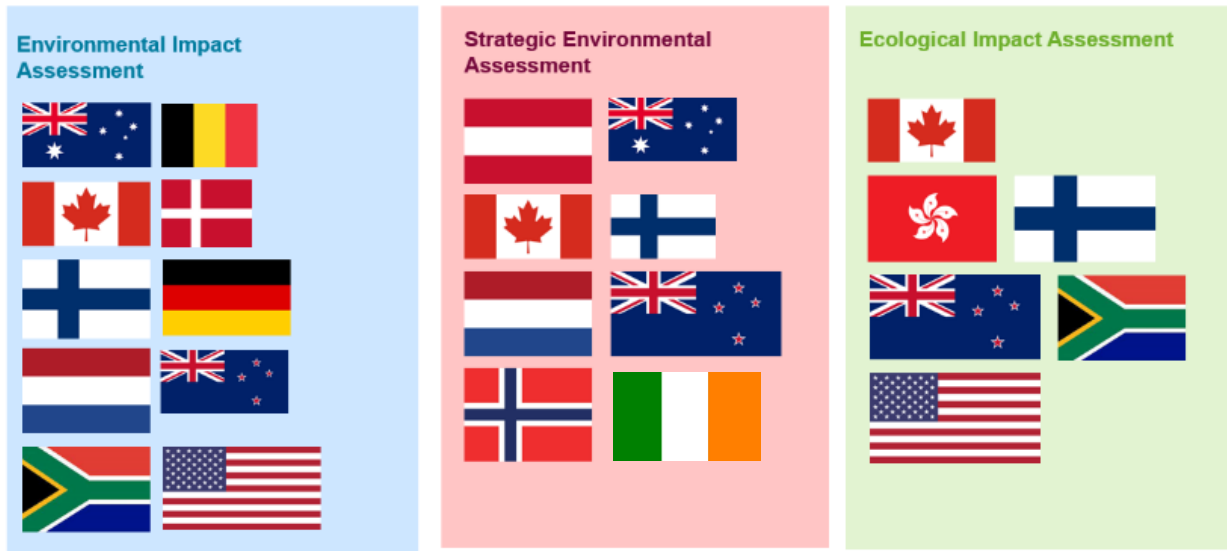


Office for Environmental Protection

Analysis of environmental assessment regimes in jurisdictions outside the UK

Appendix D: Jurisdiction Profiles

Overview of jurisdiction selection



- Australia, accessed [here](#).
- Belgium, accessed [here](#).
- Canada, accessed [here](#).
- Denmark, accessed [here](#).
- Finland, accessed [here](#).
- Germany, accessed [here](#).
- Hong Kong, accessed [here](#).
- Ireland, accessed [here](#).
- Netherlands, The, accessed [here](#).
- New Zealand, accessed [here](#).
- Norway, accessed [here](#).
- South Africa, accessed [here](#).
- USA, accessed [here](#).

Australia / Western Australia / Victoria



The national body for defining the regulatory framework and processes (e.g. government department)

The central body, or bodies, responsible for drafting and maintaining legislation and processes

<p>Strategic Environmental Assessment (SEA)</p>	<p>Australia</p> <ul style="list-style-type: none"> ■ Australia has a federal legal system with an environmental regulatory framework governed by both Commonwealth and state/territory legislation. ■ In Australia, there are six states and two territories– all have their own urban planning laws and procedures resulting in separate systems of planning and land use management, including separate administrative departments overseeing and regulating planning and land use activities. Consequently, there is no single urban planning system in Australia. Despite this multiplicity of systems, the Federal Government is increasingly playing a role in the urban planning process, mainly through the regulation of development on areas that are of national environmental significance. The principal piece of Commonwealth legislation impacting urban planning decisions is the EPBC act of 1999 which establishes a framework for assessing impacts on matters of national environmental significance such as threatened species or world heritage sites. The Government of Australia also has released National Urban Policy in 2016 which is considered as a key document to guide urban planning. ■ The administration of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is the responsibility of the Department of Agriculture, Water and the Environment (DAWE). ■ Strategic Assessments are currently undertaken voluntarily, initiated when a proponent submits a policy, plan or program proposal. The incentive for proponents to undertake a SA is that once a strategic plan has been endorsed, future projects under the plan will only require simplified EIAs under the Act. They are relatively new to Australia with the first undertaken in 2010.
<p>Environmental Impact Assessment (EIA)</p>	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The Environment Protection Agency undertakes the environmental impact assessment (EIA) of some proposals and schemes referred to it under Part IV of the Environmental Protection Act 1986 (the EP Act) under the Government of Western Australia. The Act provides for <i>"the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment and for matters incidental to or connected with the foregoing"</i>. ■ The Environmental Protection Authority (EPA) is an independent statutory body that protects the environment by providing sound, robust and transparent advice to the Minister for Environment. One of the Environmental Protection Authority's (EPA) key roles is to provide the Government of Western Australia with advice on the environmental acceptability of development proposals and statutory planning schemes. The Department of Water and Environmental Regulation supports the EPA in conducting environmental impact assessments and developing policies to protect the environment. ■ Other states have other pieces of legislation. For example, the Environmental Protection Act 1994 applies in Queensland. A summary of the similarities and differences include:

	<table border="1"> <thead> <tr> <th>Similarities</th> <th>Differences</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Public consultation periods General process is similar across all states: referral, level of assessment set, proponent develops impact assessment document, public review, final decision Transparency - EIA documents are available online Several levels of assessment based on the extent / scale of project and number of factors involved </td> <td> <ul style="list-style-type: none"> QLD, NSW, Vic & SA include economic impacts in the EIA WA, NT & Tas include environmental and social impacts only in the EIA The level, amount and quality of guidance material varies between states. WA, NT, Tas & NSW have quite detailed guidance on a range of environmental and social factors which is easy to locate. Assessment by independent statutory authorities - WA, SA, Tas, NT </td> </tr> </tbody> </table> <p> ■ Under the EPBC Act an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance. </p> <p> What are matters of national environmental significance? </p> <p> The matters of national environmental significance are: </p> <ul style="list-style-type: none"> world heritage properties national heritage places wetlands of international importance (often called ‘Ramsar’ wetlands after the international treaty under which such wetlands are listed) nationally threatened species and ecological communities migratory species Commonwealth marine areas the Great Barrier Reef Marine Park nuclear actions (including uranium mining) a water resource, in relation to coal seam gas development and large coal mining development. <p> Victoria </p> <p> ■ The Environmental Protection Agency in Victoria plays an important role in managing the regime linked to the assessment of environmental effects. It is Victoria’s environmental regulator. It was established in 1971 under the Environment Protection Act 1970 and now operates under the Environment Protection Act 2017. </p>	Similarities	Differences	<ul style="list-style-type: none"> Public consultation periods General process is similar across all states: referral, level of assessment set, proponent develops impact assessment document, public review, final decision Transparency - EIA documents are available online Several levels of assessment based on the extent / scale of project and number of factors involved 	<ul style="list-style-type: none"> QLD, NSW, Vic & SA include economic impacts in the EIA WA, NT & Tas include environmental and social impacts only in the EIA The level, amount and quality of guidance material varies between states. WA, NT, Tas & NSW have quite detailed guidance on a range of environmental and social factors which is easy to locate. Assessment by independent statutory authorities - WA, SA, Tas, NT
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Ecological Impact Assessment (Ecol IA)					
<p> Legislation </p> <p> <i>The legislative basis to the selected regime</i> </p>					
Strategic Environmental Assessment (SEA)	<p> Australia </p> <p> ■ The provision of SEA was formally introduced under the EPBC Act of 1999. It provides a legal framework to protect and manage flora, fauna, ecological communities and heritage places; defined in the EPBC Act as matters of national environmental significance (MNES). The section 146 of the EPCB Act (Part 10) provides for SEA of new actions under a policy, program or plan. Strategic environmental assessments may include but are not limited to regional-scale </p>				

development plans and policies; district structure plans; local environmental plans; large-scale industrial developments; fire, vegetation or pest management policies, plans or programs; water extraction/ use policies; and infrastructure plans and policies. The EPBC Act requires SEA of all fisheries managed by the Federal Government and all fisheries involved in the export industry.

- The Part 10 also provides for SEAs at a landscape or regional scale and in approval of 'classes of actions'. The programs that could be strategically assessed are
 - a. regional-scale urban development plans and policies,
 - b. large-scale industrial development and associated infrastructure,
 - c. fire and vegetation or pest management policies, plans and programs
 - d. water extraction/use policies
 - e. infrastructure plans and policies, and
 - f. industry sector policy.
- In addition to the EBPC Act, the Australian Government has released a number of guidelines for SEA that should be taken into account while undertaking an SEA. These include the Strategic Environmental Assessment Guidelines (2013), EPBC Act, Significant Impact Guidelines (2009) and Environmental Offset Policy (2012).

Table 4. Requirements for SEA under EPBC act.

No.	SEA requirements	Description/How SEA is Considered in <i>EPCB Act</i>
1.	Screening	The screening stage is used to assess whether a particular policy, plan or program should be subject to strategic assessment based on MNES.
2.	Scoping	The scoping stage is undertaken collaboratively to negotiate a formal agreement between the Minister and the assessment partner as well as to outline the Terms of Reference for the assessment process (Marsden 2013a). This stage identifies important issues, how to examine them, and which guidelines to reference (DSEWPAC 2012).
3.	Impact Assessment	Whether the proposed plan is likely to have significant environmental impacts determine.
4.	Mitigation measures	Once the scale of impacts of plan has been determined, the proponent look for ways to reduce the identified impacts to acceptable levels. This could include avoidance, mitigation or compensatory actions, such as environmental offsets (DSEWPAC 2012)
5.	Draft Report and Public comments	The reporting stage has purposes: (i) to document the proposed alternatives and predicted impacts, (ii) to serve as a basis for consultation, and (iii) to provide recommendations for decision-makers, based on preferred alternatives.
6.	Review	This stage is designed to act as a check on the adequacy of the information collected as part of the strategic assessment process, including identification of bias, uncertainties and contradictory findings.
7.	Final Report and Decision making	Following consideration of the matters raised in the strategic assessment, the Minister may approve the actions, allowing activities under the policy, plan or program to proceed without the need for further federal approval of individual development proposals (Ashe and Marsden 2011). However, conditions may be attached to an approval if the Minister considers them necessary.
8.	Monitoring and auditing	Monitoring and auditing is conducted by the assessment partner in relation to the mitigation measures agreed to with the consent authority (DSEWPAC 2012). This can include monitoring both social and ecological change and the performance of agreed mitigation measures.

Environmental Impact Assessment (EIA)

Western Australia

- Major projects are assessed by the Western Australia Environmental Protection Authority under the Environmental Protection Act 1986. Through the formal impact assessment process, the EPA will assess projects and make a recommendation to the Minister. As part of this process the proponent is required to prepare or assist in the preparation of a number of documents:
- **Referral** – this is the first document submitted to the EPA. Any proposal likely to have a significant environmental impact will need to be referred to the EPA through the preparation of a referral document and form. The referral should discuss the proposed project, scale and environmental impacts. There are several pathways of assessment should the EPA decide to assess a referred project.
- **Additional Assessment Information** – The proponent may be required to undertake additional studies and provide these to the EPA as part of the assessment. The assessment will then be made on the referred information and additional studies/assessment information.
- **Environmental Review Document** – The proponent must complete a formal environmental impact assessment through the compilation of an environmental review document. This must

	<p>address key environmental factors which the EPA and proponent will identify through a scoping document. As part of this document environmental management plans may also be required to demonstrate how impacts will be managed. Depending on the level of assessments, the environmental review document may be available for public review and comment. At completion of the assessment, the EPA will provide a report and recommendations on the proposal, its implementation (if approved or not) and conditions which the project will be subject to. To assist with the EIA process, the EPA has identified a number of environmental factors and objectives which the proponent needs to address. Economic impacts are not assessed through the EIA process. The EPA also highlights how ‘significance’ of impacts should be considered for various matters.</p> <p>Victoria</p> <ul style="list-style-type: none"> ■ The Planning and Environment Act 1987 is the principal piece of legislation for assessing planning permits. The Act states that when Local Councils are assessing a planning application, they must consider any relevant environment reference standard “if the circumstances appear to require it.” The Act sets out the broad objectives for planning in Victoria; the main rules and principles for how the Victorian planning system works; sets up the key planning procedures and legal instruments to be used in the Victorian planning system; and defines the roles and responsibilities of the Minister, councils, government departments, the community and other stakeholders in the planning system. ■ The Environmental Effects Act 1978 includes multiple elements concerned with the assessment of potential impacts upon the environment. Part 10 refers to how assessments should have regard to any guidelines that the Minister may issue to ‘enable the carrying out of the Act’ ■ One key piece of guideline that needs to be adhered to is the ‘Environmental Reference Standard’ that section 5.2 of the Environment Protection Act 2017 introduces. ■ The Environmental Protection Act came into force from the 1 July 2021 with the promise for delivering a new flexible and risk-based approach, with a stronger commitment to enforcement and monitoring. The legislation includes a general environmental duty, while the principal Act is supported by a set of Environment Protection Regulations . ■ The aforementioned Environment Reference Standard is described as a tool for helping to define the type of ‘environmental values’ that the Victorian community wants to achieve and maintain. Outlining these values provides a way for assessing potential impacts as potential developments arise across Victoria. The reference standard includes values associated with ambient air; ambient sound; land; and water (surface water and groundwater). The standards and associated values also have indicators and objectives. These are intended to provide an opportunity for assessing whether an environmental value is being achieved, maintained, or threatened. A consolidated version of the standard is available via this link. ■ Amendments can be made to the originally published standard as needs dictate. For example, revised air standards were published in March 2022.
Ecological Impact Assessment (Ecol IA)	
<p>Supporting guidance</p> <p><i>Is there any guidance available? Is so, what is type and nature? Is there any evidence of training or capacity building?</i></p>	
Strategic Environmental Assessment (SEA)	<p>Australia</p> <ul style="list-style-type: none"> ■ The below guidance is available for undertaking a Strategic Assessment: <ul style="list-style-type: none"> – A guide to undertaking strategic assessments (2011)¹

¹ https://dcceew.gov.au/system/files/resources/0896f6de-4473-4c0e-bb2a-1ceeae34867c/files/strategic-assessment-guide_1.pdf

	<ul style="list-style-type: none"> – Strategic Assessments: Policy Statement for EPBC Act referrals (2013). – Significant Impact Guidelines 1.1 - Matters of National Environmental Significance² – Significant impact guidelines provide overarching guidance on determining whether an action is likely to have a significant impact on a matter protected under national environment law — the Environment Protection and Biodiversity Conservation Act 1999.
<p>Environmental Impact Assessment (EIA)</p>	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The guidance below is available: <ul style="list-style-type: none"> – Environmental outcomes and outcomes-based conditions Interim Guidance 2021³ – Taking decision making processes into account in EIA Interim Guidance 2021⁴ – Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2021⁵ – Statement of environmental principles, factors, objectives and aims of EIA⁶ – EPA’s Framework for Environmental Considerations in EIA – WA Government environmental offsets policy and guidelines⁷ <p>Guidance on offsets</p> <ul style="list-style-type: none"> ■ Guidance on offsets for biodiversity factors are set out in: <ul style="list-style-type: none"> – Government of Western Australia’s WA Environmental Offsets Policy, – Government of Western Australia’s WA Environmental Offsets Guidelines, including the WA Environmental Offsets template, – EPA’s Instructions for preparing Impact Reconciliation Procedures and Impact Reconciliation Reports ■ Guidance on offsets for the greenhouse gas emissions factor are set out in: <ul style="list-style-type: none"> – Government of Western Australia’s Greenhouse gas emissions Policy for major projects – EPA’s Environmental factor guideline – Greenhouse gas emissions. <p>Victoria</p> <ul style="list-style-type: none"> ■ EPA Guide 1992 introduces the Environment Reference Standard (ERS) and was published in June 2021. The guide explains how it should be used to support decision making, and how the environmental values, indicators and objectives for each element of the environment should be interpreted. The guide is primarily intended for decision makers who need to consider the ERS. These decision makers are stated to include the officers of Victoria’s Environment Protection Authority (EPA), officers from other government authorities and departments, environmental auditors, and representatives from local government and planning authorities. The guide is also intended to assist applicants who are looking to bring forward new development, infrastructure or sites that may be assessed with reference to the ERS. The guide is also intended to be of assistance to site owners, environmental managers and consultants.

² <https://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance>

³ <https://www.epa.wa.gov.au/sites/default/files/Interim%20Guidance%20-%20Outcomes%20and%20Outcomes-based%20conditions.pdf>

⁴ https://www.epa.wa.gov.au/sites/default/files/Interim_Guidance_Taking_decision_making_processes_into_account_in_EIA.pdf

⁵ https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Environmental%20Impact%20Assessment%20Administrative%20Procedures%202021.pdf

⁶ <https://www.epa.wa.gov.au/statement-environmental-principles-factors-and-objectives>

⁷ <https://www.epa.wa.gov.au/procedures-manual>

Ecological Impact Assessment (Ecol IA)	
Associated legislation <i>Are the goals of the selected regime supporter/frustrated by other legislation?</i>	
<p>Australia</p> <ul style="list-style-type: none"> ■ The Climate Change (Consequential Amendments) Bill 2022 outlines Australia's greenhouse gas emissions reduction targets of a 43% reduction from 2005 levels by 2030 and net zero by 2050; requires the minister to prepare and table an annual climate change statement; requires the Climate Change Authority to give the minister advice in relation to the annual statement and future greenhouse gas emissions reduction targets; and provides for periodic reviews of the operation of the Act. <p>Australia</p> <ul style="list-style-type: none"> ■ Australian Government Federal Legislation: <ul style="list-style-type: none"> – Environment Protection and Biodiversity Conservation Act 1999 – Environment Protection and Biodiversity Conservation Amendment (Wildlife Protection) Act 2001 – Climate Change Act 2022 <p>Western Australia</p> <ul style="list-style-type: none"> ■ Additional associated legislation in Western Australia: <ul style="list-style-type: none"> – Biodiversity Conservation Act 2016 – Environmental Protection Act 1986 – Energy Safety Act 2006 – Reserves (National Parks, Conservation Parks, Nature Reserves and Other Reserves) Act 2004 – Biodiversity Conservation Regulations 2018 	
Governance arrangements, including roles and responsibilities at a national, regional/state and local levels	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ A strategic assessment is a collaboration between the Australian Government and a strategic assessment partner. ■ This partner could be: <ul style="list-style-type: none"> – an Australian Government department or agency – a state or territory government or agency – a local government or authority – an urban development industry – an Aboriginal Land Council – a mining or resource company. ■ Partners consider the needs of the development or activity, while making sure to deliver agreed environmental outcomes.
Environmental Impact Assessment (EIA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The WA Environmental Protection Authority (EPA) is responsible, amongst other things, to provide the Government with advice on the potential environmental impacts of proposals, planning schemes and amendments to planning schemes. Such proposals include residential, mining, railways, pipeline proposals and more. Relevant to land development, when a proponent seeks to develop or proposes a new planning scheme, it will be referred to the EPA with the required information and documentation. The EPA will then consider the documentation with public input and further advice from relevant experts. The EPA then will produce a report of which

	<p>provides an assessment and considers if the proposal, if implemented, could avoid or reduce any impact on the environment.</p> <p>Victoria</p> <ul style="list-style-type: none"> ■ The EPA is responsible for deciding whether to issue certain types of permissions, such as licences, and exemptions. These include: <ul style="list-style-type: none"> – a development licence – an operating licence – a pilot project licence – an exemption from a development or operating licence. ■ Local councils are usually the Responsible Authority for assessing planning permits under the Planning and Environment Act 1987. This Act states they may consider any relevant environment reference standard “if the circumstances appear to require it.”
Ecological Impact Assessment (Ecol IA)	
<p>Recent or emerging legislative reform in the selected jurisdiction</p> <p><i>Has the legislation been the subject of recent reform or are changes being proposed?</i></p>	
Strategic Environmental Assessment (SEA)	N/a
Environmental Impact Assessment (EIA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ In 2016, the Western Australian Government published changes to the Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016 under the Environmental Protection Act 1986 (WA). These changes mean the original agreement no longer apply to some proposals. The Australian and WA governments have agreed to a process to make a new assessment bilateral agreement. This new agreement will: <ul style="list-style-type: none"> – streamline environmental assessments between governments – update the arrangements by removing and replacing the existing agreement. ■ Amendments to the Environmental Protection Act 2020 were passed by the Western Australian Parliament in November 2020. Amendments relating to Part IV of the Act come into force on 22 October 2021. To implement the amendments, the EPA has revised its Environmental Impact Assessment (EIA) procedures suite, and the Statement of principles, factors, objectives and aims of EIA. These changes streamline the environmental impact assessment process and improve the pathway for regulation of native vegetation. The changes also facilitate the implementation of bilateral agreements with the Commonwealth for environmental impact assessment and clearing of native vegetation. ■ Supplementary material have been developed to help inform and guide stakeholders through implementation of amendments to Part IV of the Environmental Protection Act 1986. ■ Transitional arrangements have been prepared for the implementation of the EIA revised procedures suite. Advice for proponents through a range of potential scenarios, together with information on each stage of the assessment process is available through Transitional arrangements. Supplementary material has also been prepared to provide more detail on how the EPA takes other decision-making processes into account, and information on the EPA’s expectations on environmental outcomes and outcomes-based conditions.

Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes	
<i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation/guidance?</i>	
Strategic Environmental Assessment (SEA)	SEA's achieve better environmental outcomes, including addressing cumulative impacts
Environmental Impact Assessment (EIA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ Environmental offsets⁸ are designed to counterbalance the significant residual impacts of proposals and clearing regulated under the Environmental Protection Act 1986 on biodiversity. The Government of Western Australia Environmental Offsets Register website provides a central public record of offset agreements in Western Australia, contributing to the broader objectives of transparency and accountability. The WA Environmental Offsets Policy, released in September 2011, provides a framework for consistent application of environmental offsets to protect and conserve environmental and biodiversity values. The WA Environmental Offsets Guidelines, released in August 2014, complement the WA Environmental Offsets Policy (2011) and ensure that the basis for decision-making on environmental offsets is understood and consistently applied. The guidelines apply to all biodiversity offsets required as a condition of Western Australian environmental approval processes. ■ Environmental outcomes are relevant at every stage of an EIA. The EPA requires proponents to identify the environmental outcomes likely to result from their proposal as early as possible in the development of their proposal, and to continue to assess and refine the proposed environmental outcomes throughout the EIA process. ■ A study⁹ by May, Hobbs and Valentine (2016) posed the question about whether the use of environmental offsets, as applied in Western Australia, were working. The use of environmental offsets has increased in many parts of the world over the last decade. Of the past offsets, we conclude that at most 39% of the offsets studied delivered an outcome and can be considered effective, with land acquisition comparing favourably to other offset types. The outcomes of many offsets were unknown due to reporting too soon after implementation (14%) and inadequate reporting (18%). 30% of past offsets during this time period were found to be ineffective through non-or inadequate implementation. We make four suggestions for improvement: <ol style="list-style-type: none"> 1. timely reporting and compliance with environmental conditions; 2. ensuring approval conditions measure ecological outcomes; 3. improving project planning for offsets; and 4. including contingency and longer term planning in offset design.
Ecological Impact Assessment (Ecol IA)	
Procedure and practise	
General points	
<i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	

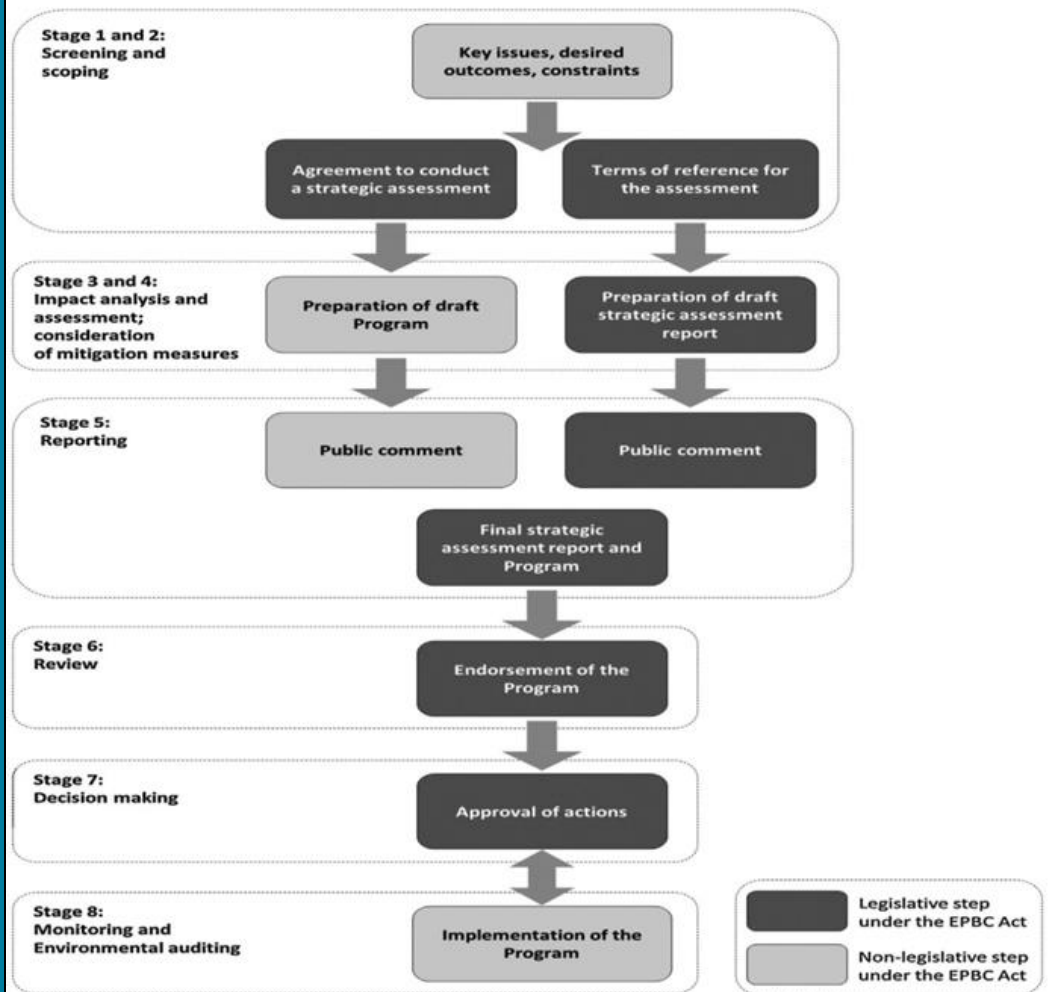
⁸ <https://www.wa.gov.au/service/environment/environmental-impact-assessment/environmental-offsets>

⁹ <https://thebeeliargroup.files.wordpress.com/2017/02/may-et-al-in-press.pdf>

Strategic Environmental Assessment (SEA)

- Key steps in the strategic assessment process are:
 - preparation of a Strategic Assessment Agreement and terms of reference describing the requirements of the strategic assessment, the geographic coverage of the strategic assessment (where relevant) and the 'classes of actions' to be assessed,
 - public exhibition of the strategic assessment documents,
 - endorsement of the final strategic assessment under Part 10 of the EPBC Act (this means that classes of actions addressed in the strategic assessment will have acceptable impacts on matters of national environmental significance if undertaken in accordance with the endorsed final strategic assessment), and
 - approval of classes of actions under Part 10 (projects covered by the approval do not need individual referral, assessment or approval under the EPBC Act provided they are undertaken in accordance with the endorsed final strategic assessment).
- The Program is the actual document that is the subject of a strategic assessment. Examples of Programs that could be strategically assessed include:
 - regional-scale development plans and policies
 - large-scale industrial development and associated infrastructure
 - fire, vegetation/resource or pest management policies, plans or programs
 - water extraction/use policies
 - infrastructure plans and policies
 - industry sector policies.

From an Australian Government perspective, the ideal situation is where the Program is developed as part of the strategic assessment process (rather than being finalised before the start of a strategic assessment). This provides the opportunity to tailor the Program to meet the objectives of both the assessment partner and the EPBC Act.



Environmental Impact Assessment (EIA)

Western Australia

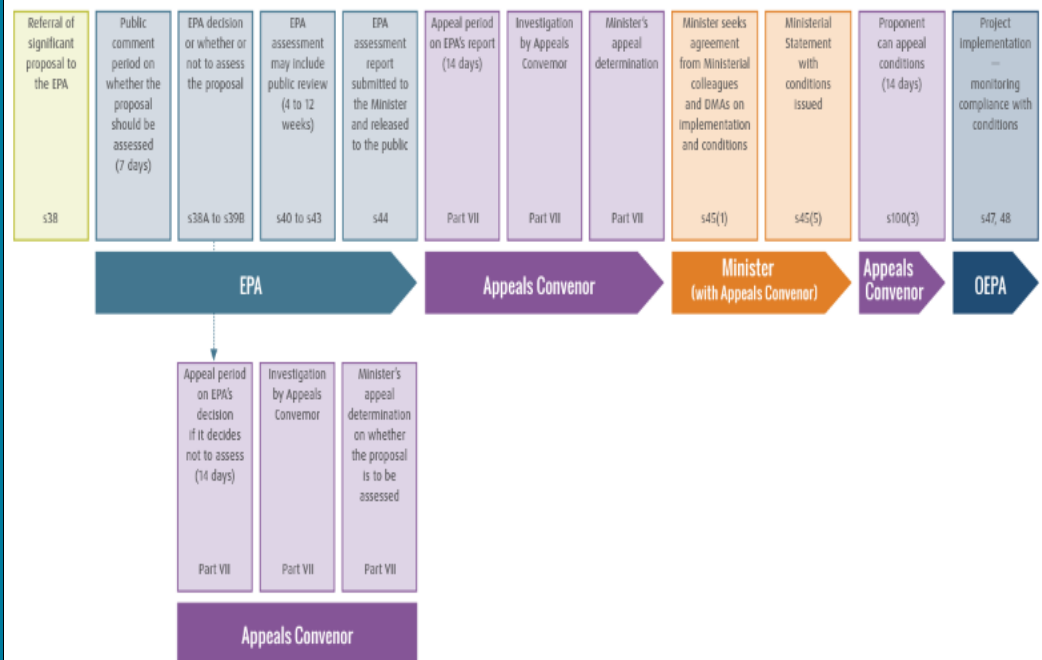
- Proponents will need an environmental impact assessment (EIA) if they are engaged in a development proposal or are aware of proposals that are likely to have a significant effect on the environment.
- Development proposals include proposals for:
 - mining
 - industry
 - infrastructure (such as ports, railways and pipelines).
- All proposals are considered in order to decide whether they need a formal environmental impact assessment. If the EPA assesses a proposal, section 44(1) of the Environment Protection Act requires the EPA to prepare a report on the outcome of its assessment of the proposal and give that report to the Minister for the Environment.
- In conducting EIA, the EPA aims to:
 - fulfil the object of, and apply the principles of, the Act

- provide independent, timely and sound advice about the environmental impacts of a proposal to enable the Government to make an informed decision in relation to the implementation of the proposal
- provide opportunities for public participation, and input from decision-making authorities and other relevant government agencies in the assessment of the environmental impacts of a proposal before decisions are made
- ensure that proponents take primary responsibility for the protection of the environment relating to their proposals, detailed in the aims of EIA for the proponent outlined below
- promote adaptive environmental management, positive environmental outcomes and continuous improvement through learning and knowledge gained through the EIA process and project implementation;
- promote education and awareness of environmental issues.

■ The EIA process comprises of 5 stages:

- Stage 1 – Referral of a proposal to the EPA
- Stage 2 – EPA to decide whether to assess a referred proposal
- Stage 3 – Assessment of proposals
- Stage 4 – EPA Report on the assessment of a proposal
- Stage 5 – Implementation of proposals

■ The figure below shows the EIA Process:



Ecological Impact Assessment (Ecol IA)

Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?

Strategic Environmental Assessment (SEA)

Western Australia

<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ Environment Online became live in August 2022 and is a single gateway for regulatory activities, automated case management, and an integrated data management system. Its dashboard allows users to submit applications, to track their status, and provides an opportunity for them to view comments and access correspondence. Users can also pay and manage fees. It allows for transparent data and knowledge sharing for all users and consolidates Geographic Information System (GIS) data. The interactive map allows users to upload shape files; create their own shapes, and select information layers. ■ The Environment Online system provides access to general guidance about assessment processes, with much of this orientated to a public audience. There is also a page that provides general learning about key environmental factors relating to land, water and sea, air, and people. Further guidance is then available under each header, with 'land' including sections relating to flora and vegetation, landforms, and terrestrial fauna. For example, guidance is provided on how 'terrestrial fauna' is considered by the EPA in the EIA process. ■ Training to use the system is available via self-serve guides, videos and online support.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms) - is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p>N/A</p>
<p>Environmental Impact Assessment (EIA)</p>	<p>Western Australia</p> <ul style="list-style-type: none"> ■ Any proposal likely to have a significant environmental effect on the environment should be referred to the EPA. Any person may refer a significant proposal to the EPA, except in certain situations: <ul style="list-style-type: none"> – Only a proponent may refer a strategic proposal – Only a proponent or a responsible authority may refer a proposal under an assessed scheme – A decision-making authority is required to refer a proposal that appears to be a significant proposal. ■ Proponents are encouraged to discuss proposals with staff of the Environmental Services Division of the Department of Water and Environmental Regulation (DWER), relevant decision making authorities, government agencies and stakeholders before referral. ■ Once the EPA has registered a valid referral, it must determine whether to assess the referral. ■ The EPA invites public comments through its consultation hub on whether or not the EPA should assess the proposal and, if so, the level of assessment. The EPA keeps a public record of all referrals and publishes its decision whether or not to assess a proposal, or whether or not a proposal is a derived proposal. ■ Decision to assess <ul style="list-style-type: none"> – If the EPA decides to assess a proposal, the EPA will also decide on the level of assessment, which is the proposal-specific requirements that the EPA determines are necessary to assess the proposal. The EPA's decision to assess a proposal and the level of assessment is not appealable. ■ Decision not to assess

	<ul style="list-style-type: none"> – When the EPA decides not to assess a proposal, it determines that the likely effect on the environment is not so significant as to warrant assessment by the EPA. The EPA may give advice and make recommendations on the environmental aspects of the proposal to the proponent or any other relevant person or authority. The decision of the EPA not to assess a proposal is appealable, except when the decision includes a recommendation that the proposal be dealt with under Part V Division 2 (Clearing). ■ Derived proposals <ul style="list-style-type: none"> – A proponent may request that the EPA declares a referred proposal to be a derived proposal. This means that the proposal was part of a strategic proposal which has already been assessed by the EPA. If the EPA declares a proposal to be a derived proposal it is subject to the Strategic Proposal Ministerial Statement and any accompanying conditions.
Ecological Impact Assessment (Ecol IA)	
Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?	
<i>What topics are expected to be included in an assessment? How are decisions over content defined?</i>	
Strategic Environmental Assessment (SEA)	<p>Western Australia</p> <p>Scoping of the assessment</p> <ul style="list-style-type: none"> ■ Before a strategic assessment begins, it is recommended that a scoping exercise be done by the department and the strategic assessment partner (assessment partner). This scoping would lead to a common understanding on: <ul style="list-style-type: none"> – expectations about the outcomes of the assessment – key issues for both parties including areas where compromise is not possible – key matters of national environmental significance (MNES) – availability of information and data requirements – resourcing requirements – timing – governance arrangements. ■ The main purpose of doing this is to ensure that both parties are very clear about expectations and legal requirements. The scoping exercise would provide the basis for preparing the agreement and a workplan detailing milestones, responsibilities and other arrangements. <p>Strategic assessment agreement</p> <ul style="list-style-type: none"> ■ The strategic assessment agreement is the formal agreement between the minister and the assessment partner to conduct the assessment. It is a mandatory requirement under national environment law, and formally establishes the expectations of both parties. A typical strategic assessment agreement includes: <ul style="list-style-type: none"> – background to the assessment – the process for preparing the draft Program and the draft strategic assessment report – the terms of reference for the strategic assessment report – public consultation requirements

	<ul style="list-style-type: none"> – the process to finalise the Program and the strategic assessment report • the process by which the minister considers the Program for endorsement (including the endorsement criteria) – the process by which the Minister would approve actions associated with the Program – governance arrangements – processes to vary, resolve disputes or terminate the agreement. <ul style="list-style-type: none"> ■ Terms of reference (ToR) are negotiated between parties and may be put out for public comment before finalisation.
<p>Environmental Impact Assessment (EIA)</p>	<p>Western Australia</p> <ul style="list-style-type: none"> ■ When additional assessment information is required, an Environmental Scoping Document is prepared by either the EPA or the proponent which defines the proposal specific requirements of the proponent's environmental review. The Environmental Scoping Document includes the preliminary key environmental factors that the proponent needs to address and the required work (including studies and investigations) that the proponent needs to carry out.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p>Western Australia</p> <p>Draft strategic assessment report</p> <ul style="list-style-type: none"> ■ The draft strategic assessment report analyses the potential impacts and outcomes of the Program on matters of national environmental significance (MNES). It is prepared for public consultation, and helps the minister in making the decision on whether to endorse the Program. The draft strategic assessment report must be prepared against the terms of reference that are included in the strategic assessment agreement. The assessment partner is responsible for developing the report, and often engages suitably qualified consultants to do the task. The draft strategic assessment report is comparable with an environmental impact statement or similar environmental strategic assessment report. It can be prepared using a similar skill set and resources. A key difference is that the draft strategic assessment report only deals with MNES (and ecologically sustainable development principles as required by the endorsement criteria) rather than the whole of the environment. The strategic assessment report typically includes: <ul style="list-style-type: none"> – a description of the Program – a description of the relevant matters of national environmental significance – an assessment of the likely impacts – an analysis of the proposed avoidance, mitigation, offset and adaptive management measures. <p>Victoria</p> <ul style="list-style-type: none"> ■ When assessing the potential impact of any development, the applicant is guided to ensure that the required assessment is done in a way that is: <ul style="list-style-type: none"> – Appropriate, i.e. the methods match the type of indicators and objectives, and the setting; – Proportionate, i.e. the methods match the complexity of the proposal and the extent to which it can generate potential impacts or risks.

Western Australia**Preparation of additional assessment information**

- The EPA may require a proponent to undertake an environmental review and provide a report on the environmental review to the EPA. The EPA refers to this report as the Environmental Review Document.
- The EPA may require that the proponent produce Environmental Management Plans to demonstrate how proposed management measures will reduce environmental impacts to an acceptable level.
- The EPA may also require any person to provide it with information, including requests for advice from relevant decision making authorities and other government agencies.

Public review

- The EPA may require the proponent to make the Environmental Review Document and any other information or report available for public review. The EPA may require the proponent to respond to any submissions received during the public comment period.

Preparation of EPA draft assessment report

- Once the EPA has adequate assessment information it will assess the proposal, based on information including:
 - referral information,
 - additional assessment information, including an Environmental Review Document,
 - submissions (if information is made available for public review) and the proponent's response to any submissions, if required
 - additional assessment information obtained during the assessment, including the EPA's own investigations and inquiries.
- The EPA will also:
 - consider whether Environmental Management Plans provided during the assessment are adequate;
 - consider whether conditions are necessary and if so, develop draft conditions; and
 - prepare a draft assessment report.

Completion of the EPA assessment

- The EPA completes its assessment when the EPA considers the draft assessment report and any conditions and:
 - agrees on the key environmental factors identified in the course of the assessment
 - agrees to recommend whether or not the proposal may be implemented
 - agrees to adopt the draft assessment report as the basis for the EPA's final assessment report
 - resolves that the EPA prepare and approve the final assessment report and give that report to the Minister.
- At the completion of the assessment, the EPA prepares a report and recommendations for the Minister for Environment. The assessment report sets out what the EPA considers are the key environmental factors identified in the course of the assessment, the EPA's recommendations as to whether or not the proposal may be implemented and the conditions and procedures to which implementation should be subject.

	<ul style="list-style-type: none"> ■ Where the proposal is a strategic proposal, the EPA will recommend whether or not the future proposals, identified in the strategic proposal, may be implemented. Any person may lodge an appeal with the Minister against the content and recommendations in an assessment report.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p>Western Australia</p> <ul style="list-style-type: none"> ■ A draft report is required to contain proposed alternatives to support consultation and to help decision maker recommendations.
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ Cost-effectiveness analysis provides an alternative method of evaluating EIA regimes that avoids many of the methodological pitfalls of CBA. Under this approach, the costs of the regime (measured in monetary terms) are weighed against its outcomes, which can be measured in non-monetary terms. The ultimate aim of cost-effectiveness analysis is to provide a basis for comparing policy options so as to identify least-cost solutions
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p>Western Australia</p>
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ The EPA usually considers significance when deciding whether to assess proposals and schemes. The EPA also usually considers significance at most other stages in EIA. The terms ‘significance’, ‘significant impact’ and ‘significant effect’ are not defined in the Act. Therefore, the ordinary or everyday meanings of these terms apply. When considering these terms, the EPA may have regard to, and expects the proponent to have regard to, various matters, including: <ol style="list-style-type: none"> a. the object and principles of the Act b. values, sensitivity and quality of the environment which is likely to be impacted c. all stages and components of the proposal (such as any infrastructure required for the proposal to be practicably implemented, or a proposal life cycle) d. extent (intensity, duration, magnitude, and geographic footprint) of the likely impacts e. resilience of the environment to cope with the impacts or change (including considering pressures such as climate change) f. consequence of the application of the mitigation hierarchy to the proposal g. consequence of the likely impacts (or change), including off-site impacts (such as impacts on a wetland from chemicals discharged into upstream river systems) and indirect impacts (such as reduced fish harvest due to decreased water quality) h. likely environmental outcomes, and whether these are consistent with the EPA environmental factor objectives i. cumulative effects, taking into account cumulative environmental impacts - the successive, incremental and interactive impacts on the environment of a proposal with one or more past, present and reasonably foreseeable future activities j. holistic impacts – connections and interactions between impacts, and the overall impact of the proposal on the environment as a whole k. level of confidence in the prediction of residual impacts and the success of proposed mitigation Further guidance on the mitigation hierarchy is in the following section

	<ul style="list-style-type: none"> l. public interest about the likely effect of the proposal or scheme, if implemented, on the environment, and relevant public information. ■ The application of the significance test is on a case-by-case basis.
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The EPA expects that proponents should aim to: <ol style="list-style-type: none"> 1. consult with all stakeholders, including the EPA, other decision-making authorities and relevant government agencies and the relevant community as early as possible in the planning of their proposal, during the environmental review and assessment of their proposal, and, where necessary, during the life of the proposal 2. ensure that members of the wider public are provided with sufficient information relevant to the EIA of a proposal to make informed comment before the completion of the EPA's assessment report 3. use best practicable measures, and genuine evaluation of options or alternatives, in locating, planning, and designing their proposal, to mitigate potential adverse environmental impacts and to facilitate positive environmental outcomes and a continuous improvement approach to environmental management 4. identify the relevant environmental factors and environmental values likely to be impacted and the Proposal elements likely to cause impacts and have cumulative effects in the early stages of planning for their proposal 5. identify the specific environmental outcomes of the proposal and demonstrate that the unavoidable impacts will meet the EPA objectives for environmental factors 6. consider the following, during project planning and discussions with the EPA, regarding the form, content, and timing of their environmental review: <ol style="list-style-type: none"> a. the activities, investigations (and consequent authorisations) required to undertake the environmental review b. the efficacy of the investigations to produce sound scientific baseline data about the receiving environment c. the cumulative impacts of the proposal d. holistic impacts e. the documentation and reporting of investigations; and the likely timeframes in which to complete the environmental review f. use of best endeavours to meet assessment timelines. 7. identify in their environmental review, subject to the EPA's guidance: <ol style="list-style-type: none"> a. best practicable measures to protect, enhance, avoid, where possible, and otherwise abate, minimise, rehabilitate, monitor and manage impacts on the environment b. responsible corporate environmental policies, strategies, and management practices, which demonstrate how the proposal can be implemented to meet the EPA's environmental objectives for environmental factors.
Ecological Impact	

Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The mitigation hierarchy is a sequence of actions to help reduce adverse environmental impacts. The EPA applies two mitigation hierarchies, one specifically for greenhouse gas emissions and one for all other factors, referred to as the environmental factor mitigation hierarchy. These are listed below in order of preference (avoidance most preferred mitigation and offsets as the least preferred option). <p>Mitigation hierarchy for Environmental factors</p> <ul style="list-style-type: none"> ■ Avoid – avoid the adverse environmental impact altogether. This may include reducing the footprint or changing the location of the footprint to avoid areas with high environmental values. ■ Minimise – limit the degree or magnitude of the adverse impact. This may include reducing the footprint or carefully selecting technologies, processes (such as re-use of waste products) and management measures (such as bunding or dust and noise control measures) to reduce the impact. ■ Rehabilitate – repair, rehabilitate or restore the impacted site as soon as possible. Adequate rehabilitation information is integral to the mitigation hierarchy to ensure early identification of knowledge gaps and risk as well as development of criteria and research to meet objectives. ■ Offset – undertake a measure or measures to provide a compensatory environmental benefit or reduction in environmental impact to counterbalance significant adverse environmental impacts from implementation of a proposal. The measure(s) are taken after all reasonable mitigation measures have been applied and a significant environmental risk or impact remains. Offsets are not appropriate for all proposals and will be determined on a proposal-by-proposal basis. <p>Mitigation hierarchy for Greenhouse gas emissions factor</p> <ol style="list-style-type: none"> 1. Avoid – avoid emissions through best-practice design. 2. Reduce – reduce emissions over the project life. 3. Offset – offset some or all residual emissions.
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ Following endorsement and approval, the Plan can then be implemented. The assessment partner is responsible for ensuring that commitments in the Program to protect MNES are met. It is critical as part of this process that necessary resources are provided to meet these commitments (for example, funds for the ongoing management of conservation areas). Key processes during the implementation phase typically include: <ul style="list-style-type: none"> – ongoing adaptive management of conservation areas – monitoring of the Plan outcomes – independent auditing of the Plan outcomes – regular public reporting of the Plan outcomes.

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - – i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practise?	
Strategic Environmental Assessment (SEA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The EPBC Act requires a minimum 28 day public comment period for the draft strategic assessment report. The minister may require a longer period where the issues under assessment are complex. In addition to the release of the draft strategic assessment report, the draft Program is released for comment at the same time. The public consultation phase may involve public meetings or forums to enable the public to be more involved in the process. A report summarising the public comments received and how they were addressed in the final documents (Program and strategic assessment report) is required to be submitted with the final documents.
Environmental Impact Assessment (EIA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ Members of the wider public are encouraged to: <ul style="list-style-type: none"> – participate in consultation by offering advice, identifying omitted relevant data and information, providing local knowledge and proposing alternatives – participate in strategic policy and planning as appropriate, since engagement at these earlier stages may influence the development and evaluation of future proposals – be informed of the administration and outcomes of EIA – take a responsible approach to opportunities for engagement in the EIA process, including being informed of objective information about the environmental issues. ■ The Environment Online portal supports engagement with the system.
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<p>Western Australia</p> <ul style="list-style-type: none"> ■ The EPA ensure enforcement of the SEA and EIA.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Summary and Key issues	
In conclusion, the following elements seem to be working well for the studied justification..	
Strategic Environmental Assessment (SEA)	<p>Australia</p> <ul style="list-style-type: none"> ■ A recent study by Ross and Banhalmi-Zakar (2017) ¹⁰ assessed the strategic nature of 12 SEAs in Australia, carried out under Australia’s key environmental regulation, the EPBC Act of 1999. Incorporation of sustainability aspects and adaptiveness were strengths of the Australian system in most instances, while components such as cumulative impact assessment and assessment of alternatives were often absent or insufficiently addressed. ■ The work of Ross and Banhalmi-Zakar (2017) reveal high levels of variation in terms of exhibiting strategic characteristics. However, the number of SAs evaluated was too small to

¹⁰ <https://conferences.iaia.org/2019/uploads/edited-presentations/Final%20Paper%20Ross%20385.pdf>

	<p>test for or to detect any trends, such as whether differences were attributable to geography, time, length of the SA process and whether the SA was for a plan, policy or programme.</p> <ul style="list-style-type: none"> ■ To understand this long-term and wider outcomes, there is an urgent need to examine issues not only in urban sector but also in other sectors irrespective of jurisdictions in Australia (Kabir, Momtaz and Morgan, 2020). ■ SEA needs to be taken more seriously in certain parts of Australia such as New South Wales, investigating other systems such as the Scottish may assist with this. SEA principles must involve public input, sustainability principles and avoid rhetoric which is common in New South Wales planning documents (Kelly, Jackson and Williams, 2012). ■ Gutierrez, Bekessy and Gordon, 2021 found there to be scope for improvement regarding the integration of biodiversity and ES in Australian SEAs and that opportunities to obtain more substantial benefits from SEA are being missed. Greater efforts are needed to ensure SEA is conducted and implemented in a way that enables the generation of genuine long-term biodiversity gains and maximises ES. Recommendations for enhancing the integration of biodiversity and ES considerations in SEAs include specifying the reference or counterfactual scenarios against which NNL and NG goals are determined, improving the integration and analysis of ES, providing more evidence to demonstrate the application of all steps of the mitigation hierarchy, and including more detailed information on biodiversity management systems and follow-up activities prior to decision-making.
<p>Environmental Impact Assessment (EIA)</p>	<p>Western Australia</p> <ul style="list-style-type: none"> ■ In January 2019 the Western Australian Environmental Protection Authority formed a Working Group to investigate ways in which digital technologies could be used to streamline the capture, supply and interpretation of data in the environmental impact assessment (EIA) process¹¹. ■ The Working Group's recommendations are structured within two categories: <ol style="list-style-type: none"> 1. Streamlining Current Environmental Impact Assessments: Implement a program of work that actively supports the Streamline WA and Environment Online initiatives to streamline environmental assessment in particular, regulatory Environmental Impact Assessment. 2. Next Generation Environmental Assessment: Develop a Shared Analytic Framework for the Environment (SAFE) to improve capability for analysis of cumulative environmental impacts; and build confidence in the analytical outputs. ■ The EIA system in Western Australia has established an international reputation as a strong model for successful practice, and draws on more than 30 years of operation. Recent government reviews pose some threat and uncertainty regarding the future. The simultaneous attainment of all principles is necessary to deliver an effective impact assessment practice¹².
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..</p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ The study by Ross and Banhalmi-Zakar (2017) found that the Australian system is not always truly strategic. Incorporation of sustainability aspects and adaptiveness were strengths of the Australian system in most instances, while components such as cumulative impact assessment and assessment of alternatives were often absent or insufficiently addressed. To make SEAs more strategic would require enhancing existing legislation and endorsement criteria with more explicit guidance on developing strategically focused SEA. The strategic criteria developed as part of this study is not specific to Australia and could be used by other SEA systems to identify, monitor and improve the strategic nature of SEAs on a global scale.


