across federal states for larger or complex projects.

Studies have shown overall improvements in implementation and use of EIA in decision making, and incorporation of international EIA standards and law into national legislation. However, room for further improvement is identified.

Norway[13]

Norway has a free-trade agreement with the EU and as part of this were obliged to transpose the EU's EIA Directive into national regulations. Norway is also a signatory to the ESPOO (EIA) Convention on transboundary impacts and the Kiev Protocol of SEA. Norway has several EIA systems including one for land planning, one specific to

[12] Information from Elspab & Feldmann, 2021 and Wende *et al.*, 2012
[13] Information from Koivurova *et al.*, 2016 and Norwegian Ministry of Environment, 2003

offshore oil and gas, and a separate regime for the Svalbard region. The process is like those of existing UK EIA regimes given that, as per UK, Norway's regimes are based on the EU Directive. Also like the UK, different regimes have different responsible departments.

The first EIA regime was adopted in 1990 and regimes have been reviewed to reflect updates to the EU Directive and International regulations. There is an emphasis on pre-application work, public consultation and maintaining a clear process. In 2022, UK Government was approached by Norway to provide advice on studies required to determine impacts on birds prior to allocating areas for offshore wind. This suggests Norway may take a strategic approach to offshore wind assessment, as they already do for oil and gas.

The Sultanate of Oman[14][15][16]

In Oman, there is one EIA regime that applies to marine and terrestrial and is applied across all sectors. It follows a similar stepwise process as UK EIA in that there is screening, scoping, assessment and reporting stages that feed into a wider decision. The EIA decision can be applied to multiple consenting regimes and the policy and process are managed by a central team in the Environment Ministry. There are two core pieces of regulation that apply (Royal Decree RD114-2001 Law on Conservation of the Environment and Prevention of Pollution, and Ministerial Decree MD48-2017 Regulations for Organizing Environmental Permitting). These are underpinned by detailed guidance documents that are written to apply to both regulators and applicants.

The regime underwent a review between 2017-2020, with assistance provided from UK Government. This looked to see where guidance could be updated and how to bring protected area assessment to the EIA process. There was no equivalent Habitats Regulations Assessment (HRA) process at the time. The conclusion was that where a proposal was to occur within a protected area, the development or activity would need to undertake a full EIA screening, even when it would not normally. Thus, it would enable an initial assessment process for activities in protected areas via the established EIA process.

[14] Royal Decree No. 114/2001 issuing the Law on Conservation of Environment and Prevention of Pollution. | UNEP Law and Environment Assistance Platform

[15] Ministerial Decision No.48/2017 issuing the Regulations for Organizing Environmental Permitting. | UNEP Law and Environment Assistance Platform

[16] Oman Environmental Regulatory Framework - Al Tamimi & Company

The United Arab Emirates[17][18][19]

In the UAE, the Ministry of Climate Change and Environment is responsible for many environmental regulations including EIA under Federal Law No 24 of 1999 On the Protection and Development of the Environment. However, the Federal Environment Agency undertakes the licensing and permitting and associated EIA for developments and are also responsible for setting thresholds for when an EIA is required. There is also the Environmental Protection and Development Authority, which undertake the production of guidance, including, EIA Report Guidelines - Format for the Submission of EIA reports. This follows a similar outline to EU EIA guidance documents in terms of what the applicant needs to provide in their report.

As per Oman, the same EIA regulations and guidance apply across terrestrial and marine (although there is separate environmental protection legislation unique to land or sea) and across a wide range of sectors. Therefore, the legislative and regulatory structure is more complicated than in Oman, but simpler than that of the UK.

European Union – Forestry

The Forestry Impact Assessment of European Union member states in defined under the Land use and Forestry regulation for 2021-2030. In 2021, the European Commission reviewed its Land Use, Land Use Change and Forestry (LULUCF) Regulation through an impact assessment, highlighting the decreasing capacity of the LULUCF sector to remove greenhouse gases from the atmosphere. One of the main drivers for the decrease was identified as increased wood harvests. The lack of an integrated policy framework, and the complex nature of LULUCF accounting rules and quality gaps in monitoring and reporting systems, were some of the main problems identified. The European Commission's EIA Directive (85/337/EEC) regulates the types of activities requiring EIA, including activities that impact forests, but some activities are permitted within thresholds of acceptability in regard to threat.

The EU directive provides for member states to set their own thresholds for Annex II projects, which includes afforestation projects. Figure 5 below shows the different thresholds that apply to afforestation projects across Europe. The Netherlands has a similar woodland cover and population density to England, but a higher risk is accepted. The full context of the environmental priorities and protection of other member states is not known.

[17] Federal Law No. 24 of 1999 on the environment protection and development. | UNEP Law and Environment Assistance Platform

[18] Environment and Green Development | Knowledge | UAE Ministry of Climate Change and Environment (moccae.gov.ae)

[19] An evaluation of environmental impact assessment in Abu Dhabi, United Arab Emirates (tandfonline.com)

However, the most notable difference between the application of the EIA regulations in other European countries and the United Kingdom is its interdependency with licensing. In several member states the Felling Licence system and Environmental Impact system are one process, and this is evident in other UK EIA schemes also. England's separation of licensing and environmental assessment can pose some unique challenges that may have fed into stakeholder feedback below, particularly comments that the system is confusing, or duplicative.