¹¹ https://wabsi.org.au/wp-content/uploads/2019/10/Digitally-Transforming-Environmental-Assessment_Working-Group-Report.pdf

¹² <https://www.semanticscholar.org/paper/Principles-for-Effective-Impact-Assessment%3A-from-Morrison%E2%80%90Saunders/49e2166ff41e5ed40f83a0a97aa73beb439cf79b>

	<ul style="list-style-type: none"> ■ The results point to the need to improve legislation, guidance and monitoring of the performance of SEA in Australia. In some aspects the Australian system lacks the connection between theoretical goals and implementation, as revealed by the difference between performance of fulfilling sustainability criteria even though sustainability is at the core of Australian SA. Ambiguity and lack of legislation have been described as key issues with global practice of SEA. Legislation and frameworks need to be developed based on the regional context of an area where individual governments are responsible for connecting SEA's theoretical goals with its implementation. ■ The study by Kabir, Momtaz and Morgan 2020 found SEA to have shortcomings including inadequate consideration of cumulative impacts, socio-economic impacts and the analysis of alternatives at different stages of SEA. The possible reasons behind these shortcomings were explained based on the context of SEA in Australia. Another identified issue is whether the SEA could ensure the integration of sustainability into the decision-making processes in addition to long-term benefits of the application of SEA.
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ There was some concern about the lack of national standards in environmental impact assessment, in part, a consequence of having different EIA laws and processes across all jurisdictions. ■ Problems include a lack of scope for public comment and examination of the proposals, particularly by Aboriginal communities, and an inappropriate level of assessment of outstanding tailings disposal and mine design issues. The chapter argues that ministerial approvals for the mine's construction have been premature, and that administrative arrangements for the monitoring and regulation of uranium mining in Kakadu National Park are inadequate- https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Completed_inquiries/1999-02/jabiluka/report/c04
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>References</p>	<ul style="list-style-type: none"> ■ Ahammed, A. K. M. R., & Nixon, B. M. (2006). Environmental impact monitoring in the EIA process of South Australia. <i>Environmental Impact Assessment Review</i>, 26(5), 426–447. https://doi.org/10.1016/J.EIAR.2005.09.002 ■ Aryal, S., Maraseni, T., Qu, J., de Bruyn, L. L., Dhakal, Y. R., & Zeng, J. (2020). Key steps in environmental impact assessment: a comparative study of China, Queensland State of Australia and Nepal. <i>Environmental Monitoring and Assessment</i>, 192(2), 1–15. https://doi.org/10.1007/S10661-020-8098-4/TABLES/1 ■ Burdett, T. and Cameron, C (2021) 'Strategic environmental assessment in Australia'. In Fischer, T. and González, A. (Eds.) (2021) <i>Handbook on Strategic Environmental Assessment</i>. Cheltenham: Edward Elgar. ■ Coffey, B. (2013) 'Strategic policy, planning and assessment for sustainability: insights from Victoria, Australia', <i>Sustainability Accounting, Management and Policy Journal</i>, 4 (1), pp. 56-74. ■ Environmental Protection Agency [EPA] (2021). <i>Environmental Outcomes and Outcomes-Based Conditions: Interim Guidance [online]</i>. Available at : https://www.epa.wa.gov.au/sites/default/files/Interim_Guidance_Environmental_outcomes_and_outcomes_based_conditions.pdf ■ Environmental Protection Agency [EPA] (2021) Statement of environmental principles, factors, objectives and aims of EIA. Government of Western Australia [online]. Available at: https://www.epa.wa.gov.au/statement-environmental-principles-factors-and-objectives ■ Environmental Protection Agency [EPA] (2021) <i>Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual [online]</i>. Available at: https://www.epa.wa.gov.au/procedures-manual

- Gold Coast City Council (2011) *Part 2: Desired Environmental Outcomes and Performance Indicators*. In Gold Coast City Council (2011) Gold Coast Planning Scheme 03 [online]. Available at: https://www.goldcoast.qld.gov.au/gcplanningscheme_1111/documents.html
- Gutierrez, M. Bekessy, S. and Gordon, A. (2021) Biodiversity and ecosystem services in strategic environmental assessment: An evaluation of six Australian cases. *Environmental Impact Assessment Review*, 87, 106552, <https://doi.org/10.1016/j.eiar.2021.106552>
- Gumley, W. (2015) Has environmental impact assessment (EIA) lost credibility? Recent concerns from Australia and Canada. In, Martin, P. and Kennedy, A. (2015) *Environmental Law*. Cheltenham: Edward Elgar.
- Kabir, Z., Momtaz, S. and Morgan, R. (2020) Strategic environmental assessment of urban plans in Australia: the case study of Melbourne Urban Extension Plan, *Impact Assessment and Project Appraisal*, 38:5, 368-381, DOI:10.1080/14615517.2020.1762389.
- Kelly, A., Jackson, T. and Williams, P. (2012) Strategic environmental assessment: lessons for New South Wales, Australia, from Scottish practice, *Impact Assessment and Project Appraisal*, 30:2, 75-84, DOI: 10.1080/14615517.2012.660351
- Integrate Sustainability (2019) *Environmental Impact Assessment: Insights from Across the Country* [online]. Available at: <https://www.integratesustainability.com.au/wp-content/uploads/2019/04/ISPL-Insight-EIA-in-Australia.pdf>
- Macintosh, A. (2010). Best Practice Environmental Impact Assessment: A Model Framework for Australia. *Australian Journal of Public Administration*, 4, 401–417.
- May, J., Hobbs, R. J., & Valentine, L. E. (2017a). Are offsets effective? An evaluation of recent environmental offsets in Western Australia. *Biological Conservation*, 206, 249–257. <https://doi.org/10.1016/J.BIOCON.2016.11.038>.
- Ross, M. and Banhalmi-Zakar, Z. (2017) *Just how 'strategic' are Strategic Environmental Assessments? An Assessment of the Strategic Nature of Australian Strategic Assessments under the EPBC Act (1999)* [online]. Available at: <https://conferences.iaia.org/2019/uploads/edited-presentations/Final%20Paper%20Ross%20385.pdf>
- Whitehead, A., Kujala, H. and Wintlealing, B. (2016) 'Cumulative biodiversity impacts in Strategic Environmental Assessment: A new frontier for conservation planning'. *Conservation Letters. A Journal of the Society for Conservation Biology*. doi: 10.1111/conl.12260.

Austria

<h1>Austria</h1> 	
<p>The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> The Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology is the lead department for Strategic Environmental Assessment.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
<p>Legislation <i>The legislative basis to the selected regime</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> The SEA Directive was not implemented centrally in a main law, but the requirement for SEA extends across many strands of federal legislation, including the Waste Management Act 2002 (Federal Waste Management Plans) and the Air Pollution Control Act. A wide-range of relevant legislation also applies at the state level. For the state of Lower Austria, the relevant hooks for SEA are provided via the Lower Austrian Road Law (action plans), the Lower Austria IPPC Systems and Operations Law (action plans), and the Lower Austria Spatial Planning Act (regional and local spatial planning programs, local development concepts and zoning plans). For the state of Upper Austria, the relevant hooks for SEA are provided via the Upper Austrian Waste Management Act (state waste management plans), the Upper Austrian Road Law (action plans for main roads and state roads), the Upper Austria Environmental Protection Act (action plans for metropolitan areas), the Environmental Audit Ordinance for spatial planning programs (regulations for determining the relevance of environmental impacts), the Environmental Assessment Regulation for Zoning Plans (regulations for determining the relevance of environmental impacts) and the Upper Austrian Spatial Planning Act (spatial planning programs, local development concepts and zoning plans). Planning competences are divided between the federal level, the provincial level and the community level.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
<p>Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> A range of federal level guidance is available online and relates to different parts of the assessment process. Publication dates for this guidance varies. For instance there is guidance about assessment processes, as well as what the final assessment document should contain. The guidance is presented through pdfs and is provided in a mix of German and English. Some of the guidance seems to come from a 2002 guide, published by Andreas Sommer, under the (translated) title 'Assessing the Significance of Environmental Impacts Screening Procedure and Criteria for Strategic Environmental Assessments'.

	<ul style="list-style-type: none"> ■ There is one overall SEA guide produced by the Austrian Academy of Sciences, Institute of Technology Assessment (2013). This is titled the 'Manual for the Strategic Environment Assessment of Plans and Programs'. ■ Some of the resources have a state-level focus. For instance, there is a guide relating to the state of Lower Austria which outlines the role for SEA in spatial planning. ■ There is also a more streamlined set of guidance relating to each stage of the process. ■ There is a collection of completed SEA projects that is hosted by <i>strategischeumweltpruefung</i>.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ As noted above, SEA is implemented via a series of laws at above a federal and state level.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ There is no indication of any pending reforms.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes <i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The application of SEA appears linked to the assessment of effects rather than to the pursuit of certain environmental outcomes.
Environmental Impact Assessment (EIA)	

Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points	
<i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Steps to undertake Strategic Environmental Assessment are undertaken by the proposing authority. ■ It is noted by Arbiter (2019) that the number of SEAs conducted each year is low (1-2). ■ Arbiter (2019) notes how the number of annual SEAs differ from province to province, depending on how active they are in preparing plans. However, Arbiter (2019) explains how, on average, the number of SEAs vary from 1 to 10 in each of the nine provinces.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Statistics Austria provide data on a wide-range of topic areas, including the environment. The organisation hosts a wide-range of online mapping tools, including STATatlas. ■ The Austrian Environment Agency- UmweltBundesamt- also has a role in data collection and analysis with respect to certain projects.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?	
<i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Federal guidance explains how a materiality (screening) check may be required to determine whether the implementation of the plan or program in question is likely to have significant environmental impacts and whether an environmental assessment needs to be carried out. The guidance refers to the SEA Directive and its description of the mandatory and non-mandatory scope of application. ■ Most of the plans for which SEA is mandatory comprise the land use plans prepared by local communities. Arbiter (2019) refers to how 100 SEAs are carried out annually at the local level all over Austria.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?

What topics are expected to be included in an assessment? How are decisions over content defined?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The federal guidance makes reference to the relevant parts of the SEA Directive. Specifically the guidance makes a link to Article 5 of the SEA Directive that defines the content requirements of the environmental report. The guidance also refers to paragraph 4 that requires that the authorities named in Article 6 (3) (the so-called environmental authorities) be consulted when determining the scope and level of detail of the information to be included in the environmental report
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Environmental Impact Assessment (EIA)	
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Ecological Impact Assessment (Ecol IA)	
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Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted?

Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ As noted above, there is general guidance but there is little prescription. Greater emphasis is given to the type of information that needs to be provided in the final Environmental Assessment report.
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Environmental Impact Assessment (EIA)	
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Ecological Impact Assessment (Ecol IA)	
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Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Federal guidance makes links back to the expectations of the SEA Directive and there is a range of guidance (typically in German) about the importance of considering alternatives. For example, SUP Practice Sheet 4 deals specifically with alternatives.
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Environmental Impact Assessment (EIA)	
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Ecological Impact Assessment (Ecol IA)	
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Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice?

Is there any direction on how significance is defined?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Again, much of the federal direction links back to the relevant SEA Directive although there are some specific guides about ‘assessing significance’, such as this document that contains ‘criteria for assessing the significance of environmental impacts’.
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Environmental Impact Assessment (EIA)	
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Ecological Impact Assessment (Ecol IA)	
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Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> As with the above, federal direction links back to the relevant parts of the SEA Directive although there are some specific guides about reporting included as part of the general suite of guidance notes. For instance, there is note [in German] that confirms what an assessment document should contain.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> There is no specific federal-led guidance on mitigation, although the application of mitigation in a general sense is considered through the other supporting guides.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> The federal guidance refers to the overarching SEA Directive, and specifically Article 10, that stipulates how the monitoring of significant environmental impacts should be undertaken to identify, among other things, any unforeseen adverse impacts at an early stage. The guidance explains how doing so will allow appropriate remedial action to be taken. The guidance also states that, where appropriate, existing monitoring mechanisms can be used to avoid duplication of monitoring.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> The federal guidance identifies the emphasis included in the SEA towards public and stakeholder engagement and outlines what should be consulted on, and the parties that need to be involved. Arbiter (2019) refers to the use of a Round Table Participative Model that was used by the Viennese waste management community from 2011 to 2018. The approach involves the appointment of a single plan-making / SEA team, comprising 15–25 team members who come together in several 1–2-day workshops. Collectively these workshops help to develop the draft plan, to assess the environmental impacts of alternatives and to find consensus on the best planning solution. Each workshop was facilitated by an external expert for SEA and public participation. All team members were presented as equal partners. While acknowledging the higher costs involved, Arbiter (2019) commends the value of the approach in promoting consensus and stakeholder-buy-in.

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ There is no specific reference to enforcement, beyond what is said with respect to monitoring.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Round Table model, as discussed above, is often presented as an example of best-practice, although its implementation in Austria has been limited, with its adoption largely relating to the preparation of waste plans (Arbter, 2019) ■ Geibler et.al, 2023 found an overall positive perception of collaboration between academia and practice, with important contributions being the introduction of novel ideas and innovative assessment methods in SEA, the contribution of knowledge from the academic literature, and the generation of scientific backing for new approaches. ■ Given an appropriate implementation of the SEA Directive, SEA will lead to a better consideration of the fundamental elements of decision making in spatial planning. This will further contribute to raising the quality of spatial plans and to legal certainty, without causing major delays in the planning processes. SEA also should yield a major effort to increasingly integrate environmental considerations into the planning processes, to promote preventive, integrative environmental protection and also to facilitate sustainable development (Stoeglehner, 2004).
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Spatial planning is a matter for the provinces, with a range of legislation being used to require and support plan development. It has previously been suggested that screening has varied considerably between the provinces (Stoeglehner, 2010). Stoeglehner also made recommendations to enhance SEA effectiveness by different measures addressing different aspects of the SEA system and the SEA implementation in planning processes, such as the abandonment of screening, the advancement of SEA 'ownership' by planners and the reflection of a rational–collaborative SEA and planning model, as well as the ways environmental objectives and the appraisal of alternatives are implemented in a planning and SEA process. By implementing some of the recommendations made above, SEA can be established as a meaningful planning instrument to integrate environmental considerations in all steps of a planning process and thus lead to environmentally more friendly and sustainable designs of PPs.

	<ul style="list-style-type: none"> ■ The consideration of alternatives has previously been judged to be political (Maxian, 2007), with the approach to plan-making having been accused of being linked to ‘preconceived positions’ (Owens, 2004). ■ The association between SEA and plan making has previously been judged to be positive in terms of timing, although the impact upon plan direction has been considered less definitive (Stoeglehner, 2010). ■ Geibler et.al, 2023 found Potential challenges for collaboration were found to be associated with negative previous experiences of actors with science-practice interactions along with some contextual factors
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
References	<ul style="list-style-type: none"> ■ Arbter, K. (2019) ‘SEA in Austria and the participative SEA Round Table model’, <i>Impact Assessment and Project Appraisal</i>, 37(3-4), pp. 188-198, DOI: 10.1080/14615517.2018.1562690 ■ Maxian, M. (2007) ‚Die SUP in der niederösterreichischen Raumordnung. In Die Strategische Umweltprüfung (SUP) in <i>der örtlichen Raumplanung — Anspruch und Wirklichkeit</i>, ed. U Pröbstl, G Weber, G Stöglehner and A Jiricka, pp. 26–27. Conference Proceedings. Wien: Eigenverlag. ■ Stoeglehner, G. (2010) Enhancing SEA effectiveness: lessons learnt from Austrian experiences in spatial planning, <i>Impact Assessment and Project Appraisal</i>, 28:3, 217-231, DOI: 10.3152/146155110X12772982841168

Belgium

Belgium	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Environmental matters are controlled by three separate regulatory authorities: The Flemish Regional and Community Authority, the Brussels-Capital Region, and the Walloon Region Authority. ■ EIA is controlled by different departments in each region. In Flanders, EIA is managed by the Department of the Environment and Spatial Development. ■ In the Flemish [sometimes referred to as Flanders], Walloon and Brussels Capital Regions, the European directive regarding 'Environmental Impact Assessment Directive' (Directive 85/337/EC, recently consolidated as Directive 2011/92/EU) and 'Strategic Environmental Assessment' (Directive 2001/12/EC) are applicable to regional law (adapted from van Thuyne, and Allen & Overy LLP, 2021) <p>Regulatory Authorities</p> <ul style="list-style-type: none"> ■ In each of the three regions, several diverse regulatory authorities are responsible for enforcing environmental legislation: <ul style="list-style-type: none"> – Flemish Region. The main regulatory authorities are the enforcement section of the Environmental Department and the Flemish Waste Agency (for certain matters relating to materials and waste, and the application of the Flemish Soil Statute and its implementing decrees). – Walloon Region. The main regulatory authority is the Department for Police and Controls. – Brussels Metropolitan Region. The main regulatory authority is the Brussels Institute for Environmental Management (Leefmilieu Brussel/Bruxelles Environnement). – At federal level, the main regulatory authority is the Federal Environmental Inspection of the Federal Public Services for Public Health, Safety of the Food Chain, and Environment. ■ Each region has its own environment agency, e.g. the Flanders Environment Agency.
Ecological Impact Assessment (Ecol IA)	
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Flanders</p> <ul style="list-style-type: none"> ■ Flemish [Flanders] Integrated Permit Statute, dated 25 April 2014. This can be accessed via this link. Under this legislation, the process for getting 'planning approval' is entwined with the process of getting an environmental permit. Typically, 'normal' applications a public inquiry, although this is not required under the 'simplified procedure'. ■ The substantive provisions regarding spatial planning, such as the rules that impose a permit obligation or a notification obligation, are included under the VCRO and in its implementing decrees. The substantive environmental provisions are included in titles IV and V of the DABM

	<p>and in <u>VLAREM II</u> (1995) and <u>III</u>. VLAREM II also contains the classification list (Annex I) and the environmentally specific procedures such as the evaluations and the deviation procedure.</p> <p>Walloon</p> <ul style="list-style-type: none"> ■ Walloon Environmental Permit Statute dated 11 March 1999 (and its implementing decrees). In the Walloon Region, the EIA for projects and plans is integrated by the Environmental Codex of 27 May 2004 and its Executive Decrees. <p>Brussels Capital Region</p> <ul style="list-style-type: none"> ■ Brussels Environmental Permit Statute, dated 5 June 1997 (and its implementing decrees) ■ In the Brussels Capital Region, the EIA for projects is included in the Environmental Permit Decree of 5 June 1997, and the EIA for plans and programmes is included in the Decree of 18 March 2004 regarding EIA for certain plans and programmes. <p><i>*note: language barrier in identifying the specific documents themselves – unable to navigate Belgian case law search engine*</i></p>
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ There are several Non-Governmental Organisations (NGOs) active in Belgium that influence public opinion and policy makers. These NGOs have the right to challenge any acts or decisions made by authorities. They are also able to use summary proceedings to demand the cessation of activities that are harmful to the environment. Known NGOs active in Belgium include: <ul style="list-style-type: none"> – Greenpeace (entire country) – World Wide Fund for Nature (entire country) – Bond Beter Leefmilieu (environmental pressure group, Flemish region) – Vogelbescherming Vlaanderen (focus on protection of birds and their habitats, Flemish region) – Natuurpunt (environmental pressure group, Flemish region) – Natagora (environmental pressure group, Walloon region) – Brusselse Raad voor het Leefmilieu (environmental pressure group, particular focus of urban development issues, Brussels-Capital region) <p>Flanders</p> <ul style="list-style-type: none"> ■ Consultants who are responsible for developing one or more sections of an EIA are required to be registered by the region <u>as an approved expert practitioner</u>. To be approved, applicants need to satisfy a number of conditions, such as having obtained at least a master's or equivalent degree, and having at least 3 years' practical experience in collaborating on the drawing up of environmental impact reports. Applicants also need to have successfully completed a training course of 60 hours. An annual fee is also payable.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i></p>	

- With the adoption in 2013 of the Regulatory Impact Assessment (RIA) for all new regulation to be submitted to the Council of Ministers, Belgium made headway in improving the quality of government regulation. The Kafka Test and the Sustainable Development Impact Assessment (SDIA), the eye-catchers of Belgian's 'Better Policy Process', have been improved and integrated in the broader RIA.
 - The RIA is a prior and an integrated evaluation of potential consequences and collateral impacts of regulatory projects on economic, social, and environmental domains and on public authorities.
 - The Kafka Test, made a requirement in 2001 and refined in 2004, screens proposals for their impact on administrative burdens for businesses and citizens.
 - The SDIA, made a mandatory requirement in 2007, screens the impact of draft regulations in terms of sustainable development.

Governance arrangements, including roles and responsibilities at a national, regional / state and local level

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The national government holds little authority over EIA regulations as referred to above. The three regions of Belgium (the Walloon Region, the Brussels-Capital Region, and the Flemish Region) are responsible for most matters in relation to environmental protection and have their own systems. ■ However, the federal state remains responsible for certain matters related to environmental protection, in particular, product safety requirements, the transit of waste, and environmental issues affecting the territorial sea.
Ecological Impact Assessment (Ecol IA)	

Recent or emerging legislative reform in the selected jurisdiction
Has the legislation been the subject of recent reform or are changes being proposed?

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ "Belgium having been rather slow in implementing environmental laws, regions grabbed the opportunity to blaze paths in a domain that had been moderately legislated, and even then, in the last decade or so. Everyone is far from in agreement that this has been for the better" (Charlier, 1995). ■ In March 2011, the European Court of Justice ruled in judgement that Belgium's EIA legislation was not in compliance with EU law. As such legislation was modified under 'C-435/09, European Commission/Belgium', however both Walloon and Brussels have yet to comply with the judgement [as far as I am aware]. The Flemish (Flanders) Region adapted its EIA regulation to comply with the judgement in March 2012.
Ecological Impact Assessment (Ecol IA)	

Link to environmental outcomes
Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?

Strategic Environmental Assessment (SEA)	
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Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ No link to environmental outcomes found
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points <i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ In all three regions, certain plans or projects require an EIA. The list of projects requiring an EIA is largely similar to the categories set by Directive 97/11/EC on the assessment of the effects of certain public and private projects on the environment (Amended EIA Directive). The list of projects that require an EIA study is included in: <ul style="list-style-type: none"> – The Flemish Statute (5 April 1995) – The Brussels Statute (18 March 2004) [<i>can't find a link to this</i>] – Book I, Part V of the Walloon Environmental Code ■ An example published 'non-technical summary of an environmental impact assessment' provides some insight into the procedure of EIAs: ■ In summary, the main provisions as regards procedures contained in the EIA Directive relate to: <ol style="list-style-type: none"> 3. Consulting the authorities "likely to be concerned by the project by reason of their specific environmental responsibilities"; 4. Informing the public, at an early stage in the environmental decision-making procedure, of the procedure, the possibilities for public participation and the subject of the permit application; 5. Making available to the public the results of the environmental impact assessment and the opinions expressed; 6. Consultation of competent authorities in other Member States; 7. Informing the public of, inter alia, the content of the decision on the permit and the considerations on which the decision is based; 8. Appeal procedures.
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ There is a Belgium Biodiversity Platform. ■ In Flanders, there is a central research repository – the FRIS Research Portal- that includes details of regional researchers and their research in Flanders. ■ In Flanders, there is an online Environmental Checker that allows applicants to research their proposed areas and to identify designations of note.

Ecological Impact Assessment (Ecol IA)	
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
Strategic Environmental Assessment (SEA)	<p>n/a</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Only information found comes from “Guidance on EIA Screening” (2001) by the European Commission. Therefore, it may be outdated. ■ The requirements for screening are contained in Article 4 of Directive 97/11/EC: ■ The first step in screening is to determine whether the project is listed in either Annex I or Annex II of Directive 97/11/EC *see Appendix A [page 26] & Appendix B [page 28]* or any equivalent Member State lists. ■ Article 4(1) requires that “...<i>projects listed in Annex I shall be made subject to an assessment...</i>”. EIA is therefore mandatory for the categories of projects listed in Annex I and Member States’ legislation must provide for this. The Annex I list is presented in Appendix A. It defines about 21 categories of projects for which EIA is mandatory. Screening of these projects must lead to a “yes” decision that EIA is required. ■ Article 4(2) requires that for “...projects listed in Annex II, the Member States shall determine through (a) a case-by-case examination, or (b) thresholds and criteria set by the Member State whether the project shall be made subject to an assessment...Member States may decide to apply both procedures referred to in (a) and (b)” ■ In summary, if a project is not of a type listed in Annex I or II or any equivalent Member State lists, EIA is not required, unless a Habitats Directive assessment is required.
Ecological Impact Assessment (Ecol IA)	<p>n/a</p>
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	<p>n/a</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The permitting regime in each region uses a classification system to determine the level of regulation applied to activities. This runs from Class 1 (highly polluting/highest risk) activities to Class 3 (low polluting/low risk) activities: <ul style="list-style-type: none"> – Class 1 installations have special requirements in each region (the list of installations subject to this are set out under the acts in <i>italics</i> below). – Class 2 installations require an environmental permit granted by the College of Mayor and Aldermen (that is, the municipality’s executive body). – Class 3 installations only need notify the College of Mayor and Alderman (no actual permit required) ■ Decree of the Walloon Government (July 2002) ■ Decree of the Brussels Metropolitan Government (March 1999); and, Brussels Statute (April 1999)

	<ul style="list-style-type: none"> ■ Decree of the Flemish Government (February 1991)
Ecological Impact Assessment (Ecol IA)	n/a
Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i>	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	no information found
Ecological Impact Assessment (Ecol IA)	n/a
Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	No information found <i>*note: language barrier in identifying or reading the actual case law regarding this*</i>
Ecological Impact Assessment (Ecol IA)	n/a
Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i>	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	No information found
Ecological Impact Assessment (Ecol IA)	n/a
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	No information found
Ecological Impact Assessment (Ecol IA)	n/a

Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	Where there are adverse impacts, an assessment of the potential mitigation of those impacts must be made, as well as an assessment of alternative solutions. Where there are no alternative solutions or where adverse impacts remain, an assessment of compensatory measures must be made if it is decided that the plan or project should proceed for imperative reasons of overriding public interest.
Ecological Impact Assessment (Ecol IA)	n/a
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	<p>The monitoring requirements from the EIA directive as amended by directive 2014/52/EU are transposed in Flemish EIA legislation (art 4.6.3 of the Flemish EIA decree of 10/12/2004).</p> <p>Conducting a study or monitoring can be included as an environmental condition in the integrated environment permit if appropriate (art 73 of the Decree of 25 April 2014 regarding the integrated environment permit).</p> <p>Inspection services monitor compliance with permit conditions in the integrated environment permit, hereby relying on a practice of coordination and cooperation with affected parties regarding possible cross-border impact.</p>
Ecological Impact Assessment (Ecol IA)	n/a
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	n/a
Environmental Impact Assessment (EIA)	<p>Flanders</p> <ul style="list-style-type: none"> ■ An online portal allows residents to access 'live' permit applications. The site allows users to search an area and to find details, and view plans, of relevant schemes. The site provides details of the period during which comments on the proposal can be made. ■ Schemes requiring public consultation are advertised on the municipality's website. The applicant also has to display a yellow sign on site. Consultation lasts for 30 days. ■ There is an online site (DIVO) in which construction drawings can be viewed and annotated comments made. DIVO stands for: Digital Visualization of Building Plans for the Public Inquiry.
Ecological Impact Assessment (Ecol IA)	n/a
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	n/a

Environmental Impact Assessment (EIA)	<p>Local municipalities can address environmental breaches under the regional environmental permit regulations, but they are usually willing to grant grace periods or enter into settlements. Regional enforcement authorities also tend to set deadlines that companies must comply with and usually only resort to enforcement when a company does not comply despite repeated warnings. Enforcement measures include repealing or suspending permits, imposing administrative sanctions or starting criminal proceedings.</p>
Ecological Impact Assessment (Ecol IA)	<p>n/a</p>
Summary and key lessons	
<p>In conclusion, the following elements seem to be working well in the studied jurisdiction..</p>	
Strategic Environmental Assessment (SEA)	<p>n/a</p>
Environmental Impact Assessment (EIA)	<p>Runhaar et.al, 2019 found EIA has an influence on decision-making through avoiding delays and speeding up the decision-making. By and large the effectiveness is modest but important: at two stages in the development and decision-making process EA often has an impact (ex ante and ex post, i.e. before the EA procedure is started and after the EA report is published), although it seldom results in radically different projects and plans. This suggests EA is a rather robust tool to be applied in a wide range of contexts.</p>
Ecological Impact Assessment (Ecol IA)	<p>n/a</p>
<p>In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..</p>	
Strategic Environmental Assessment (SEA)	<p>n/a</p>
Environmental Impact Assessment (EIA)	<p>Runhaar et.al, 2019 found EA is mainly considered from a legal and procedural perspective but less as an instrument to optimise the environmental performance of projects and plans. Another insight is that the mechanisms that impede or contribute to EA effectiveness are more subtle and complicated than the initial analytical framework suggests</p>
Ecological Impact Assessment (Ecol IA)	<p>n/a</p>
References	<ul style="list-style-type: none"> ■ Charlier, R. (1996) 'Environmental impact legislation assessments and audits: national legislation and EIA implementation in Belgium'. <i>International Journal of Environmental Studies</i>. 51:1, 1-19, DOI: 10.1080/00207239608711067. ■ Runhaar, H., Gommers, A., Verhaegen, K., Cooman, K., and Corens, P. (2019) 'The effectiveness of environmental assessment in Flanders: An analysis of practitioner perspectives'. <i>Environmental Impact Assessment Review</i>. 77, pp. 113-119.

Canada

Canada



The national body for defining the regulatory framework and processes (e.g. government department)
The central body, or bodies, responsible for drafting and maintaining legislation and processes

Strategic Environmental Assessment (SEA)	<p>Impact Assessment Agency of Canada (IAAC)</p> <ul style="list-style-type: none"> The Impact Assessment Agency of Canada is federal body accountable to the Minister of Environment and Climate Change. It seeks to “serve Canadians by delivering high-quality impact assessments that look at both the positive and negative environmental, economic, social, and health impacts of potential projects”. The IAAC was formerly known as the Canadian Environmental Assessment Agency of Canada.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
<p>Advisory Council on Impact Assessment</p> <ul style="list-style-type: none"> In 2020, the Minister of Environment and Climate Change established an Advisory Council on Impact Assessment, which provides independent and objective advice to the Minister on issues related to impact assessments, as well as regional and strategic assessments, under the Impact Assessment Act. The establishment of the Minister’s Advisory Council is a requirement under the Impact Assessment Act. The mandate of the Council is to provide advice to the Minister on the implementation of the impact assessment regime in relation to the purposes set out for it in the IAA. The Council is composed of seven to 12 members, including a chairperson, and members are appointed on four-year terms. The Council advises on areas such as governance, the effectiveness and efficiency of assessment processes, and regional and strategic assessments. It also advises on achieving transparency and predictability for proponents, the public and Indigenous Peoples, helping to identify issues early and creating efficiencies to best support decision-making in the public interest. 	

Legislation
The legislative basis to the selected regime

Strategic Environmental Assessment (SEA)	<p><u>Federal Sustainable Development Act (2008)</u></p> <p>The purpose of this Act is to provide the legal framework for developing and implementing a Federal Sustainable Development Strategy that makes decision making related to sustainable development more transparent and subject to accountability to Parliament, promotes coordinated action across the Government of Canada to advance sustainable development and respects Canada’s domestic and international obligations relating to sustainable development, with a view to improving the quality of life of Canadians</p>
Environmental Impact Assessment (EIA)	<p><u>Canadian Environmental Assessment Act (2019) (CEAA)</u></p> <p><i>The CEAA has had several iterations (1992, 2012, 2017, 2019)</i></p> <p>An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts</p> <p>In summary part 1 of the act enacts the Impact Assessment Act and repeals the Canadian Environmental Assessment Act, 2012. Among other things the act:</p> <ul style="list-style-type: none"> Names the Impact Assessment Agency of Canada as the responsible authority for impact assessments Provides for a process for assessing the environmental, health, social, and economic effects of designated projects Prohibits proponents, subject to certain conditions, from carrying out a designated project if the designated project is likely to cause certain environmental, health, social or economic effects

	<p>(unless the Minister of the Environment or Governor in Council determines that those effects are in the public interest)</p> <ul style="list-style-type: none"> ■ Establishes a planning phase for a possible impact assessment of a designated project, which includes requirements to cooperate with and consult certain persons and entities and requirements with respect to public participation ■ Authorises the Minister to refer an impact assessment of a designated project to a review panel (if in the public interest) ■ Establishes time limits with respect to the planning phase, to impact assessments ■ Provides for establishing funding for public participation ■ Provides for cooperation with certain jurisdictions, including Indigenous governing bodies, through the delegation of any part of an impact assessment ■ Ensures transparency in decision-making by requiring information taken into account for impact assessments and reasons for decisions to be made public ■ Provides that the Minister may set conditions in respect to mitigation measures ■ Provides for the assessment of cumulative effects of existing or future activities in a specific region through regional assessments and of federal policies, plans and programs ■ Sets out requirements for an assessment of environmental effects of non-designated projects that are on federal lands or that are to be carried out outside Canada <p>Part 2 of the act enacts the Canadian Energy Regulator Act which establishes the body, its composition, mandate, and powers. Part 2 also repeals the National Energy Board Act. Finally, part 3 concerns amendments to the Navigation Protection Act.</p> <p><u>Canadian Environmental Protection Act, 1999</u></p> <p>The primary purpose of the Canadian Environmental Protection Act, 1999 (CEPA) is to contribute to sustainable development through pollution prevention. It provides the legislative basis for a range of federal environmental and health protection programs. These include activities related to:</p> <ul style="list-style-type: none"> ■ the assessment and management of risks from chemicals, polymers and living organisms ■ programs related to air and water pollution, hazardous waste, air pollutant and greenhouse gas emissions ■ ocean disposal and ■ environmental emergencies.
<p>Ecological Impact Assessment (Ecol IA)</p>	<p>Bill C-69 (21st June 2019)</p> <p>An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts</p> <p>Canadian Environmental Protection Act, 1999</p> <p>The primary purpose of the Canadian Environmental Protection Act, 1999 (CEPA) is to contribute to sustainable development through pollution prevention. It provides the legislative basis for a range of federal environmental and health protection programs. These include activities related to:</p> <ul style="list-style-type: none"> ■ the assessment and management of risks from chemicals, polymers and living organisms ■ programs related to air and water pollution, hazardous waste, air pollutant and greenhouse gas emissions ■ ocean disposal and ■ environmental emergencies. <p><i>It would appear that Environmental Impact and Ecological Impact Assessments are largely intertwined in Canada.</i></p>

Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Impact Assessment Agency of Canada provides a suite of guidance via its website. This focuses on different stages of the assessment process and also includes a terminology guide and a glossary of terms ■ Specific guidance on strategic environmental assessment is provided by the IAAC. There is also guidance on regional assessments. <p>Training</p> <ul style="list-style-type: none"> ■ The IAAC develops and delivers training opportunities adapted to various audiences to meet the needs of diverse learners. All of the training is provided free of charge. There is a specific e-learning course, available in French and English, that provides an overview of the IAA. The IAA also runs regular webinars and is developing instructor-led training tailored to different audiences directly involved in impact assessments. Identified audience groups include Indigenous groups and communities; project proponents; federal authorities; and members of the public (Individuals, non-profit organizations). <p>Federal Sustainable Development Strategy 2022 to 2026 Government of Canada's priorities, goals and targets, and how federal organisations are implementing and achieving them. Several of the "goals" within this strategy have a clear focus on environmental assessment:</p> <ul style="list-style-type: none"> ■ Ensure clean and safe water for all Canadians ■ Increase Canadian's access to clean energy ■ Foster innovation and green infrastructure in Canada ■ Reduce waste and transition to zero-emission vehicles ■ Take action on climate change and its impacts ■ Conserve and protect Canada's oceans ■ Protect and recover species, conserve Canadian biodiversity ■ Promote a fair and accessible justice system, enforce environmental laws, and manage impacts <p>There are several active Canadian environmental Non-Governmental Organisations (NGOs)</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ There is a practitioner's guide to federal impact assessments under the IAA that includes templates and detailed policy guidance, including guidance on the factors to consider, public participation and Indigenous participation and engagement. ■ This guidance replaces previous guidelines that had been prepared to support the Canadian Environmental Assessment Act 2012, such as the Guidelines for the Preparation of an Environmental Impact Statement, 2018 (<i>pursuant to the</i>) <p><u>Guidance for Evaluating Human Health Impacts in Environmental Assessment: Air Quality</u> Provides generic guidance on predicting health risks of air quality in federal environmental assessments (EAs) of proposed major resource and infrastructure projects. It presents the principles, current practices and basic information Health Canada looks for when it reviews the environmental impact statement.</p> <p><u>Strategic Assessment of Climate Change (revised October 2020)</u> The SACC was deemed a strategic assessment conducted under section 95 of the Impact Assessment Act (IAA). It applies to designated projects under the IAA. The principles and objectives underlying the SACC will be built into guidance for the review of non-designated projects on federal</p>

	<p>lands and outside Canada under the IAA. Guidance for projects regulated by the Canada Energy Regulator will similarly consider the principles and objectives of the SACC.</p> <p><u>General Information:</u></p> <p>The federal government and all provincial governments have established EIA requirements for certain projects. The scope of the requirements varies from jurisdiction to jurisdiction. The CEAA only applies to designated projects, which tend to be major resource-based projects such as mines, pipelines and nuclear facilities. The scope of a federal environmental assessment is limited to environmental issues within federal jurisdiction, such as fisheries. The federal Impact Assessment Act, which is currently being debated in the Canadian Senate, will replace the CEAA.</p> <p>Provincial EIA requirements vary widely, but generally cover a broader range of projects. In Ontario, environmental assessment legislation applies to all government projects, but only to designated private sector projects, which over the years have tended to be limited to the area of waste management.</p>
<p>Ecological Impact Assessment (Ecol IA)</p>	<p>Nothing particular of note. The Environmental Impact and Ecological Impact Assessments are largely intertwined in Canada so I the above are likely to also be relevant here.</p>

Associated legislation

Are the goals of the selected regime supported / frustrated by other legislation?

The three multi-tiered provinces of Canada (see below section) utilise their own Environmental Protection Acts:

Ontario: [Environmental Protection Act, R.S.O. 1990, c. E.19 \(as amended July 2022\)](#)

“In Ontario, this process is defined and finds its authority in the Environmental Assessment Act. The purpose of the Environmental Assessment Act is to provide for the protection, conservation, and wise management of Ontario’s environment. To achieve this purpose, the Environmental Assessment Act promotes responsible environmental decision-making and ensures that interested persons have an opportunity to comment on undertakings that may affect them. In the Environmental Assessment Act, environment is broadly defined to include the natural, social, economic, cultural and built environments.

Quebec: [The Environment Quality Act: advancing Quebec responsibly for the benefit of all \(March 2018\)](#)

“The provisions of this Act aim to protect the environment and safeguard the living species that inhabit it, to the extent provided by law. They make it possible to consider the issues related to the protection of human health and safety as well as the realities of the territories and the communities that live there. In order to respond to the climate emergency and with a view to ensuring a just transition for all which considers in particular the environmental, economic and social consequences, they promote the reduction of greenhouse gas emissions, in particular by favouring the use energy with a low carbon footprint as well as adaptation to climate change and allow us to consider the evolution of knowledge and technologies as well as the issues related to climate change. They affirm the collective nature and public interest of the environment, which inseparably includes the ecological, social, and economic dimensions. The fundamental objectives of this law make the protection, improvement, restoration, enhancement, and management of the environment of general interest.

British Columbia: [Environmental Assessment Act \(November 2018\)](#)

“The Environmental Assessment Act provides a mechanism for reviewing major projects to assess their potential impacts. British Columbia’s environmental assessment process is important to ensure that major projects meet the goals of environmental, economic, and social sustainability. The assessment process also ensures that the issues and concerns of the public, First Nations, communities, and government agencies are considered. The Environmental Assessment Office manages the assessment of all major projects proposed in British Columbia. Major projects are assessed for potentially adverse environmental, economic, social, heritage and health effects that may occur during the life cycle of these projects.

Governance arrangements, including roles and responsibilities at a national, regional / state and local level

Strategic Environmental Assessment (SEA)	Canada is a federal bicameral parliamentary democracy and a constitutional monarchy with a highly varied local government system. This means that legislation for local governments is unique to each province and territory. The country’s constitution divides powers between the federal government and the ten provincial governments. Municipalities are not recognised as a separate order of government.
Environmental Impact Assessment (EIA)	Three of the ten provinces have a multi-tiered local government system, the seven other provinces and territories utilise a single tier system. Under the ten provincial and three territorial governments ¹³ are two supra-regional authorities (in Québec), 143 regional authorities and over 3,600 local governments.
Ecological Impact Assessment (Ecol IA)	The provinces of Canada include: <ul style="list-style-type: none"> ■ Ontario (<i>multi-tiered</i>) ■ Quebec (<i>multi-tiered</i>) ■ Nova Scotia ■ New Brunswick ■ Manitoba ■ British Columbia (<i>multi-tiered</i>) ■ Prince Edward Island ■ Saskatchewan ■ Newfoundland and Labrador

¹³ The major difference between a Canadian province and a territory is that provinces receive their power and authority from the Constitution Act, 1867 (formerly called the British North America Act, 1867), whereas territorial governments are creatures of statute with powers delegated to them by the Parliament of Canada.

	<p>The territories of Canada include:</p> <ul style="list-style-type: none"> ■ Northwest Territories ■ Yukon ■ Nunavut <p>Canadian provinces are considered to be “co-sovereign”. The territories are not sovereign.</p> <p>The FCM (Federation of Canadian Municipalities) acts as the collective voice for Canada’s Local Governments.</p>
<p>Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ In August 2019, the Impact Assessment Act (IAA) came into force. The IAA establishes a new process for considering environmental, health, social and economic effects of projects that will undergo a federal impact assessment. One of the factors to be considered in the impact assessment process of a designated project is the extent to which the effects of the designated project hinder or contribute to the Government of Canada’s ability to meet its commitments in respect of climate change such as the Paris Agreement, Canada’s 2030 target and the goal of Canada achieving net-zero emissions by 2050. ■ The strategic assessment of climate change will enable consistent, predictable, efficient, and transparent consideration of climate change throughout federal impact assessments. ■ A draft strategic assessment of climate change was published in August 2019. This final version considers comments received on the August 2019 version and reflects the Government’s goal of net-zero emissions by 2050. ■ This strategic assessment of climate change: <ul style="list-style-type: none"> – describes the greenhouse gas (GHG) and climate change information that project proponents need to submit at each phase of a federal impact assessment – requires proponents of projects with a lifetime beyond 2050 to provide a credible plan that describes how the project will achieve net-zero emissions by 2050, and – explains how the Impact Assessment Agency of Canada (IAAC) or lifecycle regulators, with support from expert federal authorities, will review, comment on and complement the climate change information provided by proponents. ■ Environment and Climate Change Canada (ECCC) plans to review and update the strategic assessment of climate change every 5 years. ■ Following a decade where provinces were the primary driving force behind green growth policies, in December 2016, the federal government, the provinces and territories agreed on a Pan-Canadian Framework on Clean Growth and Climate Change – the first-ever collective vision focused on economic growth while reducing emissions and building resilience.
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Link to environmental outcomes <i>Is the concept of ‘environmental outcomes’ used or referred to in the relevant legislation / guidance?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ The international body OECD (Organisation for Economic Co-operation and Development) produce an Environmental Performance Review of Canada though there does not appear to be a national body that produces a similar report. The most recent publication was in 2017: <u>OECD Environmental Performance Reviews: Canada 2017</u>: ■ <i>“While Canada has decoupled a number of environmental pressures from economic growth, it remains one of the most energy- and resource- intensive economies in the OECD. Canada is the fourth largest emitter of greenhouse gases in the OECD and emissions show no sign of falling yet. Fossil fuels remain the dominant energy source. The emission of local air pollutants decreased, but outdoor air pollution continues to harm Canadians. Waste is predominantly landfilled, and recycling rates are low in most provinces and territories. Pressures on biodiversity and water bodies remain high in certain areas.</i>
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	

Procedure and practice	
General points <i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ SEA is a self-assessment process whereby federal departments and agencies are responsible for implementing the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals. To assist this effort, the Impact Assessment Agency of Canada has developed guidance material.
Environmental Impact Assessment (EIA)	<p><u>Ontario:</u></p> <ul style="list-style-type: none"> ■ The first step in the application for approval to proceed with an undertaking is receiving approval from the Minister for a “terms of reference”. The approved “terms of reference” sets out the proponent’s work plan for addressing the legislated requirements of the Environmental Assessment Act when preparing the environmental assessment. ■ Once the proponent receives approval of the terms of reference, it can start preparing the environmental assessment. The environmental assessment must be prepared in accordance with the approved terms of reference (subsection 6.1(1) of the Environmental Assessment Act). As the contents of each terms of reference differ, the environmental assessment that is subsequently prepared will also differ for each proposal. ■ An environmental assessment prepared in accordance with subsection 6.1(3), will be different than one prepared using the generic requirements laid out in subsection 6.1(2). In these instances, as allowed by the legislation, the proponent has set out in detail what its environmental assessment will contain. The information contained therein will be information other than that required by subsection 6.1(2). ■ Regardless of under which section of the Environmental Assessment Act the environmental assessment is prepared, the important point is that the environmental assessment must be prepared in accordance with the approved terms of reference. ■ On average, proponents take from 12 to 24 months to prepare the environmental assessment. This timeline is dependent on the scale and complexity of the proposal, the availability of information and the level of public interest. <p><u>Quebec:</u></p> <ul style="list-style-type: none"> ■ Translated from French: “When the project initiator submits a project notice or an environmental impact study or when his project is the subject of a public hearing, he must make the payment provided for in the authorization request pricing system. environmental. Payments should be made payable to the Minister of Finance. <p><u>British Columbia:</u></p> <ul style="list-style-type: none"> ■ Unable to find any specifics related to British Columbia. <p><u>General:</u></p> <ul style="list-style-type: none"> ■ A project subject to the Canadian Environmental Assessment Agency (CEAA) may only proceed following a positive decision by the federal government, and the issuance of any number of other permits and approvals from different regulatory agencies at both the federal and provincial levels of government. EIAs under CEAA are carried out by the Canadian Environmental Assessment Agency, the Canadian Nuclear Safety Commission and the National Energy Board. This scenario is similar in a provincial EIA, although actual assessments may be formally carried out by the project proponent, and approval authority may be vested in a dedicated regulatory agency.
Ecological Impact Assessment (Ecol IA)	No information identified.

Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	<p>The Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals sets out the expectations of ministers and Cabinet on when a SEA should be conducted and what it should consider. It requires that the environmental analysis be fully integrated into the proposal development process. It specifies that ministers expect a SEA when the following two conditions are met:</p> <ul style="list-style-type: none"> ■ The proposal is submitted to an individual minister or Cabinet for approval. ■ The implementation of the proposal may result in important environmental effects, either positive or negative
Environmental Impact Assessment (EIA)	<p>Provided by Impact Assessment Agency of Canada, a federal body accountable to the Minister of Environment and Climate Change</p>
Ecological Impact Assessment (Ecol IA)	
Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?	
<i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i>	
Strategic Environmental Assessment (SEA)	<p>The Cabinet Directive Guidelines require a preliminary scan to determine whether an SEA is required. Departments and agencies developing the proposal are responsible for undertaking this task.</p> <p>The process requires responsible federal agencies and departments to determine whether a proposal meets the two requirements set out in the Directive (i.e. does the proposal need approval from a Minister or Cabinet and will it have either positive or negative important environmental effects). If the proposal does not meet both requirements, an SEA is not required.</p> <p>The Guidelines state that a preliminary scan screens proposals for potential, important environmental effects. If important environmental effects are identified, a strategic environmental assessment is required as early as possible in the development of a proposal. According to the Guidelines, the analysts should:</p> <ul style="list-style-type: none"> ■ Identify the direct and indirect outcomes associated with implementing the proposal. ■ Consider whether these outcomes could have an effect on the environment or on any of the Federal Sustainable Development Strategy's goals and targets. The environment is defined as the components of the earth including: <ul style="list-style-type: none"> a) Land, water and air, including all layers of the atmosphere; b) All organic and inorganic matter and living organisms; c) The interacting natural systems that include components referred to in paragraph a and b above. ■ The Guidelines states that a variety of tools can be used to conduct a preliminary scan, including any available matrices, checklists and experts within and outside of the agency or department. The Guidelines also distinguish six criteria that can aid in determining the outcome of the preliminary scan (i.e. important environmental effects or not): <ul style="list-style-type: none"> – Does the proposal have outcomes, either positive or negative on natural resources? – Does the proposal have direct or likely indirect outcomes that will cause considerable positive or negative impacts on the environment? – Do the outcomes of the proposal affect the achievement of an “environmental quality goal” such as reduction in greenhouse gas emissions or protection of an endangered species?

	<ul style="list-style-type: none"> – Would the proposal affect the number, location, type and characteristics of sponsored initiatives, which would then require an environmental assessment under the Canadian Environmental Assessment Act or equivalent process? – Does the proposal involve a new process, technology or delivery arrangement that has important implications for the environment? – Is the proposal such that the scale and timing will result in significant interactions with the environment? ■ If the scan determines that there are no important environmental effects of the proposal, the decision is documented and no further analysis of the environmental effects is required. The SEA process is then considered complete. If the scan determines that important environmental implications will result, or if there is a high level of uncertainty or risk associated with the outcome, then more detailed analysis of the environmental effects is conducted through a detailed SEA.
Environmental Impact Assessment (EIA)	<p>The screening process applies to designated projects which are linked to the Agency in the Project List. The process does not apply to designated projects that are assessed by other responsible authorities under CEAA 2012 – the Canadian Nuclear Safety Commission (CNSC) and the National Energy Board (NEB).</p> <p>Under a screening, a Responsible Authority systematically documents the environmental effects of a proposed project and determines the need to eliminate or minimize (mitigate) harmful effects; to modify the project plan; or to recommend further assessment through mediation or panel review. The extent of public participation in a screening, if any, is determined on a case-by-case basis by the Responsible Authority and would take place prior to the Responsible Authority exercising any power, function or duty in respect of the Project.</p> <p>Screenings will vary in time, length, and scope of analysis, depending on the circumstances of the proposed project, consideration of the existing environment, and the likely environmental effects. Some screenings may require only a brief review of the already-existing information and a short report; others may need new background studies and be as extensive as a comprehensive study under CEAA. The Responsible Authority must consider whether a follow-up programme for the project would be appropriate, and if so, design and ensure its implementation.</p>
Ecological Impact Assessment (Ecol IA)	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	<p>The scoping process involves building upon the preliminary scan in determining the scope and nature of the environmental effects that could arise due to the implementation of the proposal. The Guidelines do not give specific tools to be used in the process. However it does state that the agencies and departments are encouraged to develop their own sources of information and analytical tools (i.e. experts, matrices, checklists, modelling, and scenario building). This speaks to the guiding principle of flexibility. In addition, the Guidelines emphasize that an appropriate level of analysis is required. In other words, the scope of the analysis should be proportionate to the level of expected effects.</p> <p>The expected outcome of the scoping exercise is when environmental considerations as well as economic and social have been taken into account. The scoping of the exercise will influence the nature of the proposal and its manner of implementation. There are no specific objectives or requirements within the Directive or the Guidelines in concern to expected outcomes.</p> <p>The Guidelines state that where appropriate, the strategic environmental assessment should identify public and stakeholder concerns in regards to environmental effects. The Guidelines go further to state that recognition and understanding of public concerns can strengthen the quality and credibility of the policy, plan or program decision in various respects. The Guideline also identifies sources of</p>

	<p>information on public concern to utilise in the SEA (i.e. economic and social analysis on the proposal; public consultation mechanisms used by the agency or department; expert agencies or departments; and outside experts and organizations). The Guidelines require departments and agencies to prepare a public statement of environmental effects with the results from the strategic environmental assessment when the policy, plan or program is approved or announced. Beyond this, there is no requirement for further stakeholder participation.</p>
<p>Environmental Impact Assessment (EIA)</p>	<p>The scope of the project will include:</p> <ul style="list-style-type: none"> ■ any component of the project description; ■ any additional component directly related to the project; and ■ any construction, operation, modification, decommissioning, abandonment or other undertaking in relation to the project.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p>The following presents common milestones of strategic assessments. Specific steps and the details of each milestone are determined on a case-by-case basis.</p> <p>9. Minister decides to conduct a strategic assessment</p> <p>The Minister's decision is based on a request from the public, a recommendation from the Agency, or the Minister's view that it is appropriate to conduct a strategic assessment.</p> <p>10. Planning and engagement</p> <p>The Agency seeks views to help design the assessment process, and identifies opportunities and approaches for participation and engagement.</p> <p>11. Draft terms of reference are issued for public comment</p> <p>12. Minister issues the final terms of reference</p> <p>Within the terms of reference, the Minister establishes a committee or authorizes the Agency to conduct the strategic assessment.</p> <p>13. Strategic assessment is conducted according to the terms of reference</p> <p>The specific activities for the assessment are determined on a case-by-case basis, and informed by early engagement activities.</p> <p>14. Draft strategic assessment report is issued for public comment</p> <p>15. Final strategic assessment report is submitted to the Minister</p> <p>The Agency provides the Minister with advice on whether to undertake a strategic assessment. This advice is based on many considerations, including relevance to conducting impact assessment and the need for strategic-level direction, action, or decisions to address an issue.</p> <p>The Minister then determines if the Agency or a committee of independent experts will lead the assessment. The Agency typically leads strategic assessments focused on addressing common issues in impact assessment. Committees typically lead strategic assessments when external expertise and advice is needed, when multiple jurisdictions are involved, or if there is a high degree of public concern around the issue.</p>
<p>Environmental Impact Assessment (EIA)</p>	

Ecological Impact Assessment (Ecol IA)	
Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	There is no specific requirement for the consideration of alternatives within the Cabinet Directive. However, one of the guiding principles within the Guidelines is to examine the alternatives. The Guidelines state that the comparison of alternatives and their subsequent environmental effects will aid in reducing the potential environmental risks that can arise from the implementation of the proposal.
Environmental Impact Assessment (EIA)	any "alternatives to" the designated project that are technically and economically feasible and are directly related to the designated project
Ecological Impact Assessment (Ecol IA)	
Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Although there is no definition of "significance" in the IAA, the common dictionary definition of the term applies: "the quality of being worthy of attention; importance". In the context of designated projects, the extent to which a project's adverse federal effects are significant must be supported by findings based on the outcomes of the effects assessment and a consideration of the other factors set out in section 22 of the IAA. Extent of significance applies only to residual effects. ■ External technical reviews are an additional tool that can be used by the Agency or a Review Panel, consistent with subsections 26(2) and 52(2) of the IA Act. External technical reviews are a mechanism through which the most difficult science issues related to a designated project may be examined by independent experts. As the IAAC explains, external technical reviews are used, where considered necessary, to help resolve major issues of concern. External technical reviews are to: <ul style="list-style-type: none"> – complement existing review processes by federal experts and participants in an IA process to ensure a high standard of technical evaluation is applied to science in IAs; – provide an additional mechanism to access external technical expertise and a diversity of perspectives during the IA process, when required; – provide review panels with another tool, in addition to their capacity to retain a single independent expert, to access independent expertise; and – improve public confidence that evidence produced in IA processes is based on robust and reliable science and analysis.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	

Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	The Guidelines state that the analyst should consider the need for mitigation measures that would reduce the negative environmental effects and consequences of the proposal as well as consider the opportunities that exist to enhance the positive environmental effects. Specifically mitigation or enhancement measures include “changes in the proposal, conditions that may need to be placed on projects or activities arising from the proposal, or compensation measures”.
Environmental Impact Assessment (EIA)	<p>must also include a list of key mitigation measures that the proponent proposes to undertake in order to avoid or minimize any adverse environmental effects of the project.</p> <p>mitigation measures includes measures to eliminate, reduce or control the adverse environmental effects of a designated project, as well as restitution for damage to the environment through replacement, restoration, compensation or other means. Measures will be specific, achievable, measurable and verifiable, and described in a manner that avoids ambiguity in intent, interpretation and implementation. Mitigation measures may be considered for inclusion as conditions in the EA decision statement and/or in other compliance and enforcement mechanisms provided by other authorities' permitting or licensing processes</p>
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	There is no official requirement for monitoring. However, the Guidelines state that the SEA should consider the need for follow-up measures to monitor environmental effects of the proposal or to make certain that the implementation of the proposal supports the sustainable development goals. The Guidelines suggest that departments and agencies have reporting responsibilities and that they shall mention the results of their SEA practices in their Reports on Plans and Priorities and in their Departmental Performance Reports.
Environmental Impact Assessment (EIA)	<p>The proponent will prepare an environmental monitoring program for all phases of the project. Specifically, the environmental impact statement shall present an outline of the preliminary environmental monitoring program, including the:</p> <ul style="list-style-type: none"> ■ identification of the interventions that pose risks to one or more of the environmental and/or valued components and the measures and means planned to protect the environment; ■ identification of regulatory instruments that include a monitoring program requirement for the valued components; ■ description of the characteristics of the monitoring program where foreseeable (e.g., location of interventions, planned protocols, list of measured parameters, analytical methods employed, schedule, human and financial resources required); ■ description of the proponent's intervention mechanisms in the event of the observation of non-compliance with the legal and environmental requirements or with the obligations imposed on contractors by the environmental provisions of their contracts; ■ procedures for preparing monitoring reports (number, content, frequency, format, language) that will be sent to the authorities concerned; and ■ plans to engage Indigenous Nations in monitoring.
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	


Strategic Environmental Assessment (SEA)	<p>Although there is no explicit mention within the Guidelines of identifying stakeholders, there is a provision for considering stakeholders written within the definition of environment. This definition can be found within the requirements an analyst should complete during the preliminary scan.</p>
Environmental Impact Assessment (EIA)	<p>Public participation is an essential part of open, informed and meaningful impact assessment and regional and strategic assessment processes. Strong public participation also provides the Government of Canada an opportunity to share information with respect to the policy and regulatory regime in place to manage major projects, including the rigour with which they are assessed and regulated. The Government recognizes that engaging members of the public will strengthen the quality of project assessment and decision-making. To achieve this, the Government of Canada is committed to providing Canadians with the opportunity to participate meaningfully in the process and to providing them with the information needed to participate in an informed way.</p> <p>Participant Funding Programme</p> <ul style="list-style-type: none"> ■ The Impact Assessment Agency of Canada operates a Participant Funding Programme. This aims to support public engagement and Indigenous consultation during an assessment (project-specific, regional or strategic). It achieves this by providing funding at key stages of the assessment process, including the implementation of follow-up programs. The scheme is open to individuals, non-profit organizations, and Indigenous communities and organizations. Applicants must demonstrate how their participation will add value and provide relevant knowledge or expertise to the assessment. They must also meet at least one of the following criteria: <ul style="list-style-type: none"> – Have a direct local interest in the assessment, such as living or owning property in the assessment area; – Possess community knowledge or Indigenous Knowledge relevant to the assessment; – Possess expert information relevant to the anticipated impacts of the project; or – Possess an interest in a project's potential impacts on Treaty lands, settlement lands or traditional territories, or related claims and rights. ■ Successful applicants must sign a contribution or grant agreement. Once this agreement is in place, successful applicants must complete and submit a detailed financial report outlining the items where reimbursement is being sought (as supported by invoices and/or receipts).
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<p>There is no framework law in which the SEA requirement is embedded. The SEA requirement is based on the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals instead (1990), which is not legislation.</p>
Environmental Impact Assessment (EIA)	<p>The Agency's enforcement officers verify compliance and enforce the Impact Assessment Act and any conditions included in decision statements. Enforcement officers also apply a number of compliance, promotion and enforcement activities to encourage compliance with the new Act and avoid adverse effects on the environment. These activities include carrying out site inspections and investigations. Enforcement officers apply the Impact Assessment Act in a fair, predictable and consistent manner and they use the authorities and powers founded in this Act.</p> <p>The Agency may also conduct its compliance promotion and enforcement activities in cooperation with other federal, provincial and territorial governments involved in enforcing Acts and Regulations complementary to the Impact Assessment Act.</p>
Ecological Impact Assessment (Ecol IA)	
Summary and key lessons	

In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	Patterson et.al, 2022 is found to provide a suitable framework for ensuring that impacts on connectivity are properly considered and accounted for. It may actually be the most appropriate instrument for considering connectivity in EA for several reasons. Strategic environmental assessment extends beyond project-level assessments and can address issues at larger spatial and temporal scales. It is used to facilitate the integration of environmental considerations into various planning instruments such as transportation planning and landscape planning.
Environmental Impact Assessment (EIA)	One objective of federal EIA reform in Canada is to build public confidence in the process. What is essential, according to Hanna 2015, is to understand that EIA may not necessarily produce outcomes where all affected parties are happy, and there are risks associated with placing too many policy demands on EIA. What is understood is it is important to understand the possibilities offered by EIA and to make it into a reliable, transparent process with a strong legislative frame of reference and the capacity to influent decision-making. The purpose of the new EIA legislation in Canada has been to create more opportunities for participation. Aspects such as sustainability, climate change impacts of projects, and Indigenous interests have also been emphasised in Canada's new federal process.
Ecological Impact Assessment (Ecol IA)	
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<p>Noble et.al, 2018 found a common challenge to SEA effectiveness, however, is that applications are often limited by their ad hoc nature and disconnected from any larger and formal system of participatory and integrated policy, planning and development decision making. Current approaches under the Cabinet directive are restrictive and limit the potential effectiveness of SEA. Part of the challenge is rooted in how SEA is approached under the directive – as an impact assessment tool, reflecting the traditional principles and practices of project EA but applied to PPPs. SEA lacks basic scope and process requirements, and is silent on the nature and authority of resulting decision-making and adequate guidance on how the results are to be used in future policy and project decisions (Doelle, 2018).</p> <p>Ten main challenges for effective SEA implementation in Canada (Stinchcombe and Gibson, 2001):</p> <ul style="list-style-type: none"> ■ limited information and unavoidable uncertainties; ■ boundary-setting complexities; ■ primitive methodologies; ■ difficulties in defining the proper role of public participants and ensuring effective involvement; ■ co-ordination and integration of strategic assessment with assessment processes at other levels; ■ institutional resistance; ■ conflict between integrated assessment and bureaucratic fragmentation; ■ jurisdictional overlap; ■ limitations of the standard rational planning and policy making model; and ■ resistance to integration of strategic assessment in core decision making.
Environmental Impact Assessment (EIA)	Patterson et.al, 2022 found connectivity is largely absent from the EIA process, and even projects that attempted to consider connectivity lacked the rigor required to effectively assess impacts on connectivity. Projects that included connectivity as a valued component performed somewhat better, whereas the assessment of connectivity was not affected by different federal environmental acts (CEAA 1992 vs. CEAA 2012), development sectors, or proponent types. Without adequate guidance, connectivity analysis in EIA has been conducted ad hoc, with considerable variation in quality. Including connectivity consideration in EIA legislation would provide a legal framework to address the lack of policies, standards, and assessment guidelines. This study found that connectivity has largely been absent in EIA in Canada, and even when EIAs included some kind of connectivity analysis, it

	<p>was typically qualitative and lacked the depth required to accurately predict and assess impacts on connectivity resulting from planned projects.</p> <p>Recurring issues included:</p> <ul style="list-style-type: none"> i) variation in level of detail in reporting project details in the scoping phase; ii) not defining the spatial and temporal boundaries based on biological considerations; iii) poor consideration of connectivity in the alternatives assessment; iv) exclusion of the 'noproject' option from the alternatives assessment; v) lack of detail in the reporting of methods used in baseline characterization; vi) absence of quantitative methods in the characterization of baseline conditions and in the assessment of project impacts and cumulative effects assessment; vii) absence of science-based techniques when assessing and mitigating adverse effects on biodiversity and ecosystems; viii) little discussion of data limitations, knowledge gaps, and uncertainties in the EIA; ix) few details provided regarding the plan for implementing mitigation measures and follow-up studies; x) few indicators to measure the effectiveness of mitigation measures; and xi) poor quality of the assessments of cumulative effects. <p>Existing EIA legislation is not designed to promote the retention and restoration of connectivity. The most recent changes to EIA legislation in Canada in 2019 have not addressed the need for including connectivity in evidence-based decisionmaking (Doelle and Sinclair 2019)</p> <p>Hanna and Noble 2015 found the majority of the public are unfamiliar with how EIA works, the limitations of the process and its purpose. Key participation issues include few opportunities to influence decisions, and the general lack of trust in public authorities when it comes to environmental protection.</p> <p>Fitzpatrick and Sinclair 2009 found the obvious challenge has been finding an appropriate way to action the need for coordination, while respecting the decision making authority of the jurisdictions involved and ensuring the sorts of dueprocess that most EIA legislation in Canada offers</p>
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>References</p>	<ul style="list-style-type: none"> ■ Doelle, M. and Sinclair, J. (eds.) (2021) <i>The Next Generation of Impact Assessment: A Critical Review of the Canadian Impact Assessment ACT</i>. Irwin Law. ■ Gibson, R. 'An initial evaluation of Canada's new sustainability-based Impact Assessment Act'. <i>Journal of Environmental Law and Policy</i>, 33(1), pp.1-34. ■ Government of Canada (2023) <i>Impact Assessment Process Overview</i> [online]. Available at: https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/impact-assessment-process-overview.html ■ Government of Canada (2023) Overview of the Impact Assessment Act [online]. Available at: https://iaac-aeic.gc.ca/014/index-eng.aspx ■ Gumley, W. (2015) Has environmental impact assessment (EIA) lost credibility? Recent concerns from Australia and Canada. In, Martin, P. and Kennedy, A. (2015) <i>Environmental Law</i>. Cheltenham: Edward Elgar. ■ Fitzpatrick, P. and Williams, J. (2022) EIA in Canada: strengthening follow-up, monitoring and evaluation. In Fonseca, A. (Ed.) (2022) <i>Handbook of Environmental Impact Assessment</i>. Cheltenham: Edward Elgar. ■ Fitzpatrick, P. and Sinclair, J. (2009) 'Multi-jurisdictional environmental impact assessment: Canadian experiences'. <i>Environmental Impact Assessment Review</i>, 29, pp. 252–260. ■ Godinho, C., Noble, B., Poelzer, G., and Hanna, K. (2022) 'Impact assessment for renewable energy development: analysis of impacts and mitigation practices for wind energy in western Canada', <i>Impact Assessment and Project Appraisal</i>, 41(1), pp

- Government of Canada (2023) Impact Assessment Agency of Canada [online]. Available at: <https://www.canada.ca/en/impact-assessment-agency.html>
- Levac, L., Stinson, J., Manning, S. and Stienstra, D. (2021) 'Expanding evidence and expertise in impact assessment: informing Canadian public policy with the knowledges of invisible communities', *Impact Assessment and Project Appraisal*, 39:3, pp. 218-228, DOI: 10.1080/14615517.2021.1906152
- Loza, A. and Fidélis, T. (2022) 'Addressing climate change in EIA legislation and the climate-proofing of dams: a comparative analysis of Canada, Oman and Portugal', *Impact Assessment and Project Appraisal*, 40 (4), pp. 269–282.
- Mulvihill, P. (2021) 'Book review for impact assessment and project appraisal', *Impact Assessment and Project Appraisal*, 39:6, 516-517, DOI: 10.1080/14615517.2021.1968264
- Noble, B. (2023) 'EA simplification: Canadian processes and challenges', *Impact Assessment and Project Appraisal*, DOI: 10.1080/14615517.2023.2175503
- Noble, B. (2021) 'Strategic environmental assessment in Canada'. In Fischer, T. and González, A. (Eds.) (2021) *Handbook on Strategic Environmental Assessment*. Cheltenham: Edward Elgar.
- Noble, B., Gibson, R., White, L., Blakley, J., Croal, P., Nwanekezie, K. Doelle, M. (2019) 'Effectiveness of strategic environmental assessment in Canada under directive-based and informal practice', *Impact Assessment and Project Appraisal*, 37 (3-4), pp. 344-355, DOI: 10.1080/14615517.2019.1565708
- Ontario (2023) Preparing Environmental Assessments [online]. Available at: <https://www.ontario.ca/page/environmental-assessments>
- Patterson, C., Mostaçõ, F. and Jaeger, J. (2022) 'Lack of consideration of ecological connectivity in Canadian environmental impact assessment: Current practice and need for improvement', *Impact Assessment and Project Appraisal*, 40:6,481-494, DOI: 10.1080/14615517.2022.2135232
- Pölönen, I., Mikkonen, E. and Jalava, K. (2019) 'Great differences in the ways of implementing the new EIA Directive – the offerings of the EIALAW 2018 conference', *Impact Assessment and Project Appraisal*, 37:1, 88-91, DOI: 10.1080/14615517.2018.1544971.

Denmark

Denmark	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	The Ministry of Environment and Food (Sub-bodies “ Danish Nature Agency and Environment Protection Agency ” are responsible for implementing the EA Directive)
Ecological Impact Assessment (Ecol IA)	
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The Planning Act 2007 (Section 11g – 11i) [for onshore projects] implements the EU EIA Directive in Denmark broadly. ■ Order No. 1184 on assessment of certain public and private environmental installations (EIA) under the Planning Act - implements the planning act above in detail. ■ Offshore projects are implemented by a number of Acts adopted by the parliament <ul style="list-style-type: none"> – The Mining Act section 23 – The Act on Promotion of Renewable Energy (2013/1330) section 26 [regarding offshore projects]. Etc. – The Act on protection of the environment at Sea (2013/963) section 24 a (only regarding fish farms) – however no EIA provision on permits to dumping materials at Sea – The Undergrounds Act section (2011/960) section 28 a (regarding offshore extraction) – The Act on the Continental Shelf (2005/1101) section 4a – The Harbor Act (2012/457) section 2 – The Act on Coast Protection (2009/267) section 1 – Ministerial Order 579 of 29 May 2013 on environmental assessments on certain projects on the Sea Territory (covering projects not covered by the other pieces of legislation)
Ecological Impact Assessment (Ecol IA)	

Supporting guidance.	
<i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p style="color: red;">Potentially, however can't find this anywhere (language barrier)</p> <ul style="list-style-type: none"> ■ The DREAMS project has the goal of effectively addressing the SDGs within the EIA process - "To promote progress on Sustainable Development Goals (SDGs) by digitally transforming the way society accesses and communicates information about environmental impacts of projects and plans in order to enable the best decisions towards green transition in a transparent and inclusive democratic process" ■ https://unece.org/fileadmin/DAM/env/eia/documents/SEAguides/Denmark%20EA%20procedure%20guidance%20for%20bills.pdf – mainly on SEA, but touches on aspects of EIA
Ecological Impact Assessment (Ecol IA)	
Associated legislation	
<i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
Supported- The IPPC Directive as well as the IE-Directive (2010/75) is transposed through the Danish Environmental Protection Act which is a different legislation to the EIA Directive. But, they both share similar goals	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Municipal councils in Denmark are regarded as the competent authority in the EIA process. The Environmental Protection Agency is the competent authority for large projects e.g developments with turbines over 150 m. ■ For offshore projects, the relevant state agency for the permit of the project under the relevant legislative Act is the competent authority.
Ecological Impact Assessment (Ecol IA)	
Recent or emerging legislative reform in the selected jurisdiction	
<i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	N/A

Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes <i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Although this term is not directly quoted</p> <ul style="list-style-type: none"> ■ Environmental aims (The planning act)- protect the countries nature and environment, create/conservate environments, prevent pollution of air, water, soil and noise nuisance) ■ Mineral Resources Act (Regulations)- taken in consideration for the preservation of animal, human and plant life and liability shall be put onto the responsible entities creating environmental pollution ■ Renewable energy act (purposes)- promote production of energy in accordance with environmental considerations to reduce dependence on fossil fuels, ensure security of supply and reduce emissions of CO2 and other greenhouse gases
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points <i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ It is my understanding that the competent authority (counties etc), and not the developer is responsible for conducting the EIA and writing the EIA Report. The developer provides the necessary information for this decision making. “Under section 5(3) and Annex 4 of the Ministerial Regulation no. 764 of 23 June 2014 on Environmental Impact Assessment of certain private and public projects under the Planning Act” – older legislation that has been repealed by another. However, I presume it is somewhere in the new one.
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental	

Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Data is mainly collected by municipalities and governmental organisations (Danish Environmental Protection Agency) ■ Danish Geodata Agency (Geodatastyrelsen) ensures that geographical information about land and sea is collected, quality checked and made accessible on the internet ■ The Danish Miljøportal (Environmental Portal) is a joint public partnership¹⁴ owned by the state, the municipalities and the regions, which aims to support digital environmental management in Denmark. The basic idea is that the state, municipalities and regions enter, update and retrieve data from the same databases, and that data is also made available to companies and citizens. The portal includes data on the environment, water, nature, land use and climate adaptation. Currently the site delivers data to over 100,000 direct users as well as to over 100 external systems. The portal has approximately 1 million users. The database supposedly has 11.5 million species registrations and 100+ databases. ■ The portal continues to evolve, with the intention to add further data about the digital circular economy and climate adaptation. The database has been developed in collaboration, with the project being supported with more than 150 representatives from the state, municipalities and regions, who meet in project and follow-up groups. Challenges and opportunities are discussed via these groups so that possible solutions can be found. ■ The database has separate public and professional service 'log-ins'.
Ecological Impact Assessment (Ecol IA)	
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The criteria governing the EIA-screening under the Planning Act was laid down in the ministerial regulation no. 764 of 23 June 2014 on Environmental Impact Assessment of certain private and public projects under the Planning Act section 3(2) which requires that decision is made case by case based on the criteria laid down in Annex III of the EIA Directive which are copied in the ministerial order. ■ Screening decisions can be appealed by developers citizens and NGO's
Ecological Impact Assessment (Ecol IA)	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental	

¹⁴ Danmarks Miljøportal (2023) 'About Denmark's Environment Portal' [online]. Available at: <https://miljoportal.dk/om-danmarks-miljoportal/>

<p>ntal Assessmen t (SEA</p>	
<p>Environme ntal Impact Assessmen t (EIA)</p>	<ul style="list-style-type: none"> ■ Until 2013 there was no legislation regarding scoping. Section 4 of the Ministerial Regulation no. 764 of 23 June 2014 on Environmental Impact Assessment of certain private and public projects under the Planning Act reflected the first change in legislation. ■ If an EIA procedure is required, an environmental impact assessment must be made in accordance with the scoping decision.
<p>Ecological Impact Assessmen t (Ecol IA)</p>	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
<p>Strategic Environme ntal Assessmen t (SEA</p>	
<p>Environme ntal Impact Assessmen t (EIA)</p>	<p>A more comprehensive scoping practice is also a part of establishing a more integrated foundation upon which to conduct EIAs</p> <p>The extended role attributed to the competent authority in the Danish EIA system makes the legal requirement to conduct EIAs less important for EIA effectiveness. At the same time the substantial role of the competent authority appears to make EIA effectiveness more dependent upon the willingness of competent authority and the project proponent to go beyond regulatory requirements.</p>
<p>Ecological Impact Assessmen t (Ecol IA)</p>	
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environme ntal Assessmen t (SEA</p>	
<p>Environme ntal Impact Assessmen t (EIA)</p>	<ul style="list-style-type: none"> ■ According to legislation, information provided by the developer must include a list of the most important alternatives considered and a reason behind the chosen option. Including an explanation of the environmental impact of the alternatives including the “no change scenario”.
<p>Ecological Impact Assessmen t (Ecol IA)</p>	
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i></p>	

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Scoping within EA is, as defined by Glasson and Chadwick (1999), the stage in which one is '[. . .] determining, from all a project's possible impacts and from all the alternatives that could be addressed, those that are key, significant ones'. This indicates that the primary objective of scoping is ensuring that potentially significant impacts are considered in further assessments and that insignificant impacts are disregarded</p> <p>According to the present rules, all projects with significant impacts should be regulated either by sectoral permits/licenses or by an EIA-permit.</p>
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Impact assessment practitioners emphasise the need for both mitigation and adaptation to be considered in EIA reporting. Thus, it seems that the potential to implement adaptation measures through EIA is missed and that an increased focus on adaptation is called for.</p> <p>Prominent role of the public can lead to improved reporting of environmental issues</p>
Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Mitigation measures and the regulatory efforts largely mirror traditional regulations, such as the law of environmental protection and other sectoral legislation ■ mitigation measures often stand out as small, traditional abatement measures which only have a small, albeit necessary role to play “in order to avoid, reduce and, if possible, remedy significant adverse effects”
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The monitoring of calculated environmental impact of the project is not published in the environmental impact assessment but access to this documentation can be granted by the developer if deemed necessary.
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The competent authority is under an obligation to take the comments of all members of the public and stakeholders into account. There is no established legislation on access to documentation, however the public have a right to appeal development consent and project plans to the Nature and Environment Appeal Board.
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ There are four categories of EIA-decisions which are subject to appeal from the effected part of the public including NGO: (1) The decision after the EIA screening to require an EIA procedure, (2) The decision that EIA procedure is not needed, (3) the development consent and (4) the local and municipal plans adopted needed for the project. Under the Planning Act, the appeal goes to the Nature and Environment Appeal Board and under the Energy Supply Act, the appeal goes to the Energy Appeal Board. Regarding projects adopted by legislator the development consent can only be appealed to the court – but in all cases, standing has been accepted as lastly the Supreme Court ruling in the Österild-case (UfR 2012.2572) regarding a new site for testing huge wind mills (up to 250 meter high). When offshore projects are permitted by the Minister of Transport, there is no appeal to the Nature and Environment Appeal Board but legal action can be taken before courts under in principle the same legal review. One case is actually pleading a Danish Court regarding the lack of EIA-screening before changes of environmental conditions in the Metro project was approved. ■ The criteria for legal standing against the development consent or the plan linked to the EIA is following the Aarhus Convention art. 9(2) meaning that all individuals direct or indirect effected by the projects and all environmental NGOs have standing. The last time this standing was questioned by the authorities (the Minister of Environment) was in the Österild-case (UfR 2012.2572) regarding a new site for testing huge wind mills. The standing for individuals which will be able to see the windmills from their house and local

	<p>NGOs was upheld by the Western High Court and the Supreme Court except for some few individuals which not in any was physically effected by the project (could not even see the windmills) meaning that the ideal opinion of an individual not in itself is sufficient to establish standing.</p>
<p>Ecological Impact Assessment (Ecol IA)</p>	

Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p><u>What's working well?</u></p> <p>Within a Danish EIA context, the SDGs can help to qualify and strengthen the process of scoping for mandatory parameters in especially 'population & human health' and hereby contribute to a more comprehensive implementation of the parameter as required by the European EIA Directive.</p> <p>EIA does generate a significant number of changes to projects. However, most of these could be considered as minor. EIA is characterized by being based upon a broad concept of the environment. It was found that a progressive narrowing of the concept of environment takes place during the course of the EIA process.</p> <p>EIA cases gave a broad, holistic description and analysis of the environment likely to be affected plus the relevant impacts.</p> <p><u>Lessons learnt</u></p> <p>EIA in a Danish setting could definitely still be improved.</p> <p>It could also be asked whether EIA really makes a difference. One of the conclusions here is that the difference could be greater, if the potentials for broader, holistic assessments were realized. Better descriptions of environmental impacts lead to further modifications and better mitigation.</p> <p>Increase the focus either on the indirect negative impact in the renewable energy projects or on enhancement of the positive impacts, in order to use the potential of EIA to make improvements and work towards the aim of creating more sustainable solutions.</p>
Ecological Impact Assessment (Ecol IA)	
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Although, in principle EIA offers a holistic and proactive methodology, it does not seem to lead to a more holistic and proactive regulation which covers more ground than traditional planning and environmental regulation</p> <p>EIA regulations do not reflect the broader environmental concept. Although the first step in the EIA process, the description of the environment affected, is broad in focus and in accordance with the intentions set out in the EU Directive, a progressive narrowing of the environmental concept takes place. This narrowing is acutely obvious when the significance of impact is assessed. This tendency is more pronounced in livestock and industry projects than in infrastructure cases. Even more problematic is that the narrowing continues when it comes to prescribing mitigation measures for projects. In the final analysis, the results of EIA are not that different from traditional assessments. So, although EIA starts out with a broad analysis and assessment of impacts, for the most part, it produces sector-oriented regulation.</p>
Ecological Impact Assessment (Ecol IA)	

References

- Boess, E, Lyhne, I., Davila, J, Jantzen, E., Kørnøv, L. (2021) 'Using Sustainable Development Goals to develop EIA scoping practices: The case of Denmark', *Impact Assessment and Project Appraisal*, 39:6, 463-477, DOI:10.1080/14615517.2021.1930832
- Christensen, P., Kørnøv, L. and Nielsen, E. (2005) 'EIA as regulation: does it work?', *Journal of Environmental Planning and Management*, 48:3, 393-412, DOI: 10.1080/09640560500067491
- Kørnøv, L., Christensen, P., Nielsen, E. (2005) 'Mission impossible: does environmental impact assessment in Denmark secure a holistic approach to the environment?', *Impact Assessment and Project Appraisal*, 23:4, 303-314, DOI:10.3152/147154605781765427
- Larsen, S. (2014) Is environmental impact assessment fulfilling its potential? The case of climate change in renewable energy projects, *Impact Assessment and Project Appraisal*, 32:3, 234-240, DOI: 10.1080/14615517.2014.898386
- Lyhne, I., van Laerhoven, F., Cashmore, M., and Runhaar, H. (2017). Theorising EIA effectiveness: A contribution based on the Danish system. *Environmental Impact Assessment Review*, 62, 240–249. <https://doi.org/10.1016/J.EIAR.2015.12.002>

Finland

Finland	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The Ministry of the Environment- Contact authority for international environmental impact assessments. ■ Finish Environment Institute- If a project/plan from another country is likely to have an environmental impact in Finland they are responsible for informing Finish authorities.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The Ministry of the Environment is the main contact for all environmental impact assessments in the country
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Legislation was revised in 2017 and implemented in 2019: <ul style="list-style-type: none"> – The Act on the EIA Procedure- https://finlex.fi/fi/laki/ajantasa/2017/20170252 – Decree on EIA Procedure- https://finlex.fi/fi/laki/ajantasa/2017/20170277 ■ The first EIA legislation was enacted in 1994 (Act on the EIA Procedure), based on EIA Directive of 1985- with the objective to promote environmental impact assessments and integrated consideration of planning and decision-making and at the same time to increase public access to information and opportunities for participation in the procedures - http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/85506/95760/F1926939742/FIN85506.pdf- Original text is only in Finish which creates a barrier. However, updates to the legislation made in 2017 are in English. ■ New legislations covering environmental assessments came into force in 2005, including obligations from earlier legislation and was drafted in accordance with both EU SEA Directive of 2001 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN ■ And UNECE Protocol on Strategic Environmental Assessments https://unece.org/DAM/env/eia/documents/legaltexts/protocolenglish.pdf
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Article 14 of UN Convention on Biological Diversity 1992, calls for EIA procedures to take into account impacts on biodiversity- https://www.cbd.int/convention/articles/?a=cbd-14 ■ The EU Habitat and Birds Directive are key legislative tools to conserve the EU's wildlife and deliver on biodiversity strategies- https://ec.europa.eu/environment/nature/info/pubs/docs/brochures/nat2000/en.pdf

	<ul style="list-style-type: none"> ■ Environmental Protection Act 2014, amendments up to 2019- purpose 2: safeguard a healthy, pleasant, ecologically sustainable and biologically diverse environment, support sustainable development and combat climate change ■ https://www.finlex.fi/en/laki/kaannokset/2014/en20140527_20190049.pdf
Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Arctic Environmental Protection Strategy, Guideline for EIA in the Arctic 1997 https://unece.org/DAM/env/eia/documents/EIAGuides/Arctic_EIA_guide.pdf ■ Impact assessment Guidelines- Ministry of Justice 2008- Page 31-33 (EIA) https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/76118/omju_2008_4.pdf?sequence=1
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ National guidelines were published in 2003 for bio-diversity in various land-use projects- Document not available (Söderman, T., 2003. Biodiversity impact assessment in regional planning, environmental impact assessment and Natura 2000 assessment. Environment Guide, 109)
Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	Hierarchy of power/responsibility <ul style="list-style-type: none"> ■ Nationally- Ministry of Environment- Main actor for developing environmental policy, responsible for planning, guidance, and legislation. Includes the Finish Environment institute, Housing Finance Development Centre for Finland, Centres for economic development, transport and environment ■ Regional- Centres for Economic development, transport and the environment, regional state administrative agencies The regional Centres for Economic Development, Transport and the Environment (ELY Centres) are responsible for the regional implementation and development tasks of the central government. There are 15 centres in total, with the network being managed by the Ministry of Employment and the Economy. However, the centres also help with the operation of other government departments, including the Ministry of the Environment. ■ Small Scale- Environment Protection authorities of the municipalities
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Ministry of the Environment- Formulates the governments environmental policies such as ecological governance, supervisors both local and regional agencies
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Proposed changes are being sought- Remove unnecessary regulatory burdens <ul style="list-style-type: none"> – Amendments to the act on EIA Procedure – Provisions of the Mining Act- facilitate the permitting and administrative processes ■ A reform of legislations is required to meet the following targets: <ul style="list-style-type: none"> – Increase the share of renewable energy to over 50% – Use of imported oil halved during the 2020s
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ New Nature Conservation Act, approved by government May 2022- provisions on voluntary ecological compensation, threatened habitats, management of data on the natural environment, and national biodiversity strategy and action programme. Climate change adaptation is also included in the objectives of the Act.
Link to environmental outcomes <i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Land, soil, water, air, climate, vegetation and organisms and biodiversity, in particular species and habitats protected under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds ■ DIRECTIVE 2001/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment- Article 174 of the Treaty provides that Community policy on the environment is to contribute to, inter alia, the preservation, protection and improvement of the quality of the environment, the protection of human health and the prudent and rational utilisation of natural resources and that it is to be based on the precautionary principle. Article 6 of the Treaty provides that environmental protection requirements are to be integrated into the definition of Community policies and activities, in particular with a view to promoting sustainable development ■ PROTOCOL ON STRATEGIC ENVIRONMENTAL ASSESSMENT TO THE CONVENTION ON ENVIRONMENTAL IMPACT ASSESSMENT IN A TRANSBOUNDARY CONTEXT- Objectives <ul style="list-style-type: none"> – Ensuring that environmental, including health, considerations are thoroughly taken into account in the development of plans and programmes – Contributing to the consideration of environmental, including health, concerns in the preparation of policies and legislation – Integrating by these means environmental, including health, concerns into measures and instruments designed to further sustainable development
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ EU Birds and Habitat Directive <ul style="list-style-type: none"> – Protect all wild birds and their most important habitats across the EU – Ensure that all species/habitat types are maintained/restored to a favourable conservation status – Halting further decline and disappearance – Aim is to ensure species/habitats recover sufficiently to enable them to flourish long term ■ Environmental Protection Act

	<ul style="list-style-type: none"> – Seeks to prevent the pollution of the environment and any risk of this; prevents and reduces emissions; and seeks to eliminate adverse impacts caused by pollution and prevent environmental damage – safeguard a healthy, pleasant, ecologically sustainable and biologically diverse environment, support sustainable development and combat climate change – Promote sustainable use of natural resources, reduce the amount and harmfulness of waste, and prevent adverse impacts caused by waste – Make the assessment of activities causing pollution and the consideration of the impacts as a whole more effective – Improve the opportunities of citizens to affect decision-making concerning the environment
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Procedure and practice

General points
Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Anyone (Citizen/company/institution/authority) may initiate the EIA procedure ■ Centre for Economic Development, Transport and the Environment and make a decision on whether to apply for EIA procedure to a project not included on the list of projects provided for in the EIA act but which may still have effects on the environment
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Produced- Finish Environment Institution with help from Institute for European Environmental Policy and other national research institutes ■ Paid- Finish Ministry of the Environment

Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Finland's joint environmental administration portal- source of most comprehensive environmental data. They develop and distribute data from environmental information data systems, spatial information systems and remote sensing datasets. Environmental and geographical informational services are available free of charge to the general public and to other users through the OVIA service
Ecological Impact Assessment (Ecol IA)	

Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?

Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Screening is the decision to identify and specify the type of assessment to be applied to a project ■ Effective EIA should provide comprehensive coverage of projects likely to have significant adverse effects on the environment, screening is vital to determining the need for this.

	<ul style="list-style-type: none"> ■ Screening is implemented into practice well. Jalva et.al, 2012 study found nearly all professional respondents agree the level of screening is appropriate https://www.tandfonline.com/doi/pdf/10.3152/146155110X488826
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Notable gap- Ecological screening has not been applied to forestry which is the main causes of biodiversity loss in the country
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ EIA scoping is the stage where contents and extensiveness of environmental information to be gathered and reported in environmental assessments are outlined. Scoping is a balance between a pre-cautious approach and effective decision making. ■ If scoping fails, it means excessive resources are spent on minor impacts/irrelevant issues and too little attention is given to significant impacts. ■ Public consultation is mandatory in the scoping phase
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Defining appropriate study boundaries and studied biodiversity elements given the nature of potential interactions between a plan proposal and receiving environment ■ Scoping is performed by an ecology consultant rapidly without any definite procedure ■ Needs to be more discussion between planners and consultants at the scoping stage to select biodiversity elements to be surveyed and possible impacted areas outside the masterplan in order to identify the total effect of development
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Expectations- Assessment of the environmental effects of a plan/programme and its alternatives, preparation of an environmental report, carrying out consultations, taking into account the environmental report and the consultation results in decision-making and provision of information on the decision ■ Provisions, part on the Act on EIA Procedure- promote environmental impact assessment and the uniform consideration of assessment in planning and decision-making, while at the same time increasing access to information and opportunities for everyone to participate.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Provisions as part of the Bird/Habitats Directive- provision of clean air/water and flood/erosion control, establish a strict protection regime/designation of core sites, protection of certain species ■ Provisions of the Environmental Protection Act 2014 <ul style="list-style-type: none"> – prevent the pollution of the environment and any risk of this, prevent and reduce emissions, eliminate adverse impacts caused by pollution and prevent environmental damage; – safeguard a healthy, pleasant, ecologically sustainable and biologically diverse environment, support sustainable development and combat climate change;

	<ul style="list-style-type: none"> – promote sustainable use of natural resources, reduce the amount and harmfulness of waste, and prevent adverse impacts caused by waste; – make the assessment of activities causing pollution and the consideration of the impacts as a whole more effective; – improve the opportunities of citizens to affect decision-making concerning the environment
Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ A good EIA includes a clear discussion over alternatives- alternatives have an essential role in avoiding/minimizing negative environmental consequences ■ If alternatives are not considered the in practice EIA can't achieve its purpose to provide information for decision-making ■ In Finland developers have a large role in determining alternatives but this is not always enforced to happen in practice. ■ Alternatives in practice is often case dependent. They are also time dependent- if EIA starts after the location is decided then the question surrounding alternatives is if it is feasible in the location in question
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Ideas on how to avoid adverse effects on biodiversity should be detailed in drafting the planning proposal. ■ Producing alternative ecological solutions and evaluating alternative solutions requires a landscape level ecological assessment to preserve the vitality of organisms.
Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Once the EIA report has been completed, the contact authority will issue a reasoned conclusion on the assessment report, in which the contact authority will draw conclusions on the significant environmental impacts of the project. ■ The environmental impacts of plans and programmes must be assessed if these may have significant environmental impacts. ■ An effective EIA system should provide comprehensive coverage of projects likely to have significant adverse effects on the environment. ■ Assessment of significance is subjective, a three member panel was used to create an opinion on written statements by Central Finland Official EIA Team.
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	

Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Describe what impacts will be investigated, when the impacts have been determined, collate information submitted during consultation into an assessment report and submit to the Centre for Economic Development, Transport and the Environment ■ For projects that are likely to generate significant environmental impacts, developers are required to prepare an assessment programme, that is, a scoping report and an assessment report (AR)
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The quality of reporting has improved over time with respect to direct impacts on individual habitat types and species and detailed mitigation measures. ■ Reporting includes documenting the assessment process and concluding whether the plan or project affect the integrity of the site.
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Purpose of EIA is to mitigate adverse environmental impacts through proposing measures, these measures prevent significant environmental impacts. ■ Challenges for practice- often unclear what they are and which are put into practice ■ Reject project applications on environmental grounds if harm cannot be avoided by mitigation measures
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Reasons for ecological mitigation measures (tree planting/landscaping) not being imposed where not due to biodiversity issues but visual impacts and how these impacted on the local residents. ■ In practice there are inadequacies in mitigation descriptions, reports don't always specify which impacts some proposed measures were designed to mitigate. Also, feasibility and effectiveness of some measures are not fully addressed.
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The role of follow-up monitoring into practice could be strengthened, rarely been studied even though it is widely acknowledged. ■ Either voluntary or statutory, varies depending on the group.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Crucial for understanding how development projects affect species ■ More emphasis should be given to biodiversity monitoring programmes, including follow ups with scientists, operators and consultancies who perform the monitoring. This leads to high quality biodiversity monitoring.
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Fundamental part of EIA to allow potential for communicative planning to enhance the possibilities for public participation

	<ul style="list-style-type: none"> ■ Public participation is governed by the Administrative Procedure Act- https://www.finlex.fi/en/laki/kaannokset/2003/en20030434.pdf which contains provisions on good administration and on the procedure applicable in administrative matters ■ In Finland, there is also a well-established practice in public participation in legislative drafting. ■ Stakeholder engagement during EIA <ul style="list-style-type: none"> – Public hearing events in both EIA programme and reporting phases – A work shop including inhabitants from the costal area, companies and other significant actors – Panel discussion for the near by inhabitants – Experts will answer the questions – Questionnaire for the inhabitants and/ or work shop to discuss the route alternatives and the location of the artificial island ■ Public engagement is looking to be implemented into practice by the creation of interactive online services through the running of a website. However, issues develop such as language barriers which leads to confusion in understanding the presented information. ■ Finland has an Action Plan on Open Government, which encourages citizen participation across the board. The plan includes commitments and measures to promote openness and citizen participation. On the local level, there have been some innovative projects to support public participation by combining it with environmental awareness.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Public participation and stakeholder involvement have become an integral part of sustainable natural resources management. ■ Access to environmental information is restricted, which is exceptional in modern environmental and natural resource law. There is a need to strengthen participatory elements to improve environmental and social sustainability.
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ When monitoring identifies problems, a range of responses may be appropriate. The Finnish authorities do not publish information on how the administration follows up on reports of non-compliance. Furthermore, no information is published on responses to cross compliance breaches on nitrates and nature. Finland has produced a yearly report on environmental crime since 1998, with detailed statistics on environmental offences. ■ Tackling waste, wildlife and other environmental offences is especially challenging. It requires close cooperation between inspectors, customs authorities, police and prosecutors. Finland has a national-level working group for the coordination of preventative work against Environmental crime, as well as regional-level working groups (17 groups all around the country). Cooperation between authorities is done at these two levels and across working groups. ■ There are several competent authorities that enforce environmental legislation. Generally, the competent supervisory authorities are the regional Centres for Economic Development, Transport and the Environment and municipalities. ■ Generally, environmental legislation is strictly enforced by the competent authorities as usually by law they must take enforcement action. However, some discretionary powers exist. There has been recent public debate about the lack of resources available to the authorities, and in some cases this lack of resources has been blamed for causing prolonged procedures. However, generally the authorities carry out their duties in an efficient manner.

	<ul style="list-style-type: none"> ■ The competent authority intervenes if operations cause a threat to human health or to the environment, or if the operations otherwise breach applicable law. If an unlawful operation comes to the attention of the competent authority, it usually intervenes by: <ul style="list-style-type: none"> – Urging compliance. – Issuing an administrative order combined with a penalty payment. – Reporting the environmental offence to the police.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Animal offences are acts and neglect that cause pain or suffering to an animal. ■ Aggravated animal welfare offences, animal welfare offences and petty animal welfare offences are defined in the Criminal Code. Animal welfare infringements are defined in the Animal Welfare Act. ■ Offences against animals are also included in nature conservation offences as well as hunting and fishing offences.
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ EIA has achieved a meaningful role in environmental policy, enhancing possibilities for high-quality environmental decision making ■ Liaison authority is a clear strength- enabling single regional authority to specialise in/gain wide experience on EIA issues
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ EU and Finnish legislation and guidance on environmental impact assessment provide a good framework for effective utilisation of the instrument <p>Lessons Learnt</p> <ul style="list-style-type: none"> ■ to improve the effectiveness of EIA would be to strengthen the legal provisions on development consents ■ EIAs could be used more effectively for learning and understanding what kind of concerns or hopes a certain development may generate. ■ More emphasis should be given to the design of biodiversity monitoring programs, including follow-ups together with scientists, project operators, and consultancies, which typically perform the monitoring. This would result in high-quality biodiversity monitoring and learning from the EIA ■ Discussions about sustainability, risks, and uncertainties cannot be decontextualized. They need to be communicated and constructed and evaluated uniquely in each EIA if a purposeful process is desired
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Key constraint of EIA effectiveness is inadequacy of the action-forcing mechanisms at the decision-making phase ■ the significance of various quality aspects attached to practice is quite relative, which is a challenge for EIA quality control and evaluation ■ It has been recognized that adaptivity and flexibility are two of the strengths of EIA (Pope et al. 2013), but at the same time, these features pose a challenge regarding EIA quality evaluation

	<p>and practice improvement. Legislation provides definitions and regulates procedural steps, but it leaves much room for interpretation</p> <ul style="list-style-type: none"> ■ It remains unclear how to operationalize the assessment tasks in the most appropriate way and thus achieve EIA objectives effectively (Wathern 1988, Lawrence 2003, Glasson et al. 2012). ■ EIA quality evaluation is a challenging task and that, from the point of EIA's environmental effectiveness, EIA quality can be considered a relative concept. ■ The challenges and problems that are unavoidable in EIA procedures appear to be familiar to practitioners and the research community. The importance of decontextualized quality evaluations that are performed to increase the understanding of mechanisms that would improve the effectiveness of environmental impact assessments in regard to these wellknown problems can be considered questionable. Evaluation using general criteria can verify that certain aspects are dealt with, and it can be used in comparison of the features of similar cases. However, using this methodology, it appears difficult to provide new views of how EIA processes actually work or should work.
References	<ul style="list-style-type: none"> ■ Environment-Finland (2013) Finland's Environmental Administration [online]. Available at: https://www.environment.fi/en-US/Finlands_environmental_administration(24294) ■ Environment-Finland (2020) <i>Environmental Impact Assessment</i> [online]. Available at: https://www.environment.fi/en-US/Forms_permits_and_environmental_impact_assessment/Environmental_impact_assessment ■ Holma, A., Leskinen, P., Myllyviita, T., Manninen, K., Sokka, L., Sinkkoe, T. and Pasanen, P. (2018) 'Environmental impacts and risks of the national renewable energy targets– A review and a qualitative case study from Finland'. <i>Renewable and Sustainable Energy Reviews</i>, 82, pp. 1433-1441. ■ Jalava, K., Pölönen, I., Hokkanen, P. and Kuitunen, M. (2013) 'The precautionary principle and management of uncertainties in EIAs – analysis of waste incineration cases in Finland'. <i>Impact Assessment and Project Appraisal</i>, 31:4, 280-290, DOI:10.1080/14615517.2013.821769 ■ Koivurova, T., Katri-Maaria, K. and Singh, K. (2022) EIA in Finland: the influence of international norms on the founding and evolution of national impact assessment systems. In Fonseca, A. (Ed.) (2022) <i>Handbook of Environmental Impact Assessment</i>. Cheltenham: Edward Elgar. ■ Ministry of the Environment (2023) Environmental Impact Assessment [online]. Available at: https://ym.fi/en/environmental-impact-assessment

Germany

Germany



The national body for defining the regulatory framework and processes (e.g. government department)

The central body, or bodies, responsible for drafting and maintaining legislation and processes

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> Federal Ministry for Environment, Nature Conservation, Nuclear Safety and Consumer Protection is a cabinet-level ministry of the Federal Republic of Germany. The then Federal Government wanted to combine environmental authority under a new minister in order to face new environmental challenges more effectively.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

Legislation

The legislative basis to the selected regime

Strategic Environmental Assessment (SEA)	<p>1975- Cabinet Directive on the Environment Assessment Principle for Federal Public Measures</p> <p>1990- Act on Implementation of the Council Directive on the Assessment of the Effects of Certain Public and Private Projects on the Environment, updated 2011 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0092&from=EN</p>
Environmental Impact Assessment (EIA)	<p>Regulated through National Legislation, domestic legislation (International/EU law)</p> <ul style="list-style-type: none"> Published 1990, amended 2000, Emission control under the Federal Emission Control Act- https://germanlawarchive.iuscomp.org/?p=315 Published 1994, amended 200, Waste control, disposal and management under the Closed Cycle Management Act- https://germanlawarchive.iuscomp.org/?p=303 Amended 2002, Water control and management under the Federal Water Resources Act- https://faolex.fao.org/docs/pdf/ger36430E.pdf 1998 Soil conservation under the Federal Soil Protection Act- http://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html 2009, Nature and landscape conservation under the Nature Protection and Landscape Conservation Act- https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Naturschutz/bnatschg_en_bf.pdf Published 1990, amended 1997, Environmental impact assessment under the Environmental Impact Assessment Act- https://germanlawarchive.iuscomp.org/?p=312 <p>European legislation sets out basic requirements regarding environmental impact assessments (EIA) and strategic environmental assessments (SEA) at national level.</p> <ul style="list-style-type: none"> German- Act on Strategic Environmental Assessments- https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Umweltpruefungen/sea_protokoll.pdf <p><i>Only available in German which creates a translation barrier</i></p> <ul style="list-style-type: none"> European- 2001 SEA Directive- https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:197:0030:0037:EN:PDF

	<p>and Public Participation Directive- https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1997:073:0005:0015:DE:PDF</p> <p><i>Only available in German which creates a translation barrier</i></p>
Ecological Impact Assessment (Ecol IA)	
<p>Supporting guidance.</p> <p><i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Experts at federal and Länder level have compiled non-binding guidelines on carrying out environmental assessments. These guidelines contain information concerning the application and interpretation of the new EIA regulations, the strategic environmental assessment procedures and the screening (case-by-case examination) required when determining whether an EIA must be carried out for a specific project. ■ For SEA- DAC Guidelines and Reference Series, Applying Strategic Environmental Assessment, Good Practice Guidance for Development Co-operation. Germany is a member alongside many other countries. Produced in 2006 spread across a 164 page document. It is a living document to be updated as significant new experiences emerge. Range of training- technical, awareness raising workshops, networking, education, capacity building and seminars. ■ BMU (2010) Federal SEA Guidance (Leitfaden zur Strategischen Umweltprüfung (Langfassung) Forschungsvorhaben 206 13 100 im Auftrag des Umweltbundesamtes März 2010.) Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit), Bonn and Berlin (available at: https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Umweltpruefungen/sup_leitfaden_lang_bf.pdf) ■ Bundesnetzagentur (2021) Methods Guidance for SEA in Federal Transmission Grid Planning in Germany (Strategische Umwelt Prüfung (SUP): Die Methode der SUP zum Bundesbedarfsplan), Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen, August 2021 (available at: https://www.netzausbau.de/SharedDocs/Downloads/DE/Methodik/SUPMethode.pdf?__blob=publicationFile)
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
<p>Associated legislation</p> <p><i>Are the goals of the selected regime supported / frustrated by other legislation?</i></p>	
<ul style="list-style-type: none"> ■ No uniform environmental code has been adopted in Germany. Consequently, federal and state agencies have different powers with regard to enforcement. 	
<p>Governance arrangements, including roles and responsibilities at a national, regional / state and local level</p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ According to Article 9b of the Federal EIA Act the competent authority in Germany is the same authority that would be responsible for the project (The Lander Authority). ■ The authority responsible for approving a project is tasked with evaluating the information and comments and with taking account of the results of the EIA when deciding whether to approve a project.
Environmental Impact Assessment (EIA)	