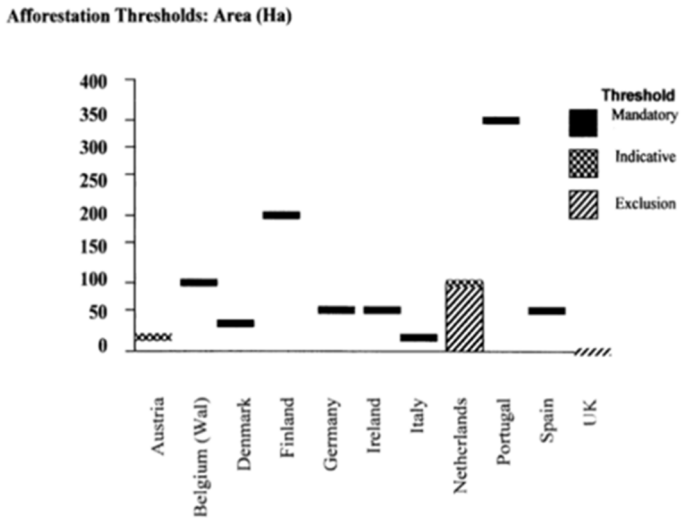

Figure 5.Thresholds for EIA for woodland creation across Europe[14]

Summary of Comparison with Other Countries

- EIA is linked to a consenting process and specific consent and is usually implemented via specific primary and secondary legislation.
- The EIA process has comparable stages across nations reviewed (screening scoping, assessment, reporting, decision).
- How many EIA regimes there are per country varies from one (Oman) to the many in existence in the UK.
- Similarly, there can be several management bodies involved in implementing the EIA regimes.
- Even where regimes are well implemented, room for improvement is identified across nations. In some cases, the UK Government has been asked for advice, suggesting our experience in EIA is respected.

Section 4 – Conclusions & Recommendations

Overview

A majority of stakeholders felt that the EIA regulations have ultimately succeeded in their objectives, as the regulations provide a clear basis and requirement for assessment that can be used by Statutory Nature Conservation Bodies (SNCBs) to understand and advise on impacts from developments, particularly where projects are of a scale and so where detrimental impacts may be likely.

The regulations, as implemented, were praised for their ability to facilitate the use of the mitigation hierarchy in reducing the impacts of marine developments on the environment and believed that the regulations allowed for proportional assessments of projects based on potential significant issues (i.e., ability to scope out non-significant issues). In addition, the EIA regulations have enabled the marine archaeological resource to be considered alongside other important environmental topics as part of the development process. This has ensured that the marine historic environment has been protected, in line with industry guidance.

However, the lack of guidance appears to be causing issues for developers and regulators:

- As the current guidance and procedures are not perceived as sufficiently transparent if an EIA decision for a project is disputed, it can often take years to reach a resolution.
- In some cases, it is difficult to predict whether projects listed as Annex II are likely to have a significant effect on the marine environment due to difficulties in identifying the appropriate schedule proposals fit into and thus whether they should be screened in or out of EIA.
- Whilst the core of EIA remains the same, there are differences between EIA legislation relevant to Town and Country Planning, Marine, Forestry, Water Resources, and Agriculture. This can lead to confusion around differences in implementation between EIA regimes due to the varying determination mechanisms.

Moreover, many stakeholders believed that the EIA regulations on their own were not going to achieve the objective of living within environmental limits while achieving a sustainable economy. Many believed that cumulative effects of developments were not being assessed and questioned if the correct monitoring is being undertaken to determine this. Key limiting factors on the scope of EIA in the opinion of stakeholders are the following:

- *Limited application*: Applies to less than 1% of developments.

- *Limited timespan:* Only applies at single point, at planning permission.

- *Limited influence*: Is only advisory and subject to political decision making.

- *Limited safeguards*: Relies on monitoring and enforcement outside of the scope of EIA.

Many stakeholders therefore suggested the inclusion of a requirement for monitoring and reporting to become a clearer responsibility of the competent authority undertaking the assessment.

Potential Improvements

Based on these conclusions, the majority of stakeholders felt that the regulations could be improved. Suggestions included:

- Updated UK wide guidance as to how to undertake EIA, use thresholds etc. is urgently needed.
- Thresholds currently used in screening could be reviewed.
- Better transparency within each aspect of the EIA process, with better interaction between regulators and developers.
- Monitoring, evaluating and reporting of effectiveness of mitigation measures should be pursued and occur on a more a regular basis.
- Publishing post consent data on the Public Register would be beneficial to assist in the sharing of evidence to inform future assessments.
- Conditions related to EIA outputs should be better applied on licences, especially regarding any avoidance and mitigation / compensation.
- Consideration of how different permits/consents align and if they should be combined into one process and standardise terminology used in EIA regulations, insofar as is possible, to avoid duplication and confusion. Natural England's proposal is for Defra's current EIA regimes to be integrated into a single framework of 'local nature recovery regulations' with the constituent parts of agriculture, forestry, marine works, and water resources retaining their bespoke characteristics and incorporating any bespoke reforms. This would help to:
    - ensure all important environmental assets, and the associated ecological services they provide, are considered consistently when faced with a wide range of material changes in their use that are outside the scope of the planning system; and
    - consolidate and rationalise the different Defra EIA regulations, avoiding duplication whilst maintaining the consistency of a general approach and a common focus on delivering specific nature recovery outcomes.
- EIA needs to scope in decommissioning elements, detailed mitigation and, where needed, compensation. These must be covered in sufficient detail in application stage and not pushed to post consent.
- EIA Regulations could benefit from a review against new legislative developments like net gain, nature capital and UK Marine Strategy indicators in regard to mitigation measures.
- Targets around GES (and any MPA target in the Environment Act) should be incorporated into decision making once policy on GES and restoration are further developed.

- Strengthen requirements around monitoring and post consent.
- Consider developing a restoration metric that will enable identification of potential restoration objectives as part of wider projects, reward positive impacts of development, and overall strengthen the need for habitat restoration outputs as part of a given development.
- Strengthening the requirement to consult with Statutory Nature Conservancy Bodies (SNCBs) such as Joint N in the context of compensation under HRA, whilst needing further development.
- The consideration of socio-economic effects remains a challenge. The evidence for the economic effects of marine development is poorly understood. Additional evidence collection and guidance for regulators and applicants in this area would be welcomed.
- Explicit reference to the ecosystem approach, and the need to equitably address environmental, social and economic considerations.
- Enhance public participation as currently public responses are generally low, and when responses are received, they are high in number related to a single case and often associated with a promotion or campaign by an eNGO.

EIA Reform through (DLUHC) Levelling Up and Regeneration Bill (LURB)

Through the National Infrastructure Strategy and Planning for the Future White Paper, the government has committed to reforming environmental assessment (including EIA), noting that current assessments can be

- disproportionate – assessing unnecessary elements for fear of legal challenge.
- too long and technical – acting as a barrier to stakeholder and public engagement.
- overly susceptible to legal challenge – with many court cases being brought on errors of process rather than substance.
- repetitive – with evidence collected on a case-by-case basis and a lack of join-up between strategic and project-based regimes; and
- ineffective – cumulative effects are often identified at the project stage, where little can be done to address them, and the mitigation of harmful impacts are frequently finalised post-decision and do not provide the predicted level of protection from environmental harm.

To tackle these issues, new powers are being sought which will allow for future amendment of the EIA Regulations through the Department for Levelling Up, Housing and Communities (DLUHC) Levelling Up and Regeneration Bill (LURB) which is making its way through Parliament. The powers in the Bill will provide a framework to implement a new system of environmental assessment. This will allow further reform to the regimes through subsequent secondary legislation (subject to further consultation).

We intend to use these powers to reform the EIA Regulations in due course – we know that the regulations currently have significant shortcomings as they can prove to be ineffective in providing environmental protection and at the same time impose a

disproportionate administrative burden. We will aim to make the EIA Regulations clearer and simpler, and thereby make it easier for users to comply.

Marine

Key points from stakeholder regarding marine specific considerations:

- EIA should occur as early as possible in the project timeline; SEA (undertaking assessment at plan or programme level) possibly, therefore, the more appropriate assessment type to enable early avoidance, mitigation etc. for larger scale developments like offshore wind, if done in depth and takes account of local environmental sensitives.
- Alternatives analysis in EIA / SEA needs greater emphasis. If this is implemented, the alternate analysis stage of the EIA process will need to be set out in regulation and / or provide clear guidance on minimum standards & requirements for assessing against the mitigation hierarchy.
- Updated UK wide guidance as to how to undertake Marine Works EIA, use thresholds etc. is urgently needed, as there is currently disparity between how marine works regs applied across UK given lack of such guidance.

Thresholds currently used in screening may also benefit from a review as currently they are poorly defined for marine works regs especially for Schedule Annex II projects were screened in or out depending on circumstances. Also, any location, size or scale-based thresholds need greater evidence-based metrics and the thresholds need to align with UNCLOS, Biodiversity Beyond National Jurisdiction (BBNJ) and other terrestrial regimes. Currently, there remains some confusion regarding how they are defined for Marine Works EIAs especially for Annex II projects where screen in or out depending on circumstances. Also, any location, size, and scale-based thresholds need greater evidence-based metrics and need to align with UNCLOS, BBNJ but also terrestrial regimes given overlap with other consenting regimes. From Survey responses, it seems there may be a need for layered thresholds if there are any amendments to EIA regulations, for example:

- UNCLOS basic threshold of significant harm as core screening criteria, with more detailed thresholds under this to help guide what 'sig harm' could look like e.g., proximity to sensitive sites.
- Improve size/scale sector specific EIAs to be more detailed like EIAs for the Town and Country Planning regulations as in MWR no such guidance.
- Explore possibility of scoping in decommissioning elements, detailed mitigation and, where needed, compensation to EIA, as there is an argument that these should be covered in sufficient detail in application stage and not pushed to post consent.
- Conditions related to EIA outputs should be better articulated within guidance, especially regarding any avoidance and mitigation / compensation.

Additional activities may also require listing or clarifying within EIA schedules. Examples given include:

- Clarifying aquaculture EIA requirements, for example adding large scale seaweed farming.
- Clarifying which subsea cable types fall into EIA, and when.
- Clarifying the requirement for EIA for all marine renewables as currently only covers offshore wind, with tidal and wave energy being absent. Investigating whether new activities should be added where we know their increased adoption is on the horizon, including Deep Geological Storage for nuclear waste and Space Launch / Flight (Debris).

Forestry

We also received some specific feedback on improvements to the forestry regime.

Survey respondents showed a significant focus on simplicity. The majority of respondents agreed that the Forestry EIA process is complex for landowners, particularly when overlaid with other regulatory requirements for tree planting. Forestry Commission have agreed that consideration should be given to streamlining / combining process and are already looking at similar reforms to other processes I.E felling licence system.

Respondents also questioned where EIA regulation sits regarding wider government priorities. They expressed a need for a hierarchy of designations, habitats, and species, so that stakeholders with particular interests can better understand whether their preferences for planting are appropriate, such as balancing open habitat restoration with afforestation in certain locations.

There was a strong response regarding a need for better use of community involvement in woodland schemes. Our upcoming local nature recovery strategies aim to address this need, drawing in regulatory process, like EIA, to ensure any forestry development in an area is designed strategically, with the wider environmental and societal impacts in mind, and as part of a larger nature recovery whole.