	<ul style="list-style-type: none"> ■ In Germany, EIA is an integral part of licensing procedures and of other forms of procedures (e.g. siting procedures). Apart from a few exceptions, the authorities of the German States (Länder) are responsible for these procedures. Usually these are authorities on the local, regional or very seldom the Länder level. According to the Federal EIA Act, the transboundary EIA procedure is integrated into the national EIA procedure. The authority that is responsible for the decision on the project (licensing authority) is thus also responsible for the transboundary EIA including the notification. The Federal level or the Ministries of the German States are usually only involved in the transboundary EIA procedure if any problems could not be solved in the spirit of communication and cooperation between the competent German authority and the competent authority of an affected Party. In the case of Germany as affected Party, the authority that would be responsible for a similar project in Germany is responsible for the transboundary EIA procedure on the German side. Under the German constitution ('Basic Law') Germany is a federal state. Therefore, the tasks and competencies are distributed between the Federal level and the German States (Länder). In principle, the Federal level is inter alia competent for international negotiations and the federal legislation in the framework of the constitution. The German States and their authorities on local, regional and Länder level are inter alia competent for the practical application of the federal legislation. Following this system, the licensing procedures for projects and activities and the integrated EIA procedure are usually carried out by authorities of the German States on local, regional and Länder level. This is the reason why the Federal level is not fully informed about any practical experience in applying the legislation on EIA, including transboundary EIA.
Ecological Impact Assessment (Ecol IA)	
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Amended Climate Protection Act- frontloads parts of the adjustment burden and commits Germany to becoming greenhouse gas neutral by 2045, five years ahead of its previous target and also ahead of the EU's target date. A 65% reduction in greenhouse gas emissions is required by 2030, compared to 1990, instead of the previously set 55%.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Supply Chain Due Diligence Act- imposes mandatory human rights and environmental due diligence obligations on companies in Germany as of 1 January 2023.
Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes <i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Article 32 of Federal Water Act <ul style="list-style-type: none"> – protect or improve the ecological structures of bodies of water and their flood areas, – prevent intervention which could promote erosion, – preserve or restore natural retention areas, or – control flood water run-off. ■ Federal nature Conservation Act <ul style="list-style-type: none"> – protecting, improving the quality of and regenerating soils, water bodies, air and climate ■ Assessment of the effects of certain plans and programmes on the environment <ul style="list-style-type: none"> – Article 174 of the Treaty provides that Community policy on the environment is to contribute to, inter alia, the preservation, protection and improvement of the quality of the environment, the protection of human health and the prudent and rational utilisation of natural resources and that it is to be based on the precautionary principle. Article 6 of the Treaty provides that
Environmental Impact Assessment (EIA)	

	environmental protection requirements are to be integrated into the definition of Community policies and activities, in particular with a view to promoting sustainable development.
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points	
<i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ SEA is usually conducted by the plan or programme developing agency ■ SEA responsible agencies, namely the Federal Grid Development Agency (BNetzA) and the Federal Maritime and Hydrographic Agency (BSH) ■ In Germany, SEAs are within the responsibility of the plan or programme making agency and quality assurance is not specifically organized, but implicitly left to agencies with health and environmental responsibilities during regular agency consultations in SEAs
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ No permits or licences are required to begin an EIA. The EIA is prepared by the project developer and conducted by the permitting agency and forms an integral part of the permitting procedures. For projects requiring an EIA, the relevant Emission Control Act permit or planning approval cannot be issued without the permitting agency having conducted and taken into account the EIA. In some cases, planning consent for an EIA project requires the consent of several public authorities of the federal states. The individual federal states must appoint one lead authority between them. However, this authority only has co-ordination powers.
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The environmental research database UFORDAT, provided by German Federal Environment Agency (UBA)- contains descriptions of environmentally relevant research and development projects from German-speaking countries (Germany, Austria, Switzerland). The database has been maintained by the Federal Environment Agency since 1974. The database contains both publicly funded projects (federal government, federal states, municipalities, EU) as well as projects financed by foundations, associations, clubs ■ UBA data on the environment. In the data on the environment you will find current data, trends and assessments of the environmental situation in Germany. You get direct access to the data search, the thematic environmental atlas and other data-related offers from the Federal Environment Agency.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?	
<i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i>	
Strategic Environmental Assessment (SEA)	<p>Screening criteria in accordance with Annex II of the SEA directive</p> <p>Criteria for determining the likely significance of effects referred to in Article 3(5)</p> <p>1. The characteristics of plans and programmes, having regard, in particular, to</p>

	<ul style="list-style-type: none"> — the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources, — the degree to which the plan or programme influences other plans and programmes including those in a hierarchy, — the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development, — environmental problems relevant to the plan or programme, — the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection). 2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to — the probability, duration, frequency and reversibility of the effects, — the cumulative nature of the effects, — the transboundary nature of the effects, — the risks to human health or the environment (e.g. due to accidents), — the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected), — the value and vulnerability of the area likely to be affected due to: — special natural characteristics or cultural heritage, — exceeded environmental quality standards or limit values, — intensive land-use, — the effects on areas or landscapes which have a recognised national, Community or international protection status.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Screening includes both the general preliminary assessment and the site-specific preliminary assessment in each case, which are provided under Column 2 of Annex 1, Federal German Environmental Impact Assessment Act (German: UVPG). Its purpose is to determine whether a project may have significant (unfavourable) environmental impacts in a specific case. In the examination of the significance, the criteria of Annex 2, UVPG apply, which encompass the characteristics, the site, and the possible impacts of the project. ■ The EU Directive gives member states relatively large leeway in setting the criteria for the EIA requirement. In Germany, the Federal German Environmental Impact Assessment Act (German: UVPG) lists the different EIA project types and categories in concrete terms. Capacity and threshold values that define the magnitude of such projects are to be examined in the course of the determination of the EIA requirement. Thus for example animal husbandry operations with a certain number of head of livestock (e.g., more than 2000 pigs) are subject to a general EIA requirement. Such a clear establishment of threshold values has in the past often resulted in project developers implementing their projects in several stages, each just below the relevant threshold level, and submitting a number of separate applications in succession, for so-called “piecemeal” permission. The introduction of screening, which now also covers the range of projects below the threshold and order of magnitude, has largely eliminated this weakness. However, there are cases where even very small projects located in very sensitive areas, natural spaces and protected assets potentially can have very extensive and serious environmental effects. ■ In Germany, the criticism has often been raised that the thresholds for certain types of projects, for example urban planning projects, have been too high, and were therefore generally not subject

	<p>to EIA. Legislatures have even gone so far as to exempt certain inner-city construction projects from EIA entirely, which is currently being very heavily criticised in Germany. Especially in the urban context, significant effects can be expected to the human being as a protected asset due to noise; moreover, inner-city park and recreational areas too can suffer damage from groundwater depletion during the construction phase of projects.</p> <ul style="list-style-type: none"> ■ A clear orientation of the EIA requirement to threshold values of course simplifies the administrative practice. Nevertheless, mechanisms are necessary by means of which even very small projects which have a very significant impact on the environment can be subjected to EIA in certain cases.
Ecological Impact Assessment (Ecol IA)	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Scoping approach is set out in part 3, section 2 of the Environmental Impact Assessment Act. Those authorities whose environmental and health-related duties are affected by the plan or programme have to be consulted when determining the framework of the Strategic Environmental Assessment. On the basis of appropriate information, the competent authority gives the authorities to be consulted the opportunity to discuss or give their opinion on the framework in writing. Experts, affected local authorities, foreign authorities and recognised environmental associations may also be consulted. If the authorities to be consulted have information which may be pertinent to the environmental report, they have to submit this to the competent authority. ■ The scoping includes establishing what information should be included in the environmental report and how detailed it should be. In determining this, the competent authority has to bear in mind that SEAs in Germany represent an integral part of official procedures for the preparation or amendment of plans and programmes. The provisions of Article 5 and Annex I of the SEA-Directive and the corresponding provisions of the Environmental Impact Assessment Act therefore have to be taken into consideration along with the legislation applicable to preparing, adopting or modifying the plan or programme. The environmental report should include the information that can be obtained with a reasonable amount of effort taking into account current knowledge as well as any opinions expressed by the public which the authority is aware of, generally recognised test methods, the content and level of detail of the plan or programme, and its position within the decision-making process. ■ If plans and programmes are an integral part of a multi-stage planning and licensing process, it is important when determining the framework of SEA to avoid multiple assessments by determining the stages of this process at which certain environmental impacts are to be examined as a matter of priority. Consideration should be given here to the nature and scope of the environmental effects, technical requirements, as well as the content and the subject matter of the plan or programme.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The term scoping refers to the specification of the scope of the investigations, or the information about documents which will presumably be required. In the scoping process, not only the contents and size of the future application documentation is established, but also the presumable scope of the investigation for the environmental impact assessment. The scoping process usually only takes place when the project developer files the appropriate application. Since scoping is primarily used for more complex projects, technically relevant authorities, as well as experts and third parties concerned, should be consulted, in addition to the competent authority. Involvement of the public is not provided. Substantially, the question at issue is the determination of the environmental significance of the project, on the one hand with respect to protected assets, and on the other with respect to the project's effects. At issue too are the required methods and criteria, as well as the scope of the investigations. The project developer ultimately has the

	<p>freedom of decision as to the methods and criteria to be applied, but also bears the risk, because the scoping proceedings legally have only consultative function.</p> <ul style="list-style-type: none"> ■ Under German EIA Law, the scoping process can be subdivided into three segments (in): <ul style="list-style-type: none"> – Submission of a Statement of Intent by the initiator of an intended project – Specification of the scope of investigation, incl. the limits of the area under investigation) – Information by the competent authority on the presumed scope of the investigation for the EIS. ■ Requirements for the main steps of scoping <ul style="list-style-type: none"> – Statement of Intent by an initiator of project should contain such information that third parties, such as the authorities concerned, the local population, and NGOs, can understand the essence and the scale of the potential impacts of the planned project, and make their own proposals on the determination of the research framework – Specification of the scope of investigation, incl. delimitation of the area of investigation (scoping) At the scoping meeting, also known as the application conference, all participants in the proceedings, incl. the public, take part. – Notification of the accepted scope of investigation of the environmental impact caused by a planned project The specifications determined in the scoping process must be recorded in a common final document, the scoping protocol, which is presented to all parties concerned, and, if necessary, published
Ecological Impact Assessment (Ecol IA)	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ In general, a strategic environmental assessment should help to ensure maritime spatial plans are indeed aligned to all agreed environmental objectives. The German SEA analyses whether the MSP for the EEZ takes relevant legislation and principles for the marine environmental protection into account and assesses impacts as well as alternative uses. ■ The SEA is aiming to describe the current environmental status and assesses current and future uses and their impact on the environment without and with a MSP. It provides measures to minimise strong negative effects on the environment caused by maritime planning, verifies alternatives and describes the implementation process of the environmental assessment.
<ul style="list-style-type: none"> ■ Environmental Impact Assessment (EIA) 	<ul style="list-style-type: none"> ■ The EIA procedure guarantees environmental protection and transparency with regard to the decision-making process for several public and private projects. With its wide scope and broad purpose, the EIA ensures that environmental concerns are considered from the very beginning of new building or development projects, or their changes or extensions. It allows the public to actively engage in the EIA procedure.
Ecological Impact Assessment (Ecol IA)	
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Alternatives are deemed reasonable if they are legally and practically able to achieve the fundamental goals of the intended plan in the authority’s planning area, with minor deviations from the goal being acceptable. It is not necessary to consider every conceivable alternative. The scope is limited by the proportionality principle. The alternatives must be realistic and feasible and it must be possible to identify and implement them with a reasonable amount of effort.

	<ul style="list-style-type: none"> ■ German SEAs had “little chance of influencing the planning process due to a lack of alternatives and cumulative effects assessment” ■ The assessment of alternatives in SEA varied in depth and detail of analysis. It was found that some SEAs provided detailed assessment of alternative approaches to PPP evolution but there were also examples where alternatives assessment was neglected. It is therefore concluded that in order to increase the effectiveness of SEA, alternatives assessment needs to have been considered in more detail in order to ensure best practicable environmental options are chosen rather than simply assessing the environmental implications of a favoured proposal in the first instance. ■ To address environmental objectives in SEA appropriately and influence plans and programmes significantly, SEA needs to come up with both appropriate alternatives and appropriate cumulative effects assessments. Concerning the latter, the forum could help with information on federal level plans and programmes to support inter-plan cumulative effects assessment as long as the EIA portal does not include SEA documents. Finally, the forum could discuss public participation methods at the federal level, and develop good practice guidelines, e.g. online participation tools, which could also be implemented in an EIA & SEA portal and included in SEA guidance document.
<ul style="list-style-type: none"> ■ Environmental Impact Assessment (EIA) 	<ul style="list-style-type: none"> ■ If EIA offers an opportunity to decide between alternatives representing different levels of environmental compatibility, then environmental issues are in fact being taken into account more than they used to be.
Ecological Impact Assessment (Ecol IA)	
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The assessment of significance is important as a project or plan is only permissible if the plan/project will not have lasting significant adverse effects on the integrity of that site.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The assessment of significance is challenging and raises many questions due to the complexity of ecological relationships and mechanisms of action, as well as the interactions with the cumulative effects of other proposed developments and also other future developments, the consideration of mitigation measures and the subject-specific determination of significance thresholds.
Ecological Impact Assessment (Ecol IA)	
<p>Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The key element in the SEA is the environmental report, which details and evaluates the anticipated environmental impacts of the plan or programme as well as sensible planning alternatives. ■ In practice, SEA challenges include handling cumulative effects
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Determines and describes in a report what impact a project will have on humans (including human health), on animals, plants, biodiversity, soil, water, ambient air, the climate, the landscape and cultural goods. The public and specialist authorities, as well as citizens and authorities in neighbouring countries that may be affected, may express comments and opinions on the report.
Ecological Impact Assessment (Ecol IA)	

Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ In the application documents, the responsible party must provide the authority with the necessary information on measures planned to avoid, mitigate and compensate for, the impairment of nature and landscape
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The expectation is to achieve transparency, identify potentially negative impacts on people and the environment and ensure that mitigation measures are integrated into project development.
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The significant environmental impacts resulting from implementation of the plan or programme have to be monitored to ensure in particular that any unforeseen adverse impacts can be identified at an early stage and suitable remedial action can be taken. The required monitoring measures have to be specified upon acceptance of the plan or programme on the basis of the information provided in the environmental report. Existing monitoring mechanisms, data and information sources may be utilised in order to meet the requirements. In general monitoring has to be provided by the authority responsible for the strategic environmental assessment except as otherwise stipulated by the statutory provisions at Federal or Land level. ■ When laying out the accepted plan or programme for inspection a list of monitoring measures has to be enclosed. The outcome of monitoring has to be made available to the general public in accordance with the provisions on access to environmental information and to the authorities whose environment-related sphere of responsibility is affected by the plan or programme. It has to be taken into account in the event of redrafting or amendment of the plan or programme.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Expectations- Results to be accessible to agencies ■ How monitoring is implemented into best practice <ul style="list-style-type: none"> – The monitoring concept is clearly described with information on start, timing and duration of monitoring and on responsible agencies/persons. – Environmental monitoring results are integrated into the plan or programme follow-up. – Monitoring results are accessible to agencies and the public and are prepared in a clear and transparent manner.
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<p>The competent authority shall forward a copy of the draft plan or programme and the environmental report to those authorities whose environmental and health-related duties are affected by the plan or programme, and shall obtain the opinions of these authorities.</p> <p>The draft plan or programme and the environmental report shall also be made available to the public. The affected public shall be given an opportunity to comment.</p> <p>Under the Environmental Impact Assessment Act, the “public” is defined as individual or several natural or legal persons or groupings of such persons, including non-governmental organisations. The “affected public” refers to any individual whose interests are affected by the plan or a programme in question; this also includes associations whose activities as described in their statutes are affected by the plan or a programme including associations which promote environmental protection.</p>

	<p>According to German legislation the public is involved in the SEA process in the consultation phase. It is left to legal discretion of the competent authority to involve non-governmental organizations promoting environmental protection and other members of the public within the scoping phase. Additionally the formal procedures to involve the public are sometimes accompanied by round tables, Internet surveys, information events, public hearings or mediation procedures, if this is appropriate in individual cases.</p> <p>The Environmental Impact Assessment Act and the Administrative Procedures Act, regulate public participation in the SEA procedure as follows:</p> <ul style="list-style-type: none"> ■ The draft plan or programme must be made public in the customary manner. ■ In the announcement at the beginning of the participation procedure) the competent authority informs the public about the determination that the plan or programme is subject to SEA pursuant to Article 3a ■ The draft plan or programme and the environmental report, along with other documents which the competent authority regards appropriate to be included, must be on public display for at least one month. The venue must be determined by the competent authority giving due consideration to the type of plan or programme and its content and having the aim to ensure effective public participation. ■ The affected public has the opportunity to express an opinion on the draft plan or programme and the environmental report within a reasonable time frame of at least one month. ■ For particular plans and programmes, a hearing must be carried out where required by law ■ The way in which the information will be made public (“customary manner”) depends on the type of plan or programme and on administrative exercise. Usually the announcement will be published in official publications (official gazette, law gazette, local authority publication) or newspapers. If a notification is published in printed form it is often also published on the Internet. Where a federal authority is responsible for drawing up the plan or programme, both, the notification as well as the plan or programme, and the environmental report will be published on the authority’s website (in addition to publication in printed form). In practice, the public consultation usually lasts between one and six months including the time needed to study and evaluate comments of the public. The total length of the consultation process depends to a great degree on the number of comments received and the number of conflicts associated with the plan or programme and their intensity. It varies from a few weeks to a year.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Early public engagement is recommended best practice ■ Collaborative learning is a model for effective public participation in natural resource planning and policy-making. The collaborative learning approach “emphasizes activities that encourage systems thinking, joint learning, open communication, and focuses on appropriate change”
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ There are several national and international NGOs that participate vigorously in major environmental law-making procedures and in the public hearings for all major permitting procedures for infrastructure. In doing so, NGOs increasingly use specialised lawyers and also initiate court proceedings to stop or change projects perceived to have an adverse environmental effect. Nearly all major environmentally relevant projects are challenged in court. This can prevent the project from going forward or lead to amendments of the relevant permits.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Clean up/Compensation scheme- Clean-up can be requested under the relevant water protection legislation. If the responsible party is unwilling or unable to execute the clean-up, the authorities can do so at the polluter’s cost. Severe cases of non-compliance with the regulatory regime can result in criminal liability. Criminal law penalties include imprisonment and fines. The administrative fines for offences can be up to EUR50,000.

Ecological Impact Assessment (Ecol IA)	
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<u>What's working well</u> <ul style="list-style-type: none"> ■ EIA is improving in quality as a vital instrument for achieving sustainable development (Wende, 2012)
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Germany fulfils European and international requirements with regard to environmental assessments when it comes to decisions concerning permits for industrial facilities and infrastructure measures and to planning decisions concerning plans and programmes relating to the environment. Germany thus satisfies the criteria of the Aarhus Convention for modern environmental policy. ■ German environmental legislation has continued to develop, influencing and being influenced by EU legislation. Cross-media approaches have gained importance (e.g. environmental impact assessment, environmental liability, environmental audits). Enforcement and compliance are generally effective, based on good monitoring and institutional capacities. An Environmental Code, aiming at harmonising, simplifying and integrating environmental legislation, is at an advanced stage of preparation. ■ Strategic Environmental Assessment is a particularly suitable instrument for the implementation of climate protection at the regional or local level, or in sectoral planning, such as transport planning. SEA can be seen as a real 'policy integration tool' (Cashmore et al., 2010) to encourage greater attention in policy formation for climate change mitigation. ■ EIA in Germany is regarded as a established successful model (Wende et.al, 2012). ■ There are a number of IA systems in place internationally that have an outcome oriented substantive focus and the experiences gained with them can help in the design of an effective EOR approach. One example is the German Federal Environmental Impact Intervention rule in combination with the statutory landscape/environmental planning system here, which aims at ensuring compensation for negative environmental impacts, so that no biodiversity net loss occurs (Hanusch and Fischer 2011). The underlying approach is based on quantitative calculations for determining compensation for negative impacts. <u>Lessons Learnt</u> <ul style="list-style-type: none"> ■ The added value of SEA for plan and programme development is not fully appreciated amongst involved stakeholders. One important cure for this might be to focus more on capacity building regarding SEA amongst relevant actors and the establishment of structures that allow for the establishment of an ownership of SEA and leadership in terms of SEA quality control. Capacity building would however, first need an open discourse about the desired format of SEA. In this context, the question as to whether EIA-inspired SEA should be applied and whether a more strategic and deliberate SEA is also needed is of particular importance. With an ongoing discussion about challenges due to climate change and in general global change and transformation (e.g. WBGU 2011) the role of SEA as a means of supporting policy integration of important issues should be part of these discussions. ■ More cost-effective environmental policies, as well as improved integration of environmental concerns in sectoral and economic policies. Transposition of the EU Directives on integrated pollution prevention and control (IPPC) and on environmental impact assessment should contribute to progress in this regard. As stressed in the 1993 OECD environmental performance review of Germany, use of measures differentiated according to ecosystem characteristics should be increased. Use of economic instruments should be expanded, taking into account their wider economic and social implications. In turn, it is essential to better ensure that economic policy incentives are consistent with basic environmental objectives and do not encourage environmentally unsustainable production and consumption modes. The effectiveness and


	<p>efficiency of voluntary agreements should be reviewed. Alternative measures should be considered if the targets of these agreements are not reached.</p> <ul style="list-style-type: none"> ■ SEA needs to ‘distance itself from the concepts and models of EIA of projects, in order to be able to address the challenges of environmentally improving strategic decisions such as policies, plans and projects’ ■ SEA must face global challenges and develop tools to better incorporate environmental limits and climate change. ■ Rehaussen et.al, 2018 found recommendations aim to improve quality management and learning by initiating a federal level SEA forum to discuss federal level planning and SEA practice and related issues, expanding the federal EIA portal to SEAs, quality management by the German Federal Environmental Agency in every federal level SEA scoping process and for every federal level environmental report, and further research and development to improve SEA practice. ■ Embedded in the German EIA legislation, however, is also the principle of ‘consideration and assessment with regard to effective environmental protection’, which has to be taken into account and can thus be used as a basis for demands for appropriate benchmark (Baumgart et.al, 2018). ■ Phylip-Jones and Fischer, 2015 made recommendations for improving effectiveness of SEA: <ul style="list-style-type: none"> – SEAs need to take the findings of previous EIAs into account which have been undertaken in the same geographical locations. – There is a need to devise review packages to establish the overall effectiveness of SEA in practice rather than limiting review mechanisms solely to the quality of the documentation. – The quality of SEA reports needs to improve. The cases evaluated indicate that the quality of some environment reports is poor and there is a need to improve the adequacy of impact predictions in order that they are more precise and quantitative in nature. Many of the reports examined relied on qualitative impact predictions and although it is appreciated that SEA by nature is operating at a different level of detail from project EIA, too many SEA compilers appear to rely on qualitative and subjective predictions, with greater scientific rigour being employed in SEA. – The contribution that SEA can potentially make in terms of identifying areas of policies/plans which may adversely affect the environment and final decision making needs to increase. Wind energy related SEAs have only limited influence on decision making and therefore there is a need to increase the centrality of SEA to decision making. This may best be achieved through increased scientific rigour in impact prediction. – Mitigation measures that SEA results in need to be defined better. – There is a need for SEAs to improve the way in which findings of EIAs are taken into account that have already been undertaken in the same geographical locations. In many instances, especially in the marine environment, several EIA studies had been performed for which a great deal of environmental baseline information had been collected. However, this information was scarcely used in SEAs in both the UK and German marine contexts. – There is a need for SEA to be applied earlier on in policy and plan formulation. In many cases, SEA was applied too late, therefore lacking influence on decision making. ■ Screening must be simplified for quicker results, scoping/public-participation should be mandatory. Quality management and accrediting of EIA experts should play a prominent role in future EIA and SEA development in Germany. Thus, requirements for the adaptation and further development of EIA and SEA that should be taken up by the EU and by all member states (Wende et.al, 2012)
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..</p>	

<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ Poor impact prediction and a lack of detailed monitoring programmes
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ There is a considerable body of SEA evaluations in Germany. However, this is only in parts accessible to an international audience as it is available in German only. Most of the associated research has been focusing on procedural effectiveness, only implicitly touching upon the other dimensions. ■ Germany's high population density, industrialisation level, location in central Europe and dependence on fossil fuels for its energy supply have contributed to making environmental protection a public concern and a policy priority. ■ Missing data is the major challenge for monitoring in Germany as existing monitoring mechanisms are not fit for SEA purposes. ■ Cumulative environmental effects and interrelationships between environmental factors provide people working on environmental reports with particular challenges ■ In a tiered planning system (of policies, plans, programmes and projects), the multi-project approach is both beneficial and challenging. Whilst multi-project SEA has the ability to allow for easy tiering with project EIA, connecting it with policies is challenging, in particular when no SEA is applied at that level. ■ In Germany, there are insufficient data on existing local authority emissions collected as a basis for adequately assessing spatial plans. Changes to this are critical in facilitating the use of SEA for climate protection are adequate monitoring of current emissions and responsible subdivisions and individuals in environmental authorities (Wende et.al, 2012). ■ Rehhausen et.al, 2018 found the procedural effectiveness of SEA practice at the federal level is limited in Germany, and the making of SEAs proved not to be as 'strategic' as its important role prior to subsequent planning processes and outcomes would suggest. Reasons include an alternatives assessment restricted to macrositing instead of assessing scenarios of demand or system alternatives, tiering limited to general advice without specific guidance for subsequent planning levels, cumulative effects assessment limited to intra-plan effects, a lack of monitoring, and public participation limited to consultation on the environmental report. ■ The inclusion of issues concerning the social environment or topics such as environmental justice may initially seem to contradict the mandate of the German EIA legislation and the EU EIA directive, as the focus in environmental assessment is on environmental issues and the pooling of them (Baumgart et.al, 2018). ■ Question marks over the quality of SEA documents, over a third are deemed unsatisfactory (Jones and Fischer, 2015). Scoping is a strength but mitigation and impact predictions weaknesses. SEA is seen as a weakness due to a falsely perceived high environmental performance. SEA outcomes are not always clear and its influence on decision-making is influenced. Further weaknesses include a lack of effective tiering and a lack of detailed monitoring programmes.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>References</p>	<ul style="list-style-type: none"> ■ Baumgart, S., Hartlik, J., and Machtolf, M. (2018) 'Improving the consideration of human health in environmental planning and decision-making –perspectives from Germany', <i>Impact Assessment and Project Appraisal</i>, 36:1, 57-67, DOI:10.1080/14615517.2017.1364020 ■ Jiricka-Pürrener, A., Czachsa, C., Formayerb, H., Wachter, T., Margelid, E., Leitnerd, M., and Fischer, T. (2018) 'Climate change adaptation and EIA in Austria and Germany—Current consideration and potential future entry points'. <i>Environmental Impact Assessment Review</i>, 71, pp. 26-40. ■ Federal Ministry for the Environment, Nature, Conservation, Nuclear Safety and Consumer Protection [FMENCNSCP] (2022) <i>Environmental Assessments EIA/SEA</i> [online]. Available at:

<https://www.bmuv.de/en/topics/education-participation/participation/environmental-assessments-eia-sea>

- Geißler, G., Rehhausena, A., Fischer, T., and Hanusch, M. 'Effectiveness of strategic environmental assessment in Germany?—meta-review of SEA research in the light of effectiveness dimensions', *Impact Assessment and Project Appraisal*, 37 (3/4), pp. 219–232.
- Hanusch, M. and Fischer, T. (2010) 'SEA and Landscape Planning', In. Barry Sadler, B., Dusik, J., Fischer, T., Partidario, M., Verheem, R. and Aschemann, R. (Eds.) (2010) *Handbook of Strategic Environmental Assessment*. London: Routledge.
- Rehhausen, R., Köppela, J., Scholles, F., Stemmerc, B., Syrbe, R., Magel, I., Geißlera, G., Wende, W. (2018) 'Quality of federal level strategic environmental assessment— A case study analysis for transport, transmission grid and maritime spatial planning in Germany'. *Environmental Impact Assessment*, 73, pp. 41-59.
- Tucker, G. (2016) *Biodiversity offsetting in Germany*. Institute for European Environmental Policy [online]. Available at: <https://ieep.eu/uploads/articles/attachments/e121d600-5e85-44d4-86e4-02a05348164a/DE%20Biodiversity%20Offsetting%20final.pdf?v=63680923242>
- Wende, W., Bond, A., Bobylev, N. and Stratmann, L. (2012) 'Climate change mitigation and adaptation in strategic environmental assessment'. *Environmental Impact Assessment Review*, 32, pp. 88-93.
- Wende, W., Scholles, F., Hartlik, J. (2012) 'Twenty five years of EIA: Our child has grown up'. *Journal of Environmental Assessment Policy and Management*, 14 (4), pp. 1-15.
- Wende, W. (2002) 'Evaluation of the effectiveness and quality of environmental impact assessment in the Federal Republic of Germany', *Impact Assessment and Project Appraisal*, 20:2, 93-99, DOI: 10.3152/147154602781766735

Hong Kong

<h1 style="margin: 0;">Hong Kong</h1> 	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ There is currently no single statute governing environmental law in Hong Kong. Trade and industrial activities operate within the framework and standards set out in statutes which are overseen by the relevant government department. In relation to EIA, the framework includes the following statute: <ul style="list-style-type: none"> – Environmental Impact Assessment Ordinance (Cap 499) (EIAO)¹⁵ introduces the Environmental Impact Assessment (EIA) process and the environmental permit system, which seeks to avoid, minimise and control the adverse impact of designated projects set out in Schedule 2 of the EIAO. The regulatory authority for the EIAO is the Environmental Protection Department (EPD). ■ The <u>Environmental Protection Department</u> was created in 1986 to co-ordinate and carry out pollution prevention and control activities. The EPD is responsible for implementing various environmental policies, including implementation of waste reduction and recycling programmes, management of the environmental impact assessment process of major projects, as well as organisation of various community and educational activities aimed at increasing environmental awareness.
Ecological Impact Assessment (Ecol IA)	Agriculture, Fisheries and Conservation Department (AFCD) The Environment and Conservation Fund (ECF)
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The Environmental Impact Assessment Ordinance (Cap 499) (EIAO) was first introduced on 1 April 1998, imposing a new mandatory procedure for the assessment of the foreseeable environmental impacts and risks caused by large development projects. The ordinance regulates the EIA of certain projects and proposals, including the procedural provisions of EIA, the provisions of appeals. The procedure also includes the publication of a comprehensive expert study on the potential impacts of a project and ways to mitigate them. It also involves public consultations where, in principle, anyone could have a say on whether and how the project should be allowed to carry on. ■ The EPD has introduced environmental monitoring schemes and specific investigations to establish an objective basis for local action. Most major development projects are subject to environmental monitoring and audit. The EPD oversees programmes to ensure that recommendations in the EIA are strictly implemented and that appropriate mitigation actions are taken

¹⁵ <https://www.elegislation.gov.hk/hk/cap499>

Ecological Impact Assessment (Ecol IA)	<p>The Agriculture, Fisheries and Conservation Department (AFCD) formulated the Hong Kong Biodiversity Strategy and Action Plan 2016-2021 (BSAP).</p> <p>In 2016, a five-year plan to improve biodiversity conservation and support sustainable development. The primary objectives of the BSAP are to step up biodiversity conservation and support sustainable development, to contribute to global efforts on biodiversity conservation and to contribute to China's national BSAP.</p> <p>The Environment and Conservation Fund (ECF) was established by the government to provide funds for its commitment to environment protection and conservation. Up to the end of June 2016, the ECF had funded over 5,000 educational, research and other products and activities in relation to environmental protection and conservation.</p> <p>The government also has the following laws at its disposal to conserve species and genetic diversity:</p> <ul style="list-style-type: none"> ■ Forests and Countryside Ordinance ■ Wild Animals Protection Ordinance ■ Protection of Endangered Species of Animals and Plants Ordinance ■ Fisheries Protection Ordinance ■ Genetically Modified Organisms (Control of Release) Ordinance ■ Town Planning Ordinance
<p>Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Hong Kong is one of the few jurisdictions in the world to require all government departments to report annually on their environmental performance in polices in actions. This requirement came into effect in 2000, although reports have been of varying quality across departments leading to the publication of 'A Benchmark for Environmental Performance Reports' in 2002 by the Environmental Protection Department. This tool provides guidance for government agencies to improve the quality of their future reports. ■ In addition to environmental performance reports, the EPD provides support on improving corporate environmental management in government agencies. The EPD promotes the wider adoption of environmental performance reporting, EMS, and ISO 14001 in the private sector and public sector. ■ The EPD website¹⁶ contains guidance on five topics: Air, EA and Planning, Noise, Waste, and Water. Under EA and Planning, there is an EIA help bench, as well as a section on Guidelines and References. ■ There is a specific EIA Training Manual, published 2005, that gives detailed guidance on each stage of the process. ■ Public involvement in the statutory EIA process is a key feature of the Ordinance and a big step forward in the history of EIAs in Hong Kong. Detailed information, such as project profiles, study briefs, EIA reports, environmental permits, the Ordinance and Regulations, and guiding materials are available to the public on the EIAO web site. The website allows users to search by district using an interactive map tool.
Ecological Impact Assessment (Ecol IA)	<p>EIA Ordinance- ANNEX 16 : GUIDELINES FOR ECOLOGICAL ASSESSMENT</p> <ul style="list-style-type: none"> ■ Describes the general approach and methodology for assessment of ecological impact arising from a project or proposal.

¹⁶ <https://www.epd.gov.hk/epd/english/top.html>

	<ul style="list-style-type: none"> An ecological assessment is part of an EIA study for a designated project which may have an impact on the natural environment including existing flora, fauna and wildlife habitats. The term "ecology" includes both marine and terrestrial ecology. The main objective of ecological assessment is to provide sufficient and accurate ecological data to allow a complete and objective identification, prediction and evaluation of the potential ecological impacts. The methodology used may vary from case to case depending on the natural environment to be affected and the nature and scale of the project.
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Associated legislation

Are the goals of the selected regime supported / frustrated by other legislation?

- In 2011, Hong Kong joined the Convention on Biological Diversity (CBD), through an extension of China's membership. The CBD is an internationally legally binding treaty, with a Secretariat that operates under the United Nations Environment Programme. The Convention requires Parties to prepare a national biodiversity strategy (or equivalent) and to ensure that this strategy is mainstreamed into the planning and activities of all those sectors whose activities can have an impact (positive and negative) on biodiversity.

Governance arrangements, including roles and responsibilities at a national, regional / state and local level

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> As noted before, there is no single statute governing environmental law in Hong Kong. However, the development of government policies and programs to protect Hong Kong's environment, and the enforcement of environmental laws is largely carried out by the EPD and Environment and Ecology Bureau (EEB), who have a wide range of discretionary powers under the various ordinances. These two bodies are under the permanent Secretary for the Environment / Director for Environmental Protection. The Secretary reports directly to the Chief Executive and Executive Council. The EEB manages two branches – the Environment Branch, and the Food Branch. The EDP falls under the Environment Branch. One of the key features in the HK EIA system is the role of the EPD as process manager of the system. As such, the EPD will, from time to time, review the EIA system in HK with a view to identifying areas that can be improved.
Ecological Impact Assessment (Ecol IA)	

Recent or emerging legislative reform in the selected jurisdiction

Has the legislation been the subject of recent reform or are changes being proposed?

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> From 1st January 2023, the existing merged structure of the Environment Branch of the EEB and EPD was changed. The duties of the Environment Branch and the EPD are now segregated to handle policy formulation and execution of duties respectively, allowing a strengthening of climate change actions, and various environment-related tasks. The post of the Director of Environmental Protection (DEP) will be reinstated in the EPD to head the department as well as assist the Environment Branch to formulate, evaluate and execute various environment policies, strategies, measures and legislations. Further proposed changes in 2022 include a shortening of the entire EIA process to between 18 and 24 months from the current duration of 3-4 years. The creation of a central database to consolidate environmental and ecological data for land surveys was also proposed in 2022. This would standardise evaluation methods for baseline surveys. The system would also encompass all environmental data, including ecological information, from all the EIA studies and government bureaus.
Ecological Impact Assessment (Ecol IA)	

Link to environmental outcomes

Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?

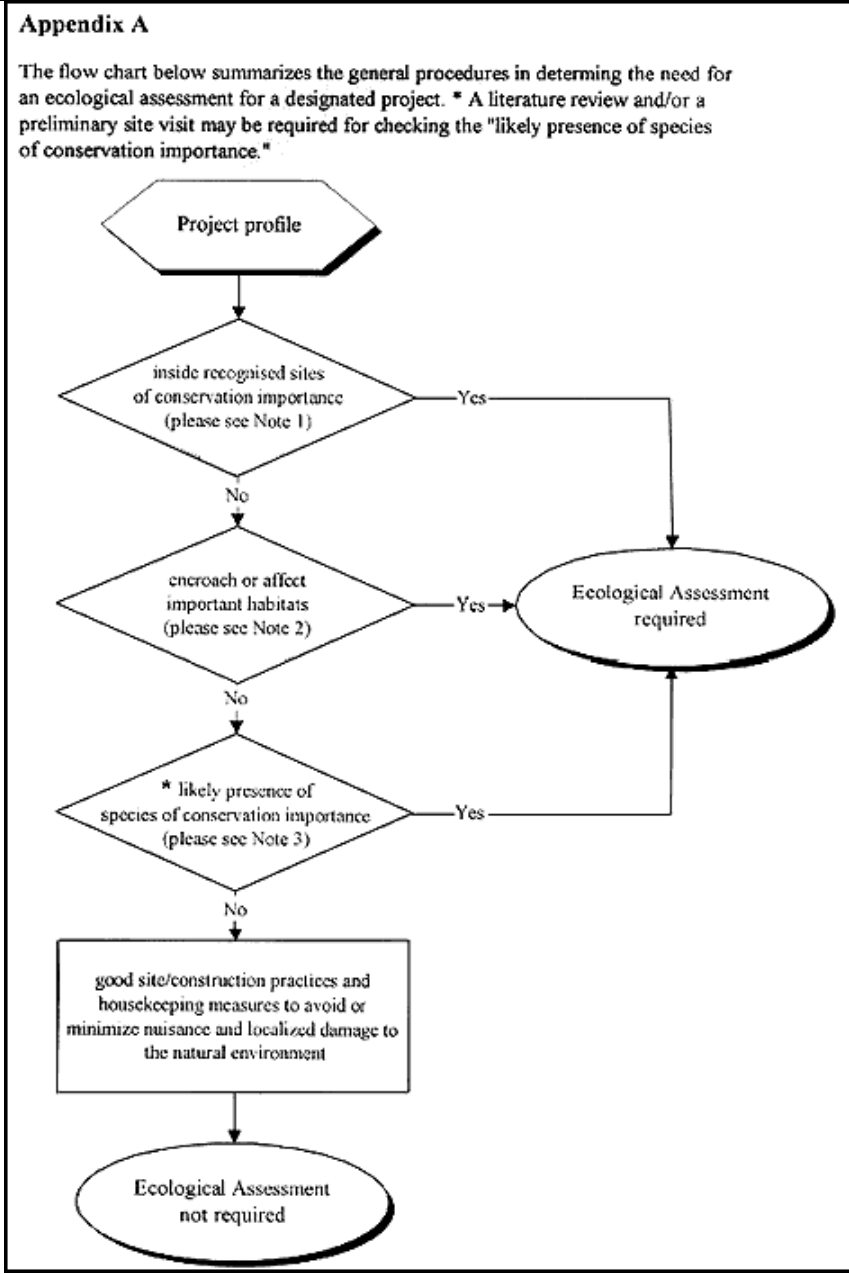
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ In HK, there are no assessment criteria/requirements against social impact, health impact and climate change assessment form under the EIA Ordinance. However, these issues are commonly brought up during the early planning stage by the stakeholders, where project proponents, in particular, in relation to major infrastructure projects, evaluate them to address the employment creation, economic benefit to the whole society. etc and base this on the best practices. ■ There are some built-in Quality Assurance/Quality Control (QA/AC) mechanisms in the EIA Ordinance. For example, the EPD will issue a detailed EIA study brief to set out the scope of the EIA study and technical and reporting requirements. In addition, there is also adoption of a legal instrument called the Technical Memorandum on EIA Process, which is a technical guidance document covering all aspects of the HK EIA process, including the content of the Project Profile, the EIA Study Brief, EIA reports, issuing of environmental permits, etc. The EIA reports are required to meet both the requirements of the EIA Study Brief and the Technical Memorandum on EIA Process. ■ Further to this, the issuance of environmental permits to establish that the recommendations of the Project Profiles and EIA reports will be implemented during the construction and operational stages of the projects, is a key feature in Hong Kong's EIA process. The conditions of the environmental permits often include requirements for environmental monitoring audit provisions, and requirements for professional independent checkers.
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points <i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ In theory, any development project or proposal that may have an adverse impact on the environment is subject to EIA. Schedule 2 under Appendix one of EIA Ordinance (Cap.499) specifies designated project types, from public works to specific residential developments, that require environmental permits. Schedule 3 requires that engineering feasibility studies of large-scale development/redevelopment projects include EIA reports in their planning proposals.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The fee payable on submission of an application is in accordance with the Environmental Impact Assessment (Fees) (Amendment) Regulation 2000), and is payable by the applicant. ■ With regard to restrictions, Environmental Impact Assessments are carried out by a consultancy hired by the project proponent, and this lacks neutrality. Since the EPD is in charge of reviewing EIA reports, if it is also the project proponent, it creates a potential conflict of interest. Further to this, the Advisory Council on the Environment is currently the government's main advisory body on environmental policies. One of its main roles is submit professional opinions to the government on EIA reports of designated projects, with reference to the EIAO. However, members of the council are all appointed by the Chief Executive.
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	

Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The website of the EPD gives access to wide-ranging environmental data. ■ To start the process, the project proponent must submit a project profile that complies with the requirements of the SB and the TM to the Director and advertise the project to the public. The TM is standard to all designated projects and is issued by the Secretary for the Environment pursuant to the Ordinance. ■ Following submission, the Director will inform the Advisory Council on the Environment (ACE) about the project profile. The Director will then issue to the project proponent an EIA study brief, which is particular to that project. ■ In 2000, the EPD initiated the application of a web-based cyber environmental monitoring and auditing system for major development projects. The environmental permits for major development projects now have a standard requirement that monitoring and auditing results need to be uploaded onto a dedicated website for public access. This website enables the public to compare EIA prediction with results, have real time monitoring and availability of data, and make comments and complaints about projects.
Ecological Impact Assessment (Ecol IA)	
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ For the EIA report, several major design options are required to be considered and selected to achieve an optimum design with an appropriate balance between key aspects, such as economic viability, engineering practicality and environmental impact. Impact Identification, impact assessment, impact evaluation and impact mitigation are key elements. (Section 6(3) of EIAO)¹⁷
Ecological Impact Assessment (Ecol IA)	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Scope is defined by Study Brief (SB) issued by EPD. It is to ensure that the detailed prediction work is carried out only for key environmental issues. (Section 6(1) of EIAO). EIA report complying with the requirements of the SB and Technical Memorandum (TM).
Ecological Impact Assessment (Ecol IA)	<p>The need for and the type and scope of the off-site ecological mitigation measures to be adopted for a particular project shall be determined according to the following guidelines:</p> <ul style="list-style-type: none"> ■ all possible design measures and all practicable on-site ecological mitigation measures shall be fully investigated in the EIA study and exhausted to minimise the loss or the damage caused by the project to the ecological habitats or species;

¹⁷ Cap. 499 Environmental Impact Assessment Ordinance- <https://www.elegislation.gov.hk/hk/cap499>

	<ul style="list-style-type: none"> ■ with the on-site ecological mitigation measures in place, the residual impacts on ecological habitats or species shall be defined, quantified and evaluated according to the methods and criteria laid down in this annex and Annex 8. Before off-site ecological mitigation measures are to be adopted, the EIA study needs to confirm that it is necessary to mitigate the residual ecological impacts based on ecological considerations set out in this Annex and Annex 8, and that such residual impacts arise from the Project in question; ■ if the residual ecological impacts require mitigation and all practicable on-site ecological mitigation measures have been exhausted, off-site ecological mitigation measures shall be provided; ■ the off-site mitigation measures shall be on a "like for like" basis, to the extent that this is practicable. That is to say, any compensatory measures to be adopted for mitigating the residual ecological impacts must be directly related to the habitats or species to be protected. Either the same kind of species or habitats of the same size shall be compensated, or the project proponent shall demonstrate that the same kind of ecological function and capacity can be achieved through the measures to compensate for the ecological impacts. For example, the loss of a natural woodland shall be compensated by the replanting of native trees to form a woodland of a similar size where possible; ■ the off-site ecological mitigation measures shall only be implemented within the boundaries of Hong Kong, and must be technically feasible and practicable; ■ the extent of such mitigation measures shall be limited to what is necessary to mitigate the residual ecological impacts arising from the project; and ■ any proposed off-site mitigation measures shall not require further EIA study for their implementation. Their feasibility, constraints, reliability, design and method of construction, time scale, monitoring, management and maintenance shall be confirmed during the EIA study
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	
<p>Environmental Impact Assessment (EIA)</p>	Study management groups expected to be formed for most EIAs

Ecological Impact Assessment (Ecol IA)



Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?

Strategic Environmental Assessment (SEA)

Environmental Impact Assessment (EIA)

project proponents carefully select alternatives for any designated project in the early project planning stage. Through continuous environmental inputs to the process, such as value engineering workshops (nonstatutory), significant environmental/ecological resources, e.g. Country Parks, conservation areas, wetlands, site of conservation importance, Ramsar sites, etc, these areas with high ecological value can be identified and impacts to these sites can be minimised at these early stages. Other factors studied include geographical and geological considerations, land resumption, site constraints, constructability, project operation flexibility, maintainability and disruption to the community are also crucial in the selection process, and, where necessary, in the ecological compensation proposal.

Ecological Impact Assessment (Ecol IA)	<p>Potential impacts shall be avoided to the maximum extent practicable such as adopting suitable alternatives (e.g. change of site, design, construction method, alignment, layout, programme, etc.). In extreme cases when the ecological assessment identifies some very serious impacts which could not be mitigated, the "no-go" alternative may be the only realistic option and shall be included and assessed against all other options.</p>
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<p>Impact significance is a product of the magnitude and scale of an impact and the asserted importance of the species or habitat(s) likely to be affected. However, it shall be noted that evaluating nature conservation interest is a difficult and complex process. Value or professional judgement are involved. Nevertheless the conservation value of a site or species and hence the significance of an impact shall be evaluated as systematically as practicable using well defined criteria.</p>
<p>Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
<p>Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Mitigation for a designated project, as defined in Schedule 1 of the Ordinance, "a) means the elimination, reduction or control of the adverse environmental impact of the project; b) includes restitution by replacement, restoration, compensation or other means for damage to the environment caused by the impact".</p> <p>Proposals for mitigation shall give priority to avoidance of impact. The assessment methods shall be capable of :</p> <ul style="list-style-type: none"> ■ identifying and evaluating mitigation measures in order to avoid, reduce or remedy the impact; ■ assessing the effectiveness of mitigation measures; and ■ defining the residual environmental impact, which is the net impact remaining with mitigation measures in place. <p>Proposals for mitigation measures should be accompanied with an implementation programme together with all detailed treatment, elevations and landscape in scaled plans and drawings. A rescue plan, when required, may involve preservation of an archaeological site "by record", i.e. through excavation to extract the maximum data; full historical, cartographical, photographic and</p>

	<p>photogrammetric records of a historical building; re-erection of a stone tablet in a suitable amenities plot; etc.</p>
<p>Ecological Impact Assessment (Ecol IA)</p>	<p>The general policy for mitigating impacts on important habitats and wildlife, in the order of priority, are: avoidance, minimising, compensation</p> <p>All mitigation measures recommended shall be feasible to implement within the context of Hong Kong. The effectiveness of the proposed mitigation measures shall be carefully evaluated and the significance of any residual impacts after implementing them shall be clearly stated.</p> <p>From an ecological point of view, mitigation measures for ecological impact shall preferably be carried out on-site, and well in advance of the works rather than off-site, and after the completion of works.</p> <p>Where off-site mitigation measures are involved, they shall be considered along with other alternatives e.g. change of site, layout, etc., including modifying or abandoning the project.</p>
<p>Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environmental Assessment (SEA)</p>	
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ Specific <u>guidelines</u> are provided to support the application of environmental monitoring and auditing. Furthermore, under <u>certain circumstances</u>, a project proponent is required to develop an Environmental Monitoring and Audit Programme (EMAP) as part of the assessment process. These circumstances relate to situations where: <ul style="list-style-type: none"> – the project has the potential of causing environmental impacts which are or are likely to be prejudicial to the health or well being of people, the flora, fauna or ecosystem if the recommended mitigation measures are not properly implemented; – the project is situated in any area of high conservation value; – the project involves mitigation measures of which the effectiveness may require a long period to establish, e.g. compensatory planting of trees or mangroves; – the project involves an unproven technology; – the project involves unproven mitigation measures; – the project involves the application of an unfamiliar form of mitigation, or routine mitigation measures are being proposed for a new or unfamiliar environmental setting; – the analysis conducted within an environmental assessment is based on a new technique or model, or there are other uncertainties about design assumptions and/or the conclusions; – the project scheduling is subject to change such that significant environmental impacts could result; and; – it is considered necessary to ascertain and verify assessment assumptions and to test the accuracy of EIA study predictions. ■ Preparing an EM&A Manual is a key part of any EMAP. This manual is the primary "tool" that integrates and documents a project's EM&A programmes with its environmental management requirements. A project EM&A manual is designed to ensure and assure the quality delivery of a development project in a systematic, transparent, responsible and documented procedure. Its ultimate aim is to contribute to the protection of the environment and the enhanced environmental performance of the project. ■ To support the guidelines, there are a number of appendices. <u>Appendix 1A</u> 'Criteria for an EM&A Programme' initially prompts proponents to reflect upon a series of objectives, such as 'to protect sensitive receivers from environmental impacts' and 'to protect the ecosystem'. The appendix then prompts proponents to consider potential impacts in the absence of an EM&A programme, and to consider how these impacts can be monitored. The appendix then prompts the proponent to identify the actions to be 'taken for non-compliance/mitigation', with a

supporting prompt to indicate when this action would need to be taken. With respect to these actions, the proponent is prompted to identify whether it would be implemented at the design, construction, operation or decommissioning. Additional templates are provided to steer appropriate action for the [design](#), [construction](#), and [operation](#) stages. Each template includes a number of parts, including:

- An **implementation schedule**, that needs to be prepared and signed by the proponent. The schedule allow for the cross-referencing of an EIA issue (such as potential noise pollution) with the identification of a specific EM&R action (which is referenced). For each, the proponent is prompted to describe the action, to give details surrounding its location, and to outline the person/team responsible for applying it.
 - An **implementation status proforma**, that needs to be signed by the proponent's Environmental Team Manager and verified by an independent Environment Checker.
 - A **regulatory compliance proforma**, that outlines the requirements (and status) of the conditions and restrictions outlined by a permit. Again this needs to be signed by the proponent's Environmental Team Manager and verified by an independent Environment Checker.
 - A **monitoring and audit schedule**, that details, for a given factor (like land, water and air), the type of monitoring to be undertaken, the methods and frequencies through which monitoring will occur, and the type of limits and targets to be achieved (e.g. against a baseline figure or a set EIA target). The schedule needs to be signed by the project's Environmental Manager, and an independent Environment Checker.
 - A complaints log, to record any concerns that are raised. Via this log, the proponent is prompted to provide details of the problem, and how it was investigated and addressed. There is a 'file closed' box to be ticked once the matter is considered resolved. Each log needs to be filed and logged by the project's environmental manager.
- As indicated above, **Independent Environmental Checkers** (IEC) might be appointed on certain projects to support monitoring and auditing activities. While such an appointment may be made voluntarily, an appointment may also be made in response to the insertion of a specific permit condition that states how mitigation measures need to be checked, and duly certified, by qualified personnel. A condition may also be imposed requiring that this certified person submit periodic reports on the implementation status of mitigation measures. These types of undertaking are legitimised via Item 17, Schedule 4 of the EIA Ordinance.
 - [EPD Guidance Note 4](#) sets requirements about who can become an IEC. Essentially, an IEC can only be appointed by a project proponent if they have a minimum of seven years of experience in environmental monitoring and auditing (EM&A). Furthermore, the IEC should not be working in the same organization carrying out other EM&A works, or providing other forms of consultancy support to the project in question. These conditions are intended to minimize potential conflict of interests.
 - Section 6 of the guidance note provides further details and states how an IEC would typically be expected to:
 - review and audit in an independent, objective and professional manner over an EM&A programme;
 - validate and confirm the accuracy of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and locations of sensitive receivers;
 - carry out random sample checks and audit on monitoring data and sampling procedures, etc;
 - conduct random site inspections;
 - audit EIA recommendations and requirements against the status of implementation of

	<p>environmental protection measures on site;</p> <ul style="list-style-type: none"> – review effectiveness of environmental mitigation measures and project environmental performances; – on a need basis, verify and certify the environmental acceptability of a permit holder’s construction methodology (both temporary and permanent works), relevant design plans and submissions under an environmental permit. Where necessary, an IEC shall seek the least impact alternative in consultation with Environmental Team (ET) leader and a permit holder; – verify investigation results of complaint cases and effectiveness of corrective measures; – verify an EM&A report that has been certified by an ET leader; – feedback audit results to ET/Permit Holder according to Event/Action Plan in an EM&A manual. <ul style="list-style-type: none"> ■ There are a number of commercial suppliers who offer IECs, such as ANEWR.
Ecological Impact Assessment (Ecol IA)	<p>The purposes of ecological monitoring and audit are :</p> <ul style="list-style-type: none"> ■ to verify the accuracy of the predictions of the ecological assessment study; ■ to detect any unpredicted ecological impacts arising from the proposed development; ■ to monitor the effectiveness of the mitigation measures; and ■ to recommend action plans in response to unpredicted impacts, and/or failed mitigation.
<p>Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Under section 5 of the Ordinance, there is an opportunity for the public and Advisory Council on Environment (ACE) to comment on the project profile before an EIA study brief is issued by the Director, or before a permission is given to the applicant to apply directly for an environmental permit. There will also be an opportunity under section 7 of the Ordinance for the public and ACE to comment on the EIA report before it is approved. ■ When an EIA report is considered by the Director of Environmental Protection as suitable for public inspection, the applicant will be required to advertise the availability of the EIA report and make the EIA report available at specified locations for the public to comment for a period of 30 days. The ACE may give its comments on the EIA report to the Director within a period of 60 days in parallel to the 30 days' public exhibition period. ■ To facilitate public access, project profiles and EIA reports are available to access from the EIA Ordinance Register Office, relevant District Offices and the EPD Resource Centre (Wan Chai and Tsuen Wan). They are also placed on the EIA Ordinance website during the exhibition period.¹⁸ 'Live' development projects are showcased via the EPD's mapping tool. ■ In conducting EIA studies for large-scale projects, the project proponents will generally conduct public hearings and briefings to hear the environmental concerns of the public and relevant groups, and take them into consideration in the EIA studies.