Respondents were keen to understand how environmental trade-offs are handled and expressed desire for better survey information. Defra and Forestry Commission have committed to improving mapping capabilities over the next year in our England Trees Action Plan, and we recently consulted via the Nature Recovery Green Paper on proposals to develop “Strategic EIAs”, which would involve comprehensive mapping of areas to understand ahead of applications whether areas are low, medium, or high risk for woodland creation.

Overall, it is agreed that the current Forestry EIA system requires some reform if we are to increase woodland creation rates in line with targets, while retaining robust environmental protections. In the interests of improvement, we are working with the Department for Levelling Up, Housing and Communities who are developing an improved system of environmental assessment. As set out in the Planning White

Paper and the National Infrastructure Strategy, we intend to deliver a new framework that provides clarity, removes duplication, and ensures environmental considerations are embedded effectively in decision making at an early stage.

Suggestions presented by stakeholders will be taken on board and will feed into the process for developing an improved system of environmental assessment.

Agriculture

The EIA Regulations have met their original objectives, in part, but they have not been as effective as they need to be. Feedback from the stakeholders survey notes the recent loss of open habitats, particularly with respect to grasslands.

A general lack of awareness of the EIA Regulations has also contributed to breaches of the legislation resulting in enforcement action which may have been avoided by better understanding of the Regulations.

Despite the above, Natural England note that between 2006 and 2021, the EIA Regulations protected 2,317 hectares of land noted as being of a high ecological or historical value but not being protected by any statutory designation. Further, during the same period, Natural England issued 17 Remediation Notices and accepted 32 Voluntary Enforcement Undertakings to remediate environmental damage caused to over 270 hectares of land by breaches of the EIA Regulations.

The original objectives are still valid, but reform is needed to ensure the regulations are effective and that the costs imposed on businesses and government are minimised.

Water Resources

We recognise the continuing need for water resources relating to agriculture (including irrigation) to be controlled effectively through abstraction licensing and environmental assessment where environmental impacts are anticipated. However, given their lack of use and that the potential gap in regulation was filled when the abstraction licensing regime was extended in 2018, so all forms of irrigation are now licensable, we believe there is now potential for revoking the water resources EIA regulations via powers in the Retained EU Law (Revocation and Reform) Bill.

Annex 1 – Extended Overview of Defra EIA Regulations

The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended):

Overview

These regulations determine the function of EIA in respect of marine licensing. If a project covered by the regulations is likely to have a significant effect on the environment, an EIA must be carried out before a marine licence can be granted. The stages of the regulations are the same as with most other EIA regimes, and require: screening, scoping, preparation of an environmental statement, consultation, and decision making.

These regulations cover UK inshore and offshore waters apart from the Scottish inshore region (except in relation to certain reserved matters).

- In England inshore and offshore, and Northern Ireland offshore regions, the Secretary of State is the licensing authority and most marine licensing functions have been delegated to the MMO.
- In Wales inshore and offshore regions, the Welsh Ministers are the licensing authority and most marine licensing functions have been delegated to Natural Resources Wales (NRW).
- In the Scottish offshore region, the Scottish Ministers are the licensing authority and most marine licensing decisions are carried out by the Scottish Government.
- In Northern Ireland inshore region, the licensing authority is the Department of Agriculture, Environment and Rural Affairs (DAERA).

The Impact Assessment which accompanied the Marine Works (EIA) Regulations 2007 estimated that the impacts of the regulations to regulators, industry and the environment would be felt, but that this impact was unlikely to be significant. This was because impacts on the marine environment were already assessed previously under the marine licensing framework Part II of the FEPA 1985 (subsequently replaced by Part 4 of MCAA) or through the Harbour Works EIA Regulations 1999 (which was revoked by the 2007 Regulations). The main change was that the Marine Works Regulations would ensure that the impact assessment and consultation, that presently occurred in practice in most cases, would enable greater public participation in the assessment of the impact on the marine environment.

Policy Background

Prior to 2007 there was no ‘marine EIA’ regulation. Rather there were several other regulations that contained requirements relating to assessment of environmental impacts for marine activities. Two of these were licensing regimes (FEPA and CPA licences) were not EIA specific, and no longer exist in their original form having (for the majority) become marine licences under Part 4 of the MCAA 2009.

In summary, the Marine Works (EIA) Regs 2007 (as amended) cover:

1. EIA for specified activities which require regulatory approval (i.e. licensable activities under Part 4 MCAA (e.g. certain deposits in the sea), and, except in relation to Northern Ireland, certain harbour works (including works involved in the construction of a harbour or in the making of modifications to an existing harbour)

The primary purpose of The Marine Works (EIA) Regulations 2007 (as amended) was to transpose the EU EIA Directive, as amended by the Public Participation Directive, to ensure domestic legislation was fully compliant with the Directive. Its main practical objective is to '*help the Government to achieve its objective of living within environmental limits while achieving a sustainable economy*[20].'

The Marine Works (EIA) Regulations 2007[21] have been amended several times.

Key amending regulations are the 2011, the 2015 and the 2017 regulations[22]:

- 2011: These regulations made amendments consequential on the new marine licensing controls brought in under Part 4 of MCAA and under the Marine (Scotland) Act 2010.
- 2015: These regulations made amendments consequential on the Natural Resources Body for Wales (NRW) being the regulator responsible for licensing marine works in Wales, and the appropriate authority responsible for assessing the environmental impacts of those works.
- 2017: These regulations implemented changes made to the EIA Directive[23] in 2014. These amendments were mostly deregulatory – to simplify and clarify the requirements of the EIA Directive, by focusing on environmental factors that are significantly impacted, rather than on any potential impact. It also improved the level of environmental protection, with a view to making business decisions on public and private investments more sound, more predictable, and sustainable in the longer term.

Objectives of Marine Works (EIA) Regs from 2007 to 2017 as taken from the Regulations and associated Explanatory Memorandums. Core objectives that form the focus of this review are indicated by a *.

Regulation	Objective from Explanatory Mem/IA
2007	To transpose the EIA Directive, as last amended by the Public Participation Directive*. Regulatory Objective
2007	For the purpose of transposing the EIA Directive, as amended, the Regulations will provide for the necessary steps to be taken in addition to those required under Part II of the Food and Environment Protection

[20] The UK's Sustainable Development Strategy, Defra, 2005, available at: https://sdgtoolkit.org/wp-content/uploads/2017/02/The-UK-Government-Sustainable-Development-Strategy.pdf

[21] Marine Works EIA Regulation 2007's Statutory instrument numbers, 2011/735, 2017/588, 2018/287, 2015/446, 2019/25, 2013/755, 2020/904

[22] The 2019 amendments are operability amendments relating specifically to EU withdrawal. The 2019 amendments are not reviewed as part of this report.

[23] Directive 2014|52, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0052&from=FR

	Act 1985 and, in Great Britain only, section 34 of the Coast Protection Act 1949; To replace, also in Great Britain only, Part II of the Harbour Works (Environmental Impact Assessment) Regulations 1999; To therefore satisfy the European Commission that the relevant existing legislation is fully compliant with the EIA Directive.
2007	To help the Government to achieve its objective of living within environmental limits while achieving a sustainable economy*. Core Objective
2007	To satisfy the Commission that the EIA Directive, as last amended by the Public Participation Directive has been adequately transposed.
2011	Amendments ensure that EIA Directive requirements will apply to marine works which require a marine licence under Part 4 of the Marine and Coastal Access Act 2009 (MCAA) and a marine licence under the Marine (Scotland) Act 2010 (MSA)*. Regulatory Objective In more detail Marine Works EIA now applies to: • activities which require a marine licence under Part 4 of the MCAA; • activities which require a marine licence under Part 4 of the MSA; • activities which still require consent under Part 2 of the Food and Environment Protection Act 1985; • (except in Northern Ireland) harbour works requiring approval (for example under local Acts or Harbour Orders); • activities which a would-be regulator proposes to carry out itself which (if carried out by anyone else) would otherwise need a regulatory approval.
2011	Amendments provide that the Marine Management Organisation (MMO) will be carrying out certain EIA functions as "appropriate authority" where it is also the regulator; and that the regulator may determine the amount of reasonable fees in respect of expenses it incurs under the Regulations*. Regulatory Objective
2011	Provides for cases where the MWRs may, or will not, apply – for example where an assessment of the environmental impacts of a project has already been or will be carried out by another consenting authority, and that assessment meets the requirements of the EIA Directive*. Streamlining Objective
2011	Revokes the EIA and Natural Habitats (Extraction of Minerals by Marine Dredging) (England and Northern Ireland) Regulations 2007 (MMRs) and the and Natural Habitats (Extraction of Minerals by Marine Dredging) (Wales) Regulations 2007 (Welsh MMRs). Regulatory Objective
2015	This instrument amends the MWR to update references to the EIA Directive to reflect the 2011 Directive, as adopted*. Regulatory Objective
2015	The Natural Resources Body for Wales (Establishment) Order 2012, established a new statutory body, the NRW. This instrument amends the MWR to*: Regulatory Objective

	• provide for the NRW to be the appropriate authority responsible for carrying out EIA functions, where it is the regulator responsible for marine licensing; • to allow the NRW's reasonable costs incurred in its capacity as appropriate authority to be recovered by means of fees to be determined by the Welsh Ministers. The Welsh Ministers can currently determine fees where the Welsh Ministers are the appropriate authority; • replace regulation 10A to allow NRW as well as MMO to determine when exemption to EIA is allowed.
2017	This instrument amends our existing implementation of the EIA Directive 2011/92/EU to bring into effect changes made in 2014 by the EU Directive 2014/52/EU (the 2014 Directive). These changes are as follows: Regulatory Objective • The addition of a definition of the EIA process*; • Changes to the circumstances in which a project may be exempt from the requirements of the EIA Directive*; Streamlining Objective • Introduction of Joint and/or Coordinated procedures for projects which are subject to the Habitats or Wild Birds Directives as well as the EIA Directive*; Streamlining Objective • Changes to the list of environmental factors to be considered as part of the EIA process*; Streamlining Objective • Clarification of the options for screening and amendments to the information which is required and the criteria to be applied when screening projects to determine whether the Directive applies*; Streamlining Objective • Amendments to the information to be included in the environmental statement*; Streamlining Objective • A requirement for environmental statements to be 'based on' a scoping opinion, where one is issued*; • The use of competent experts*; • A requirement to inform the public of projects electronically*; • A new article elaborating on information to be given in decision notices and the decision making procedures; • Monitoring significant adverse effects*; • A new Article requiring the avoidance of conflicts of interest; • The introduction of penalties for infringements of national provisions.

The Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999 (as amended):

The Forestry EIA regulations are used to determine relevant forestry projects, defined as projects involving afforestation, deforestation, forest road works and forest quarry works that are likely to have a significant impact on the environment.