¹⁸ Environmental Protection Department. Appendix D Summary of key comments and corresponding improvement measures. https://www.epd.gov.hk/eia/operation/english/appendix11_5.html

	<ul style="list-style-type: none"> ■ There is an opportunity for residents to sign-up to a notification system that allows for emails to be sent about key project updates. ■ The EPD website offers examples of how 3D modelling can be used to show 'before' and 'after' scenarios.
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Legal controls on polluters have existed for several decades in Hong Kong, but it was not until the EPD was established in 1986 that these controls were strengthened and fully applied. There are now laws to deal with all types of air, noise, water and waste pollution for activities such as construction work, operating restaurants or factories, listening to loud music in your home, raising livestock, driving a motor vehicle or exporting waste</p> <p>These laws encourage operators not to pollute, and to enable offenders to be punished. Penalties generally include fines of up to \$5 million and provisions for jail terms.</p> <p>The EPD enforces the main anti-pollution laws primarily through its four Regional Offices and Territorial Control Office under the Environmental Compliance Division (ECD) which also carry out inspections and licensing, and respond to complaints</p> <p>The Police is responsible for responding to complaints about neighbourhood noise and noise in public places. Any complaints should be made directly to the Police by calling on your nearest station.</p> <p>Many other government departments are also responsible for enforcing various environmental legislation. Floating rubbish, aircraft noise, pollution from ships, shipments of non-pesticide hazardous chemicals into/out of Hong Kong and the provision of recycling facilities in new buildings are some of the issues handled by other departments. Please refer to Environmental Legislation for more details.</p>
Ecological Impact Assessment (Ecol IA)	
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Public involvement early in the EIA process helps to avoid unnecessary delays in the later stages of projects. Public participation is extensive and is adopted at two stages of the EIA project cycle - 1. During a comment period on draft EIA statement guidelines, and 2. before the financialization of the report. It is associated with both pre-decision stages of the EIA process as well as during post-EIA stages, unlike many other countries. ■ Further to this, Hong Kong has one of the most transparent EIA systems in the world. The general public can have access to full EIA reports and comprehensive environmental monitoring and audit information through the Internet, particularly, environmental permits for major development projects have a standard requirement to upload monitoring and auditing results onto a dedicated website for public access (EIAO website). The Website also provides Project Profiles, approved EIA reports and environmental permits. In addition, the EIAO webpage also offers a platform for other emerging and innovative public engagement tools, such as three-dimensional (3D) EIAs and webcam at project sites. This allows for the better communication of EIA issues and makes it easier for people to understand complex projects and issues, thereby promoting continuous public involvement and stakeholder engagement.

	<ul style="list-style-type: none"> ■ EIA lessons can be learnt from studying cetaceans- Due to the large amount of coastline and extensive marine waters in Hong Kong, and the high profile of dolphins in the region (the local hump back dolphins were chosen as the official mascot of the 'handover' of Hong Kong from the UK to China in 1997), small cetaceans have received a great deal of attention in the environmental impact assessment (EIA) process. It appears that no where else in Asia (and perhaps the world) have small cetaceans been more heavily involved than in Hong Kong in the past 15 years (Jefferson et.al, 2009). ■ EIA was implemented to avoid, minimize and control adverse impacts on the environment (Jiayu, 2011) ■ Improving public participation- detailed, user-friendly, public access to information, NGO's should carry out activities to improve public awareness (Jiayu, 2011). ■ Marsden 2010- The EIA Ordinance is a substantial piece of legislation, with comprehensive provisions and detailed guidance that applies to certain strategic proposals ('strategic environmental assessment', or 'SEA') as well as to projects. EIA and SEA constitute one of the strongest applications of environmental law in Hong Kong. ■ Tang et.al, 2016 found Comparisons with other countries and interviews with a range of stakeholders suggests that Hong Kong's EIA system is effective overall and the quality of the present EIAO is acceptable. Recommendations were made in regards to a lack of public participation and to increase public access to information <ul style="list-style-type: none"> – Consultations and engagement (e.g. forums, meetings) with relevant stakeholders should be conducted to collect their views on the project, and the feedback from these consultations should be included in the preparation of the EIA report. Relevant stakeholders are also sort of public and their participations are also needed. The involvement of stakeholders is lack at this time and should be improved. – The public should be able to raise questions or provide comments directly to the project proponent and get feedback from the project proponent. The project proponents are encouraged to engage with relevant stakeholders and the public at the earliest stage of the EIA process. – Comments from relevant stakeholders for specific projects should be published in the EIAO website. – EPD should consolidate the comments received from the public and then upload a summary of the comments onto the EIAO website. – EPD should summarise the views and comments on the EIA reports from the public during the past years of implementing EIA, to learn from past projects and save time for future projects. – A summary of environmental monitoring and audit reports and new technology for monitoring and audit should be published by EPD, for the public's easy reading and understanding.
Ecological Impact Assessment (Ecol IA)	<p>In view of the shortage of local experts on ecology, it is also recommended for the government and academic institutions to work together to strengthen the training and development of specialist ecologists.</p> <p>SEA is not a means to obstruct development in Hong Kong, but should be recognised for its inherent socio-economic and ecological value, and fully integrated with the decision-making proces</p>
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	

Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ EPD is the designated agency to enforce the EIAO and plays an important role in environmental protection. The dual role of EPD as both regulator and project proponent for certain designated projects may give rise to conflicts of interest and reduce neutrality of the process. Given the decentralized nature of the authorizing bodies, it is more difficult for each consenting authority to maintain in-depth technical capability on all environmental disciplines, and so may be more dependent on the consultant on maintaining quality of submitted reports. ■ Marsden 2010 found EIA in Hong Kong to be affected by underlying contextual problems- top-down consultation exercises, restrictions on access to justice for third parties and the effectiveness of principles/procedures/practice.
Ecological Impact Assessment (Ecol IA)	<p>Ecological and conservation issues are considered by the Agriculture and Fisheries Department and their lack of resources has sometimes resulted in inadequate consideration being given to such issues</p> <p>Ecological impacts have been a focal point of many projects recently. It would be beneficial to establish a database for baseline ecological data and a monitoring programme in the long term so that relevant stakeholders can use the database for evaluation of potential ecological impacts of a designated project</p> <p>Mitigation measures lack effectiveness and carry an inherent risk of ecological denigration and loss of biodiversity</p>
References	<ul style="list-style-type: none"> ■ Au, E. W. K. (2012). Status and progress of environmental assessment in Hong Kong: facing the challenges in the 21st century. <i>Impact Assessment and Project Appraisal</i>, 16(2), 162–166. https://doi.org/10.1080/14615517.1998.10590202 ■ Government of Hong Kong (2023) Environmental Impact Assessment Ordinance [online]. Available at: https://www.epd.gov.hk/eia/ ■ Hong Kong Institute of Environmental Assessment, The (2023) Guidelines [online]. Available at: https://hkieia.org.hk/guidelines/ ■ Marsden, S. (2010) 'Environmental impact assessment in Hong Kong: an evaluation of principles, procedures and practice post-1997'. <i>Asia Pacific Journal of Environmental Law</i>, Vol. 1, pp. 115-133. ■ Tang, L. Y., Fan, L., Ni, M., & Shen, L. (2016). Environmental impact assessment in Hong Kong: a comparison study and lessons learnt. <i>Impact Assessment and Project Appraisal</i>. 34(3), 254–260. http://dx.doi.org/10.1080/14615517.2016.1177934, https://doi.org/10.1080/14615517.2016.1177934 ■ Tromans, S. (2012) EIA in Hong Kong: some thoughts on the Hong Kong-Zhuhai-Macau Bridge case. <i>Journal of Planning & Environment Law</i> ■ Wei, X. (2020) 'Research on Environmental Impact Assessment Application in Guangdong-Hong Kong-Macao Greater Bay Area'. IOP Conf. Series: Earth and Environmental Science, 531. doi:10.1088/1755-1315/531/1/012026 ■ Wood, C. and Coppel, L. (1999) An evaluation of the Hong Kong's environmental impact assessment system, <i>Impact Assessment and Project Appraisal</i>, 17:1, 21-31, DOI: 10.3152/147154699781767936

Ireland

Ireland



The national body for defining the regulatory framework and processes (e.g. government department)

The central body, or bodies, responsible for drafting and maintaining legislation and processes

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> Department of Environment, Heritage and Local Government (DEHLG) within the Government of Ireland is responsible. Its is led by the Minister for Housing, Local Government and Heritage (Darragh O'Brien). The department was renamed on the 30th September 2020.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment in Ireland.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> Also relevant is the Office of the Planning Regulator (OPR). This was established in April 2019 to ensure that Government planning policy is implemented as intended. The OPR's scrutiny extends to local authorities, as well as <i>An Bord Pleanála</i>. <i>An Bord Pleanála</i> is Ireland's national independent planning body that decides appeals on planning decisions made by local authorities. It also determines those planning applications directed to it. The OPR operates an online mapping facility that allows users to check on plan-making progress and to identify whether there are any live consultations. Users can also view OPR submissions, and OPR recommendations to the relevant Minister.

Legislation

The legislative basis to the selected regime

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> The SEA Directive 2001/42/EC came into force in June 2001. It requires that an environmental assessment is carried out on certain plans and programmes which are likely to have significant effects on the environment. The purpose of SEA, as defined in Article 1 of the SEA Directive is <i>'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans...with a view to promoting sustainable development'</i>. In Ireland, the SEA Directive has been transposed into national legislation through: <ul style="list-style-type: none"> S.I. No. 435 of 2004 (European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended by S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011)¹⁹ S.I. No. 436 of 2004 (Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended by S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011)²⁰ The 2011 amendment to the SEA Regulations reduced the mandatory SEA population threshold for Local Area Plans from 10,000 to 5,000 persons. Local Area Plans covering an area greater than 50 sq km also now require mandatory SEA. Below these thresholds, Local Area Plans are required to be screened for SEA. Circular PSSP6/2011 issued by the Department of Housing, Planning and Local Government to all planning authorities in 2011 clarifies the requirements for SEA in relation to land-use plans and the statutory bodies to be consulted.
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¹⁹ <https://www.irishstatutebook.ie/eli/2011/si/200/made/en/print>

²⁰ <https://www.irishstatutebook.ie/eli/2011/si/201/made/en/print>

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The 'Habitats Directive' (Directive 92/43/EEC) is the principal legislative instrument for the protection and conservation of biodiversity within the European Union and lists certain habitats and species that must be protected within wildlife conservation areas. The 'Birds Directive' (Directive 2009/147/EC) provides for a network of sites within the European Union which protect birds at their breeding, feeding, roosting and wintering areas. The Habitats Directive and the Birds Directive form the cornerstone of Europe's nature conservation policy. ■ The requirement for Appropriate Assessment is set out in Articles 6(3) and 6(4) of the Habitats Directive (92/43/EEC) which states: <ul style="list-style-type: none"> “...Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public...” ■ The Habitats Directive and the Birds Directive are transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011²¹, and Part XAB of the Planning and Development Act 2000, as amended²². It is a requirement that each plan or project in Ireland must undergo an assessment of its implications on any European site before any decision is made to allow that plan or project to proceed. This process is referred to as Appropriate Assessment (AA). Appropriate Assessment has been a legal requirement since 1997.
Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	<p>The following principal sources of guidance are available for carrying out a SEA:</p> <ul style="list-style-type: none"> ■ The Department of Housing, Local Government and Heritage published guidelines on SEA for Regional Assemblies and Planning Authorities. Being published in May 2022, the guide provides information on all key stages. Through appendix 5, the document provides a diagram highlighting how SEA practices fit with general plan making stages. ■ SEA of Local Authority Land Use Plans - EPA Recommendations and Resources²³ <ul style="list-style-type: none"> – This document includes: key environmental recommendations to consider; information on recently published relevant EPA reports; links to useful environmental resources for Local Authorities carrying out SEA of land-use plans. It was last updated on 09 January 2023. ■ Good Practice Guidance Note on SEA in Water Sector²⁴ <ul style="list-style-type: none"> – This guidance note aims to provide good practice guidance and ideas on how to carry out SEA of water sector plans in Ireland. ■ Strategic Environmental Assessment (SEA) Pack 2022²⁵

²¹ S.I. No. 477 of 2011 – European Communities (Birds and Natural Habitats) Regulations 2011

²² Planning and Development Act 2000, as amended

²³ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-of-local-authority-land-use-plans---epa-recommendations-and-resources.php>

²⁴ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/good-practice-guidance-note-on-sea-in-water-sector.php>

²⁵ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-pack.php>

- Strategic Environmental Assessment Guidelines for Regional Assemblies and Planning Authorities 2022²⁶
 - These Guidelines provide advice on carrying out SEA in the land-use planning sector for those plans listed in S.I. No.436 of 2004, as amended.
- SEA Spatial Information Sources Inventory 2021²⁷
 - This inventory of spatial information sources can be used to help in preparing SEA Environmental Reports with up to date environmental information. Data sources/links include air quality, climate, biodiversity, flora, fauna, geology, soils, hydrology and water quality. This inventory was last updated in November 2022.
- Good Practice Guidance on SEA Screening 2021²⁸
 - The Guidance Note is focused primarily on plans/programmes in the non-land use sector in Ireland. It includes an elaboration of the steps needed for screening, the legislative landscape underpinning SEA screening, and step-by-step process and templates to assist in preparing the required documentation.
- Good practise note on SEA for the Energy Sector²⁹
 - This note provides good practice guidance on how to carry out SEA of energy strategies/plans. It does not constitute statutory guidance.
- Good Practice Guidance on Cumulative Effect Assessment in SEA 2020³⁰
- Guidance on SEA Statements and Monitoring 2020³¹
- Integrating Climate Change into Strategic Environmental Assessment in Ireland - A Guidance Note 2019³²
- Good practice note on SEA for the Waste Sector³³
- Good practice note on SEA for the Forestry Sector³⁴
- GISEA Manual – Improving the Evidence Base in SEA 2017³⁵
- Developing and Assessing Alternatives in Strategic Environmental Assessment – Good Practice Guidance 2015³⁶
- Integrating Biodiversity Impact Assessment: Streamlining AA, SEA and EIA Processes – Practitioner’s Manual. STRIVE Report Series No. 106 2013.
- SEA Process Checklist - Consultation Draft 2013.
- The **Environmental Protection Agency** provides information about the [SEA process](#) and offers a range of guidance. Available information also includes a list of [SEA spatial information](#)

²⁶ <https://www.gov.ie/en/publication/7e1aa-strategic-environmental-assessment-guidelines-for-regional-assemblies-and-planning-authorities/>

²⁷ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-spatial-information-sources-inventory-.php>

²⁸ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-screening-good-practice-2021.php>

²⁹ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/good-practice-note-on-sea-for-the-energy-sector.php>

³⁰ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/good-practice-guidance-on-cumulative-effects-assessment-in-sea.php>

³¹ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/guidance-on-sea-statements-and-monitoring.php>

³² <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/integrating-climatic-factors-into-strategic-environmental-assessment-in-ireland---a-guidance-note.php>

³³ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/good-practice-note-on-sea-for-the-waste-sector.php>

³⁴ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/good-practice-note-on-sea-for-the-forestry-sector.php>

³⁵ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/gisea-manual---improving-the-evidence-base-in-sea.php>

³⁶ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/developing-and-assessing-alternatives-in-strategic-environmental-assessment-sea.php>

	<p>sources to assist assessors, checklists, and a manual designed to support integration between SEA and plan-making processes. There is also a list of key contacts, including key people in relevant government departments. There is also a directory EPA submission papers and SEA reviews.</p> <ul style="list-style-type: none"> ■ The Environment Protection Agency runs a Geoportal Site that allows site visitors to get data and to view data via built-in WebGIS browsers. ■ The Office of the Planning Regulator (OPR) provides a 'plan-making calculator' that automatically generates a project management timeline following a system prompt for the user to enter details of the stage they are currently involved with. ■ Under Section 31Q of the Planning and Development Act, as amended, the Office of the Planning Regulator (OPR) has a statutory remit to conduct research. Accordingly, in 2019, the OPR established a National Planning Knowledge Group (NPKG) comprising representatives from planning authorities, higher education institutes, NGOs, planning institutes, government organisations and departments. Research activity needs to fit with the research themes set out in a two year plan, with these themes comprising 'Planning Issues', 'Planning Performance' and 'Planning Practice'. Research outputs are available online. ■ In accordance with the provisions of Section 31Q(1)(a) of the Planning and Development (Amendment) Act 2018 (the Act), the Office of the Planning Regulator conducts education and training programmes for staff working at local authorities and regional assemblies, as well as elected members. Sessions have been held to support knowledge on SEA, EIA, and Appropriate Assessment. ■ The website of the Office of the Planning Regulator provides information intended for the general public. It includes an introduction to planning, provides simple advice about different stages of the planning process, and offers a technical glossary and acronym list. There is a specific document relating to 'Environmental Assessments and Planning in Ireland'. There is a YouTube channel with short videos about different elements of Irish planning, and some showcase information about becoming a planner. Similar videos on EIA are also provided.
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	<ul style="list-style-type: none"> ■ National guidance for planning authorities on Appropriate Assessment of plans and projects in Ireland was published by the Department of Environment, Heritage and Local Government (DEHLG) in 2009. It was updated in 2010, by replacing the term "Statement for Appropriate Assessment" with "Natura Impact Statement" or "NIS"³⁷. ■ Paragraph 2.1.1 of the Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities³⁸ provides the below definition of the type of plans that should be subject to AA: <ul style="list-style-type: none"> <i>"Plans include all statutory and non-statutory land use, framework and sectoral plans and strategies to the extent that they have the potential to have significant effects on a Natura 2000 site. This incorporates 'plans and programmes' covered by the SEA Directive, and other plans and strategies, including those that are designed or intended to benefit the environment or heritage, such as Heritage and Biodiversity plans, recreation/amenity plans or strategies, and River Basin Management Plans."</i> ■ The guidance does the following: <ul style="list-style-type: none"> – assist and guide planning authorities in the application of Article 6(3) and 6(4) of the Habitats Directive as it relates to their roles, functions and responsibilities in undertaking Appropriate Assessment of plans and projects. It applies to plans and projects for which

³⁷ <https://www.npws.ie/protected-sites/guidance-appropriate-assessment-planning-authorities>

³⁸ https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

public authorities receive an application for consent, and to plans or projects which a public authority wishes to undertake or adopt.

- sets out the different steps and stages that are needed in establishing whether a plan or project can be implemented without adversely affecting the integrity of a Natura 2000 site.
- addresses issues of mitigation and avoidance of impacts, and also the Article 6(4) derogation provisions for circumstances in which there are no alternatives and for which there are imperative reasons of overriding public interest requiring a plan or project to proceed.

■ The **European Commission** has also published guidance on Article 6 of the Habitats Directive, including on Appropriate Assessment Screening. These include:

- Assessment of plans and projects significantly affecting Natura 2000 sites (2001) - Methodological guidance on of Article 6(3) and (4) of the Habitats Directive 92/43/EEC³⁹
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive (2018)⁴⁰
- Guidance document on the strict protection of animal species of Community interest under the Habitats Directive⁴¹
- Commission guidance on streamlining environmental assessments conducted under Article 2(3) of the Environmental Impact Assessment Directive (Directive 2011/92/EU, as amended by Directive 2014/52/EU)⁴²
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission⁴³
- Communication from the Commission on the precautionary principle⁴⁴

■ Additional National guidance includes:

- OPR Practice Note PN01: Appropriate Assessment Screening for Development Management⁴⁵
- Guidance on the strict protection of certain animal and plant species under the Habitats Directive in Ireland⁴⁶
- Circular NPW 1/10 & PSSP 2/10. Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities⁴⁷.
- Circular SEA 1/08 & NPWS 1/08. Appropriate Assessment of Land Use Plans⁴⁸.
- Circular PD 2/07 & NPWS 1/07. Compliance conditions in respect of developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites⁴⁹.

Associated legislation

Are the goals of the selected regime supported / frustrated by other legislation?

³⁹ https://ec.europa.eu/environment/nature/natura2000/management/pdf/methodological-guidance_2021-10/EN.pdf

⁴⁰ <https://op.europa.eu/en/publication-detail/-/publication/11e4ee91-2a8a-11e9-8d04-01aa75ed71a1>

⁴¹ <https://op.europa.eu/en/publication-detail/-/publication/a17dbc76-2b51-11ec-bd8e-01aa75ed71a1/language-en/format-PDF/source-search>

⁴² https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_2016.273.01.0001.01.ENG&toc=OJ%3AC%3A2016%3A273%3ATOC

⁴³ https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf

⁴⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52000DC0001>

⁴⁵ <https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf>

⁴⁶ <https://www.npws.ie/sites/default/files/files/strict-protection-of-certain-animal-and-plant-species.pdf>

⁴⁷ <https://www.npws.ie/sites/default/files/general/Circular%20NPW1-10%20%26%20PSSP2-10%20Final.pdf>

⁴⁸ <https://www.npws.ie/sites/default/files/general/circular-sea-01-08.pdf>

⁴⁹ <https://www.npws.ie/sites/default/files/general/circular-pd-02-07.pdf>

- The key pieces of environmental legislation are:
 - Environmental Protection Agency Act 1992 (as amended).
 - Protection of the Environment Act 2003 (as amended).
 - Local Government (Water Pollution) Acts 1977 to 1990.
 - Water Services Acts 2007 to 2017.
 - Waste Management Act 1996 (as amended).
 - Waste Management (Facility Permit and Registration) Regulations 2007 (as amended).
 - Waste Management (Collection) Regulations 2007 (as amended).
 - Waste Management (Shipment of Waste) Regulations 2007 (as amended).
 - European Communities (Waste Directive) Regulations 2011.
 - European Union (Waste Electrical and Electronic Equipment) Regulations 2014.
 - European Union (Batteries and Accumulators) Regulations 2014.
 - Air Pollution Act 1987 (as amended).
 - European Communities (Environmental Liability) Regulations (2008 to 2011) (Environmental Liability Regulations).
 - Waste Water Discharge (Authorisation) Regulations 2007 (as amended).
 - European Union (Energy Efficiency) Regulations 2014 to 2019.
 - European Union (Water Policy) (Abstractions Registration) Regulations 2018.
 - Wildlife Act 1976 (no. 39 of 1976)
 - Wildlife (Amendment) Act 2000 (no. 38 of 2000)
 - Wildlife (Amendment) Act 2010 (no. 19 of 2010)
 - Wildlife (Amendment) Act 2012 (no. 29 of 2012)
 - Heritage Act 2018 (no. 15 of 2018), Part 3
 - Planning, Heritage and Broadcasting (Amendment) Act 2021 (no.11 of 2021)
 - Flora (Protection) Order, 2022
- The Climate Act 2021 commits Ireland to 2030 and 2050 targets for reducing GHG emissions. On 23 July 2021, the Government of Ireland passed the Climate Action and Low Carbon Development (Amendment) Act 2021. The core aim of the Act is to provide for the approval of various plans to be prepared by government, to enable Ireland's transition to Net Zero and towards becoming a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy by 2050.

Governance arrangements, including roles and responsibilities at a national, regional / state and local level

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Environment Protection Agency has provided much of the SEA Guidance sometimes in collaboration with the Departments of the Government of Ireland. The Local authority or the authority in charge of the plan is required to submit an SEA.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The Local authority or the authority in charge of the plan is required to submit an Appropriate Assessment. A key consultee in the Appropriate Assessment process is the National Parks and Wildlife Service.

Recent or emerging legislative reform in the selected jurisdiction

Has the legislation been the subject of recent reform or are changes being proposed?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Additional guidance is being produced by the Environment Protection Agency in collaboration with other departments in relation to SEA as detailed within the SEA Action Plan 2021-2025.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ No indication there is any update to legislation.
Link to environmental outcomes <i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	I can't see reference to environmental outcomes.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points <i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ A SEA is submitted alongside a plan to the Chief Executive. The Chief Executive of a city or county is the senior permanent official in local government in the Republic of Ireland. The Environment Protection Agency functions as an SEA environmental authority but does not include approving or enforcing SEAs or plans. ■ The Plan owner commissions the SEA study and this can be managed by consultants. <p>Stages in a SEA Process</p> <ul style="list-style-type: none"> – Screening: Determine whether the plan are likely to result in significant environmental effects. – Scoping: Consultation with the Environmental Authorities on the scope and level of detail to be considered in the assessment; and finalisation of the Scoping Report taking into account the submissions and observations received from the Environmental Authorities. – Draft Environmental Report: An assessment of the likely significant impacts on the environment as a result of the plan. – Consultation on the Draft Environmental Report. – Evaluation of the submissions and observations made on the Draft Environmental Report prior to finalising the Plan. – Final Environmental Report: An assessment of the Final plan. <ul style="list-style-type: none"> ■ Issuing of an SEA Statement identifying how environmental considerations and consultation have been integrated into the plan. ■ The EPA website provides statistics on key SEA activity. For instance the website notes how the EPA responded to 44 screening requests, 51 scoping requests, and reviewed 31 Environmental Reports/Draft Plans during 2022. The EPA also keeps a running log of the number of SEAs undertaken, with analysis being provided about their sectoral focus. By January 2023, 718 SEAs had been completed in Ireland, with 487 relating to planning and land use.

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The Local authority or the body behind the plan or project are responsible for producing the Appropriate Assessment. Consultants can write the report on their behalf. ■ The Department of Environment, Housing and Local Government is consulted with during the preparation of an Appropriate Assessment. ■ In Ireland, the Natura 2000 network of European sites comprise: <ul style="list-style-type: none"> – Special Areas of Conservation (SAC) and candidate SAC designated under the Habitats Directive for particular habitat types (Annex I) and species (Annex II); and, – Special Protection Areas (SPA) and proposed SPA designated under Article 4(1) of the Birds Directive for rare and vulnerable birds listed in Annex I, or Article 4(2) for regularly occurring migratory species not listed in Annex I. ■ Although not specifically required to be considered in the AA process, it is best practice to adopt the precautionary principle and to include Designated Wetlands of International Importance (known as Ramsar sites) (classified under the Ramsar Convention 1971⁵⁰) in the assessment. ■ AA is a four-stage process with tests at each stage: <div style="text-align: center; margin: 10px 0;"> <pre> graph LR S1[Stage 1 Appropriate Assessment Screening] --> S2[Stage 2 Appropriate Assessment] S2 --> S3[Stage 3 Assessment of Alternative Solutions] S3 --> S4[Stage 4 Imperative Reasons of Overriding Public Interest / Derogation] </pre> </div> ■ An emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the avoidance of likely significant effects at Stage 1, and through AA at Stage 2 by the inclusion of mitigation measures designed to avoid or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that ‘imperative reasons of overriding public interest’ are likely to be justified only very occasionally and would involve engagement with the Government.
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Baseline data for a SEA report can be found in the State of Environment Report produced by the Environment Protection Agency. ■ The Environmental Sensitivity Mapping (ESM) WebTool was launched to assist SEA and planning processes in Ireland. The tool brings together over 100 datasets and allows users to create plan-specific environmental sensitivity maps. ■ The EIA Portal is provided by the Department of Department of Housing, Local Government and Heritage and provides details for those planning applications that are accompanied by an Environmental Impact Assessment Report (EIAR). The portal is designed as an access point for viewing detailed scheme information to help encourage and facilitate public and stakeholder engagement. ■ The Environmental Protection Agency (EPA) and the National Parks and Wildlife Service (NPWS) have collaborated on the development of an Appropriate Assessment GeoTool application. This can assist with the data gathering process for Stages 1 and 2 of the Appropriate Assessment process.

⁵⁰ The Convention on Wetlands of International Importance especially as Waterfowl Habitat, more commonly known as the Ramsar Convention, was ratified by Ireland in 1984.

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Information on protected sites in Ireland is available through the National Parks and Wildlife Service⁵¹.
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
Strategic Environmental Assessment (SEA)	<p>Screening is undertaken by the local authority or the plan maker.</p> <p><u>Stage 1: Screening</u></p> <ul style="list-style-type: none"> ■ In deciding whether a plan is likely to have significant environmental effects, regard must be had to the criteria set out in Annex II of the SEA Directive, as also set out in Schedule 1 of the SEA Regulations. The Screening process comprises three principal stages: <ul style="list-style-type: none"> – Stage 1: Applicability: To determine if the plan falls within the scope of the SEA Directive and transposing legislation, and to confirm if it requires mandatory SEA. – Stage 2: Screening: To determine the characteristics of the plan and to identify whether the plan may give rise to significant effects. – Stage 3: Determination: As soon as possible after making the final determination as to whether SEA is required or not, the decision should be made available on the Council's website for public inspection and a copy of the final determination sent to the SEA Environmental Authorities notified during screening.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Screening is undertaken by the local authority or the plan maker. <p>Stage 1: Screening (Identifies whether the plan or project is directly connected to, or necessary for, the management of a European site(s).)</p> <ul style="list-style-type: none"> ■ The purpose of the screening stage is to: <ul style="list-style-type: none"> – Identify all aspects of the Plan that would have no effect on a European site. These can be eliminated from further consideration in respect of this and other plans. – Identify all aspects of the Plan that would not be likely to have a significant effect on a European site (i.e. would have some effect because of links/connectivity but the effect is not significant), either alone or in combination with other aspects of the strategy or other plans or projects. These do not require Appropriate Assessment. – Identify those aspects of the Plan where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the strategy that will require Appropriate Assessment. <p>Step 1: Description of the Plan or Proposal:</p> <ul style="list-style-type: none"> ■ The first element is to provide the following information: <ul style="list-style-type: none"> – Background and context. – Geographical area covered by the plan or proposal.

⁵¹ <https://www.npws.ie/protected-sites>

- Purpose of the plan or proposal.
- Content of the plan or proposal.
- Stage of the plan or proposal.

Step 2: Identification of relevant European sites

- When assessing impact, qualifying interests of conservation interest are only considered relevant where a credible or tangible source-pathway-receptor link exists between the plan or project and qualifying species or habitats. In order for an impact to occur, there must be a risk initiated by having a 'source' (e.g. construction works), a 'receptor' (e.g. a protected species, associated aquatic or riparian habitats), and an impact pathway between the source and the receptor (e.g. a watercourse which connects the plan or project to the site designated for the protection of a species). If there is no pathway or the qualifying interests of the European site are not vulnerable (either directly or indirectly) to any impact predicted from the plan or project, then a site should not be screened in.
- In Ireland, the Natura 2000 network of European sites comprise:
 - Special Areas of Conservation (SAC);
 - Special Protection Areas (SPA);
 - Ramsar sites.

Zone of Impact

- The 'Zone of Impact' (Zol) for a plan or project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. The Zol will vary for different ecological features depending on their sensitivity to an environmental change.
- A distance of 15km is currently recommended by the NPWS in the case of plans as a potential Zol which is derived from UK guidance⁵². Consideration is given to whether any more distant European sites may be connected to the strategy area via effects pathways, for example through hydrological links. The assessment also takes into account areas that may be functionally linked to the European sites. The term 'functional linkage' is used to refer to the role or 'function' that land beyond the boundary of a European site might fulfil in terms of supporting the species populations for which the site was designated or classified. Such an area is therefore 'linked' to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status. While the boundary of a European site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly mobile. Individuals of the population will not necessarily remain in the site all the time. Sometimes, the mobility of qualifying species is considerable and may extend so far from the key habitat that forms the SAC or SPA that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species.

Step 3: Assessment of 'Likely Significant Effects'

- A conclusion of 'no Likely Significant Effect' therefore can only be reached where it is considered very unlikely, based on current knowledge and the information available, that the plan or project would have a significant effect on the integrity of a European site. The screening assessment is conducted without taking mitigation into account.

⁵² Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants. 2006. Appropriate Assessment of plans. <http://www.landuse.co.uk/Downloads/AppropriateAG.pdf>

- The European Commission's Appropriate Assessment Guidance outlines the following potential changes that may occur at a designated site, which may result in adverse effects on the integrity and function of that site:
 - Physical loss/reduction of habitat area.
 - Habitat or species fragmentation (functionally linked land).
 - Non-physical disturbance (noise, light, vibration).
 - Recreation pressure.
 - Changes to hydrology including water quality and quantity.

Assessment of potential in-combination effects

- Where the plan or project is likely to have an effect on its own (due to impact pathways being present), but it is not likely to be significant, the in-combination assessment at Screening stage needs to determine whether there may also be the same types of effect from other plans or projects that could combine with the strategy to produce a significant effect. If so, this Likely Significant Effect arising from the Plan in combination with other plans or projects, would then need to be considered through the AA stage to determine if the impact pathway would have an adverse effect on integrity of the relevant European site.
- Where the screening assessment has concluded that there is no impact pathway between the strategy and the conditions necessary to maintain qualifying interests of a European site, then there will be no in-combination effects to assess at the Screening or AA stage. If impact pathways are found to exist for a particular effect but it is not likely to be significant from the strategy alone, the in-combination assessment will identify which other plans and programmes could result in the same impact on the same European site. This will focus on planned growth (including housing, employment, transport, minerals and waste) around the affected site, or along the impact corridor. The potential for in-combination impacts would therefore focus on plans prepared by planning authorities that overlap with European sites that are within the scope of this report. The findings of any associated AA work for those plans would be reviewed where available. Where relevant, any strategic projects that could have in-combination effects would be identified and reviewed.
- In-combination effects must examine plans or projects that are:
 - Projects completed.
 - Projects approved but not started or uncompleted.
 - Projects proposed.
 - Proposals in adopted plans.
 - Proposals in finalised draft plans formally published or submitted for consultation or adoption.
- Plans and projects that are not yet proposed do not generally have to be taken into account in the assessment of in-combination effects, even if they are part of an overarching masterplan. The need for in-combination assessment also arises at the AA stage.

Step 4: Conclusion and Screening Statement

- To support the decision-making of the competent authority, a clear statement of the conclusion reached, and the basis upon which it was reached is provided. Screening of a plan or project for AA would result in the following possible conclusions or outcomes:
 - AA is not required.
 - Screening, followed by consultation and agreement with the National Parks and Wildlife Service, establishes that the Plan is directly connected with or necessary to the nature conservation management of the potentially affected European sites.
 - No potential for significant effects/AA is not required

	<ul style="list-style-type: none"> – Screening establishes that there is no potential for significant effects and the Plan can proceed as proposed. ■ Significant effects are certain, likely or uncertain. – The plan or project must either proceed to Stage 2 (AA) or be rejected.
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p><u>Stage 2: Scoping</u></p> <ul style="list-style-type: none"> ■ The Scoping Report is required to provide information for consideration in respect of the requisite content of the SEA. It is obligatory to conduct the scoping stage of an SEA such that the content and boundaries for the SEA are agreed prior to commencement of the Environmental Report. The main stages in carrying out scoping include: ■ Identifying plans, programmes, and environmental objectives of relevance. ■ Scoping of relevant SEA Topics. ■ Identifying geographic, temporal and transboundary scope. ■ Collecting baseline information. ■ Identifying sustainability issues and problems. ■ Developing the SEA Framework comprising environmental objectives, indicators and targets to allow the evaluation of impacts on the environment. ■ Identifying reasonable alternatives. ■ Consulting on the scope of the SEA. <p>The environmental topics in the SEA Regulations that were scoped in for the assessment include: Biodiversity, Flora and Fauna; Population and Human Health; Climatic Factors; Air; Soil; Water; Cultural Heritage including Architectural and Archaeological Heritage; Landscape; Material Assets; and the interrelationship between these factors.</p> <p>To fulfil the requirements of Schedule 2, the Screening/Scoping Report set out a description of the state of the environment at present; identified the key issues/problems currently being faced nationally; and described the expected evolution of the environment without the plan. Schedule 2 of the SEA Regulations states that the Environmental Report should identify any difficulties encountered during the assessment process.</p> <p>Scoping consultation Article 11 of the SEA Regulations sets out the details of the requirements for consultation with the Environmental Authorities on the scoping of the Environmental Report.</p>
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p><u>Stage 3: Draft Environmental Report</u></p> <p>The SEA Regulations require an Environmental Report to be prepared, in line with the completed Scoping Report. It reflects the requirements of the SEA Directive and the transposed SEA Regulations by providing the following information:</p>

	<ul style="list-style-type: none"> ■ An outline of the contents of the plan and its relationship with other relevant plans and programmes. ■ The environmental characteristics of the study area, including any problems and issues identified and their likely evolution without the plan. ■ Key environmental policy objectives set at the international, national and local levels that are relevant to plan. ■ The SEA Framework and the criteria used to make judgements about the effects of the plan. ■ The likely significant effects of the plan and reasonable alternative options appraised against each of the Environmental Protection Objectives (EPOs) in the SEA Framework, taking into account mitigation (which may take the form of policy safeguards in national policy or other regulatory mechanisms). ■ Any difficulties encountered during the assessment process, including data limitations. ■ How consultation comments have been taken into account, including those obtained on the Screening/Scoping Report. ■ Proposed monitoring framework for significant effects identified (including uncertain effects where these could become significant). <p>The SEA Regulations require the Environmental Report to describe the relationship of the plan with other relevant plans and programmes. The plan should also be consistent with environmental protection legislation and support attainment of environmental objectives that have been established at the international and national levels.</p> <p>The relevant environmental objectives identified by the review of plans and programmes together with the key environmental issues identified by the collection and review of baseline information, help to inform the development of a set of environmental objectives (the 'SEA Framework') against which the effects of the plan have been assessed. Development of the SEA Framework is not a requirement of the SEA Regulations, but it is a recognised way in which the likely environmental effects of the plan can be transparently and consistently described, analysed and compared.</p>
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<p><u>Stage 2: Appropriate assessment (Identifies whether the plan or project may have significant impact/s upon European site/s, either alone or in-combination with other plans or projects)</u></p> <p>The Stage 2 Appropriate Assessment assesses whether the plan or project alone, or in-combination with other plans or projects, would result in adverse impacts on the integrity of the two European sites brought forward from Screening, with respect to site structure, function and/or conservation objectives. Likely Significant Effects arising from the plan or project, either alone or in-combination, are identified for the following sites and impact types:</p> <ul style="list-style-type: none"> ■ Physical damage / loss (onsite). ■ Loss of functionally linked land. ■ Non-physical disturbance (noise, light, vibration). ■ Recreation pressure. ■ Changes to hydrology including water quality and quantity. <p>The Appropriate Assessment focuses on those impacts that are judged likely to have a significant effect on the qualifying interests of a European site, or where insufficient certainty regarding this remained at the screening stage. A conclusion needs to be reached as to whether or not plan or project would adversely affect the integrity of a European site. To reach a conclusion, consideration is given to whether the predicted impacts of the plan or project (either alone or in-combination) have the potential to:</p>

	<ul style="list-style-type: none"> ■ Delay the achievement of conservation objectives for the site. ■ Interrupt progress towards the achievement of conservation objectives for the site. ■ Disrupt factors that help to maintain the favourable conditions of the site. ■ Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environmental Assessment (SEA)</p>	<p>One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative development scenarios:</p> <ul style="list-style-type: none"> ■ Take into account the geographical scope, hierarchy and objectives of the plan ■ Be based on socio-economic and environmental evidence ■ Be capable of being delivered within the plans' timeframe and resources ■ Be technically and institutionally feasible <p>The reason for assessing alternatives is to determine if the significant adverse effects of a plan can be reduced or avoided. Therefore, the alternatives should be "reasonable". The term reasonable is not defined in the SEA Directive/Regulations. However, considering the EPA's Developing and Assessing Alternatives in Strategic Environmental Assessment – Good Practice Guidance, for an alternative to be considered reasonable for the purposes of this SEA, it must meet the objectives of the plan.</p> <p>The SEA findings are not the only factors taken into account when determining a preferred approach to take forward in the Guidelines. Indeed, there will often be an equal number of positive or negative effects identified by the SEA for each option, such that it is not possible to rank them based on sustainability performance in order to select a preferred option. Factors such as public opinion, deliverability and conformity with national legislation will also be taken into account when selecting the preferred approach for the plan.</p> <p>A public consultation is held for 10 weeks with consultation responses reviewed following the consultation.</p>
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	<p>Stage 3: Assessment of Alternative Solutions</p> <ul style="list-style-type: none"> ■ This stage examines alternative ways of implementing a project or plan that, where possible, avoids any adverse impacts on the integrity of a Natura 2000 site. Before a project or plan that either alone or in combination with other projects or plans has adverse effects on a Natura 2000 site can proceed for imperative reasons of overriding public interest, it must be objectively concluded that no less-damaging alternative solutions exist. Alternative solutions should normally already have been identified within the framework of the screening, the Natural Impact Statement (NIS) and the AA. Possible alternative solutions may, for example include variants or combinations of: <ul style="list-style-type: none"> ■ locations or routes ■ scale or size ■ means of meeting objectives (e.g. demand management) ■ methods of construction (e.g. 'silent piling') ■ operational methods ■ decommissioning methods at the end of a project's life ■ scheduling and timescale proposals (e.g. seasonal working)

- mitigation
- the so-called 'zero-option', i.e. abandonment of a proposal
- It rests with the competent authorities to make the necessary comparisons between these alternative solutions, based on each option being subject to Stage 2 AA. If the proponents of a plan or project are not the competent authority itself, then it is to be expected at this stage that additional information will need to be sought from them. This may take the form of a NIS for each of the solutions considered, but will also need to incorporate a comparative dimension between the different solutions. Each solution should be put forward and assessed as a detailed proposal (e.g. specimen design for a new road scheme rather than just a route corridor). The alternatives must be compared with respect to the significance of their likely effects on the integrity of the site. In this phase, therefore, other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria.

Stage 4: Imperative Reasons of Overriding Public Interest/Derogation

- In the absence of alternative solutions, or if alternative solutions are likely to have even more negative environmental effects on the site concerned with regard to its conservation objectives, or if a better solution is identified that will reduce but not avoid an impact on the site, the competent authority must establish whether or not the plan or project can be considered to be necessary for imperative reasons of overriding public interest (IROPI). In the case of sites where priority habitats (or species) are affected, the protection mechanism is stricter, and the only IROPI reasons that may be raised are those relating to human health, public safety or beneficial consequences of primary importance to the environment. In the case of other IROPI that may need to be raised, the opinion of the European Commission must first be obtained. It is clear from the wording of Article 6(4) that only public interests can be balanced against the conservation aims of the Habitats Directive.
- Plans or projects that lie entirely in the interest of companies or individuals are not considered to be covered. As the public interest must be overriding, it is clear that not every kind of public interest of a social or economic nature is sufficient, in particular when seen against the particular weight of the interests protected by the Habitats Directive. Every effort should be made to avoid recourse to IROPI, as this is a legally difficult, expensive, lengthy and complex process, with no guarantee of a successful outcome and with a serious risk of legal challenges. It is also important to emphasize that one cannot avoid recourse to IROPI by an interpretation of facts that is inconsistent with, or selective in its use of, scientific data and best advice. Adoption or permission also requires that provision has been made to provide compensatory measures, including, if required, providing compensatory habitat. If IROPI do not exist then a plan cannot be adopted nor can planning permission be granted for a project.
- Where it is considered that there are no alternative solutions and that IROPI apply, it is necessary to prepare statement of case for the invocation of imperative reasons of overriding public interest to permit a plan to be adopted or a project to be approved. The statement should set out:
 - the nature of the potential negative impacts on the site that led to the negative appropriate assessment;
 - the grounds for the view that there are no alternatives, including a comprehensive examination of all options including the option of abandoning the plan or proposed development;
 - the imperative reasons of overriding public interest that the authority considers necessitate adoption of the land use plan or approval of the proposed development, and its grounds for considering that they apply; and,
 - the compensatory measures that would need to be provided if the plan were to be adopted or the proposed development were to be approved, and a proposal of how this could be achieved.