The decision-making stages of these regulations mirror those of most other EIA regimes: Stage 1 - Screening, to determine if a proposal is a relevant project, and Stage 2 - Scoping, which requires the preparation of an environmental statement,

consultation, and decision making on whether to consent a project, with conditions. Proposers generally submit a stage 1 EIA, which covers the screening stages. If the project is deemed low risk, the Forestry Commission may decide that 'stage 2' Consent is not required for the project, and that it can proceed, providing it is not changed, and providing it does not need any additional licensing or consents. However, if the proposal demonstrates a potential for significant impact, then Stage 2 EIA will need to be completed.

These regulations cover Forestry in England only, with the regulation of forestry projects taking place in Scotland being overseen by Scottish Forestry, and projects in Wales being overseen by NRW.

In 2017, amendments to the Forestry EIA process were introduced with the intent to deliver the following effects:

- To enact the requirements of the amended EU Directive, while avoiding unnecessary costs to business.
- To streamline the EIA process for applicants for afforestation.
- To provide clarification of the environment impacts in scope of an assessment.
- To require additional information from proposers at Stage 1 - screening to reduce the likelihood of projects needing to undertake a Stage 2 EIA later.

This PIR only applies to England in respect of these regulations.

The Environmental Impact Assessment (Agriculture) (England) (No.2) Regulations 2006 (as amended):

Overview and Policy Objectives

The EIA (Agriculture) (England) (No.2) Regulations 2006 (as amended) primarily exist to protect uncultivated land, semi-natural land, (including priority habitats, the supporting habitats for priority species, historic interest features of at least regional significance, and protected landscapes) of two hectares or more from harm through agricultural intensification and to permit (or decline) requests for changes in the intensity of how such land is used. The EIA Regulations also cover projects that restructure rural land holdings and the impacts of changes to rural holdings and changes to field boundaries. They are therefore an important means of protecting important environmental assets that are not statutorily protected through current site designations.

The Regulations are different from other EIA regimes in that they are a de facto consenting regime and not just a systematic regime for gathering the appropriate information to inform decision making. The Regulations guide the development of the

assessment and include all the key elements that one would associate with a consenting regime, including:

- a screening process (as to whether projects should be considered under the regulations).
- the mechanism through which Natural England is required to work with an applicant and provide the scope for their application for consent.
- a consent decision process, including a public consultation procedure, whereby Natural England can either grant consent, grant consent with conditions or refuse to grant consent.
- mechanisms through which Natural England can take enforcement action to prevent ongoing damaging operations and enforce appropriate remediation.
- a mechanism through which an applicant can appeal to the Secretary of State to challenge Natural England decisions in relation to screening decisions, consent decisions, and enforcement notices.

The Water Resources (Environmental Impact Assessment) (England and Wales) Regulations 2003 (as amended):

The Water Resources EIA Regulations 2003 (as amended) ensure that water management projects for agriculture (which includes irrigation projects) in England and Wales that are likely to have significant effects on the environment are made subject to an EIA, prior to their approval or authorisation.

Projects involving the abstraction of water are only in scope if the amounts abstracted exceed 20 cubic meters in any 24 hours and the consenting authority for the Regulations is the Environment Agency in England and Natural Resources Wales in Wales. The requirements in the Regulations have been incorporated into the procedures for granting abstraction and impoundment licences.

The Regulations do not apply if the project is subject to other EIA legislation, such as the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 or is otherwise exempt.

This PIR only applies to England in respect of these regulations.

Annex 2 – Stakeholder survey questions

1. **To what extent have the EIA regulations succeeded in their objectives?**

	Marine	Forestry	Agriculture	Water	
Far above expectation					0
Above expectation	////				4
Met expectation	/////	/////	//	/	13
Below expectation		//	//		4
Far below expectation			/	/	2

2. **How effective has the policy been implemented?**

	Marine	Forestry	Agriculture	Water	
Very Well	/				1
Well	//////		/	/	8
Fairly	//	/////	//		9
Poorly		//	//		4
Very Poorly			/	/	2

3. **What are the costs that you/your business incurs in relation to the implementation of EIAs? Please quantify these where possible, considering costs such as staff time/wages, fees, consultants etc. If this is not possible, please provide a qualitative description of the costs.**

Not applicable as this was a written answer

4. **How do these costs compare with the estimated costs outlined in the impact assessment which accompanied the regulations when they came into force?**

	Marine	Forestry	Agriculture	Water	
Significantly Lower					0
Lower					0
On Par	/	/	/		3
Higher	/	///	//		6
Significantly Higher	///		//		5

5. **Do you believe there has been a disproportionate impact on small and micro businesses from these regulations?[1]**

	Marine	Forestry	Agriculture	Water	
Yes		///	//		5
No	/////	/	/	//	9
Don't Know	//				2

6. **In your opinion, how well understood are the regulations among developers/project proposers/licensing users?**

	Marine	Forestry	Agriculture	Water	
Very Well	///				3
Well	///////	/	//	/	11
Fairly		/	/		2
Poorly	//	////	//		8
Very Poorly		/	/	/	3

7. **Do you have any suggestions to improve the understanding of the rules or guidance?**

	Marine	Forestry	Agriculture	Water	
Yes	////	////	////	/	12
No	///////	/	/	/	10
Don't Know		/			2

8. **Have there been any unintended effects caused by the regulations?**

	Marine	Forestry	Agriculture	Water	Total
Yes	///	////	///		10
No	////	/	/	//	8
Don't Know	///	/		/	5

9. **Do you have any suggestions to reduce any burdens inherent in the EIA process?**

	Marine	Forestry	Agriculture	Water	
Yes	//////////	////	//	/	17
No	/	/	/	/	4
Don't Know		/	/		2

10. **Do you feel refinements could be made to improve the enforcement and / or compliance rates?**

	Marine	Forestry	Agriculture	Water	
Yes	/		////		5
No	//	/	/		4
Don't Know	//////	////		/	11

11. **How successful have the regulations been in securing their objective of helping Government to achieve its goal of living within environmental limits whilst achieving social and or economic sustainability?**

	Marine	Forestry	Agriculture	Water	
Very Well	/				1
Well	/////		//	/	8

Fairly	//	///	/		6
Poorly		////	///		7
Very Poorly				/	1

12. Do you feel the regulations could be improved to better meet the objective of living within environmental limits while achieving social and economic sustainability?