	<ul style="list-style-type: none"> ■ This statement of case will serve as the basis for an IROPI decision and referral to the Minister and for informing or obtaining the opinion of the European Commission. ■ It is a strict obligation under Article 6(4) of the Habitats Directive that, where a plan or project is being permitted for imperative reasons of overriding public interest, all compensatory measures that are necessary to ensure the overall coherence of Natura 2000 is protected must be put in place. In many cases the measures to be taken will include the identification and securing of compensatory habitat and the necessary works to ensure that habitat will be in good ecological condition. Compensatory measures must compensate for the expected impact on the site. Given the overreaching requirement regarding the coherence of Natura 2000 and the possibility that compensatory habitat outside of an existing designated area may have to be designated by the Minister, the Minister must be consulted regarding the proposed compensatory measures, so that he can satisfy himself that the proposed measures adequately meet the requirements of the Directive. Until the Minister has agreed to the proposed compensatory measures, a plan or project cannot be adopted or approved on IROPI grounds. Finally, the approved compensatory measures must be incorporated in the plan or included in the conditions of the approval.
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ A SEA scoring system is used to assess the significant effects with the use of positive and negative effects and colour coding.
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	<ul style="list-style-type: none"> ■ Likely Significant Effects arising from the plan or project, either alone or in-combination, are identified for the following impact types: <ul style="list-style-type: none"> – Physical damage / loss (onsite). – Loss of functionally linked land. – Non-physical disturbance (noise, light, vibration). – Recreation pressure. – Changes to hydrology including water quality and quantity.
<p>Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ The layout of the report is: <ul style="list-style-type: none"> – Non-technical summary – Introduction (brief description of the plan and area, purpose of the report) – SEA methodology (methods used, technical difficulties, authorities consulted) – Summary of the key objectives of the plan – Relationship of the plan with other relevant plans – Summary of baseline information – SEA objectives and indicators – Assessment of alternatives, and selection of preferred alternative – Mitigation measures and assessment results – Monitoring proposals

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Appendix 5 of the Appropriate Assessment of Plans and Projects in Ireland provides a checklist of the information to be included in a AA.
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The implementation of the plan is through (a) preparation and revision of statutory land use plans, and (b) decision-making processes of the planning consent authorities in accordance with such land use plans. Therefore, any adverse effects arising from the implementation of the plan will be mitigated through the application of development plan policies and the planning consenting process. ■ In addition, recommendations are also identified.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ These are measures aimed at minimising, cancelling out or ideally avoiding the negative impact of a plan or project before, during or after its completion or implementation. Mitigation measures may be an integral part of the specifications of a plan or project, or an add-on. They may be proposed by the plan or project proponent and/or required by the competent authorities. For example, they may cover: <ul style="list-style-type: none"> – The dates and the timeframe of works (e.g. not to operate during the breeding season of a particular species) – The type of tools and operation to be carried out (e.g., to use a specific dredge at a distance agreed upon from the shore in order not to affect a fragile habitat) – The precise location or scale of a structure or works – Protection of existing trees and other vegetation. ■ If mitigation is possible that enables a risk to be avoided fully, then, subject to other necessary approvals, the project or plan may proceed. If mitigation measures are insufficient, or are not actually practicable and achievable to avoid the risk entirely, then, in the light of a negative assessment, the plan or project may not proceed.
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Article 17 of the SEA Regulations requires that the competent authority monitors the significant environmental effects of implementing the plan in order to identify, at an early stage, any unforeseen adverse effects due to the implementation of the plan and to take remedial action. In Ireland, national legislation puts the onus for SEA monitoring on the plan-making authorities, requiring that they monitor the significant environmental effects of their plans/programmes. However, national legislation does not specify reporting requirements or assign any third-party authority oversight or enforcement functions in relation to SEA monitoring. ■ The SEA Directive does not contain any technical requirements about the methods to be used for monitoring. In practice, SEA monitoring typically entails measuring established indicators on a regular (e.g. annual or biannual) basis. Changes in indicator values can be compared against the documented baseline environment for the plan/programme area to evaluate their upward/downward trend. This is then used as a basis for identifying beneficial or adverse effects. Monitoring findings are to be made available in a publicly accessible report and/or on a website. SEA monitoring should reflect the nature and level of detail of the plan/programme. Monitoring of mitigation measures could include, for instance, the proportion of new homes reaching specific energy efficiency levels or the length of new cycle track built within the plan

	<p>area. Monitoring of sectoral plans – for instance transport, waste or energy plans – should focus on the key environmental impacts of relevance to these sectors.</p> <ul style="list-style-type: none"> ■ Under Article 13J(2) of the Planning and Development Regulations 2001, as amended, the Chief Executive’s report must include information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the Development Plan. This report, which documents the progress of implementing a Development Plan after two years from its commencement, must therefore include the results of SEA monitoring for the Development Plan, as well as variations to the plan and the effects of implementing Local Area Plans.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ There is no explicit requirement for monitoring the ongoing impact of the implementation of a plan on the conservation objectives of Natura 2000 sites, it is best practice to do so. It is recommended that this includes a review of what has arisen in terms of impacts in the life of the preceding plan, e.g. deterioration or loss of habitats or species in a SAC or SPA, as a consequence of development and altered land use, increase in population, encroachment, disturbance, etc.
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Consultation is carried out at Screening, Scoping and the Environment Report stage. ■ Consultation is carried out with the general public, environmental authorities and transboundary authorities. The local authority or plan maker are responsible for organising the consultation. <p>Public and environmental authorities</p> <ul style="list-style-type: none"> ■ Article 6 of the Directive requires both authorities and the public must be given an “early and effective” accompanying Environmental Report before any final decision is made on the plan. (“The public” includes organisations and individuals). <p>Transboundary</p> <ul style="list-style-type: none"> ■ Considers that the implementation of a plan being prepared in relation to its territory is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the plan is being prepared shall, before its adoption, forward a copy of the draft plan and the associated Environmental Report to the other Member State.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Consultation is carried out at screening and Appropriate Assessment stage. The local authority or plan maker are responsible for organising the consultation. ■ It is recommended that the advice of the Department is taken on board by the competent authority in finalizing the process. In order to facilitate consultation, sufficient information should be provided in the NIS on the following: <ul style="list-style-type: none"> – The geographic area involved (a map should be included); – The nature of the plan, and its intended lifespan; – The likely scale, nature and location of development within the area during the life of the plan (in broad terms), and its predicted significant environmental impact; – Review of existing and potential environmental and infrastructural problems; – Cumulative and in combination impacts;

	<ul style="list-style-type: none"> – Associated relevant strategies; – The location of Natura 2000 sites and their conservation issues and sensitivities. It is recommended that the Department be consulted by a planning authority at every stage of the plan making process (i.e. at the pre-draft, draft and proposed amendments stages). ■ Transboundary requirements - It is recommended that the consultation procedures outlined in the SEA Guidelines are followed in relation to AA including where a plan impacts on a Natura 2000 site.
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<p>I couldn't find anything on enforcement.</p>
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ In view of the environmental importance attached to Natura 2000 sites, planning authorities should give priority to enforcement cases where a development has had or may have a significant effect on a Natura 2000 site. In particular, if requested by National Parks and Wildlife Service to investigate any such case, this should be given priority.
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The findings of the 2nd Review of the SEA effectiveness in Ireland⁵³: ■ This review has considered how well SEA has performed over seven different dimensions of effectiveness: <ul style="list-style-type: none"> – Transactive effectiveness, – Knowledge and Learning effectiveness, – Normative effectiveness, – Substantive effectiveness, – Pluralist effectiveness, – Procedural effectiveness, – Contextual effectiveness. ■ The findings of the review indicate that recent practice in Ireland seems to be more procedurally effective than reported for the case studies in the first SEA effectiveness study of 2012. More governmental bodies and sectors have engaged in the SEA process and there is, generally, a greater openness to the process. This may be, in part, driven by increasing legal challenges on project consent and refusals through the Irish and European Union courts, placing more of a focus on the earlier stages of decision-making than ever before. ■ SEA is leading to changes in plans/ programmes through both direct and indirect pathways. One of the key pathways that has proved difficult to record is education and awareness raising. This intangible influence can be highly effective at refocusing planning teams to consider environmental matters. ■ Recent practice seems to be more procedurally effective than the case studies in the first SEA effectiveness study of 2012. Overall, SEA seems to be fulfilling its role. More sectors have engaged in the SEA process and there is, generally, a greater openness to the process. This may in part be driven by the increasing number of legal challenges on project consent and

⁵³ https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/EPA-RR-306_web.pdf

	<p>refusals through the Irish and European Union (EU) courts, placing more of a focus on the earlier stages of decision-making than ever before.</p> <ul style="list-style-type: none"> ■ SEA is effective at bringing environmental issues to the forefront and improving plan-making. This good substantive performance is, however, mostly demonstrated by integration of SEA recommendations into the plans/programmes.
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..</p>	
<p><i>Strategic Environmental Assessment (SEA)</i></p>	<ul style="list-style-type: none"> ■ <i>The findings of the 2nd Review of the SEA effectiveness in Ireland⁵⁴:</i> ■ <i>This review has considered how well SEA has performed over seven different dimensions of effectiveness:</i> <ul style="list-style-type: none"> – <i>Transactive effectiveness,</i> – <i>Knowledge and Learning effectiveness,</i> – <i>Normative effectiveness,</i> – <i>Substantive effectiveness,</i> – <i>Pluralist effectiveness,</i> – <i>Procedural effectiveness,</i> – <i>Contextual effectiveness.</i> ■ <i>Considerable progress has been demonstrated in applying SEA in Ireland, and the SEA process is now well “bedded in”, challenges remain. The key procedural challenges identified in this review are similar to those experienced in the earlier review, notably the consideration of alternatives and monitoring. Environmental Protection Agency guidance on SEA alternatives has been reported as having improved SEA practice, but this is not necessarily evidenced in the materials reviewed. Further examination of the limitations to alternatives development may be needed to fully achieve effectiveness in this area.</i> ■ <i>In Ireland, monitoring remains the most poorly performed stage of SEA, and it is clear from the review that plan-makers and SEA practitioners are in need of clear guidance on how to develop and implement effective monitoring. However, guidance, although valuable, will not be enough to address current monitoring limitations in Ireland. Plan-makers must commit to implementing monitoring programmes if future plan/programme cycles are to benefit from properly understanding environmental pressures.</i> ■ <i>Opportunities exist for better public engagement in both plan-making and the SEA process, as the statutory minimum level of consultation has not been found to be effective at engaging the public. The Environmental Reports generally fail to capture how the policy context shapes a plan or programme, the case studies are illustrative of the generally positive and proactive approach to environmental integration in Ireland, which often results in good procedural performance and good substantive outcomes.</i> ■ <i>Because of poor monitoring, it still often remains to be shown whether or not SEA is resulting in sustainable outcomes and preventing adverse effects on the environment. Stronger measures to efficiently implement monitoring seem necessary.</i> ■ <i>One of the key pathways that has proved difficult to record is education and awareness raising. This intangible influence can be highly effective at refocusing planning teams to include</i>

⁵⁴ https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/EPA-RR-306_web.pdf


	<p><i>environmental matters. The interview findings support this, identifying that many of the intricacies of the SEA and plan-making processes go unreported. Although the Environmental Reports fail to capture how the policy context shapes a plan/programme, the case studies are illustrative of the generally positive and proactive approach to environmental integration in Ireland, which often results in good procedural performance and good substantive outcomes. Although Environmental Reports do not give any indication as to how time, resources and know-how influence the quality of the various procedural stages of the SEA process, deficiencies in these areas are reported to affect procedural and pluralist effectiveness. An avenue to address these shortcomings comes from the recommendation to create a central permanent resource within the planning authority or organisation to help streamline processes, enhance consultation and ensure that organisational memory is not lost, while optimising resources. There seems to be consensus among Irish stakeholders that SEA is normatively effective in that it enables reflection on policy values and promotes sustainable development. It is also perceived to be transactively effective, with benefits outweighing the costs.</i></p> <ul style="list-style-type: none"> ■ <i>The SEA Action Plan 2021-2025⁵⁵ will implement the key priority recommendations of the 2nd SEA Effectiveness Review. Some of the actions within the plan include:</i> <ul style="list-style-type: none"> – <i>Continue efforts to improve the effectiveness of the National SEA Forum.</i> – <i>All environmental authorities are committed to reviewing their websites as part of efforts to increase awareness of national, EU and International SEA-related guidance.</i> – <i>Continue to explore the establishment of a national integrated SEA portal</i> – <i>Promote the dissemination of spatial data from existing monitoring mechanisms</i> – <i>Promote the inclusion of monitoring plans and implementation plans through SEA advocacy roles.</i> – <i>Revise, update and publish the EPA SEA Pack and EPA SEA Process Checklist</i> – <i>Publish a guidance note on SEA and Plan integration to promote good communication.</i> – <i>Prepare and publish guidance on effective and meaningful consultation with the public and statutory consultees.</i> – <i>Develop an e-learning syllabus on SEA to provide training and capacity building.</i> – <i>Promote research into quantification or monetisation of the benefits of SEA based on examples from the Irish context.</i> – <i>Development of national SEA KPIs to evaluate SEA effectiveness as a research project.</i> – <i>Good practice guidance for addressing health in SEA.</i> – <i>Good practice guidance for addressing landscape in SEA.</i> – <i>Tiering of environmental assessment – the influence of SEA on project-level EIA.</i> ■ <i>Some of these actions have been addressed with the publication of additional guidance by the Environment Protection Agency.</i>
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

⁵⁵ <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-action-plan-2021---2025.php>

References

- d'Auria, L. and Ó Cinnéide, M. (2009) 'Integrating strategic environmental assessment into the review process of a development plan in Ireland'. *Impact Assessment and Project Appraisal*, 27(4), pp. 309-319.
- Environment Protection Agency (2023) *Compliance and Enforcement* [online]. Available at: <https://www.epa.ie/our-services/compliance>
- Environment Protection Agency (2023) *SEA Spatial Information Sources Inventory* [online]. Available at: <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-spatial-information-sources-inventory-.php>
- González, A., Gleeson, J., and McCarthy, E. (2019) 'Designing and developing a web tool to support Strategic Environmental Assessment', *Environment Modelling and Software*, 111, pp. 472-482.
- González, A., Bullock, C., Gaughran, A. and Watkin-Bourne, K. (2019) 'Towards a better understanding of SEA effectiveness in Ireland'. *Impact Assessment and Project Appraisal*, 37:3-4, 233-246, DOI: 10.1080/14615517.2019.1580475
- González, A., Hochstrasser, T., Fry, J., Scott, P., Grist, B. and Jones, M. (2013) 'Evaluating Ireland's IBIA as an approach to improving the quality and effectiveness of biodiversity impact assessment'. *Journal of Environmental Management*, 131, pp. 150-160.
- Ryall, A. (2009) *Effective Judicial Protection and the Environmental Impact Assessment Directive in Ireland*. Botley: Hart Publishing.
- Ryall, A. (2018) 'Enforcing the Environmental Impact Assessment Directive in Ireland: Evolution of the Standard of Judicial Review'. *Transnational Environmental Law*. 7(3), pp. 515-534.
- UCD (2019) *ESM Webtool: Bringing Environmental Assessment to Your Fingertips* [online]. Available at: <https://enviromap.ie/>

The Netherlands

Netherlands	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> The Ministry of Infrastructure and Water Management is the government department that oversees the implementation of Environmental Assessment (including Strategic Environmental Assessment).
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> The Netherlands Commission for Environmental Assessment (NECA) also plays an important role in the application of assessment, as discussed below.
Ecological Impact Assessment (Ecol IA)	
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> 1986- Environmental Protection Act, came into force when EIA Decree was issued in 1987, now known as the environmental management act (https://www.asser.nl/upload/eeel-webroot/www/documents/national/netherlands/EMA052004.pdf). Although not named, it is understood that SEA was implemented in 2006 as part of this act. EIA was established in chapter 7 (article 7.1-7.4) of the management act (https://wetten.overheid.nl/BWBR0003245/2012-07-01, alongside how NECA contributes to EIA in articles 2.17-2.24 (https://wetten.overheid.nl/BWBR0003245/2012-07-01. Articles 14.4a-14.16 provides coordination for drawing up an EIA- https://wetten.overheid.nl/BWBR0003245/2012-07-01 2001- Transposition of the SEA directive, amended the Environmental Management Act and relevant regulatory provisions of the EIA Decree (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32001L0042) 2010- Modernisation of Dutch environmental assessment legislation (https://wetten.overheid.nl/BWBR0003245/2012-01-01), resulting in fewer requirements and more uniformity in EIA of plans and projects 2010- Environmental Assessment Modernisation Bill- Chapter 7 of the Environmental Act (https://wetten.overheid.nl/BWBR0003245/2019-07-01#Hoofdstuk7 No legislations found beyond 2010, most legislations are European over specific to the Dutch jurisdiction
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> 2011 MER Guidance for public participation in planning and strategic environmental assessment (SEA)- https://www.commissierner.nl/docs/mer/diversen/os_guidance_publicparticipation.pdf Single stand alone document, not updated regularly, published by the Dutch Government, evidence of training through public participation plan

	<ul style="list-style-type: none"> ■ OECD, Applying Strategic Environmental Assessment Good practice guidance for development co-operation 2006- https://www.oecd.org/environment/environment-development/37353858.pdf <p>Single stand alone document, living document to be updated as significant new experiences emerge, published by the Organization for Economic Cooperation and Development, lots of reference to training, seminars and workshops</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The government website has an EIA Procedure manual https://www.infomil.nl/onderwerpen/integrale/mer/procedurehandleiding/ ■ and practical guide https://www.infomil.nl/onderwerpen/integrale/mer/praktijkhandreiking/ ■ These are both government guidance, which came into force in 2010 alongside new legislation, is on a website over a document which makes it easier to make updates, easily accessible and simple to navigate way round the website, no specific mention in either manuals to training ■ Updated 2019 Netherlands MER EIA Profile- file:///C:/Users/price_o/OneDrive%20-%20LUC/Documents/Expenses/countryprofile.pdf ■ This government guidance is a stand alone document which has been updated to 2019, it contains links to other sources within it. There is no mention to training courses but it contains a step by step guide on different EIA processes.
Ecological Impact Assessment (Ecol IA)	
Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
<ul style="list-style-type: none"> ■ When looking at Environmental data, the Netherlands Environmental Assessment Agency complies with current privacy legislation- https://www.pbl.nl/en/about-pbl/privacy 	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ NECA- Advises the government on the quality, focuses on consideration of environmental consequences in strategic decision making, for example in the design of plans and programmes https://www.eia.nl/docs/mer/diversen/ks_17a_ncea_our_role_in_the_netherlands_-_april_2015.pdf
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ NCEA are responsible for the quality review, they have their own staff for different expertise https://www.eia.nl/docs/mer/diversen/ks_17a_ncea_our_role_in_the_netherlands_-_april_2015.pdf ■ Overtime governance has been subject to various changes, decision making of the European EIA directive prevails over Dutch national regulations
Ecological Impact Assessment (Ecol IA)	
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ New environmental and spatial planning act (Omgevingswet or OW)- effect EA practice to enable more flexibility in spatial plans and new demands for longer term planning. This will come into effect on 1st January 2024 https://business.gov.nl/amendment/introduction-environmental-and-planning-act-omgevingswet/ .
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The OW and its implementing legislation seeks to implement or re-implement the Netherlands' obligations under the EU directives. The OW will entirely or partially replace about 15 existing acts of parliament and incorporate the area-based components of eight other acts. In the future, at least ten other acts may be incorporated into the OW by legislative amendments. All planning .and decision-making concerning the physical environment will ultimately be regulated by a

single Act with a single set of six uniform core instruments. Such a strategy is intended to support the promotion of common terminology.

- A consolidated version of the legislation can be accessed via this [link](#). Section 16.4 discusses Environmental Impact Assessment (EIA), while 16.4a considers the appropriate assessment of Natura 2000 sites. Chapter 18 concerns enforcement while chapter 20 covers monitoring. There are multiple elements to the Act but key provisions for planning include:
 - Municipalities no longer lay down everything in detail in their environmental plans, as they used to do in zoning plans. This gives residents and businesses more room to develop their plans.
 - The Environment and Planning Act enables municipalities to adapt the rules to local wishes and circumstances. This allows them to offer tailor-made solutions.
- The Environment and Planning Act has 6 core instruments for using and protecting the living environment. The government can use these instruments to write and implement policy. In addition, governments can use these instruments to set rules for activities and the implementation of projects. The 6 core instruments are: the environmental vision, the programme, decentralized rules, general government rules, environmental permit and the project decision.
- An environmental vision is a coherent, strategic plan about the living environment⁵⁶. This plan focuses on the entire physical living environment. And takes into account all developments in an area. The national government, the province and the municipality each adopt 1 environmental vision for their entire territory. Further details about each type of vision is provided below:

Parameter	Environmental vision	Program
Character	Strategic, integral, political-administrative	Implementation-oriented, (multi)sectoral, strategic elements possible
Contents	Development, use, management, protection and conservation of the physical living environment as a whole	Elaboration of policy for a specific sector or specific area
Coherence between domains	One integrated development policy for the physical living environment	(Multi-)sectoral, focus on coordination, coordination of different domains
Horizon	Long-term	Shorter term
operation	Basis for the actions of the vision-determining administrative body and for programmes	Basis for deploying measures on the subject in question
Juridical status	Binds only the vision-establishing organ (self-binding)	Binds only the program-determining device (self-binding)
Determination	Municipal Council, Provincial Council, Minister of the Interior and Kingdom Relations	Board of B&W, water board general board, Provincial Executive, minister concerned

- [Municipal environmental vision](#)
- [Environmental vision province](#)
- [National environmental vision](#)
- To achieve the desired quality of the physical living environment, governments can draw up a program with policies and measures⁵⁷.

⁵⁶ <https://iplo.nl/regelgeving/instrumenten/samenhang-instrumenten/6-kerninstrumenten/>

⁵⁷ <https://iplo.nl/regelgeving/instrumenten/programma/kenmerken-programma/>

- A program may have an EIA requirement. Programs can be voluntarily prepared while others

Rich	River Basin Management Plans	Article 3.9
Rich	Flood risk management plans	Article 3.9
Rich	Marine Strategy, Programme	Article 3.9
Rich	National Water Program	Article 3.9
Rich	Maritime spatial plan	Article 3.9
Rich	Management plan Natura 2000	Article 3.9
Rich	Sound action plan	Article 3.9
Rich	Program for emission reduction of NEC substances ⁽²⁾	Article 3.9
Province	Regional water program	Article 3.8
Province	Management plan Natura 2000	Article 3.8
Province	Sound action plan	Article 3.8
Local authority	Sound action plan	Article 3.6
Water Authority	Water management program	Article 3.7

are mandatory:

- A program can outline the environmental values being sought:

An environmental value is one of the instruments with which governments can implement the policy of an environmental vision. This allows the municipality, province or central government to determine the quality they want to achieve for the physical living environment. This quality must be objectively determinable and quantitatively measurable. This concerns, for example, values for air quality or water quality.

- This EIA obligation follows from the Strategic Environmental Assessment (SMB) directive. The competent authority must draw up a plan environmental impact report if the program forms the framework for projects designated in Annex V to the Environmental Decree. A plan environmental impact report (plan EIA) must also be drawn up if an appropriate assessment is to be drawn up for the programme. In certain exceptional cases, for example if the program covers a small area, a SEA assessment may first be carried out.
- Three decrees will be used develop the key provisions of the Act.
- The **Environment Decree of the Netherlands**, that is available via this [link](#), was published as a consolidated version in December 2020. The document outlines the role for Environment Plans and the spatial scale at which these will operate across. Chapter 11 covers Environmental Impact Assessment, with 11a covering plans and programmes and 11.2 refers to EIA for projects.
- The **Environmental Quality Decree of the Netherlands**, that is available via this [link](#), was published in December 2020. Chapter 2 sets out the importance of presenting environmental values.
- A consolidation version of the **Environmental Activities Decree of the Netherlands** was also published in December 2020. It can be accessed via this [link](#). Particularly significant is Chapter 3 that lists projects that are deemed to be harmful.
- A consolidated version of the **Environment Buildings Decree of the Netherlands was published in December 2020**. It can be accessed via this [link](#).
- A simplified guide summarising the proposed changes, 'Simpler and Better', was published in August 2013 and is available via this [link](#). The guide notes how currently, every part of the physical environment is 'covered' by several acts with a sectoral basis which serve specific interests. The OW is intended to provide greater consistency within government, based on a single strategy on the physical environment at national and provincial levels. It also promotes the use of single (area-based) plans at a local level

- The new Act is intended to introduce several grounds for flexibility, so that solutions can be tailored to specific situations. These will primarily be laid down by orders in council. The programmatic approach will enable environmental objectives to be pursued through specific programmes, without impeding the progress of individual projects.
- Central and provincial authorities will be required to draft comprehensive strategies for their territories, which weigh all the interests together.
- In terms of project decisions, the OW presents a single procedure for large-scale complex projects, known as the project decision. The project decision will ensure that central and provincial authorities issue all required planning permissions in a coordinated manner at the same time. If necessary, permission may be issued in stages, in consultation with the developer. The project decision will replace existing instruments for complex projects that serve a public interest, such as power plants, wind farms or motorway reconstruction.
- The OW will simplify the use of existing EIA instruments, enhancing their use as a decision-making aid while reducing the research burden on businesses. Currently, EIA is widely regarded as a hurdle to be overcome before an activity can be started, not as an instrument to ensure careful preparation. By clarifying the procedure and integrating it into other decision-making processes, the instrument will probably be applied more effectively. In any case, the procedure will comply with the EIA and SEA Directives.
- The EIA Directive sets out what activities are likely to have significant environmental effects. These are always subject to EIA. Where it is not certain what the environmental effects of a project will be, a screening must first be performed on a case-by-case basis.
- The introduction of a screening, instead of mandatory assessment, for plans or programmes at local level, involving smaller areas or small changes, will also reduce the research burden. The administrative authority concerned has the freedom to decide, in consultation with the developer, what environmental information is required – the scope, the level of detail and alternatives – in order to make a sound decision. Aligning the EIA procedure as closely as possible with the rest of the decision-making procedure will avoid overlap and ensure that the environmental information required complements other information needed in order to decide on the plan or project.
- The guide explains that If the screening reveals there is no need for an EIA for a particular project, this does not need to be laid down in a separate decision.
- The implementation of the Environment Act is digitally supported by the Digital System Environment Act (DSO). The [Environment Counter](#) is a key part of the offer. To support engagement, there is an opportunity to work with a demonstration (and pre-populated scenarios) and to engage with practical solutions. Once in place, the counter will allow users to:
 - applying for permits, reporting and providing information
 - see which rules apply at a location. The environmental documents contained in the DSO are the basis for this. These include, for example, environmental visions, regulations and plans, project decisions and programmes.
 - in the future: finding information about the quality of the living environment. Consider, for example, information about water or air quality and noise pollution.
 - Users can also request a consultation with the municipality involved through the counter.
- There is advice about the Act for big companies; small and medium sized companies; consultancy firms; software suppliers; and planning officers.
- Article 14.2, paragraph 3 of the Environment and Planning Act states how rules need to be produced; these are then used to formulate questions to applicants.

	<p>An example of a legal rule is: 'A driveway may not be wider than 4 m.' The applicable rule for the Permit Check is: 'Will the driveway be wider than 4 m?'</p> <ul style="list-style-type: none"> ■ There is also a custom measures section through which citizens and companies can check which measures they have to take when carrying out an activity⁵⁸. ■ There is a glossary of terminology. ■ There is an implementation track for the Environment and Planning Act⁵⁹ track that regulates the transition from existing to new legislation. The implementation track also supplements the Environment and Planning Act, the Orders in Council and the Environmental Regulations ■ 2022- Signing of “Memorandum of understanding” between ministry of environment and Netherlands commission for environment assessment, to improve the level of practice in EIA/SEA.
Ecological Impact Assessment (Ecol IA)	
<h3>Link to environmental outcomes</h3>	
<p><i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i></p>	
Strategic Environmental Assessment (SEA)	<p>There is no direct reference to environmental outcomes. But, the term “environmental impacts” is a theme throughout different legislations and guidelines.</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Environmental Management Act- Protect and improve environmental quality, control and reduce pollution from all sources, prohibit or restrict setting/operation of industrial facility on environmental grounds. ■ Netherlands Transportation of SEA Directive- provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development
Ecological Impact Assessment (Ecol IA)	
<h3>Procedure and practice</h3>	
<h4>General points</h4> <p><i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The National Commission on Environmental Assessment (NCEA) advises on the content of environmental impact reports. The Commission advises on assessment scope, as well as assess the robustness of final assessment reports. The commission prides itself on providing independent and transparent advice; the Commission ensures it has no involvement with the initiator, the initiative or the decision maker.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The Commission advises ‘the competent authority’: the authority for which the environmental assessment report has been prepared and must make a planning decision based on that report. Who the competent authority is in each case, depends on the kind of decision to be taken. For example, in the case of an SEA for a local land-use plan, the competent authority is the municipal council. But in the case of an SEA for a provincial structure vision, the competent authority is the States Deputed (provincial authority). ■ A competent authority can request an advisory report from the NCEA at various points during the EA process. Specifically, feedback can be sought on scoping, any draft assessment, the final assessment, and any supplementary material.

⁵⁸ <https://iplo.nl/digitaal-stelsel/toepasbare-regels-maken-aanleveren/introductie/>

⁵⁹ <https://iplo.nl/regelgeving/omgevingswet/totstandkoming/hoofdlijnen-invoeringsbesluit/>

- With respect to any request to review a final EA report, the NCEA's engagement will happen on either a mandatory or voluntary basis. Essentially, a mandatory review is required where the full or **extensive** procedure is being followed. The full process needs to be followed where an EIA for a complex project has been undertaken, or where an SEA has been prepared for a plan or programme. The **full procedure** also needs to be followed for those projects that require an appropriate assessment on the basis of the Dutch Nature Conservation Act and all projects in which a government body is the proponent (e.g. expansion airport, projects concerning infrastructure, housing programmes). For other undertakings the initiator will follow a simplified (or **limited**) procedure. In these situations, the Commission's advice can be sought voluntarily.
- The sequence of events, as required by the **full procedure**, is as follows:
 - Proponent notifies competent authorities (EIA)
 - Public announcement, start of procedure
 - Consultation with designated authorities
 - Public consultation
 - *Optional*: scoping advice NCEA
 - Competent authority writes the SEA/EIA report, including a description of alternatives
 - Competent authority publishes the SEA/EIA report and concept decision
 - Public consultation SEA/EIA report
 - Consultation on the SEA/EIA report with designated authorities
 - Mandatory: Review advice from the NCEA
 - Competent authority publishes decision and justification
 - Evaluation
- In 2021, the Commission assessed 87 environmental impact reports (Tauw, 2022). The majority of these requests come from those following the 'extended route'. In the same year, the NCEA also reviewed 900 (screening) EIA assessments.
- The NECA has its own budget which is funded by government subsidies. The Ministry expects the NCEA to be 'cost effective'⁶⁰. Different chargeable rates are therefore applied, with there being:
 - different rates for central government (ministries), provincial governments and municipal governments.
 - specific rates for specific projects/plans that are less complex (lower rate) or more complex (higher rate) than usual
 - combination-rates in case the NCEA is requested for advice on more than one occasion (for instance, a scoping advice, an 'in-between' review and a final review). In those cases, there is a discount should voluntary advice be sought.
 - different rates for advice on additional information, which are applicable in those cases where the NCEA earlier concluded that essential information was lacking.
- Rates for 2023 can be seen via this [link](#). Full, standard rates are stated as follows for Local Authorities (€ 25.500), Provinces / Water Boards (€ 30.500), and Government (€ 41.250). Other rates are set by the nature of the document being examined. For instance, the 'full' cost to examine a Provincial Structural Vision is defined as being customizable, but with a minimum cost of €36.750. The money must be transferred by the competent authority –not by the proponent
- NCEA advice is always addressed to the competent authorities (government). Formally, it is always the municipal/provincial/central government that approaches the NCEA for advice,

⁶⁰ Email correspondence with the NCEA.

	<p>although, in practice, the approach is often made by the developer involved. This is considered acceptable, as long as the competent authorities are properly informed about each step and can play their formal role when they are required to do so.</p> <ul style="list-style-type: none"> ■ For each project the Commission puts together a working group of experts, the selection of which is dependent on the nature of the project. ■ The review process starts with the initiator notifying the competent authority in writing that they wish to submit an application for a permit subject to EIA. The NCEA then <u>assesses</u> and reviews the documents submitted and comments on the appropriateness of data, methodologies used and the conclusions duly made.
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Commission for Environmental Assessment maintains a <u>database</u> with EIAs/SEAs, since NCEA is not mandatory for all EIAs/SEAs this does not cover all EIA's/SEA's performed in the Netherlands
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Dutch Association of Environmental Professionals (VVM)- A network of environmental professionals from a variety of different disciplines. The network hosts a library, and delivers a range of <u>training courses</u>.
Ecological Impact Assessment (Ecol IA)	
Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice? <i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ An appropriate environmental assessment is carried out for all strategic decisions with potentially significant (positive or negative) environmental consequences by the agencies initiating these decisions. ■ Identify which instruments (policy, plan and programme) require greater concern in terms of systematic EA, according to its nature and characteristics that may determine significant potential environmental impacts
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Determine if a project deserves an EIA to improve/influence project design. Description of the proposed activity, location and possible impacts. Only projects with significant impacts go through the EIA process. Ensures an efficient use of resources. ■ Screening is required, decides on the applicability of EIA with relevant bodies <p>How to determine if an EIA is applicable</p> <ul style="list-style-type: none"> ■ Part C contains activities, plans and projects for which an EIA is mandatory. ■ Part D contains activities, plans and projects for which a judgement on whether an EIA is required is needed. This judgement depends on the seriousness of the negative consequences for the environment.
Ecological Impact Assessment (Ecol IA)	
Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice? <i>What topics are expected to be included in an assessment? How are decisions over content defined?</i>	

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Expectations- Public notification of the official go ahead, submitting perspectives on the proposal/scope/detail level of the investigation, consulting advisors/administrative bodies about the investigations scope/detail level
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ EIA Scoping Document Contents- Rationale for the plan/project, alternatives, environmental aspects. ■ Scoping is applied to specific plans, policies and programmes
Ecological Impact Assessment (Ecol IA)	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ No specific requirement for assessment. Content included in an SEA report: Objective, proposed activity/alternatives, relevant plans/projects, current situation/autonomous development, effects, comparison, mitigating/compensating measures, gaps in information, summary.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Expectations- Increasing stakeholders expectations about the way environmental impacts would be assessed and integrated into the development process and sustainable development.
Ecological Impact Assessment (Ecol IA)	
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ It is necessary for alternatives to be described in the SEA report ■ SEA can identify development alternatives to minimise effects ■ Alternatives include: Do nothing, demand reduction, different locations, different forms of management ■ Addresses alternatives not addressed in the EIA
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Considering alternatives is a key content of EIA reports- this includes a list of reasonable alternatives, a description of alternatives, explanation of alternatives, consequence of taking alternatives ■ Alternatives help form the decision justification of the project ■ Alternatives include: small changes to mitigate impacts, additional policies, different solutions
Ecological Impact Assessment (Ecol IA)	
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ If an SEA is likely to have a significant effect on the environment/human health, this is determined in accordance with the Decree on the criteria for SEA and the Rulebook on the format, contents and form of the decision for implementation or non-implementation of strategic assessment, that prescribes the forms based on which the need for implementation or non-implementation of strategic assessment is determined
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ In the short term ESIA aims to inform the process of decision making by identifying and addressing the potentially significant environmental, social and economic risks of projects.


Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ A description of the consequences for the environment that the proposed activity and the alternatives described could have, including an explanation of how these consequences were determined and described.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Impacts are specified as large scale (Global/regional) or local ■ Type of impacts not implemented into practice: impacts which don't require EIA, induced impacts, synergistic impacts, global impacts
Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ A description of the measures to prevent, limit and offset as far as possible major consequences for the environment resulting from the activity. ■ Difficulty to implement into practice because uncertainties pose a limitation to environmental assessments value to identify and mitigate adverse environmental impacts
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Mitigation results in delayed policies/plans and higher costs due to unforeseen impacts
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ After taking on a project subject to the EIA requirement, the competent authority must investigate the actual environmental consequences resulting from the activity. The time periods for the start of the investigation and the way in which this will be performed will have already been determined for the project. The competent authority and the environmental inspectorate are responsible for monitoring projects and plans and their impact on the environment. If the initiator is a private party, it is required to cooperate fully in providing information when requested.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ As guidance from the NCEA explains, requirements relating to public and stakeholder engagement depend upon the assessment route taken. Specifically, under the extensive procedure, there must be an opportunity to submit views before the environmental impact statement has been written. By doing so, stakeholders can then indicate what they believe should be investigated through the assessment process. Then, under both the limited and extensive procedures, there must be an opportunity for the public and broader stakeholders (the interested parties) to submit their views once the environmental impact statement has been completed. This is known as the testing phase. ■ Interested parties can indicate whether any relevant information is missing from the environmental impact statement. The terms for this are laid down in the General Administrative Law Act. The environmental impact report must be available for inspection for at least 6 weeks.

Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ There is a difference in public participation concerning the simplified procedure and the extensive procedure. ■ Concerning the simplified procedure, public participation is legally required only after publication of the EIA report. The public can provide comments on the information in the report. ■ Concerning the full fledged procedure, the statutory regulation for the extensive EIA procedure provides for two moments in time when views can be submitted: After the completion of the EIA <ul style="list-style-type: none"> ■ Comments from the public can be submitted in writing. If the competent authority organises a hearing, which is not an obligation, public comments can also be provided verbally. ■ In its decision, the competent authority provides an explanation for how it has taken the public's views on the EIA report into account. ■ There are no costs for the public for their participation. ■ The timeline for these public comments take in general six weeks
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Administrative Law Enforcement- withdrawal of environmental operating permit which is last resort or more commonly a fine ■ Criminal Law Enforcement- The Dutch Penal Code (take reasonable measures to prevent/limit danger to health/the environment)
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Administrative judges determine if EIA regulation applies or not in every case in which it is questioned and ensure the obligation to carry out EIA is imposed . The Dutch courts are rigorous and usually logical in their interpretation of the law and have been reasonably consistent in deciding when an EIA is required under the regulation. Suspending or quashing a planning or licensing decision leads to a considerable waste of time and money, something that every project proponent wants to avoid at all costs. This sanction has proved to be sufficient for ensuring efficient application of the EIA regulation.
Ecological Impact Assessment (Ecol IA)	

Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<p>The assessment regime has been subject to ongoing review. For example, Arcadis (2020) led a review which, through appendix two, highlighted areas of concern, and potential areas for improvement. These concerns focused upon how environmental impact statements were often not being prepared despite being required, a lack of relevant environmental data, and a lack of monitoring / enforcement. More recently, a similar monitoring report has been prepared by the consultancy Tauw (2022).</p> <ul style="list-style-type: none"> ■ Combine and simplify regulations, the earlier the assessment starts in the process through focusing on the main policy themes it is more likely to create a consensus between actors in the decision-making process than one that starts later and presents a detailed policy initiative ■ Reformation of the environmental planning act- integrates 26 acts, reduce amount of orders in council/ministerial decrees ■ Engagement with effected groups to adjust the planning process to their needs ■ Early use of SEA/EIA in the process the project is framed around environmental benefits ■ Combination of different strategies is needed to deal with uncertainties ■ Adaptive management- monitor/mitigate measures during the SEA process
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Legislation- the scope and complexity of current legislations ■ Time taken for reform, Omgevingswet was meant to be implemented in 2021, now July 2023 ■ Theory is not implemented/put into practice ■ Social uncertainties- account for human input in the decision making process. An example of this is conflict of interests ■ Scientific uncertainty- Information and understanding could be wrong or incomplete
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
References	<ul style="list-style-type: none"> ■ Arcadis (2020) Milieueffectrapporten in Nederland: Kwaliteit en Kwantiteit Ministerie van Infrastructuur en Waterstaat. January [online]. Available at: https://www.commissiener.nl/documenten/00000452.pdf ■ Arts, J., Runhaar, H. A. C., Fischer, T. B., Jha-Thakur, U., van Laerhoven, F., Driessen, P. P. J., & Onyango, V. (2013). The effectiveness of EIA as an instrument for environmental governance: reflecting on 25 years of EIA practice in the Netherlands and the UK. <i>Journal of Environmental Assessment Policy and Management</i>, 14(4). https://doi.org/10.1142/S1464333212500251 ■ Bodde, M., van der Wel, K., Driessen, P., Wardekker, A., Runhaar, H. (2018) Strategies for Dealing with Uncertainties in Strategic Environmental Assessment: An Analytical Framework Illustrated with Case Studies from The Netherlands. <i>Sustainability</i>, 10, 2463; doi:10.3390/su10072463. ■ Buuren, A. and Nootboom, S. (2009) 'Evaluating strategic environmental assessment in The Netherlands: content, process and procedure as indissoluble criteria for effectiveness', <i>Impact Assessment and Project Appraisal</i>, 27:2, 145-154, DOI:10.3152/146155109X454311

- Hoevenaars, G. (2013) 'Assessing the assessment, Quality review of EIAs/SEAs: A Dutch Assessment [online]. *Environmental Law Network International*. Available at: <https://www.commissiemer.nl/documenten/00000341.pdf>
- Informatiepunt Leefomgeving (2022) Environment and Planning Act of the Netherlands [online]. Available at: <https://iplo.nl/regelgeving/omgevingswet/english-environment-and-planning-act/>
- Keen Public (2021) The Environment and Planning Act Explained for you and your Company [online]. Available at: <https://www.keen.design/keenpublic/blog/the-environment-and-planning-act-what-is-it-and-what-can-you-do-with-it>
- Koornneef, J., Faaij, A., and Turkenburg, W. (2008) The screening and scoping of Environmental Impact Assessment and Strategic Environmental Assessment of Carbon Capture and Storage in the Netherlands, *Environmental Impact Assessment Review*, 28, pp. 392–414.
- Ministry of Infrastructure and the Environment (2013) Simpler and Better: The Environmental Planning Act: the Main Changes [online]. Available at:
- Ministry of the Interior and Kingdom Relations (2021) *The Environment and Planning Act of the Netherlands*, Consolidated version June 2021 [online]. Available: <https://iplo.nl/publish/pages/191405/environment-and-planning-act-of-the-netherlands-june-2021.pdf>
- Ministry of the Interior and Kingdom Relations (2020) The Environment Decree of the Netherlands [online]. Available at: <https://iplo.nl/publish/pages/195438/the-environment-decree-ob-2020.pdf>
- Netherlands Enterprise Agency, RVO (2023) Introduction of the Environment and Planning Act (Omgevingswet) [online]. Available at: <https://business.gov.nl/amendment/introduction-environmental-and-planning-act-omgevingswet/>
- Tuaw (2022) *Monitoring EIA 2021 Final Report [online]*. Available at: <https://www.commissiemer.nl/documenten/00000633.pdf> [in Dutch]

New Zealand

New Zealand	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Ministry for the Environment advises the Government on environmental issues. It is also responsible for the operation of the RMA regime. ■ The Department of Conservation is responsible for the implementation of EIAs on Conservation Land. ■ The Environmental Court is the main judicial decision-making body under the RMA. It hears appeals from people who disagree with decisions made by local councils under the RMA. The court can uphold a council's decision, or it can overturn it. ■ The Environmental Protection Authority (EPA) is a Crown entity that receives and processes applications for proposals of national significance under the RMA.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Resource Management Act 1991 was introduced to offer a coordinated, streamlined, and comprehensive approach to environmental management in New Zealand. The Ministry of Environment explains how the legislation ensures that natural and physical resources are managed in a sustainable framework, with a raft of environmental bottom-lines. The Resource Management Act 1991 (RMA) requires that regional and district councils administer the use, development or protection of natural and physical resources so they are sustainably managed. One of the key ways the RMA seeks to promote sustainable management is to ensure all the effects of a proposal, both positive and negative, are considered before an activity is allowed to happen. Section 5 defines this term 'sustainable management' as: <p style="margin-left: 20px;"><i>Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –</i></p> <ul style="list-style-type: none"> (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment. ■ Natural and physical resources are defined in the RMA to include land, water, air, soils, minerals, and energy, all forms of plants and animals (whether native to New Zealand or introduced), and all structures. ■ Strategic Environmental Assessment, as a named process, is not recognised in New Zealand legislation, or in any related administrative procedure (Morgan and Taylor, 2021). However, section 32 of the 1991 RMA Act calls for the evaluation of proposed policies, plans, rules etc by relevant authorities (across central, regional or local government'. Accordingly, Dixon (2002) notes how the RMA presents a coherent process with 'possibilities' for the use of SEA.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

	<ul style="list-style-type: none"> The legislation is described via this link. Formal text can be accessed via this link. Schedule 1 of the RMA specifically relates to the 'Preparation, change, and review of policy statements and plans'.
Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	<p>Guidance about the regime can be accessed via this link:</p> <p>A simplified guide is accessible via this link.</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> The Ministry for the Environment publishes a series of 'everyday' guides about the RMA 1991. There are <u>currently 13 in the series</u>. The first is titled '<u>Understanding the RMA and how to get involved</u>'.
Ecological Impact Assessment (Ecol IA)	
Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
<ul style="list-style-type: none"> Sustainability is championed via the Local Government Act 2002 (as amended) that states how local government should "play a broad role in promoting the social, economic, environmental, and cultural well-being of their communities, taking a sustainable development approach" (Section 3, sub-section d). This provision therefore gives encouragement to the sustainable assessment of plans, although reference to pursuing the four types of well-being were temporarily removed between 2010 and 2019. When a government agency is seeking to create, change or repeal legislation or regulations, it often has to undertake a Regulatory Impact Assessment (RIAs). A RIA is published when the relevant Bill is introduced to Parliament or the regulation is gazetted, or at the time of its ministerial release. A RIA is required to summarise: the problem that needed to be addressed; the options for addressing the problem; the costs and benefits of each option; the groups who have been consulted and their views; and the proposals for implementation and review. 	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> Implementation of the RMA is intended to be hierarchical, with roles and expectations outlined for each tier. Lower-level practices are expected to be consistent with those at higher levels.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> Responsibilities under the RMA are split between regional councils (11), territorial authorities (11 city and 50 district councils), and six unitary authorities (which do the jobs of both regional councils and territorial authorities).
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> National: The Ministry of the Environment provides national direction. The RMA enables the national Minister for the Environment to prepare National Policy Statements (NPOS) that set out requirements for how councils should deal with resource management issues. The Minister can also issue National Environmental Standards which can apply across the landscape from the limit of the Territorial Sea (12 nautical miles or 22.2 km) across district and regional council boundaries. A NES can prescribe technical standards, methods or other requirements surrounding environmental matters. National Planning Standards (NPLS) can set out the requirements for the structure format or content of regional policy statements and plans. Beyond the publication of a national coastal policy statement, Morgan and Taylor (2021) refer to how other national guidance has been slow to emerge. Regional: Regional councils are charged with the integrated management of the natural and physical resources of a region. Regional councils are generally responsible for making decisions about discharges of contaminants to land, air or water; water quality and quantity; the coastal marine area; soil conservation; land use to avoid natural hazards; investigating land to identify and monitor contaminated land; ensuring sufficient development capacity exists for residential and business growth to meet expected long-term demands of the region; and preparing regional policy statements. Regional policy statements set the basic direction for integrated environmental management within a region. Regional plans tend to focus on particular parts of the environment, like the coast, soil, a river or the air. Regional Councils can also issue infringement notices, abatement notices and excessive noise directions to people

	<p>who are not complying with the RMA, national environmental standards or council plans. If requested, local authorities are required to supply information to the Minister about their functions, powers or duties under the Act.</p> <ul style="list-style-type: none"> ■ Local: Local government implements the act and its regulations in each territory. District and city councils are generally responsible for making decisions about the effects of land use; the effects of activities on the surface of rivers and lakes; noise; subdivision; and for ensuring sufficient development capacity exists for residential and business growth to meet the expected long-term demands of the district or city. If requested, local authorities are required to supply information to the Minister about their functions, powers or duties under the Act. District plans concern the use and development of land, including managing subdivision, noise, natural hazards and contaminated land. ■ The note 'Central and local government responsibilities under the RMA' provides further guidance. ■ The RMA also provides for the Environmental Protection Authority (EPA) to process applications for nationally significant proposals instead of local councils. These proposals might involve certain resource consent applications or requests to change a district plan, among other matters. The EPA processes the applications, while the actual decisions are made by a board of inquiry or the Environment Court. Under the RMA, the EPA can also have a role in compliance, monitoring and enforcement.
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Recent or emerging legislative reform in the selected jurisdiction
Has the legislation been the subject of recent reform or are changes being proposed?

<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ Amendments to the RMA in 2013 gave greater emphasis to the assessment of economic benefits and costs. ■ In February 2021, the Government announced that it would reform the resource management system by replacing the RMA (1991) with three new Acts: the Natural and Built Environment Act (NBEA); the Spatial Planning Act (SPA); and the Climate Adaptation Act (CAA). A Spatial Planning Bill and a Natural and Built Environment Bill were presented to parliament in November 2022. An exposure draft of the Natural and Built Environment Bill was published in June 2021. ■ As the Ministry of the Environment (2022) explains, the proposed system seeks to: <ul style="list-style-type: none"> – move from an effects-based system to an outcomes-based one that avoids harmful cumulative effects – reduce costs for people, including infrastructure providers, home builders and owners, and developers – provide more effective and consistent national direction – move to more regionalised, integrated and strategic planning – substantially reduce the number of local government resource management plans – simplify and standardise processes – reduce the need for consenting while ensuring environmental safeguards are still in place. ■ It is expected that a Bill for the CAA will be introduced to Parliament in 2023. ■ The NBEA seeks to protect and restore the environment while better enabling development, and is the principal vehicle for replacing the RMA. The NBEA identifies a need to establish a National Planning Framework. This is intended to provide policy direction on matters of significance, environmental limits and targets, as well as direction for resolving conflicts. The NBEA also outlines a need to develop Natural and Built Environment Plans for each region. Supplementary guidance about the proposed system adds further guidance. ■ The SPA is intended to help coordinate and integrate decisions made under relevant legislation by requiring the development of long-term regional spatial strategies (RSS).
<p>Environmental Impact Assessment (EIA)</p>	

	<ul style="list-style-type: none"> ■ The NBA and SPA seek to respond to the shortcomings of the current system that the Ministry of the Environment (2022b) identifies as: <ul style="list-style-type: none"> – cumulative environmental effects not being well managed; – resource management plans restricting necessary housing and infrastructure investment; – the lack of integration across the system, resulting in inefficiencies and delays – insufficient recognition of te Tiriti o Waitangi (the Treaty of Waitangi) and lack of support for Māori participation – the need to urgently reduce carbon emissions and adapt to climate change (Ministry of the Environment, 2022, page 6). ■ The NBEA and SPA are expected to be passed into law through 2023. The first iteration of the National Planning Framework is due to published through the latter part of 2023. Natural and Built Environment Plans are expected to be developed from 2025.
Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes	
<i>Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	No link to environmental outcomes
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points	
<i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Ministry of the Environment has a responsibility to monitor the implementation of the Resource Management Act. Their focus is directed towards understanding how the legislation is being implemented, highlighting any trends, and providing local authorities with information about RMA processes. Previously, the Ministry has surveyed local authorities but now feedback and intelligence is collected through a National Monitoring System. ■ The Ministry can also initiate reviews into the performance and conduct of Regional Councils and City and District Councils.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	international databases such as the Australian Ocean Data Network Portal national institutes (e.g., NIWA, Te Papa, Auckland Museum) or government agencies. The New Zealand National Aquatic Biodiversity Information System-
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ The RMA is focused towards an assessment of effects, however they might be generated, rather than considering the effects arising from a prescribed set of activities. An Assessment of Environmental Effects is required for all development projects, although the AEE should contain detail that corresponds with the scale and significance of the effects the activity may have on the environment. ■ In addition to new 'provisions' Section 32 (3) also makes the RMA applicable to any proposal for amending an existing or already proposed change to a 'standard, statement, national planning standard, regulation, plan'. Under these circumstances, the assessment must be focused upon assessing the effects of the element being revised.
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ The effects that must be addressed in an AEE are set out in clause 7 of Schedule 4 and are follows: <ul style="list-style-type: none"> – effects on those in the neighbourhood and, where relevant, the wider community, including any social, economic and cultural effects – physical effects on the locality including landscape and visual effects – effects on ecosystems including effects on plants or animals and the physical – disturbance of habitats in the vicinity – effects on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual or cultural, or other special value for present or future generations – any discharge of contaminants into the environment, including any unreasonable emission of noise and options for the treatment and disposal of contaminants – any risk to the neighbourhood, wider community or the environment through natural hazards or the use of hazardous substances or hazardous installations. ■ Section 32 (1) requires the submission of an 'evaluation report' in order to: <ol style="list-style-type: none"> a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and (b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by— <ul style="list-style-type: none"> – I. identifying other reasonably practicable options for achieving the objectives; and – II. assessing the efficiency and effectiveness of the provisions in achieving the objectives; and – III. summarising the reasons for deciding on the provisions. ■ Section 32 (1c) states how the report should contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects being anticipated from the implementation of the proposal.
<p>Environmental Impact Assessment (EIA)</p>	<p>Engagement with the affected communities and other stakeholders should occur throughout all the stages of an EIA, and most particularly at the scoping stage.</p>

	<p>It is important that environmental assessments are individually customised to address those aspects that are of most relevance to stakeholders. Customisation usually occurs during the scoping phase and results in the preparation of terms of reference (ToR) for an environmental assessment.</p> <p>Environmental assessments that are not guided by ToR are likely to be unnecessarily long and complex, and may provide limited useful information to inform government's decision-making process. The length of the ToR will vary depending on a project's environmental risks or anticipated impacts. Projects posing a high level of risk, with significant, anticipated impacts will have longer ToR and be required to provide more information than low risk, low impact projects.</p>
Ecological Impact Assessment (Ecol IA)	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Section 32 (2) states how the assessment- as outlined through Section 32 (1)(b)(ii) must: <ul style="list-style-type: none"> – a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for— <ul style="list-style-type: none"> I. economic growth that are anticipated to be provided or reduced; and II. employment that are anticipated to be provided or reduced; and – b) if practicable, quantify the benefits and costs referred to in paragraph (a); and – c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	<p>Analyse the potential effects and risks of the proposed policy/plan/programme, and its alternatives, against a framework of sustainability objectives, principles and criteria.</p>
Environmental Impact Assessment (EIA)	<p>The consideration of alternatives seeks to ensure that the proponent has considered other feasible approaches, including alternative project locations, scales, processes, layouts, operating conditions and the 'no action' option.</p>
Ecological Impact Assessment (Ecol IA)	
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i></p>	
Strategic Environmental Assessment (SEA)	<p>Project screening narrows the application of EIA to those projects that may have significant environmental impacts. The definition of significance with regard to environmental effects is an important issue in EIA. It may relate to scale of development, to sensitivity of location and to the nature of adverse and beneficial effects.</p> <p>An important part of the assessment includes actions that can be taken to avoid, reduce, remedy or compensate for any significant adverse impacts. Management Plans may form part of this work. Actions that can increase positive impacts should also be identified. In some instances, identification of these mitigation actions can result in amendments to the proposal.</p>
Environmental Impact Assessment (EIA)	

Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Section 6 of Schedule 4 of the RMA 1991 identifies how an assessment of an activity's effects on the environment must address the following matters: <ul style="list-style-type: none"> – any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects: – any physical effect on the locality, including any landscape and visual effects: – any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity: – any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations: – any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants: – any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Section 7 of Schedule 4 of the RMA 1991 identifies how an assessment of an activity's effects on an environment must address the following matters: <ul style="list-style-type: none"> – any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects: – any physical effect on the locality, including any landscape and visual effects: – any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity: – any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations: – any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants: – any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations. ■ In this Act, unless the context otherwise requires, the term effect includes— <ul style="list-style-type: none"> – (a) any positive or adverse effect; and – (b) any temporary or permanent effect; and – (c) any past, present, or future effect; and – (d) any cumulative effect which arises over time or in combination with other effects— regardless of the scale, intensity, duration, or frequency of the effect, and also includes— – (e) any potential effect of high probability; and – (f) any potential effect of low probability which has a high potential impact. – Section 3: amended, on 7 July 1993, by section 3 of the Resource Management Amendment Act 1993 (1993 No 65)
Ecological Impact Assessment (Ecol IA)	


Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	To mitigate the adverse impacts of noise on residents or wildlife, measures were proposed by setting levels of noise (in dB) according to the national environmental standard, the sources and location of noise and minimizing the duration of noise impact. However, the principles of mitigation, such as avoid, reduce and offset, were not followed accordingly
Environmental Impact Assessment (EIA)	Measures to avoid, remedy or mitigate (reducing) adverse environmental effects. Ideally effects should always be avoided and only if this cannot occur should remedying and mitigating options be looked at. Mitigation could, for example, involve putting restrictions on numbers participating, routes taken, use of helicopters, and the avoidance of nesting times of bird species. In terms of structures, design options to reduce visual impacts might be incorporated and appropriate construction materials used
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	Monitoring of environmental impacts using indicators was recommended in the SEA report. However, no responsibilities for monitoring and reporting were clearly allocated to any agencies
Environmental Impact Assessment (EIA)	<p>Monitoring simply attempts to test the validity of the predictions made earlier in the EIA process after an operation has been allowed to proceed. Monitoring is a fundamental step that you and the Department will use to determine whether our obligations are being met to manage the balance between preservation and use.</p> <p>If your activity is largely indistinguishable from other visitor activities, at the very least, you will be asked to provide the Department with diary returns on your activities.</p> <p>This is critical baseline information that helps the Department understand the levels of use at sites and the likely relationship between cause and effects. So that the Department can monitor the cumulative effects of your activity, you will also be asked to contribute a small levy for the conservancy's annual concession monitoring programme.</p> <p>For activities that may have more pronounced effects or that are different from other visitor based activities, you must outline what monitoring you will undertake. When deciding on a monitoring programme, you should consider what effects you will monitor, chose an 'indicator' that is relevant to the actual type of effect and is outcome focused, consider the method of monitoring, and finally choose a predetermined level or threshold of unacceptable effects. Monitoring the indicator against this predetermined level should show continuous improvement over time</p> <p>Monitoring need not be difficult or overly technical, for example, a photo taken from the same spot over time is a simple, and very effective method commonly used. For grazing activities next to riparian zones, checking the fence lines regularly and noting the frequency of any breaches may be all that is needed.</p> <p>Please outline the monitoring programme that you propose to monitor and manage the ongoing effects of your activity on the locations conservation values.</p> <p>Monitoring helps quality and illustrates your commitment to improved environmental performance over time. This will assist you when it comes time to reapply for your concession and is supported by many other industry initiatives.</p>
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The website, Quality Planning, is a comprehensive online resource that includes help pages relating to plan making, consenting, monitoring, and enforcement. The Assessment of Environment Effects is considered under consenting. ■ A minor proposal does not need to publicly notified but a major one does not. Whether a proposal is minor or not is typically defined in a plan but guidance, from the case of <i>Bethwaite v. Christchurch City Council</i> (CO85/93)19 is quoted in the 2006 'Guide for Preparing a Basic Assessment of Environments Effects': <i>"The word minor is a comparative word meaning lesser or comparatively small in size or importance. Minor is less than major but could be more than simply minute or slight. Adverse effects could also be made minor by means of conditions – although the necessity to impose stringent conditions to mitigate off-site effects may indicate that the suitability of the site is marginal and the effect on the environment may be more than minor."</i> ■ Section 32 (5) states how "the person who must have particular regard to the evaluation report must make the report available for public inspection" (a) as soon as practicable after the proposal is made (in the case of a standard, regulation, national policy statement, or New Zealand coastal policy statement); or (b) at the same time as the proposal is notified.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Stakeholder engagement in the IA process must be planned. A plan must be developed for even the most simple and straightforward impact assessments. ■ The engagement of stakeholders is not something that happens towards the end of the IA procedure; it needs to be part of the whole process from onset to conclusion. An engagement strategy and plan should therefore be integral to the IA process. ■ Stakeholder engagement is about conducting the IA process in a way that ensures all relevant information is captured and is not distorted. ■ There is a need to target and tailor-make engagement. This means accommodating and adjusting to different stakeholder roles and interests, types of knowledge, and cultural differences.
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	Environmental Protection Authority- We carry out a wide range of compliance activities to protect people and the environment – from raising public awareness through to prosecuting serious breaches of the law.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ We have the enforcement powers to support local councils to investigate contraventions of the Resource Management Act 1991. ■ We help everyone – from small businesses to big organisations – understand and comply with environmental regulations.
Ecological Impact Assessment (Ecol IA)	
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	Recent innovations in participatory and collaborative planning processes, and revised guidelines for evaluation reports, may see improved future performance, closer to international SEA best practice (Morgan and Taylor, 2021). In most cases there needs to be improvement in process elements such as scoping, impact analysis and public participation before these efforts can be equated with delivering SEA outcomes. Overall, while there is great potential for advancing SEA practice in New Zealand, an improvement will require a more purposeful policy framework, significant awareness raising and capacity development among policy and plan-making practitioners. This need will become

	<p>more important in future with the development of major climate change adaptation strategies and plans.</p> <p><u>Lessons Learnt</u></p> <ul style="list-style-type: none"> – Establish clear goals. – Be integrated with existing policy and planning structures. – Be flexible, iterative and customised to context. – Analyse the potential effects and risks of the proposed policy/plan/programme, and its alternatives, against a framework of sustainability objectives, principles and criteria. – Provide explicit justification for the selection of preferred options and for the acceptance of significant trade-offs. – Identify environmental and other opportunities and constraints. – Address the linkages and trade-offs between environmental, social and economic considerations. – Involve key stakeholders and encourage public involvement.
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ Early identification of environmental constraints and impacts ■ EIA can result in an improved project design that: <ul style="list-style-type: none"> – is better suited to both the local environment and to project beneficiaries; – supports project sustainability and resilience; – contributes to smoother project construction and operation; and – allows for the avoidance of unnecessary expenses e.g. environmental fines, environmental clean-up or remediation costs. ■ When a project is well-suited to the environment, when its vulnerability to hazards and environmental change is minimised, and when it is operating efficiently and effectively, a proponent is likely to gain the greatest possible value from project investment, while government and the community are likely to gain the greatest possible value from project development. ■ Early identification and improved calculation of project costs ■ Provision of a level of certainty for all stakeholders <ul style="list-style-type: none"> – EIA can provide a level of certainty for all stakeholders because it outlines environmental performance and management standards that must be met by the project proponent. Proponents know what levels of performance and management they are expected to adhere to; government knows what levels of performance and management it must monitor; and the community knows the performance and management conditions on which development consent has been granted. ■ Fostering of social acceptance of a project <p>If the EIA process is participatory and inclusive of local stakeholders, including the directly affected community and land/resource owners, it can help to foster social acceptance of a project. Proponents are more likely to avoid major objections to their project, as well as delays in project implementation or disruptions to project operation, when the EIA process invites stakeholder participation in development planning and assessment, and requires proponents to recognise and address stakeholder concerns.</p>
<p>Ecological Impact Assessment (Ecol IA)</p>	

In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<p>Morgan and Taylor, 2021 found practice has often fallen short of the potential offered</p> <p>There is no legislative mandate for SEA in New Zealand and the term is not found in any New Zealand legislation. Moreover, practical experience and familiarity with SEA amongst planners and policy-makers are still extremely limited (Dixon, 2002).</p> <p>Kabir and Morgan, 2020 found SEA has, in general, fulfilled key procedural requirements, albeit with a few shortcomings. The shortcomings include absence of cumulative impacts, inadequate baseline information, inadequate mitigation and monitoring</p>
Environmental Impact Assessment (EIA)	<p>Protection and enhancement of biodiversity are major societal challenges</p> <p>Many challenges at the higher level of national policy development- Current national developments include climate change policies such as encouragements to use electric vehicles, planting of trees for carbon capture, freshwater management and changes in urban design and planning. With their longstanding interest in rural communities in Aotearoa New Zealand, perhaps some of the most far-reaching transformations that SIA practitioners will need to turn their attention to here are in the primary production and processing sectors. These changes include transitions to more sustainable, carbon-neutral production systems. Innovation remains fundamental to these production systems and the “Agri-tech” sector faces innovations in bio-technology, digital technology, robotics, marketing systems and the like, which have the potential for significant social impacts, on people and communities through the work that they do and the places that they live in (Downs and Wojasz, 2019). As Bond and Dusik (2019) point out, impact assessment in general needs to rise to the challenges raised by the need to assess the impacts of technological changes.</p> <p>Other challenges are the increasing complex linkages between producers and consumers, and between rural and urban areas. These challenges will require SIA to move into areas such as foresight and futures assessment . Long-standing foci of livelihoods, work environments, skills and training, housing for workers and social equity will remain important but the frameworks for understanding social change will need to advance considerably. Public involvement will also remain a feature of our work but the nature of informed debate with communities</p>
Ecological Impact Assessment (Ecol IA)	
References	<ul style="list-style-type: none"> ■ Hapuarachchi, A. B., Hughey, K., & Rennie, H. (2016). Effectiveness of Environmental Impact Assessment (EIA) in addressing development-induced disasters: a comparison of the EIA processes of Sri Lanka and New Zealand. <i>Natural Hazards</i>, 81(1), 423–445. https://doi.org/10.1007/S11069-015-2089-8/FIGURES/2 ■ Morgan, R. and Taylor, N. (2021) ‘Strategic environmental assessment in New Zealand’. In Fischer, T. and González, A. (Eds.) (2021) <i>Handbook on Strategic Environmental Assessment</i>. Cheltenham: Edward Elgar.

Norway

Norway	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Norwegian Environment Agency supports the Ministry of Climate and Environment
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ 2003- Environmental Information Act https://www.regjeringen.no/en/dokumenter/environmental-information-act/id173247/ Right to Environmental Information and Public Participation in Decision-making Processes Relating to the Environment ■ 2005- Provisions on SEA in the Planning and Building Act https://www.regjeringen.no/en/dokumenter/planning-building-act/id570450/ and other relevant legislation, based on the EU Directive on Environmental Assessment of Certain Plans or Programmes and the UN ECE Protocol on Strategic Environmental Assessment. In Norway, it is a statutory requirement under the Planning and Building Act that environmental assessment is required for certain plans and programmes. ■ Regulations on impact assessments- https://www.regjeringen.no/en/dokumenter/regulations-on-impact-assessments/id2573435/ Established by Royal Decree of 21 June 2017 pursuant to Act of 27 June 2008 no. 71 relating to the Planning and the Processing of Building Applications (the Planning and Building Act) sections 1-2, 4-2, 14-6 and 32-8a. The EEA Agreement Annex XX no. 1 letter a (directive 2014/52/EU) and no. 1 letter g (directive 2001/42/EC) Presented by the Ministry of Local Government and Modernisation and the Ministry of Climate and Environment.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i>	
Strategic Environmental Assessment (SEA)	Lack of awareness about guidance documents such as <ul style="list-style-type: none"> ■ Economic Commission for Europe Meeting of the Parties to the Convention on Environmental Impact Assessment in a Transboundary Context serving as the Meeting of the Parties to the

	<p>Protocol on Strategic Environmental Assessment- https://unece.org/fileadmin/DAM/env/documents/2014/EIA/MOP/ECE.MP.EIA.SEA.2014.2_e.pdf uses Norway as a good practice example</p> <ul style="list-style-type: none"> Resource Manual to support application of the UNCE Protocol on Strategic Environmental Assessment- https://unece.org/DAM/env/documents/2011/eia/ece.mp.eia.17.e.pdf
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> Environmental assessment for policies is governed by the “Instructions for consequence assessment, submission and review procedures in connection with official studies, regulations, positions and reports to the Storting”. The Norwegian Environment Agency’s central tasks and responsibility will be in managing Norwegian nature and preventing pollution. The Agency’s functions are to monitor the state of the environment and provide information, exercise authority, oversee and guide regional and municipal authorities, collaborate with authorities of relevant sectors, act as an expert adviser and assist in international environmental efforts.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> Environment, Social and Governance Law 2022-2023- Implemented a number of regulations which apply to all industries/are industry specific.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes <i>Is the concept of ‘environmental outcomes’ used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	<p>No mention of Environmental outcomes. But mention of legislation goals.</p> <ul style="list-style-type: none"> Environmental Information Act- Main aim is protection of the environment

	<ul style="list-style-type: none"> ■ Planning and Building Act- Prevent the risk of damage to the environment, promote sustainable development ■ Regulations on Impact Assessments- Ensure the environment is considered during the preparation of plans and initiatives
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points	
<i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	Ministry of Climate and Environment/Ministry of local government and modernisation have shared responsibility for SEA since 2013. Environment assessments are conducted at national level for major projects. But, local municipalities are responsible in most cases.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Norwegian Mapping Authority- Initiative to make existing environmental data and land use information from different sectors available at local/regional administrative levels ■ Norwegian Institute for Urban and Regional research (NIBR)- Major role in developing SEA instruments in environmental policy/management in Norway
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?	
<i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ What kind of criteria can be used to determine the kind of plans and programmes for which SEA should be required? <ul style="list-style-type: none"> – Decide whether an SEA is appropriate in the plan and establishing the objectives – Identify interested/affected stakeholders and plan their involvement
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ How can the scoping for SEA for different plans be determined? What kind of methods should be applied in the SEA process; how “deep” should the analysis be; what kind of documentation is necessary <ul style="list-style-type: none"> – Establish SEA content, relevant criteria for assessment – Recommend alternatives to be considered, suitable methods for analyses of key issues and sources of relevant data – Scoping can establish cause-effect links between plans/programmes to identify environmental impacts of policies/strategies – Detailed options review- Clarify environmental advantages/disadvantages – Scoping meetings with stakeholders result in revision of the SEA
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted?</p> <p><i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	<ul style="list-style-type: none"> ■ Plans/Programmes Assessment <ul style="list-style-type: none"> – Prepare the planning programme – Consultation – Submission of programmes ■ Policy assessment <ul style="list-style-type: none"> – Evaluate Environmental assessment need – The Ministry of the Environment recommends that a checklist for responsible body to evaluate the need to study the environmental consequences of the matter – Submission of the preliminary assessment to the Ministry of the Environment before the study is initiated – Submission to the Ministry of the Environment after a study has been completed but before circulation for general review – General Review
<p>Environmental Impact Assessment (EIA)</p>	
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?</p>	


Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Determined on a case by case basis ■ Should always include a “Do Nothing” alternative ■ Expectations to include an explanation on evaluation and how environmental impacts are reflected in the decision ■ In cases it is not implemented into practice because the process generates a multitude of partial alternatives and decisions ■ The consideration of alternatives is regarded as a key feature of project level environmental assessments, and it has been emphasised as very important for strategic assessments.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ There are some criteria for assessing significant effects on the environment. For plans that are subject to assessment, they should: <ul style="list-style-type: none"> – be located in or are in conflict with areas with particularly valuable landscapes, natural environments, cultural monuments or cultural environments that are protected or preserved; – be located in or are not in conflict with important natural areas on which there has been no encroachment, or pose a threat to directly endangered or vulnerable species and their habitats or to other areas of particular importance for biological diversity; – result in a significant increase in the number of persons who are exposed to high levels of air pollution or noise, or may lead to significant pollution of soil, water and sediments, or entail a risk of serious accidents, radiation, landslides and flooding.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ In practice, different assessments use different reporting procedures and document impacts using different methods. Using different methods may weaken the reliability. ■ Expectations- problems surrounding the reporting of impacts due to no guiding methods
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Mitigation must occur early in the assessment. In certain cases, mitigation opportunities have been lost as assessment occurred too late in the development sequence

Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Monitoring the state of the environment enables the authorities to implement measures for either preserving environmental values or preventing their deterioration. ■ The goal of such monitoring is to obtain solid information that will serve as the basis for measures and political decisions, as well as to ensure that the general public has a right to information about the state of the environment, pursuant to the Environmental Information Act.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	Good practice example of Norway SEA public engagement- To increase public participation in Nordland County Council, Regional Climate Plan 2010, planners prepared a plan, published letters encouraging people to participate through social media,. Consequently, awareness of the plan was made and comments on the plan was received, people were positive about meeting council officers.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<p>Norway has no judicial review of environmental issues. But environmental cases may be appealed to the general administrative authorities or general courts. Focus is on evaluating legality, leaving substantial discretion to the administrative authorities.</p> <p>Courts have not been assigned an important role in the environmental law systems.</p>
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	

Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<p>Strategic environmental assessments are suitable for contributing to the achievement of the Sustainable Development Goals</p> <p>Norway has a well-functioning environmental governance and management system with a high level of co-operation, vibrant civic engagement in decision making and strong advisory bodies. Citizens have generally free, open access to high-quality environmental information. The short distance between research and policy-making bodies is an asset of the Norwegian system.</p> <p>Lessons Learnt</p> <ul style="list-style-type: none"> ■ Stronger focus on cumulative environmental impacts to show clear separation of administrative roles at local/regional level. ■ Promoting SEA as a bonus not a burden; ■ Encouraging creativity and innovation; ■ Tailoring the approach to the purpose and context of decision-making; ■ Providing start-up help and assistance; ■ Building an empirical knowledge base systematically; ■ Learning by doing when applying new methods and procedures.
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<p>Needs to be more research on the application of SEA in Norway in terms of how it can be carried out and implemented in practice at various sectors/levels/cross-nationally.</p> <p>Conflict of interest between who should undertake/is in charge of the environmental assessment-national/local? SEA may only address immediate/on-site effects at local level over the bigger picture</p> <p>Focus on environmental issues in Planning is not a strong focus as Norway is not a member of the EU</p> <p>Environmental issues have not been prioritized. Nor has strategic environmental assessment (SEA) been used to incorporate environmental concerns into RUPs. This does not, however, mean that environmental concerns are not included in regional planning, or that SEA has not played a role in assessing environmental issues.</p>
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	
References	<ul style="list-style-type: none"> ■ Beheshti, M. and Sægrov, S. (2018) 'Sustainability assessment in strategic management of wastewater transport system: a case study in Trondheim, Norway', <i>Urban Water Journal</i>, 15:1, 1-8, DOI: 10.1080/1573062X.2017.1363253 ■ Fidler, C. and Noble, B. (2012) Advancing strategic environmental assessment in the offshore oil and gas sector: Lessons from Norway, Canada, and the United Kingdom. <i>Environmental Impact Assessment Review</i>, 34, pp. 12-21.

- Lindblom, I. (2012) 'Quality of Cultural Heritage in EIA; twenty years of experience in Norway'. *Environmental Impact Assessment Review*, 34, pp. 51-57.
- Popic, J. and Skipperud, L. (2020) Evaluation of uncertainties in environmental impact assessment of naturally occurring radiation exposure situations on example of undisturbed and legacy NORM sites in the Fen Complex, *Environmental Monitoring Assessment*, 192: 782.
- Singh, B. and Strømman, H. (2013) 'Environmental assessment of electrification of road transport in Norway: Scenarios and impacts'. *Transportation Research Part D* 25, pp. 106–111

South Africa

South Africa	
	
The national body for defining the regulatory framework and processes (e.g. government department) <i>The central body, or bodies, responsible for drafting and maintaining legislation and processes</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> Department of Environmental Affairs is responsible overall for the SEA legislation and regulations.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> Department of Environmental Affairs are responsible for this. Bomo Edith Edna Molewa wrote the most recent regulation which were updated 13th July 2014⁶¹. South Africa is also seen as a leader in regards to using environmental assessment tools, policies and practices to address sustainability and environmental issues (DBSA, 2009⁶²). This is important as it forms part of the Integrated Environmental Management Approach to sustainable development. The Environmental Management Inspectorate in charge of enforcing environmental laws.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> The South African President by declaration in the Government Gazette, for creating legislation.
Legislation <i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> No legislative requirements to make SEA mandatory in South Africa. There are also no major regulations surrounding it. There are no legally binding procedures or requirements for this topic. There is a set of guidelines that was published in 2007 issued by the Department of Environmental Affairs and Transport which were the Strategic Environmental Assessment Guidelines as part of the Integrated Environmental Guideline Series. SEA guidelines in South Africa does use EIA methodology which is why they link very strongly together. As it is non-mandatory, decisions do not have to be justified based on SEA, but SEAs are prepared within the framework of Municipal Systems Act Regulations are used as the justifications for decisions.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> South Africa used important tools and tactics to mainstream environmental management. One of the key things they decided to use was acts such as the Promotion of Access Information Act (PAIA) and tools associated with the National Environmental Management Act. The main overarching legislation is the National Environmental Management Act, 107 of 1998 (NEMA). This is a legislation framework which creates an environment for the adoption of a variety of environmental laws⁶³. The minimum requirements in terms of Section 24 of NEMA⁶⁴ are shown in Figure 1:

⁶¹ Environmental Impact Assessment Regulations 2014- updated 2018. Available [online]: http://www.saflii.org/za/legis/consol_reg/ear2014459.pdf Accessed, 13/01/2023.

⁶² DBSA- What works for us. Available [online]: <https://www.environmental-mainstreaming.org/documents/DBSA%20-%20What%20Works%20for%20Us%20for%20Website.pdf> Accessed, 18/01/2023.

⁶³ Processes for Environmental Impact Assessment (EIA) and Basic Assessment. Available [online]: <https://www.envass.co.za/eia-ba/> Accessed, 13/01/2023.

⁶⁴ National ENVIRONMENTAL MANAGEMENT ACT, 1998. Available [online]: https://www.dffe.gov.za/sites/default/files/gazetted_notices/nema_guidelines_q33333gen654_0.pdf Accessed, 18/01/2023.

Minimum Requirements in Terms of Section 24 of NEMA

Section 24 of NEMA sets out the minimum requirements that every application for an environmental authorisation must comply with. They are:

Co-operative Governance

- Where the activity concerned falls under the jurisdiction of more than one organ of state, there must be coordination and cooperation between the relevant organs of state, when considering the assessment.
- Reference should be made to the principles of cooperative governance.
- When making decisions, organs of state must consider the findings and recommendations flowing from an investigation, the general objectives of integrated environmental management laid down in NEMA as well as the section 2 principles for environmental management contained in NEMA. There must be an indication that the decision-maker has applied his or her mind to these considerations.

Investigation and Assessment

- Where it is determined that the environment is likely to be significantly affected by the proposed activity in an application for an environmental authorisation, that environment must be clearly and accurately described, the potential consequences for the environment must be properly investigated, and thereafter the significance of each of the potential consequences / impacts must be assessed.

Public Participation

- There must be full and proper public information and public participation procedures.
- All i&APs, including all spheres of government that have jurisdiction over the activity in question must be given a reasonable opportunity to participate in the information and public participation procedures.

Alternatives and Mitigation Measures

- All applications for environmental authorisation must include an investigation of alternatives to the proposed activity, which must consider the potential consequences or impacts of each alternative.
- The "no go option" must be assessed, which involves investigating the environmental impacts of not undertaking the activity.
- Mitigation measures to avoid, minimise or remedy adverse impacts must also be investigated.

Gaps in Knowledge

- It is a further requirement that gaps in knowledge be reported upon, as well as the adequacy of the predictive methods and underlying assumptions used in the assessment of the potential impacts.
- It is important to report any uncertainties that were encountered while compiling the information.

Monitoring and Management of Consequences

- Arrangements for the monitoring and management of consequences for, or impacts on the environment must be investigated and formulated.
- There must be follow up in that the effectiveness of the monitoring and management arrangements must be evaluated during the implementation (construction and operation) of the activity.

Compilation of Information and Maps

- NEMA makes provision for the Minister or an MEC with the concurrence of the Minister to compile information and maps⁶⁵ that specify the attributes of the environment in particular geographical areas. The information or maps may include the sensitivity, extent, interrelationship and significance of such attributes. Where such information or maps exist, the environmental attributes specified therein must be taken into consideration in compiling the application.

- This is associated with the regulations (see below) associated with EIA. The most up to date EIA Regulations are the 2014 EIA Regulations that were amended on the 7th April 2017.
- EIA Timeline over the last 20 years^{65, 66}:
 - EIA Regulations promulgated in terms of the Environment Conservation Act (ECA), Act No 73 of 1989 (08/09/1997 - 09/05/2002): This is where it became a legal requirement.
 - Amendment of the ECA EIA Regulations (10/05/2002 - 02/07/2006)
 - 2006 EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998 (03/07/2006-01/08/2010)
 - 2010 EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998 (02/08/2010-07/12/2014)
 - 2014 EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998 (08/12/2014-06/04/2017)
 - Amended 2014⁶⁷ EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998 (07/04/2017 - current day)⁶⁸ (including amendments till June 2021).

⁶⁵ Information on the first five regulations. Available [online]: https://cer.org.za/wp-content/uploads/2010/03/Activities-and-Timelines-updated-January-2015_3.pdf Accessed, 10/01/2023.

⁶⁶ Timeline of EIA practice over 20 years. Available [online]: <https://www.dffe.gov.za/sites/default/files/docs/publications/EIAbooklet.pdf> Accessed, 10/01/2023.

⁶⁷ Environmental Impact Assessment Regulations 2014- updated 2018. Available [online]: http://www.saflii.org/za/legis/consol_reg/ear2014459.pdf Accessed, 13/01/2023.

⁶⁸ Environmental Impact Assessment Regulations 2014. Available [online]: <https://cer.org.za/wp-content/uploads/1999/01/NEMA-EIA-Regulations-2014-as-amended.pdf> Accessed, 13/01/2023.

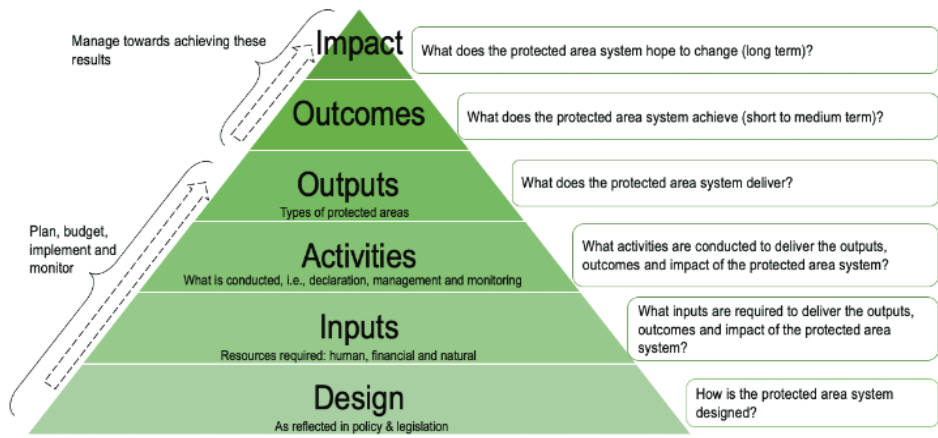
	<ul style="list-style-type: none"> ■ There are listing notices¹ that are used to instruct if a Basic Assessment or Scoping and Environmental Impact Assessment process should be carried out. These relation to the Section 24 (2) (a) of NEMA which is presented in Figure 2 below. <p style="text-align: center;">Listing Notices</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Listing Notice 1 Basic Assessment</p> <ul style="list-style-type: none"> • Government Notice No. 983 [as amended] • Government Notice R327 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Listing Notice 2 Scoping / Environmental Impact Assessment Process</p> <ul style="list-style-type: none"> • Government Notice No. 984 [as amended] • Government Notice R325 </div> <div style="border: 1px solid black; padding: 5px;"> <p>Listing Notice 3 Activities concerning sensitive geographical areas</p> <ul style="list-style-type: none"> • Government Notice No. 985 [as amended] • Government Notice R324 </div> <ul style="list-style-type: none"> ■ Anything requiring a listing notice 1 or 2 requires a EIA. ■ Overarching aim of South Africa is to <i>'promote sustainable development by decoupling economic growth rates from environmental degradation while improving the quality of life of all, with particular reference to the poorer groups'</i>⁶⁹.
<p>Ecological Impact Assessment (Ecol IA)</p>	<ul style="list-style-type: none"> ■ South Africa has a number of national policies and legislative frameworks to address ecological impact and conservation/management. One of the main legislative documents is the National Environment Management: Protected Areas Act of 2004 (NEM: PAA)⁷⁰. ■ Also there is the National Biodiversity Framework which aligns (or attempts) conservation efforts across institutions. ■ There is also the Biodiversity Policy and Strategy for South Africa: Strategy on Buffer Zones for National Parks (Notice 106 of 2012). This gained momentum in the 1970s due to UNESCO's Man and Biosphere Programme, which introduced the zoning hierarchy of buffer areas. This allows areas to be safeguarded that have biodiversity conservation as their primary objective. This also engages sustainable benefits to the people living in the area, which allows an increased inclusion of the local community as a result. ■ National Biodiversity Assessment tool also is the primary tool for monitoring and reporting on the state of biodiversity in South Africa. It is also used to inform policies, strategies and actions for managing biodiversity. This also links to the South Africa National Biodiversity Institute mandate under the Biodiversity Act⁷¹. ■ South Africa has also started using the Theory of Change conceptual framework⁷², which can identify the risks to the successful implementation of certain initiatives. Figure 3 below highlights the use of this for Protected Area Systems within South Africa:

⁶⁹ Environmental assessments for the greening of public infrastructure in South Africa. Available [online]: <https://www.tandfonline.com/doi/pdf/10.1080/0376835X.2014.937856> Accessed, 18/01/2023.

⁷⁰ National Management Act. Available [online]: <https://faolex.fao.org/docs/pdf/saf52045.pdf> Accessed, 19/01/2023.

⁷¹ Planning and Assessment. Available [online]: <http://biodiversityadvisor.sanbi.org/planning-and-assessment/national-biodiversity-assessment-nba-2018/> Accessed, 19/01/2023.

⁷² Identifying key risks to the achievement of protected area system objectives. Available [online]: file:///C:/Users/Bull_L/Downloads/NC-49-053_article-83759_en_1.pdf Accessed, 20/01/2023.



The main legislative framework driving the formalisation of these protected areas within South Africa is the NEMPAAA. The objectives within this Act include:

- ‘Prescribe a national framework for the declaration and management of protected areas;
- Providing for cooperative governance about declaration and management;
- Entrenching a national system of protected areas;
- Entrenching a representative network of protected areas on state, private and communal land;
- Promoting sustainable use of protected areas; and
- Promoting inclusion and participation of local communities.’

Supporting guidance.

Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?

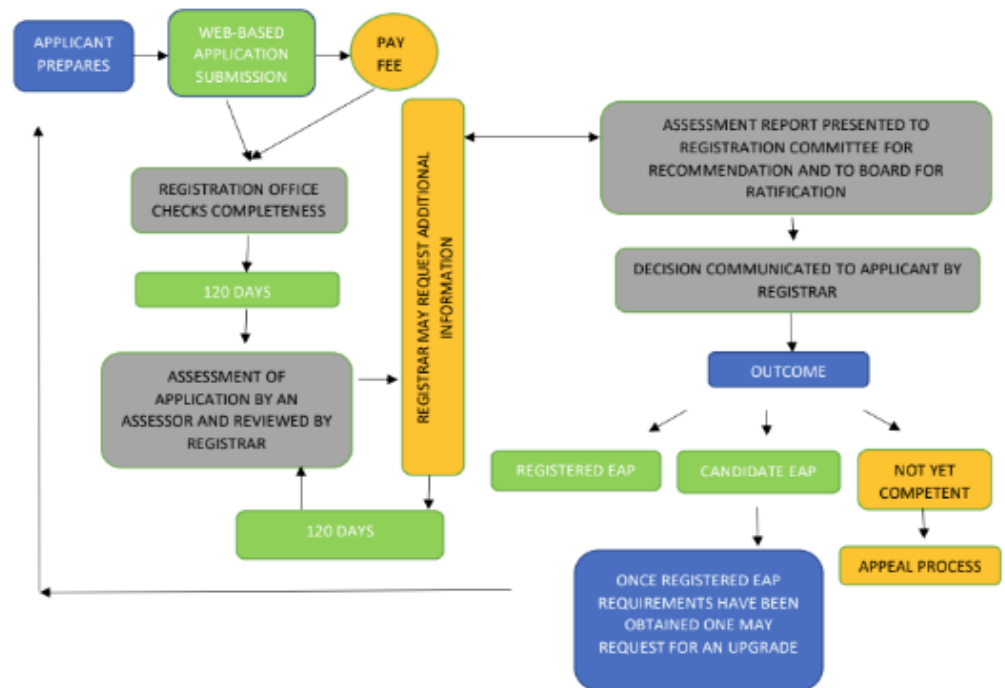
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ There is a range of guidance promoting SEA, including an overarching guide that was published in 2004.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ EIA in South Africa is described as ‘a public process that is used to identify, predict and assess the potential environmental impacts of a proposed project on the environment. The EIA is used to inform the decision-making’⁷³ ■ There is some guidance available for determining the scope of specialist involvement in EIA processes in EIA processes⁷⁴. This has been provided by the Department of Environmental Affairs. ■ There is some guidance provided by the Department of Environmental Affairs for Renewable Energy Projects⁷⁵, which was written in 2015 and is a standalone document. These guidelines have been produced mainly for: <ul style="list-style-type: none"> – Public Sector Authorities (regulator and/or competent authority); – Joint public sector authorities and project funders; – Private Sector Entities (as project funder/developer/consultant); and – Other interested and affected parties (determined by the project location and/or scope).

⁷³ The Role Integrated Environmental Management (IEM) concepts and tools play in promoting sustainability in the Southern African Development Community (SADC). Available [online]: https://pdf.usaid.gov/pdf_docs/Pnadv975.pdf Accessed, 18/01/2023.

⁷⁴ Guidelines for determining the scope of specialist involvement in EIA processes. Available [online]: <https://www.dffe.gov.za/sites/default/files/docs/guidelinefordeterminingthescope.pdf> Accessed, 13/01/2023.

⁷⁵ EIA Guideline for Renewable Energy Projects. Available [online]: https://www.dffe.gov.za/sites/default/files/legislations/EIA_guidelineforrenewableenergyprojects_0.pdf Accessed, 18/01/2023.

- Also the type of projects this guideline addresses are things like Solar Power, Wind Farms Hydropower and Photovoltaic Power Plants.
- Also many different university courses available to follow EIA across South Africa in places like North-West University and University of Pretoria. This is useful as it trains up the next generation of EIA practitioner's.
- Training offered by the Environmental Assessment Practitioners Association of South Africa (EAPASA). This is a Registration Authority which is based on the core competencies under the NEMA act as amended. This is promoted to improve the quality of environmental assessment practice within South Africa. This is achieved by establishing, promoting and maintaining the registration of the Environmental Assessment Practitioners in South Africa, Section 24H of the NEMA Act. By making this a Registration Authority it has allowed a regulated, consistent and improved standards of EIA in South Africa. Figure 4 below highlights the EAP registration process⁷⁶.



- Also there is a website⁷⁷ which provides a guide for the public to understand how public participation is used within the EIA process and the rights of the community/public to participate in this. There is a large quantity of other guides relating to EIA practice within South Africa and how to integrate certain topics within the assessment which is useful.

Ecological Impact Assessment (Ecol IA)

- The International Union for Conservation (IUCN) is composed of government and civil society organisations. It is a global authority on the status of the world and the important measures needed to safeguard areas.
- The IUCN produces guidance for tourists which is easy to understand and helpful to South Africa. This was a wider project called 'Tourism partnerships and concessions in protected areas: Cooperating for success.' This helps the country assess financial sustainability of protected areas.

Associated legislation
 Are the goals of the selected regime supported / frustrated by other legislation?

⁷⁶EAPASA Website. Available [online]: <https://eapasa.org/site/> Accessed, 18/01/2023.
⁷⁷ The Southern African Institute for Environmental Assessment. Available [online]: <https://www.saiea.com/calabash> Accessed, 18/01/2023.

- Sustainability assessment in South Africa is the leading principle for EIA implementation in the country. Also adopts policies and extensive frameworks dealing with sustainability beyond NEMA. The main sustainability assessment principles in South Africa are:
 - Socio-ecological system integrity;
 - Livelihood sufficiency and opportunity;
 - Intra- and inter-generational equity;
 - Resource maintenance and efficiency;
 - Socio-ecological civility and democratic governance;
 - Precaution and adaption; and
 - Immediate and long term integration.
- Also EIA practice in South Africa links to the Infrastructure Development Act of 2013, which aims to facilitate the coordination of infrastructure projects, and that wherever a EIA is needed, it must be carried out in relation to the NEMA act. However, this caused many issues as there was not distinguishing between EIA and SEA as a result, and allowed the shortening of the project approval cycles. This also meant that environmental challenges were not included at the starts of the projects and didn't provide any incentives to carry out SEAs.
- There are some renewable energy policies and legalisation¹¹ related to the legislative approval process which is used alongside the EIA regulations:
 - The Constitution of the Republic of South Africa, 1996;
 - The National Environmental Management Act (Act 107 of 1998 as amended);
 - The National Environmental Management: Waste Act (Act 59 of 2008 as amended);
 - The National Environmental Management: Integrated Coastal Management Act (No. 24 of 2008 as amended);
 - National Environmental Management: Air Quality Act (Act 39 of 2004 as amended);
 - The National Environmental Management Biodiversity Act (Act 10 of 2004);
 - National Environmental Management: Protected Areas Act (Act 53 of 2003 as amended);
 - The National Water Act (Act 73 of 1998 as amended);
 - The Water Services Act (Act 108 of 1997);
 - The Occupational Health and Safety Act (Act 85 of 1993);
 - The Hazardous Substances Act (Act 15 of 1973);
 - The Municipal Systems Act (Act 32 of 2000);
 - Conservation of Agricultural Resources Act (No. 43 of 1983);
 - Mineral and Petroleum Resource Development Act (No. 28 of 2002 as amended);
 - Road Traffic Management Corporation Act (No. 20 OF 1999);
 - National Roads Act (No. 93 OF 1996);
 - Civil Aviation Act (No. 13 of 2009);
 - Astronomy Geographic Advantage areas Act (No. 21 of 2007);
 - National forest Act (No. 84 of 1998);
 - Sub – division of Agricultural land (No. 70 of 2009); and
 - Spatial Planning and Land Use Management Act (No. 16 of 2013).

Depending on the type of project depends on what is used.

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ As SEA is based on PPP its mostly governmental agencies prepare, review and approve them. There needs to be a clear system of checks and coordination to effectively conduct a SEA.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Department of Environmental Affairs the most important body within EIA as they hold the power to grant planning permission. ■ The main role players within the EIA process⁷⁸ are: <ul style="list-style-type: none"> – NEMA competent authority- power to issues/reuse environmental authorisation. Depending on the proposed development the NEMA competent authority could be a Minister of the National Department of Environmental Affairs, an MEC of a environmental authority in the province of a Mayor of a Municipality; – The Applicant; – The EAP (Environmental Assessment Practitioner); – Interested and Affected parties; and – Relevant state departments. ■ Central ESIA database which the relevant authority registers applications by the applicant ■ Relevant professional bodies that could be involved throughout the process: <ul style="list-style-type: none"> – Centre for Public Participation- important for ensuring that government policy and legislative processes are transparent, accessible and accountable; – International Association for Impact Assessment South African Affiliate (IAIAsa) – The Southern Africa Institute for Environmental Assessment (SAIEA) – Environmental Assessment Practitioners Association of South Africa (EAPASA) ■ The Environmental Management Inspectorate in chare of enforcing environmental laws.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The Minister must maintain the register called the Register of Protected Areas.
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	The National Environmental Management Laws Amendment Act 2 of 2022 intends: to amend the National Environmental Management Act, 1998,
Environmental Impact Assessment (EIA)	
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The National Environmental Management: Protected Areas Act 2004 has ben amended and superseded by the National Environmental Management Laws Amendment ACT 2 of 2022. ■ There are many reasons this has been amended⁷⁹. Some of the amendments included: <ul style="list-style-type: none"> – ‘to provide clarity on the definition of “control” and to insert definitions of “eradicate” and “well-being”; – to ensure that indigenous biological resources are used sustainably; – to ensure that certain species remain in State custody despite escape from a protected area;

⁷⁸ Management of Environmental Impact Assessments (EIA) of Proposed Development Activities. Available [online]: <https://www.health.gov.za/wp-content/uploads/2021/09/Manual-EIA-2017-compressed.pdf> Accessed, 19/01/2023.

⁷⁹ National Environmental Management Laws Amendment Act 2 of 2022. Available [online]: <https://www.gov.za/documents/national-environmental-management-laws-amendment-act-2-2022-english-afrikaans-24-jun-2022> Accessed, 20/01/2023.

	<ul style="list-style-type: none"> – to empower the Minister to prohibit certain activities that may negatively impact on the well-being of an animal; – to provide for the Chief Financial Officer of the South African National Biodiversity Institute to be a member of the Board; – to provide clarity on measures to be undertaken to eradicate listed invasive species; – to provide clarity on the steps, actions or methods to be undertaken to either control or eradicate listed invasive species; and – to ensure that the MECs responsible for environmental affairs follow the consultation process set out in sections 99 and 100 before exercising a power in terms of a provision under the Act.’ <ul style="list-style-type: none"> ■ As this only came in last year it is expected a period of transition to understand the new rules and regulations of this amended act.
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Link to environmental outcomes
Is the concept of 'environmental outcomes' used or referred to in the relevant legislation / guidance?

Strategic Environmental Assessment (SEA)	N/a
Environmental Impact Assessment (EIA)	N/a
Ecological Impact Assessment (Ecol IA)	N/a

Procedure and practice

General points
Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Department of Environmental Affairs is the main SEA authority. ■ The Plan Owner commissions the SEA study and this is managed by consultants. These consultant have active involvement of the organisation that commissioned the SEA. ■ The responsibility of the SEA can also be devolved to provincial and local authorities, depending on the nature and location of the policy, plan or programme.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The Department of Environmental Affairs is the central authority for the EIA process within South Africa. Before it was split between the Department of Transport too but since 2009 it has just been the Department of Environmental Affairs. This department is apart of the Ministry of Water and Environmental Affairs. ■ The Department of Environmental Affairs are responsible for EIA at a national and provincial level. ■ Some EIA process would require other key governmental parties, requiring consultation with national sector departments, provincial or local authorities. ■ The Minister of Water and Environmental Affairs, including Members of the Executive Council or the Minister of Mineral Resources for mining related activities can also be competent authorise for EIA decisions.

- The decision making process timeline for authorities⁸⁰ is shown in Figure 5 below:
- The applicant must appoint an EAP (Environmental Assessment Practitioner) which conforms to Regulation 12 of GN No. R326 to conduct the application procedure. They need to be accepted by the applicable competent authority as well for authorisation. This is at the initiation of the project and is costed for by the applicant. The applicant must also make sure the EAP is independent and has the necessary expertise to perform the work, as well as comply with the legal requirement.
- The EAP must have expertise in conducting EIAs, knowledge of NEMA, EIA regulations and any guidelines relating to the proposed activity. Must perform the work in an objective manner and comply with all the relevant legislation. Consider the potential impacts, alternatives and all comments/ concerns raised by the other parties. Also they must give the applicant and the competent authority all the material in possession to make an informed decision¹⁵.

Decision and/or action required by authorities	Timeframe for Basic Assessment Reports (days)	Timeframe for EIAs (days)
Acknowledge receipt of application	14	14
Review application and make a decision to grant authorisation	30	30 days for scoping report 60 days for EIA report 45 days to grant authorisation*
<i>Extension if decision-making timeframe is missed</i>	60	60
<i>Review additional information (if required) and make a decision</i>	30	30 days for scoping report 60 days for EIA report
Notify the applicant of the decision	2	2
Minimum days required (if all information is provided first time, the competent authority meets the timeframe and no review is required)	46	106

* If the report was sent for specialist review, 45 days are allowed to grant authorisation from the date of receipt of the review report.

- The EAP must also complete and submit the form for application which is stated in Regulation 16 (1) (b) of GN No R. 326 with valid information to the competent authority before carrying out a scoping report or beginning the EIA process.
- The applicant would have to pay the Department of Environmental Affairs a specific administration fee when submitting the application for environmental authorisation. Also would be required to pay a specific fee if the application for submitted for amendment/ withdrawal.

Ecological Impact Assessment (Ecol IA)

Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?

Strategic Environmental Assessment (SEA)

Depending on the extent and scale of the baseline information needed for the SEA, the national Environmental Potential Atlases (ENPAT) and other environmental spatial data maintained by DEAT and other Departments can also provide valuable information. In return, these databases may also benefit from information generated by SEA processes.

Environmental Impact Assessment (EIA)

- There is some data available on the Government Data for public GIS downloads which could be included within an EIA report.

⁸⁰ SADC Environmental Legislation Handbook 2012. Available [online]: <http://the-eis.com/elibrary/sites/default/files/downloads/literature/SADC%20Environmental%20legislation%20Handbook%202012.pdf> Accessed, 18/01/2023.

	<ul style="list-style-type: none"> ■ The specialists gather the specific data to carry out the specialist studies for the proposed activity. They gather information on things like instance waste management, air quality, noise, vegetation, water quality, pollution, waste management for example. ■ From research there doesn't seem to be a standardised data set used for EIA in South Africa. ■ It is understood that most EIA reports have satisfactory biological, physical and social baseline data but there is a large quantity of reports that have poor quality data. This could be due to the fact South Africa is a developing country and doesn't have the financial ability to accurately collect data needed for EIA projects.⁸¹
Ecological Impact Assessment (Ecol IA)	
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ This varies depending on the nature and the objectives. ■ There is no timeline for screening for SEA however.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Screening is conducted by the appointed EAP by the applicant. This is needed to decided whether a basic assessment or scoping report is needed, as well as a EIA. ■ This follows the EIA Regulations Section 19, taking into account guidelines and advice from the competent authority. Any of the Listing 1+2 notices require screening to progress onto the next stage of assessments. This lists are inclusive and include thresholds which are based on initiative features and environmental parameters. ■ List 3 used for the screening process lists activities for which an environmental authorisation has to be acquired for specific geographical areas. A full EIA is required for projects that have an effect on a nationally protected area, where the Minister is then designated as the competent authority. ■ A document explaining the Screening process has been created and used within South Africa⁸² ■ The timeline for screening is 30 days. ■ Also a screening tool has been introduced using GIS technology. In 2019 ⁸³this became a mandatory part of the EIA process when applying for environmental authorisation. This allows the sensitivities of the site to be identified and can assess the potential environmental sensitivities of alternative sites.
Ecological Impact Assessment (Ecol IA)	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ There is nothing specified in legislation for scoping for SEA but does recommend that scoping is carried out.

⁸¹ Aspects of Environmental Impact Assessment. Available [online]:

<https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/5963/srcosmos.pdf?sequence=1&isAllowe> Accessed, 19/01/2023.

⁸² Screening. Available [online]: https://www.dffe.gov.za/sites/default/files/docs/series1_screening.pdf Accessed, 19/01/2023.

⁸³ South Africa's EIA Screening Tool. Available [online]:

<https://www.tandfonline.com/doi/abs/10.1080/14615517.2022.2139863?journalCode=tiap20> Accessed, 24/01/2023.

	<ul style="list-style-type: none"> ■ It suggest that scoping it carried out to determine the limits of acceptable change which are based on the SEA objectives and sustainability goals. The main benefits ⁸⁴are: <ul style="list-style-type: none"> – ‘pro-actively informs the development of plans and programmes; – identifies the opportunities and constraints which the environment places on development; – provides guidelines to ensure that development is within sustainable limits; – has the ability to integrate across areas, regions or sectors; – improves the way in which cumulative effects are dealt with in environmental assessments, for example, through the use of thresholds and limits of acceptable change; and – focuses on the maintenance and enhancement of a chosen level of environmental quality, rather than on minimising individual impacts.’ ■ Also the guidelines⁸⁵ suggests that the scoping outcome should include: <ul style="list-style-type: none"> – ‘scale and boundary of SEA; – a vision for the plan; – sustainability objectives and criteria; – limits of acceptable change and thresholds; and – indicators to describe current levels and trends of environmental quality, evaluate progress towards sustainability and to enable corrective and adaptive management during policies, plans and programmes (PPP) implementation.’
<p>Environmental Impact Assessment (EIA)</p>	<ul style="list-style-type: none"> ■ South Africa has two main EIA processes: Basic Assessment and Scoping and the Environmental Impact Reporting processes.⁸⁶ ■ Basic Assessment Process is usually used for smaller project activities and impacts which are more known/ easily mitigated/managed. These are usually Listing 1 Notices in regards to the EIA Regulations 2014 (as amended), as well as Category A in the NEMA Waste Act. This is usually a shorter process taking around 197 days, with 50 extra days being given to correct/ re-distribute the report if needed. An example of a basic assessment report is for Mineral Resources which can be found in the link in the footnote⁸⁷ ■ The Basic Assessment process⁸⁸ is as follows: <ul style="list-style-type: none"> – Initiation of the Project. Must appoint a EAP. – Application submission to the CA – Consideration and checking of the application – Basic Assessment Process. Appendix 1 should outline the scope, objective or capacity of the report and the report should be issued as part of a Public Participation Process. This must be managed over 30 days. – Submitting the report to the competent authority. This must be received within a timeframe of 90 days, include reports from the specialists, EMPR and closure plan. The final report must be submitted 90 days after the report has been reviewed to avoid invalidation of the application under the NEMA 2017 Regulations.

⁸⁴ Strategic Environmental Assessment in South Africa. Available [online]: https://www.commissiener.nl/docs/os/sea/casestudies/various_south_africa_6_cases_00_csir.pdf Accessed, 23/01/2023.

⁸⁵ SEA Profile. Available [online]: [ESIA/SEA per country - Eia.nl](https://www.commissiener.nl/docs/os/sea/casestudies/various_south_africa_6_cases_00_csir.pdf) Accessed, 23/01/2023.

⁸⁶ Environmental Impact Assessment (EIA). Available [online]: https://www.westerncape.gov.za/eadp/files/atoms/files/EIA_2015.pdf Accessed, 12/01/2023.

⁸⁷ Basic Assessment Report. Available [online]: https://cdn.slrconsulting.com/uploads/2020-06/2020-01-30_ZEV01_DMRE-BAR-Template_FINAL.pdf Accessed, 19/01/2023.

⁸⁸ Processes for Environmental Impact Assessments (EIA) and Basic Assessment (BA). Available [online]: <https://www.envass.co.za/eia-ba/> Accessed, 19/01/2023.

	<ul style="list-style-type: none"> – Next comes the contemplation and conclusion of the application which must be announced within 107 days of receiving the report. – The announcement of the decision comes next, with written notice being provided to the applicant. An appeal could still be filed adverse to the verdict concerning the National Appeal Regulations amended in 2017. – Within 14 days of the decision the interested and affected parties need to be informed of the decision after the submission of the report. This must include the outcomes of the application and a appeal could be filed in disagreement with the conclusions. ■ A strength of this is that the 90 day timeframe for the submission of the final report means that the project teams need to be organised enough to plan ahead before the submission. This means that they have to manage their time effectively with this process. As this takes less time than a scoping report it is a step closer to carrying out an EIA. ■ The contents of the report must include certain topics such as location of the activity for example or description of the scope of the proposed activity. This is in Page 9 of the Management of Environmental Impact Assessments (EIA) of Proposed Development Activities report⁸⁹. This provides a comprehensive list of information that should be included. However what is lacking with the South African approach is that no documents specify what environmental topics should be scoped in/ scoped out as a basis for beginning the assessment. ■ The scoping process is needed for all activities that are listed in terms of Listing Notice 2 of the EIA Regulations, as well as Category B of the NEMA Waste Act. They are more likely to have significant impacts due to their extent and are considered higher risk activities. Within documents explaining the scoping process, scoping and the EIA process are grouped together. ■ Generally though scoping is seen as an early step before an EIA is carried out. Again the report needs to be submitted to a Competent Authority for approval before the EIA can be conducted. The report is essential to ensure the EIA studies are focused on the significant impacts of the proposed activity. The contents of a scoping report and EIA are presented on Page 13-20 of the Management of Environmental Impact Assessments (EIA) of Proposed Development Activities report²⁰. ■ This is more detailed than a basic assessment but takes longer to carry out. ■ One of the most important parts of the process is appointing an EAP which could prove difficult if there are no qualified people available. ■ What would be useful is for a document to be provided on topics that should be included within the reports. This may exist but has been difficult to find.
Ecological Impact Assessment (Ecol IA)	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The following information should be considered when assessing impacts⁹⁰: <ul style="list-style-type: none"> – the degree of change in environmental quality likely; – the extent to which the proposal meets sustainability requirements; – the levels of scientific uncertainty, gaps in information and or unprecedented nature of the proposal; and

⁸⁹ Management of Environmental Impact Assessments (EIA) of Proposed Development Activities. Available [online]: <https://www.health.gov.za/wp-content/uploads/2021/09/Manual-EIA-2017-compressed.pdf> Accessed, 19/01/2023.

⁹⁰ Strategic Environmental Assessment. Available [online]: https://www.dffe.gov.za/sites/default/files/docs/series10_strategic_environmental_assessment.pdf Accessed, 23/01/2023.