	Marine	Forestry	Agriculture	Water	
Yes	///////	////	///		14
No			/	/	2
Don't Know		//	/	/	4

13. Do you believe there any gaps in the regulations that are causing or enabling negative environmental impacts / outcomes?

	Marine	Forestry	Agriculture	Water	
Yes	/////	/////	///		13
No	///		/	//	6
Don't Know	/	/			2

14. Do you believe the existing form of Government regulation for environmental assessment is the correct approach? If not, what might you replace it with?

	Marine	Forestry	Agriculture	Water	
Yes	/////////	////	////	/	18
No	/		/	/	3
Don't Know		//			2

Annex 3 – Literature Review Outputs

Challenges of existing process

Overall, the existing EIA process is considered too technical, not proportionate, unclear or overly prescriptive / process driven, with little in the way of guidance [1](Barker & Jones, 2013; Jha-Thakur & Fischer, 2016; Maclean et al., 2014). There is a lack of consistency in how scoping is undertaken from project to project, and EIA reports similarly vary in scope, length, and level of detail (Lonsdale et al., 2017). This is likely because the EIA process currently has no agreed set of standards or targets for applicants to assess against (Lonsdale et al., 2017, Maclean et al., 2014). Associated with this lack of standards is a variation in the quality/quantity of information provided by different applicants (Lonsdale et al., 2017). Data and evidence gaps can lead to large and disproportionate EIA, which result in additional information requirements and extended timelines (Offshore Wind Innovation Hub, 2021).

There is also a lack of consideration of alternatives and mitigation options (Barker & Jones, 2013; Jha-Thakur & Fischer, 2016). Currently most EIAs focus on economic/technological alternatives to reduce impacts, with a lack of detailed robust assessments to identify a more environmentally sustainable and less damaging alternative (Lonsdale et al., 2017). The incorporation of ecosystem goods and services / applying an ecosystem approach to assessment and mitigation are also absent (Lonsdale et al., 2017).

EIA often focusses on development (construction) and operation but does not consider decommissioning. Introducing something into the marine environment is quite different to removing the same something, so it is reasonable to assume that the environmental impacts would also be different (Hall, 2020). Therefore, the mitigation suggested to reduce the impacts of construction or operation may not be appropriate to alleviate those from decommissioning (Hall, 2020).

Cumulative impact consideration is a key failing of the EIA process. How cumulative impacts have been interpreted during the EIA process vary substantially in different environmental statements (Maclean et al., 2014; Masden, 2014). In addition, the uncertainties inherent in individual project level assessments multiplies when multiple projects are considered, often lead to a large degree of uncertainty (Maclean et al., 2014). Consistency and effective consideration of cumulative impacts is hampered severely, primarily because of ambiguities in the legislation (Durning & Broderick, 2015). Additionally, lack of clear implementation guidance does not ensure robust assessment of the significance of impacts and cumulative effects (Durning & Broderick, 2015).

Confusion in terminology is prevalent within cumulative effects assessment practice (Durning & Broderick, 2015) and assessment of the cumulative effects of developments poses a major challenge for industry and regulators for several reasons (Durning & Broderick, 2015):

- Lack of ‘certainty’ of an effective assessment process resulting from inconclusive guidance
- Inconsistent definition of the scope of assessment and the poorly defined concept of ‘reasonably foreseeable’ projects.
- Uncertainty over project level effects (e.g., bird collision and cetacean displacement due to acoustic effect) which are compounded where several projects potentially contribute to the same effect - trying to resolve the relationship between human use of the marine environment and its ecosystem.

The development of new software and tools in carrying out EIA are absent.

Possible Improvements

Comparability and consistency could be achieved by:

- Applying agreed guidance and setting standards across sectors to assess against (Lonsdale et al., 2017),
- Applying agreed standards and guidance for surveys, monitoring and presenting data to inform EIAs (Céline Jacob, 2016), and
- Supporting the digitalisation of EIA (Offshore Wind Innovation Hub, 2021).
- More detailed analysis and information-sharing of the project types, including potential impacts, extent and magnitude, to better inform future EIA implementation and subsequent management options (Céline Jacob. 2016; Lonsdale et al., 2017). This would also provide cost-benefit improvements for industry (Lonsdale et al., 2017).
- More effective pooling of data, more efficient data acquisition and more coordinated efforts to address key knowledge gaps - improve the EIA evidence base, continue to resolve data sharing challenges, use of data from previous similar projects (Céline Jacob. 2016; Maclean et al., 2014; Offshore Wind Innovation Hub, 2021).
- Consider moving more towards Strategic Environmental Assessments (SEA) in the marine, including data collection at a strategic level (Barker & Jones, 2013; Maclean et al., 2014). Benefits could be extensive (Maclean et al., 2014) including a better consideration of alternatives early on in project development (Jha-Thakur & Fischer, 2016). EIA could also be influenced better by marine spatial planning processes (Céline Jacob. 2016) e.g., to highlight critical areas to avoid.
- Potential alternative end of life procedures should be included within the EIA to analyse the relevant impacts and suggest mitigation for decommissioning (Hall, 2020).

EU's approach

A major change in the Amended EIA Directive is that where the process predicts significant adverse effects on the environment, developers will be obliged to undertake appropriate measures to avoid, prevent or reduce such effects including undertaking monitoring where necessary (EIA Directive, Paragraph 35). This new explicit requirement also allows for existing monitoring to be used to avoid duplication of monitoring and unnecessary costs (Lonsdale et al., 2017). Generally, in the marine environment, monitoring occurs on a project-by-project basis and is funded and undertaken by the developer, except the marine aggregate industry, which has adopted a standardised regional approach (Lonsdale et al., 2017).

Changes under UNCLOS that could influence national marine EIA process

Although UNCLOS already outlines the general obligation on States to assess impacts of proposed activities, in Areas Beyond National Jurisdiction (ABNJ) the standards and processes for the conduct of EIA are fragmented, varying considerably between sectors and between regions / contracting parties (Hassanal, undated). A critical objective of the new UNCLOS BBNJ agreement is to bring coherence to the conduct of EIA in ABNJ, including by establishing processes, thresholds, and guidelines for conducting and reporting of assessments by States (Hassanal, undated). The BBNJ agreement was to be finalised and agreed in 2022. It is yet unclear how this will need to be translated into domestic legislation e.g., via a separate statutory instrument, or whether it can be delivered via existing / future general EIA regimes.

Criticism on implementation of the Directive

- To take advantage of the Directive's ambiguity regarding requirements from developers to deliver further information about alternatives, forecasting methods, technical difficulties and long term, indirect and secondary effects of the project. In the UK, there are no scoping requirements, apart from a general list of the broad subject matter which includes direct and indirect effects on human beings, flora and fauna, soil, water, air, climate, landscape, material assets and cultural heritage. Public bodies must on request make information available to the developer for the purpose of preparing the environmental statement, but the developer is not obliged to consult anyone. It is left to the responsible authority to decide whether the environmental statement is sufficiently stringent. The obvious dangers of bias, failure to consult before submission, and inadequate expertise within local, authorities, appear to have materialized. The present concern is whether the general law can or should do anything about this. The Directive lacks even the vague screening standards provided by UK pollution control legislation.
- In the Directive it states, public authorities 'likely to be concerned by the project by reason of their specific environmental responsibilities' must be consulted. The public concerned must also be given an opportunity to express their opinion and the environmental [1] statement must be made available to the public. However, it is for Member States to determine who are 'the public concerned'

and the consultation. The UK Government's consultation paper on the subject does not enthusiastically embrace openness. It emphasizes the need for commercial and national security, confidentiality, the desirability of encouraging the 'voluntary' supply of information to public authorities, and the need to avoid bureaucratic burdens. The Government proposes no special machinery for enforcing disclosure of environmental information.

Alleged UK breach of the Directive:

1. The Commission took the view that projects for which application was made before the Directive came into effect but where consent was not received until afterwards, should be subject to assessment.
2. The Commission was concerned about the exemptions from the need for planning permission, which are widespread in English law. The Commission took the view that the Directive requires the UK to enact legislation imposing consent requirements in these cases. The UK took the view that assessment applies only where a project requires consent already.
3. The Commission took the view that the UK is exercising too broad a discretion in deciding which projects should be subject to an assessment. According to the Commission the likelihood of significant effects on the environment is an objective test whereas under some UK legislation the decision is left to the subjective judgement of designated authorities with a risk that the work will be carried out haphazardly and perfunctorily by relatively junior officials
4. Most fundamentally, the Commission alleges that the UK's method of implementing the Directive does not count as an environmental assessment at all but merely requires planning authorities to consider miscellaneous information in an unstructured way. The developer's environmental statement is itself a kind of assessment but under the Directive the assessment must be carried out by the 'competent authority'. An 'assessment' should entail an independent weighing up of costs and benefits. This is certainly not the case in English law. In Spain for example, a separate public body produces the EIA which is then weighed against other factors by the body that consents to the project as a whole.

Annex 4: Stakeholders

37% of the 69 stakeholders contacted responded to the survey.

Stakeholder Type	Stakeholders Consulted	Responses Received
Charity/NGO	49%	28%
Industry	31%	32%
Public Body	21%	40%

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Acronyms

ABNJ	Areas Beyond National Jurisdiction
BBNJ	Biodiversity Beyond National Jurisdiction
CPA	Coastal Protection Act
DAERA	Department of Agriculture, Environment and Rural Affairs
EIA	Environmental Impact Assessment
ES	Environmental Statement
FC	Forestry Commission
FEPA	Food and Environment Protection Act
GDPR	General Data Protection Regulation
GES	Good Environment Status
GIS	Geographical Information System
Ha	Hectare
HRA	Habitats Regulations Assessment
LNRS	Local Nature Recovery Strategy
LULUCF	Land Use, Land Use Change and Forestry
MCAA	Marine and Coastal Access Act (2009)
MMO	Marine Management Organisation
MPA	Marine Protected Area
MSA	Marine (Scotland) Act 2010
MWR	Marine Works EIA Regulations
NNR	National Nature Reserves
NRW	Natural Resource Wales
PHI	Priority Habitat Inventory
PIR	Post Implementation Review
RLR	Rural Land Register
SEA	Strategic Environmental Assessment
SNCBs	Statutory Nature Conservation Bodies
SSSI	Site of Special Scientific Interest
SoS	Secretary of State
UKMS	UK Marine Strategy
UNCLOS	United Nations Convention on the Law of the Sea
25YEP	25 Year Environment Plan