	<ul style="list-style-type: none"> – the levels of risk of unacceptable, irreversible or irreplaceable loss of natural capital. Specifically, it is advised to use both quantitative and qualitative approaches including matrices, GIS, modelling, multi-criteria analysis, causal effect diagrams or causal chain analysis, cost benefit analysis, risk assessment and scenario building’.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Expectation is that the EAP coordinates the assessment and takes the lead on the project. ■ The assessment should conform to EIA regulations and produce a suitable Environmental Management Plan to monitor any impacts. ■ Not expected to submit specialist studies at the Scoping phase but many applicants do to speed up the authorization process. Specialist studies are important in an EIA process but it is noted that assessments have fewer than 2 within the entire EIA report. From 95 EIAs researched only 2 had more than 4 specialist studies within it. This is why the assessment quality within South Africa is also falling behind other countries. ■ Independent Environmental Impact Assessment follow-up verifiers such as monitoring agencies, checkers, supervisors and control officers verify the assessments carried out.
Ecological Impact Assessment (Ecol IA)	
Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ These are advised to be assessed against the SEA sustainability objectives. ■ According to the main legislation from the Department of Environmental Affairs and Tourism consideration should be given to⁹¹: <ul style="list-style-type: none"> – Need or demand – Mode or process – Location – Timing and detailed implementation ■ It is stated that qualitative and quantitative assessments including matrices could also be used.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ There are two types of alternatives that should be considered for EIA practice within South Africa: <ul style="list-style-type: none"> – Incrementally different (modifications) alternatives to the project; and – Fundamentally (totally) different alternatives to the project.
Ecological Impact Assessment (Ecol IA)	
Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice? <i>Is there any direction on how significance is defined?</i>	
Strategic Environmental Assessment (SEA)	<p>Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgements and science-based criteria (i.e. biophysical, social and economic). Such judgement reflects the political reality of impact assessment in which significance is translated into public acceptability of impacts.</p>
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ According to the EIA regulations the significance of impacts is determined through a synthesis of the nature of impact, extent, duration, intensity and probability.

⁹¹ Strategic Environmental Assessment. Available [online]: https://www.dffe.gov.za/sites/default/files/docs/series10_strategic_environmental_assessment.pdf Accessed, 23/01/2023.

	<ul style="list-style-type: none"> ■ Use a tool called the Multi-Criteria Decision Analysis and Citizen Values Assessment to analyse the significant impacts. ■ Fully comprehensive document on the assessment of significance⁹² provided by the government which is a reoccurring theme throughout this analysis of South Africa.
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	Describe the environmental impacts of the proposal and how they are to be addressed – A separate SEA report or statement is typically prepared and made available to the public. The report can range in length and form from, for example, an environmental paragraph to a section in a plan to a separate report.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The EIA report is known as an EIR report over in South Africa. The report should include cover page, executive summary, contents page, introduction, terms of reference, approach to the study, assumptions and limitations, administrative, legal and policy requirements, project proposal, the affected environment, assessment, evaluation, incomplete or unavailable information, conclusions and recommendations, definition of technical terms, list of preparers, references, personal communications and appendices⁹³.
Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Implementation strategy for monitoring is required and this is very important for SEA. ■ The NEMA act states that adequate provision is needed for on-going management and monitoring of impacts throughout the life-cycle of the project.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ A Environmental Management Programme/ Plan (EMP) is an expected output of the EIA process. This includes the proposed mitigation and monitoring actions that have been identified throughout the process. This would include a timeline with specific responsibilities assigned to different parties with an exception this will be followed up.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The Minister must assign the management of the Protected Areas and may assign the management policy to a specific person. ■ A management plan must be prepared and this must be prepared within 12 months of the project. The management plan must include a co-ordinated policy framework, planning measures, programme of implementation and its costing, procedures of public participation and a zoning area for example. There are other things that could be included too which is listed within the National Environmental Management: Protected Areas Act 2004.⁹⁴
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ Implementation strategy for monitoring is required and this is very important for SEA. ■ The NEMA act states that adequate provision is needed for on-going management and monitoring of impacts throughout the life-cycle of the project.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ A Environmental Management Programme/ Plan (EMP) is an expected output of the EIA process. This includes the proposed mitigation and monitoring actions that have been identified throughout the

⁹² Impact Significance. Available [online]: https://www.dffe.gov.za/sites/default/files/docs/series5_impact_significance.pdf Accessed, 20/01/2023.

⁹³ Environmental Impact Reporting. Available [online]: https://www.dffe.gov.za/sites/default/files/docs/series15_environmental_impact_reporting.pdf Accessed, 20/01/2023.

⁹⁴ National Environmental Management: Protected Areas Act. Available [online]: https://www.gov.za/sites/default/files/gcis_document/201409/a57-03.pdf Accessed, 20/01/2023.

Assessment (EIA)	<p>process. This would include a timeline with specific responsibilities assigned to different parties with an exception this will be followed up.</p> <ul style="list-style-type: none"> ■ However it has been admitted but the Department of Environmental Affairs that this often does not always happen which as a result undermines the EIA. This is due to a lack of enforcement of the environmental laws at a local level and has been identified as a key issue of EIAs within South Africa. ■ <u>Environmental Control Officers</u>. The Department of Environmental Affairs (DEA) – of the Provincial Government of West Cape- provided <u>guidelines for Environmental Management Programmes</u> in (2005). One of the directed client responsibilities was to appoint an ECO regarding the entire duration of the project. Environmental Control Officers are employed both mandatorily and voluntarily at various construction projects across South Africa, and according to the South African Department of Water Affairs and Forestry (DWAF) “act primarily as quality controllers regarding environmental concerns in construction” (Department of Water Affairs and Forestry, DWAF, 2005) (Wessels, Retief, and Morrison Saunders, 2014).
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Need for management effectiveness evaluation to assess management strategies, identify shortcomings and successes with managing protected areas in South Africa. These were called Protected Area Management Schemes (PAME)⁹⁵ which can monitor protected areas using management indicators. ■ However a struggle with this is that each protected area is very different so the PAME doesn't cover a wide range of areas, more on a individual level which can make it very expensive and time consuming. Also if no baseline data exists on the area is can be difficult to assess and implement effective monitoring tools. ■ Also the NEMA Act states that the ministers need to establish indicators for monitoring performance within the protected areas to analyse the impacts.
Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The process of engagement between stakeholders (the proponent, authorities and I&APs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decisionmaking process. The term is considered to be more appropriate than the term “public participation”
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Full document on public and stakeholder engagement provided by the Department of Affairs and Tourism⁹⁶. It is proposed throughout the document that Public Participation is replaced with the term stakeholder engagement as it is suggested the term 'public' is misleading an misinterpreted, potentially excluding important stakeholders from the EIA process.

⁹⁵ Estimating conservation effectiveness across protected areas in Limpopo Province, South Africa. Available [online]: <https://journals.co.za/doi/abs/10.4102/koedoe.v61i1.1530> Accessed, 20/01/2023.

⁹⁶ Stakeholder Engagement. Available [online]: https://www.dffe.gov.za/sites/default/files/docs/series3_stakeholder_engagement.pdf Accessed, 19/01/2023.

- Figure 6 below highlights some of the approaches to stakeholder engagement within South Africa:
- However in South Africa there are difficulties with stakeholder engagement in regards to:
 - Policy and institutional constraints;
 - Cultural and historical complexities, as South Africa has a history of repression and mistrust;

Information	Consultation	Collaboration and Empowerment
<ul style="list-style-type: none"> • Legal notices • Advertisements • Magazine or news articles & press releases • Background information material • Exhibits or displays • Technical reports • Websites • Field trips • Press conferences • Radio or talk shows • Expert panels 	<ul style="list-style-type: none"> • Public meetings • Public hearings • Open days/open house • Briefings • Central information contact number or person • Field offices or information centres • Comments and response sheets • Surveys, questionnaires and polls • Interviews • Telephone hotlines • Electronic democracy • Participatory rural appraisal (PRA)/participatory learning and action (PLA) 	<ul style="list-style-type: none"> • Workshops, focus groups or key stakeholder meetings • Advisory panels and committees • Task force • Citizen juries • Charrettes/consensus conferences • Imbizo • Indaba • Participatory rural appraisal (PRA)/participatory learning and action (PLA)

- Capacity constraints; and
- Low level of interest in environmental issues.
- Despite this stakeholder engagement is supported by the legislations and regulations surrounding EIA. The democratization and transformation within South Africa, has led to a devolution of power. This has allowed stakeholders to become increasingly involved in the decision-making surrounding these projects. This is one of the main ways to ensure that the Proposed Development is sustainable.
- Also there is a website⁹⁷ which provides a guide for the public to understand how public participation is used within the EIA process and the rights of the community/public to participate in this. This is a important point as it allowed stakeholders to understand how they can contribute to these projects.

Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ The Minister or the MEC must publish the intention to issue a notice within the Government Gazette and in 2 national newspapers to make people aware of the affected area. ■ If it is proposed that private land is going to become a protected area a copy of the proposed notice should be sent to every landowner affected. ■ Therefore member of the public and affected parties must be invited to submit any objections to the notice within 60 days of the Government Gazette publication. Also there will be public participation events where people can represent and put across their objections within the local community to the notice.
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Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?

Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The Environment Management Inspectorate is made up of environmental enforcement officials from national, provincial and municipal governments. They have the powers to investigate, inspect, enforce and administrate. They work closely with South African Police Services. They cannot however prosecute so must hand over cases to the relevant court for any breaches under the NEMA act.
Environmental Impact	<ul style="list-style-type: none"> ■ The courts can grant fines under the NEMA act as well and grant penalties based on the environmental offence.

⁹⁷ The Southern African Institute for Environmental Assessment. Available [online]: <https://www.saiea.com/calabash> Accessed, 18/01/2023.

Assessment (EIA)	<ul style="list-style-type: none"> ■ The courts must consider the severity of the offence, if the offender received any benefits as a result and the extent of the environmental damage, This means if the monitoring and mitigation is not carried out it can result in severe consequences.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ If there is a breach within the act in sections 45(1), 46(1), 47(2) or (3), 48(1) or 50(5), hinderance/ interference within a management authority or performance of official duties it can result in sever consequences. Also if there is false pretences to be a member of a specific authority when they are not. ■ If convicted the person could either get a fine or go to jail for a period not exceeding 5 years.
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ The practice of SEA in South Africa and around the world is currently evolving which is a strength as the world pulls together to try and understand/ carry it out effectively. ■ South Africa is seen as a leading developing country in terms of evolution of SEA and a key player in the development of environmental assessments. ■ It is one of the few developing countries that has developed a 'home-grown' approach and identity for SEA, which has made it grow rapidly with South Africa.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Useful to have two different assessments for different listing notices, this means less time is wasted and more detailed assessments can be made specific to certain topics. ■ The appointment of an EAP is also useful as it is an independent body who will have no bias towards the prosed activity. ■ Strength is that the South African government seem to have created a document for every stage of the EIA assessment.
Ecological Impact Assessment (Ecol IA)	<ul style="list-style-type: none"> ■ Involved with global frameworks which helps potentially fund areas of South Africa's schemes.
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	<ul style="list-style-type: none"> ■ As there is no legal binding legislation/ guidelines it makes it very difficult to carry out an SEA. It also makes it very hard to build a comprehensive picture of the whole procedure. ■ Also the need for SEA hasn't been reviewed since 2000 in South Africa which means the growth of SEA has become more stagnated than what would have been hoped and liked. The empirical research for this topic has been very limit and therefore there is little information on the functionality of SEA. This is a lost opportunity in regards of understanding SEA practice within a developing country.
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ It has been noted internationally that despite EIA legislation and applied practice in South Africa being generally good, there has been suggestions that there is overemphasis on legal practices. There needs to be a more pragmatic approach to EIA, potentially including an assessment tool to deliver sustainable development without the need for a legal change. This has been captured in other EIAs around the world but South Africa haven't been able to deliver this in principle yet.⁹⁸ ■ Enforcement of the environmental laws and regulations is sometimes questioned at a local level within South Africa. With a lack of enforcement on this it could result in unmanaged impacts despite an EIA being carried out. Also the Department of Environmental Affairs has confirmed that a follow-up, response and monitoring go the audit reports does not always happen, which undermines the EIA. This is a critical challenge and in the future needs to have more emphasis

⁹⁸ Walking the sustainability assessment talk — Progressing the practice of environmental impact assessment (EIA). Available [online]: <https://www.sciencedirect.com/science/article/pii/S0195925512000340> Accessed, 18/01/2023.

	<p>placed on monitoring to ensure that the mitigation measures are actually being carried out to not undermine the EIA⁹⁹.</p> <ul style="list-style-type: none"> ■ An issue also noted in previous EIA reports was that cumulation and ancillary impacts were not evaluated within the EIA, despite being included within the Regulations in 2010 and the NEMA ACT. This links to the lack of interlinkages explored between assessment and management of effects. ■ Also short falls within the EIA system/ practice within South African in how to implement the concepts and assessments of sustainability into EIA legislation, something the country is still struggling with. This could be linked to the fact it is a developing country and it lacks the money to effectively invest to improve EIA practice within the country. ■ Also EIA practice in South Africa links to the Infrastructure Development Act of 2013, which aims to facilitate the coordination of infrastructure projects, and that wherever a EIA is needed, it must be carried out in relation to the NEMA act. However, this caused many issues are there was not distinguishing between EIA and SEA as a result, and allowed the shortening of the project approval cycles. This also meant that environmental challenges were not included at the starts of the projects and didn't provide any incentives to carry out SEAs. ■ Also it is suggested that EIA is a controversial policy tool within South Africa. Also the South African government have been accused of bypassing the public participation step within the EIA process all together. Also the public participation within South Africa can be affected by different things such a time, funding, level of literacy, language and public presentation. As well as the Applicants not having sufficient funds to engage in the EIA process too really affected the process in South Africa. ■ One of the main issues within South Africa in regards to the EIA process is corruption within government which affects the EIA process and the proposed development.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>References</p>	<ul style="list-style-type: none"> ■ Alberts, R., Retief, F., Roos, C. and Cilliers, D. (2023) 'Three decades of EIA streamlining: Lessons from South Africa', <i>Impact Assessment and Project Appraisal</i>, DOI: 10.1080/14615517.2023.2173852 ■ Alberts, R., Roos, C., Cilliers, D., Fischer, T. and Arts, J. (2022) 'EIA decision-making and administrative justice: an empirical analysis', <i>Journal of Environmental Planning and Management</i>, 65:10, 1914-1931, DOI: 10.1080/09640568.2021.1952857 ■ Alberts, R., Retief, F., Arts, J., Roos, C., Cilliers, D. and Fischer, T. (2022) 'EIA decision-making and administrative justice: the substance of just decisions', <i>Impact Assessment and Project Appraisal</i>, 40:4, 296-304, DOI: 10.1080/14615517.2022.2066445 ■ Alberts, R., Retief, F., Cilliers, D., Roos, C. and Hauptfleisch, M. (2021) Environmental impact assessment (EIA)effectiveness in protected areas, <i>Impact Assessment and Project Appraisal</i>, 39:4, 290-303, DOI:10.1080/14615517.2021.1904377 ■ Brownlie, S., Hase, A., Botha, M., Manuel, J., Balmforth, Z. and Jenner, N. (2017) 'Biodiversity offsets in South Africa – challenges and potential solutions', <i>Impact Assessment and Project Appraisal</i>, 35:3, 248-256, DOI: 10.1080/14615517.2017.1322810 ■ Cilliers, D., Van Staden, I., Roos, C., Alberts, R. and Retief, F. (2020) 'The perceived benefits of EIA for government: a regulator perspective', <i>Impact Assessment and Project Appraisal</i>, 38:5, 358-367, DOI: 10.1080/14615517.2020.1734403 ■ Cowan, O., Henry, D., Little, I. (2021) 'A big leap forward for Afrotheria conservation in South Africa: A new environmental screening tool ensures cryptic species of conservation concern are

⁹⁹ Environmental assessments for the greening of public infrastructure in South Africa. Available [online]: <https://www.tandfonline.com/doi/full/10.1080/0376835X.2014.937856> Accessed, 18/01/2023.

not overlooked during the environmental impact assessment process', *Journal for Nature Conservation*, 63, 126044.

- Claassens, C., Cilliers, D., Retief, F., Roos, C. and Alberts, R. (2022) The consideration of waste management in environmental impact assessment (EIA) for developments in protected areas, *Impact Assessment and Project Appraisal*, 40:4, 320-330, DOI:10.1080/14615517.2022.2080491
- du Pisania, J. and Sandham, L. (2006) 'Assessing the performance of SIA in the EIA context: A case study of South Africa', *Environmental Impact Assessment Review*, 26, pp. 707-724.
- Fischer, D., Lochner, P. and Annegarn, H. (2020) 'Evaluating the effectiveness of strategic environmental assessment to facilitate renewable energy planning and improved decision-making: a South African case study', *Impact Assessment and Project Appraisal*, 38:1, 28-38, DOI: 10.1080/14615517.2019.1619389.
- Lambrecht, M., Sowman, M. and Day, K. (2022) 'South Africa's EIA Screening Tool: A preliminary study of how users perceive its accuracy and utility', *Impact Assessment and Project Appraisal*, DOI: 10.1080/14615517.2022.2139863
- Maphanga, T., Shale, K., Gqomfa, B. and Zungu, V. (2022) 'The state of public participation in the EIA process and its role in South Africa: a case of Xolobeni', *South African Geographical Journal*, DOI: 10.1080/03736245.2022.2087726
- Morrison-Saunders, A. and Retief, F. (2012) 'Walking the sustainability assessment talk—Progressing the practice of environmental impact assessment' (EIA), *Environmental Impact Assessment Review*, 36, pp. 34-41.
- Mubangaa, R. and Kwartengb, K. (2020) 'A comparative evaluation of the environmental impact assessment legislation of South Africa and Zambia', *Environmental Impact Assessment Review*, 106401.
- Patel, S. and Giordano, T. (2014) 'Environmental assessments for the greening of public infrastructure in South Africa', *Development South Africa*, 31(5), pp. 721-743.
- Rebelo, C., Guerreiro, J., Rebelo, C., & Guerreiro, J. (2017). Comparative Evaluation of the EIA Systems in Kenya, Tanzania, Mozambique, South Africa, Angola, and the European Union. *Journal of Environmental Protection*, 8(5), 603–636. <https://doi.org/10.4236/JEP.2017.85040>
- Retief, F., Steenkamp, C. and Alberts, R. (2021) 'Strategic environmental assessment in South Africa: 'The Road Not Taken''. In Fischer, T. and González, A. (Eds.) (2021) *Handbook on Strategic Environmental Assessment*. Cheltenham: Edward Elgar.
- Retief, F., Jones, C. and Jay, S. (2008) 'The emperor's new clothes—Reflections on strategic environmental assessment (SEA) practice in South Africa', *Environmental Impact Assessment Review*, 28, pp. 504-514.
- Roos, C., Cilliers, D., Retief, F., Alberts, R. and Bond, A. (2020) 'Regulators' perceptions of environmental impact assessment (EIA) benefits in a sustainable development context', *Environmental Impact Assessment Review*, 81, 106360.
- Sandham, L., van Heerden, A., Jones, C., Retief, F. and Morrison-Saunders, A. (2013) 'Does enhanced regulation improve EIA report quality? Lessons from South Africa', *Environmental Impact Assessment Review*, 38, pp. 155-162.
- Sandham, L., Chabalala, J., and Spaling, H. (2019) 'Participatory rural appraisal approaches for public participation in EIA: Lessons from South Africa', *Land*, 8, 150.
- Wessels, J., Retief, F. and Morrison-Saunders, A. (2015) 'Appraising the value of independent EIA follow-up verifiers', *Environmental Impact Assessment Review*, 50, pp. 178-189.
- Witt, M., Pope, J., Retief, F., Bond, A., Morrison-Saunders, A., Steenkamp, C. (2019) 'Biodiversity offsets in EIA: Getting the timing right', *Environmental Impact Assessment*, 75, pp. 1-12.

USA

United States of America



The national body for defining the regulatory framework and processes (e.g. government department)
The central body, or bodies, responsible for drafting and maintaining legislation and processes

Strategic
Environmental
Assessment (SEA)

Environmental
Impact Assessment
(EIA)

Federal Level

- The [Council on Environmental Quality](#) (CEQ) is a federal body that exists within the executive branch of government. It is tasked with implementing NEPA through the development of regulations, advising the president, and dealing with policy matters (Sanford and Holtgrieve, 2023). The CEQ was created in 1969 by the National Environmental Policy Act (NEPA) and is the agency responsible for implementing NEPA. The CEQ also works to ensure that environmental reviews for infrastructure projects and federal actions are thorough, efficient, and reflect the input of the public and local communities (The White House, 2023). The CEQ also seeks to resolve disputes between Federal agencies and with other governmental entities and members of the public (NEPA.gov).
- The CEQ, in conjunction with each federal agency, has developed specific NEPA procedures for the preparation of EAs. Management of NEPA is left to individual agencies.
- The CEQ operates a specific website dedicated to NEPA ([NEPA.gov](#)). The website gives access to relevant laws and regulations, CEQ publications, and guidance (with about 40 documents listed). There is a specific website tab - titled Get Involved - that includes a [Citizen's Guide to the NEPA](#) (2021) and a [Handbook on Collaboration in NEPA](#). There are also sections providing access to NEPA Practice, and CEQ's broader [publications](#) and [reports](#).
- The [Environmental Protection Agency](#) was established in the executive branch as an independent agency. Since becoming effective from December 1970, the Agency is designed to serve as the public's advocate for a liveable environment and seeks to protect human health and safeguard the natural environment. It was created to permit coordinated and effective governmental action on behalf of the environment.
- The EPA plays an important role in the NEPA process. It is responsible for receiving and reviewing environmental impact statements (EISs) prepared by the Federal agencies. EPA's NEPA website provides resources on the NEPA process, EPA's role, EIS filing guidance, geographic contacts and information, and environmental justice.
- The EPA publishes a weekly notice of availability in the Federal Register that lists each draft or final EIS received ("filed") during the previous week and has:
 - responsibility to prepare its own NEPA documents for compliance.
 - responsibility, under Section 309 of the Clean Air Act, to review the environmental impact statements (EIS) of other federal agencies and to comment on the adequacy and the acceptability of the environmental impacts of the proposed action.

Ecological Impact
Assessment (Ecol IA)

Legislation	
<i>The legislative basis to the selected regime</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal Level</p> <ul style="list-style-type: none"> ■ National Environmental Policy Act (NEPA) came into effect on the 1st January 1970 and was the first major environmental law in the United States. The NEPA requires agencies to assess the environmental effects of a proposed agency action and any reasonable alternatives before making a decision on whether, and if so, how to proceed. The NEPA review, a process involving environmental analyses and documentation, seeks to ensure that decisions are better informed and provides an opportunity for public involvement. ■ Under the NEPA, Congress established the White House Council on Environmental Quality (CEQ) to ensure that Federal agencies meet their obligations of the Act. CEQ's Regulations for Implementing the Procedural Provisions of NEPA (hereinafter CEQ NEPA Regulations) are in Title 40 of Code of Federal Regulations section 1500 et seq. (40 C.F.R. § 1500 et seq.). ■ NEPA encourages a joint Federal and state review where a project requires both Federal and state approvals. NEPA's procedural requirements apply to all Federal agencies in the executive branch and some Federal boards, commissions, independent agencies, and committees. NEPA does not apply to the President, to Congress, or to the Federal courts. ■ Federal agencies are directed to cooperate in fulfilling the requirements of state and local laws and ordinances where those requirements are in addition to, but not in conflict with, Federal requirements, by preparing one document that complies with all applicable laws (40 C.F.R. § 1506.2(c)). ■ States, counties and municipalities will have their own regulations and procedures for environmental review: some are NEPA equivalents, while others such as Vermont's Act 250 are comprehensive like NEPA but result in a yes or no decision (unlike NEPA) (Sanford and Holtgrieve, 2023). Sanford and Holtgrieve (2023) refer to there being 'more than 20 states' with their own specific NEPA equivalent. Examples include: <ul style="list-style-type: none"> – Connecticut Environmental Policy Act – Maryland Environmental Policy Act – Virginia Environmental Impact Report Procedure – New York City Environmental Quality Review ■ Hawaii, Massachusetts, New York and Washington include some private developments in addition to public ones (Sanford and Holtgrieve, 2023). ■ Title 40 on the 'Protection of the Environment' can be accessed via this link. <p>California</p> <ul style="list-style-type: none"> ■ The California Environmental Quality Act (CEQA) came into effect in September 1970. As with the NEPA, the CEQA encourages a joint Federal and state review where a project requires both Federal and state approvals. ■ The California Environmental Quality Act (CEQA) requires state and local government agencies to inform decision makers and the public about potential environmental impacts, and to reduce those environmental impacts to a feasible extent. The Act requires agencies to consider potential consequences before approving plans and policies or committing to a course of action on a project (CEQA 101). ■ CEQA requirements apply to public agency projects including "activities directly undertaken by a governmental agency, activities financed in whole or in part by a governmental agency, or private activities which require approval from a governmental agency" (Id. at 14 CCR § 15002,

	<p>subd. (b)(1)-(2)). The CEQA also applies to private projects that involve governmental participation, financing, or approval (Id. at §§ 15002, subd. (c) & 15378, subd. (a)(2)).</p> <ul style="list-style-type: none"> ■ Overall, according to CEQA, the Act seeks to: <ul style="list-style-type: none"> – (1) inform government decisionmakers and the public about the potential environmental effects of proposed activities; – (2) identify the ways that environmental damage can be avoided or significantly reduced; – (3) prevent significant, avoidable environmental damage by requiring changes in projects, either by the adoption of alternatives or imposition of mitigation measures; and, – (4) disclose to the public why a project was approved if that project has significant environmental impacts that cannot be mitigated to a less than significant level. ■ The laws and rules governing the CEQA process are contained in the CEQA statute (Public Resources Code Section 21000 and following), the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 and following), published court decisions interpreting CEQA, and locally adopted CEQA procedures. <p>Coordination between NEPA and the CEQA</p> <ul style="list-style-type: none"> ■ Despite the similarities between NEPA and CEQA, there are several differences that require careful coordination between the Federal and state agencies responsible for complying with NEPA and CEQA. Conflict arising from these differences can create unnecessary delay, confusion, and legal vulnerability. ■ To ensure appropriate collaboration, a 'Handbook on Integrating Federal and State Environmental Reviews' was published in 2014. The handbook provides practitioners with an overview of the NEPA and CEQA processes, and provide practical suggestions on developing a single environmental review process that can meet the requirements of both NEPA and the CEQA.
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Supporting guidance. <i>Is there any guidance available? Is so, what is its type and nature? Is there any evidence of training or capacity building?</i></p>	
<p>Strategic Environmental Assessment (SEA)</p>	
<p>Environmental Impact Assessment (EIA)</p>	<p>California</p> <ul style="list-style-type: none"> ■ A simplified 6-page guide to the CEQA is provided and is available via this link. ■ More detailed direction is provided through the technical advice that the OPR issues on matters that can potentially affect CEQA practice and land use planning (Gov. Code, § 65040, subds. (g), (l), (m).). OPR does not enforce or attempt to enforce any part of the recommendations contained within the advisories. The current suite of advisory documents include those focused on: <ul style="list-style-type: none"> – Housing Projects – Tribal Cultural Resources – Streamlining Transport Projects – Exemptions – Climate Change – Evaluating Transport Impacts ■ The Governor's Office of Planning and Research provides a series of recorded webinars with these focusing on:

	<ul style="list-style-type: none"> - The <u>type of actions (or projects)</u> that are covered by the CEQA (1hr) - <u>Exemptions</u> (1hr) - <u>Standards of review</u> (1hr). ■ There is also an overarching <u>website</u> that includes FAQs, relevant items of news, provides access to CEQA guidelines, and allows site visitors to join a mailing list.
Ecological Impact Assessment (Ecol IA)	
Associated legislation <i>Are the goals of the selected regime supported / frustrated by other legislation?</i>	
Federal <ul style="list-style-type: none"> ■ Clean Water Act, Endangered Species Act, National Historic Preservation Act etc 	
Governance arrangements, including roles and responsibilities at a national, regional / state and local level	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	State Level (California) <ul style="list-style-type: none"> ■ The Governor’s Office of Planning and Research is charged with administering the California Environmental Quality Act. ■ The CEQA encourages cooperation with Federal agencies to reduce duplication in the CEQA process. In fact, CEQA recommends that lead agencies rely on a Federal EIS “whenever possible,” so long as the EIS satisfies the requirements of CEQA (Cal. Pub. Resources Code, § 21083.7).
Ecological Impact Assessment (Ecol IA)	
Recent or emerging legislative reform in the selected jurisdiction <i>Has the legislation been the subject of recent reform or are changes being proposed?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	Federal- The Infrastructure Investment and Jobs Act was passed in November 2021, and incorporated several of its provisions related to the energy sector in AEO2022. In the electric power sector, a civil nuclear credit program was established to support nuclear power plants that are struggling to remain economically viable in competitive electricity markets and are at risk of shut down. A total of \$6 billion is appropriated for fiscal years 2022–2026.
Ecological Impact Assessment (Ecol IA)	
Link to environmental outcomes <i>Is the concept of ‘environmental outcomes’ used or referred to in the relevant legislation / guidance?</i>	
Strategic Environmental Assessment (SEA)	

Environmental Impact Assessment (EIA)	N/a
Ecological Impact Assessment (Ecol IA)	
Procedure and practice	
General points <i>Who is responsible for producing and paying for the assessment? Are there any restrictions or expectations about who is able to undertake an assessment?</i>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ The primary or sponsoring entity (the lead agency) typically serves as the project manager for the EA or EIS (Sanford and Holtgrieve, 2023). ■ The CEQ regulations charge each federal agency with developing its own procedures to carry out NEPA. Some departments have specific teams that operate the NEPA, e.g. the Department of Energy has an Office of NEPA Policy and Compliance (Sanford and Holtgrieve, 2023). ■ An area-wide or overview EIS may be prepared when similar actions, viewed with other foreseeable or proposed agency actions, share common timing or geography. ■ Planning at the policy level for environmentally based programmes will sometimes incorporate a Programme EIS which can encompass a series of similar projects or actions (Sandford and Holtgrieve, 2023). ■ An agency may out-source its EIA activities due to a lack of sufficient in-house expertise, a lack of time, or a contract / consultancy mandate (Sanford and Holtgrieve, 2023). A Request for Qualifications (RFQ) or a Request for Proposals (RGP) may be issued accordingly. ■ Some agencies, such as the Federal Highway Administration, treat NEPA as an umbrella process under which other laws, orders and regulations are considered. ■ A Rapid Environmental Assessment is a qualitative data gathering and decision making approach useful in situations where a decision must be made prior to, or in absence, of a full environmental assessment (EA) or EIA. A United Nations Tool but widely used across the US. <p>State Level: California</p> <ul style="list-style-type: none"> ■ The CEQA provides several optional tools for streamlining environmental review when there is a series of projects or activities the agency is considering. Master EIRs are designed to provide for analysis of broad policy issues, such as cumulative and growth-inducing impacts, to limit the environmental review of subsequent projects. (Pub. Res. Code § 21156.) Program EIRs generally can be used for the same types of actions as master EIRs, though this streamlining device is reserved for related actions that can be characterized as one large project. (Guidelines § 15168.)
Ecological Impact Assessment (Ecol IA)	
Data – i.e. who provides the data for an assessment? Are there standard data sets available for assessment which are provided by government or appointed agencies?	
Strategic Environmental Assessment (SEA)	

Environmental Impact Assessment (EIA)	<p>Federal</p> <p>The EPA published 'Guidance on Environmental Data Verification and Data Validation' in 2002. Beyond exploring the terms 'verification' and 'validation', the guidance document also provides information on integrity and identifies relevant tools and techniques.</p> <ul style="list-style-type: none"> ■ NEPAAssist is a tool that facilitates the environmental review process and project planning in relation to environmental considerations. The web-based application draws environmental data dynamically from EPA Geographic Information System databases and web services and provides immediate screening of environmental assessment indicators for a user-defined area of interest.
Ecological Impact Assessment (Ecol IA)	
<p>Screening – i.e. what are the expectations and provisions surrounding whether a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>Who is responsible for undertaking screening? What type of projects, policies, plans or programmes require assessment? How is the screening criteria defined (in broad terms)- is it based on projects / plan type, scale, sensitivity of location, potential impacts etc?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal Level</p> <ul style="list-style-type: none"> ■ The NEPA process begins when a federal agency receives or develops a proposal to take a 'major' federal action (which is also known as an 'undertaking'). Actions are defined at 40 CFR § 1508.18. ■ NEPA applies to all Federal agencies in the executive branch and applies to all Federal 'actions'. These actions include those of a broad nature, such as establishing or updating land management plans, programs, or policies, as well as to specific projects (Id. at § 1508.18(b)). NEPA also applies to Federal decisions relating to the approval, permitting or funding required for any private action. ■ Individual agencies may designate Categorical Exclusions (CATEX) in their agency NEPA implementing procedures that identify categories of actions they have determined typically do not have a significant impact on the environment, and for which neither an EA nor an EIS is necessary (40 C.F.R. § 1508.4). If the proposed project is an activity described in a Categorical Exclusion, and there are no extraordinary circumstances—the "safety net" provision ensuring that there are no unusual circumstances associated with applying the Categorical Exclusion to a specific proposed action—then the NEPA review is complete. ■ When the proposed action is not subject to a Categorical Exclusion, and is not one which the Federal agency has determined to have the potential to cause significant environmental effects, requiring an EIS, then the relevant agency can prepare an EA (40 C.F.R. § 1508.9). An EA (Environmental Assessment) is a typically concise public document that provides evidence and analysis on the proposed action's potential environmental effects. An EA is prepared to determine whether a project would cause any significant effects. ■ An EA will typically include a brief discussion of: <ul style="list-style-type: none"> – The purpose and need for the proposed action – Alternatives (as required by section 102(2)(E) of NEPA) – The environmental impacts of the proposed action and alternatives

- A listing of agencies and persons consulted.
- About 50,000 EAs are prepared each year.
- The EA process concludes with one of four agency decisions: 1) a Finding of No Significant Impact (FONSI) 2) a Mitigated Finding of No Significant Impact 3) a decision to prepare an Environmental Impact Statement (EIS); or 4) a decision not to proceed with the project.
- The regulatory requirements for an EIS are more detailed and rigorous than the requirements for an EA.
- About 500 to 600 EISs are prepared each year.

State (California)

- The CEQA applies to Californian projects undertaken by any state, regional or local agency. It does not extend to cover any project undertaken by the state, which would fall under the requirements of the EPA.
- The CEQA is pitched towards 'projects'. A "project" is defined as a "whole action" subject to a public agency's discretionary funding or approval that has the potential to either (1) cause a direct physical change in the environment or (2) cause a reasonably foreseeable indirect physical change in the environment. "Projects" include discretionary activity by a public agency, a private activity that receives any public funding, or activities that involve the public agency's issuance of a discretionary approval and is not statutorily or categorically exempt from CEQA. (Pub. Res. Code § 21065.).
- Once it is established that an action forms a 'project', agencies are asked to determine whether their project falls under a statutory or categorical exemption from the CEQA. There are two types of exemptions: (1) statutory exemptions and (2) categorical exemptions.
- Statutory exemptions are created by the Legislature. A project that falls within a statutory exemption generally is not subject to CEQA even if it has the potential to significantly affect the environment.
- Categorical exemptions are created through the regulatory process and are found in CEQA Guidelines §§ 15300-15333. A categorical exemption generally will not apply if (1) there is a reasonable possibility of a significant effect on the environment due to unusual circumstances; (2) significant cumulative impacts from projects of the same type will result; or (3) the project will have impacts on a uniquely sensitive environment. (Guidelines § 15300.2.).
- Agencies who consider their project to be exempt are prompted to submit a 'Notice of Exemption (NOE). A NOE contains several elements: a brief project description; the location of a project; a finding that the project is exempt from CEQA, including a citation to the appropriate exemption; and a brief statement of the reasons to support the finding that the project is exempt. (Guidelines § 15062(a).) If a NOE is filed after project approval, it will trigger a 35-day statute of limitations for challenging the agency's decision that the project is exempt from CEQA. (Pub. Res. Code § 21167(d); Guidelines § 15062(d).) If the NOE is not filed, the time period for challenging the action under CEQA is normally 180 days following the agency's approval. (Pub. Res. Code § 21167(d); Guidelines § 15062(d).)
- If there are no grounds for an exemption, the relevant public agency typically undertakes an "initial study." This initial study offers preliminary environmental analysis and is prepared by the lead agency (usually the city or the county having primary jurisdiction over the project, but may also be state agencies). The findings will determine whether the agency is subsequently required to produce an Environmental impact Report (EIR), a Mitigated Negative Declaration (NMD) or a Negative Declaration (ND) (Guidelines §§ 15063, 15365; Pub. Res. Code §§ 21080.1, 21080.3.).
- A Negative Declaration is a written statement that an EIR is not required because a project will not have a significant adverse impact on the environment. (Pub. Res. Code §§ 21064, 21080(c).)

	<ul style="list-style-type: none"> ■ A Mitigated Negative Declaration essentially allows for the relevant agency to add conditions to any negative declaration for the purpose of mitigating potential environmental effects. A NMD states how revisions made to a project, or agreed to by the applicant, would avoid potentially significant adverse impacts, and that there is no substantial evidence that the revised project will have a significant effect on the environment. (Pub. Res. Code § 21064.5; Guidelines § 15070(b) (2).) ■ A CEQA lead agency must prepare an EIR if there is “substantial evidence” that a project “may have a significant effect on the environment” (Id. at § 21082.2, subs. (a) & (d)).”
Ecological Impact Assessment (Ecol IA)	
<p>Scoping – i.e. what are the expectations and provisions surrounding what an assessment should cover, when it is deemed necessary that a project/plan/policy/programme requires an assessment? How are these expectations and provisions being implemented in practice?</p> <p><i>What topics are expected to be included in an assessment? How are decisions over content defined?</i></p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>State (California)</p> <ul style="list-style-type: none"> ■ Scoping is identified as a specific stage to help determine the scope of the EIR, in consultation with agencies, the public, and the applicant. (Guidelines §§ 15082, 15083.). ■ Following the scoping process, either the agency must prepare a draft EIR or the applicant’s consultant can prepare the CEQA documents, as long as the agency independently reviews, evaluates, and exercises judgment over the document and the issues it raises and addresses. The draft EIR must be released for public comment for at least 30 days but no more than 60 days, unless there are unusual circumstances. (Guidelines § 15105.) ■ A draft EIR must contain: <ul style="list-style-type: none"> – A project description; – An environmental baseline; – An Evaluation of environmental impacts; – Thresholds of significance, which can sometimes be measured in terms of historic and cultural significance; – An evaluation of short-term and long-term water supply needs; <ul style="list-style-type: none"> – Climate change; – Energy; Cumulative impacts; – Mitigation measures; and – Project alternatives, which are a meaningful discussion of project alternatives that would reduce adverse environmental impacts.
Ecological Impact Assessment (Ecol IA)	
<p>Assessment – i.e. are there any expectations and/or provisions for how assessments should be conducted? <i>Is there specific direction on how specific assessments should operate? If so, is this outlined through legislation, guidance or both? Who is providing this direction? How are these possible expectations and/or provisions being implemented in practice? Is there reference to particular outcomes that projects / plans / policies should be striving for?</i></p>	
Strategic Environmental Assessment (SEA)	

Environmental Impact Assessment (EIA)	N/a
Ecological Impact Assessment (Ecol IA)	
Alternatives – i.e. what are the expectations and provisions surrounding how alternatives should be considered and assessed? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal</p> <p>No alternative (which is required to be addressed), a ‘preferred alternative’ and a ‘sustainable alternative’ (Sandford and Holtgrieve, 2023).</p> <ul style="list-style-type: none"> ■ The consideration of alternatives is considered through §1502.14 which states how: <p>The alternatives section should present the environmental impacts of the proposed action and the alternatives in comparative form based on the information and analysis presented in the sections on the affected environment (§ 1502.15) and the environmental consequences (§ 1502.16). In this section, agencies shall:</p> <p>(a) Evaluate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination.</p> <p>(b) Discuss each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits.</p> <p>(c) Include the no action alternative.</p> <p>(d) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.</p> <p>(e) Include appropriate mitigation measures not already included in the proposed action or alternatives.</p> <p>(f) Limit their consideration to a reasonable number of alternatives.</p> ■ Reasonable alternatives are those that that are technically and economically feasible, meet the proposal's purpose and need, and, where applicable, meet the goals of the applicant (40 CFR 1508.1(z)). ■ Agencies are obligated to evaluate a reasonable range of feasible alternatives in enough detail so that a reader can compare and contrast the environmental effects of the various alternatives (CEQ, 2021). ■ If an agency has a preferred alternative when it publishes a draft EIS, the draft must identify which alternative the agency prefers. All agencies must identify a preferred alternative in the final EIS, unless another law prohibits it from doing so (CEQ, 2021). ■ Agencies are required to describe and analyze a “no action” alternative. The “no action” alternative is simply what would happen if the agency did not act upon the proposal for agency action.
Ecological Impact Assessment (Ecol IA)	
<p>Assessment of significance – i.e. what are the expectations and provisions surrounding how significance should be considered and assessed? How are these expectations and provisions being implemented in practice?</p> <p><i>Is there any direction on how significance is defined?</i></p>	

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ Guidance from the CEQ identifies how the environmental consequences section will discuss: <ul style="list-style-type: none"> – Any potential unavoidable adverse environmental effects; – The relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity; – Any potential irreversible or irretrievable commitments of resources; – Possible conflicts with land use plans, policies, and controls for the area; – Energy and natural or depletable resource requirements and conservation potential of alternatives and mitigation measures; – Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures; – Mitigation of adverse environmental impacts; and – Applicable economic and technical considerations, including the economic benefits of the proposed action.
Ecological Impact Assessment (Ecol IA)	
Reporting – i.e. what are the expectations and provisions surrounding the reporting of impacts? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal Level</p> <ul style="list-style-type: none"> ■ A research briefing from 2020 notes how the average length of a draft EIS was 575 pages; the average length of a final EIS extended to 661 pages. ■ Page limits are specified in the NEPA Council on Environmental Quality Regulations, 40CFR 1502. Simple EAs are directed to be approximately 10-15 pages and be completed in 3 months or less; complex EAs should be complete in 75 pages or less[1] (excluding appendices), and be undertaken within 180 days. ■ Similarly, §1502.7 deals with the page limits of EIAs and states how the text of final EISs shall normally be less than 150 pages and, for proposals of unusual scope or complexity, shall normally be less than 300 pages. ■ §1502.8 is focused upon ‘writing’ and explains how EIS shall be written “in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them”. ■ 40 CFR Part 1502 outlines what an EIS should contain. In summary, an EIS should include <ul style="list-style-type: none"> – Cover sheet, including such things as the name of the lead agency, a title of the proposed action and the address of the site, a paragraph abstract of the EIS, and a date when comments must be received. – Summary, summarising the major conclusions, area of disputed issues, and the issues to be resolved. – Table of Contents, to assist readers in navigating through the EIS.

	<ul style="list-style-type: none"> – Purpose and need statement, to explain the reason why the agency is proposing the action and what the agency expects to achieve. – Alternatives, to consider a reasonable range of alternatives that can accomplish the purpose and need of the proposed action. – Affected environment, to describe the environment of the area to be affected by the alternatives under consideration. – Environmental consequences, to discuss the environmental effects and their significance. – Submitted alternatives, information, and analyses, involving a summary that identifies all alternatives, information, and analyses submitted by state, tribal, and local governments and other public commenters for consideration during the scoping process or in developing the final EIS. – List of preparers, to list the names and qualifications of the persons who were primarily responsible for preparing the EIS. – Appendices, if considered necessary. <p>The EPA reviews all federal EISs and has previously used a ratings system that looked at the adequacy of the draft EIS, and the findings revealed in the EIS.</p> <p>State (California)</p> <p>The final EIR to be submitted must comprise (1) the draft EIR (as outlined above); (2) comments and recommendations received on the draft EIR; (3) the responses of the lead agency to the significant environmental points raised in the review and consultation process; (4) a list of persons and agencies commenting on the draft EIR; and (5) any other information added by the lead agency. (Guidelines § 15132.).</p> <p>After the final EIR is complete, the agency determines whether to approve the project or an alternative to the project.</p>
Ecological Impact Assessment (Ecol IA)	
Mitigation – i.e. what are the expectations and provisions surrounding the consideration and reporting of mitigation? How are these expectations and provisions being implemented in practice?	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal Level</p> <ul style="list-style-type: none"> ■ Mitigation is required to be applied where it has been determined that an action may create a 'significant' impact on environmental conditions (Sanford and Holtgrieve, 2023). <p>State Level (California)</p> <ul style="list-style-type: none"> ■ When an agency makes CEQA findings for any project that is approved subject to mitigation measures in an EIR, or when an agency adopts a mitigated negative declaration, the agency must impose a mitigation monitoring or reporting program to ensure implementation of the mitigation measures and project revisions that are required by the agency. (Pub. Res. Code § 21081.6.)
Ecological Impact Assessment (Ecol IA)	
Monitoring – i.e. what are the expectations and provisions for monitoring? How are these expectations and provisions being implemented in practice?	

Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>State Level (California)</p> <ul style="list-style-type: none"> ■ Normally it is the case that only a single EIR or negative declaration is prepared for a project. A supplemental or subsequent EIR (SEIR) may be required if another discretionary approval is being considered and: (a) there are substantial changes to the project; (b) there are substantial changes in the project's circumstances; or (c) new information that could not have been known at the time the EIR was certified becomes available and such changes or new information require major revisions to the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects. (Pub. Res. Code § 21166; Guidelines § 15162(a).)
Ecological Impact Assessment (Ecol IA)	
<p>Public and stakeholder engagement - i.e. what are the expectations and provisions for engaging with the public / stakeholders? How are these expectations and provisions being implemented in practice?</p>	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal Level (California)</p> <ul style="list-style-type: none"> ■ Legislation surrounding the NEPA requires the publication of a series of notices: <ul style="list-style-type: none"> – A Notice of Intent (NOI) is published in the Federal Register. The notice informs the public of how environmental analysis will be undertaken for the identified action, and describes how the public can become involved with the production of the Environmental Impact Statement. Publication of the notice starts the scoping process, which is the period in which the federal agency and the public collaborate to define the range of issues and potential alternatives to be addressed in the EIS. Agencies must request in the NOI that the public comment specifically on potential alternatives, information, and analyses relevant to the proposed action. The NOI also contains an agency point of contact who can answer questions about the proposed action and the NEPA process – A draft EIS is published for public review and comment for a minimum of 45 days. Upon close of the comment period, agencies consider all substantive comments and, if necessary, conduct further analyses. The agency publishes its EIS via its agency website and the EPA publishes a Notice of Availability in the Federal Register informing the general public that a draft is available for comment. During the time through which the draft EIS is subject to comment, the agency may (and is encouraged) to conduct webinars, public meetings, or hearings as a way to solicit comments. The agency will also request comments from other Federal, State, Tribal, and local agencies that may have jurisdiction or interest in the matter (CEQ, 2021). – A final EIS is then published, which provides responses to substantive comments. Publication of the final EIS begins the minimum 30-day "wait period," in which agencies are generally required to wait 30 days before making a final decision on a proposed action. A Record of Decision (ROD) explains why required alternatives, mitigation measures, or monitoring were included in the decision to approve completeness of the EIS (Sanford and Holtgrieve, 2023). The ROD assures that the EA or EIS is adequate for decision making and is ready for approval or denial of the project application. The ROD documents the whole of the environmental assessment process.

	<ul style="list-style-type: none"> ■ The EPA publishes Notices of Availability in the Federal Register, announcing the availability of both draft and final EISs to the public. ■ An online database, accessible via this link, is hosted by the EPA which provides a record of all EISs received by the EPA since 1987. The database also includes versions of EISs received by the EPA since October 2012 (in a pdf format). The database lists: <ul style="list-style-type: none"> – The name of the project – The status of the document (a draft, final draft or a final supplement) – The federal register date – The name of the proposing agency – The state in which the project falls – A link from which the project can be downloaded (in a zipped file format) <p>Alongside the disclosure requirements of NEPA, agencies are also subject to the public disclosure of information through 'Freedom of Information' requesters.</p> <p>State Level (California)</p> <ul style="list-style-type: none"> ■ The CEQA identifies how a minimum of three notices must be prepared and properly filed in connection with the EIR. (1) Notice of preparation of EIR. (Pub. Res. Code § 21080.4; Guidelines § 15082.) (2) Notice of completion of EIR. (Pub. Res. Code § 21161; Guidelines § 15085.) (3) Notice of approval or determination, which is filed and posted after the project is approved. (Pub. Res. Code § 21152; Guidelines § 15094.)
<p>Ecological Impact Assessment (Ecol IA)</p>	
<p>Enforcement – i.e. what are the expectations and provisions for enforcing the outcomes, conditions and arising mitigation of an assessment? How are these expectations and provisions being implemented in practice?</p>	
<p>Strategic Environmental Assessment (SEA)</p>	
<p>Environmental Impact Assessment (EIA)</p>	<p>Federal</p> <ul style="list-style-type: none"> ■ The judicial branch of American government provides checks and balances to EIA and to the other two branches of government, namely the executive (that sets the regulations and rules) and the legislative (that outlines the statutes) (Sandford and Holtgrieve, 2023) ■ Challenges under NEPA are typically made on procedural grounds rather than on the merits of particular environmental impacts. ■ As part of the EIA process, every US federal agency must achieve environmental justice as part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations (Sandford and Holtgrieve, 2023). There are six principles supporting this. <p>State Level (California)</p> <ul style="list-style-type: none"> ■ Project changes standing alone normally will not trigger requirements for further CEQA review. However, the lead agency must provide a reasoned basis supporting its conclusion that project changes would not result in new or substantially more severe significant impacts. ■ New information can trigger an SEIR or subsequent negative declaration only if the information was not known and could not have been known at the time the EIR was certified as complete, shows new or substantially more severe significant impacts, or demonstrates the feasibility of mitigation measures or alternatives previously found infeasible, and is of substantial importance to the project. (Pub. Res. Code § 21166(c); Guidelines § 15162(a)(3).)

Ecological Impact Assessment (Ecol IA)	
Summary and key lessons	
In conclusion, the following elements seem to be working well in the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<p>Federal Level</p> <ul style="list-style-type: none"> ■ A 25-year review into the <u>effectiveness</u> of the EPA was published in 1997.
Ecological Impact Assessment (Ecol IA)	
In conclusion, the following elements seem to be challenging implementation for the studied jurisdiction..	
Strategic Environmental Assessment (SEA)	
Environmental Impact Assessment (EIA)	<ul style="list-style-type: none"> ■ No adequate placement of responsibility for carbon emissions has been agreed upon. ■ Clarification is often required with respect to specific jurisdictions. For example, federally-funded infrastructure projects may have significant effects locally. ■ Monitoring and enforcement of mitigation measures often gets neglected, particularly over the long-term (e.g. reforestation) (Sandford and Holtgrieve, 2023) ■ Cumulative impacts can be missed or inappropriately addressed (Canter, 1996, as quoted by Sandford and Holtgrieve, 2023).
Ecological Impact Assessment (Ecol IA)	
References	<ul style="list-style-type: none"> ■ Loomis, J., Bond, A., and Dziedzic, M. (2022) 'Transformative effectiveness: How EIA can transform stakeholders' frames of reference'. <i>Environmental Science and Policy</i>, 136, pp. 207-215. ■ Malik, S., Mumtaz, S., Akhtar, S., Zahoor, I., Kanwal, S., Habib, M., Hashmi, M., and Majid, M. (2021) 'Issues in the Environmental Protection Agency and recommendations to solve the problems', <i>Environment and Ecosystem Science</i>, 10.26480/ees.01.2021.10.14 ■ Sanford, R. M., Holtgrieve, D. G., & Boyle, P. (2023) <i>Environmental Impact Assessment in the United States</i>. New York: Routledge.